Imperial Helium Corp (TSX:IHC)

May 21, 2021

IPO price: C$0.25
Target: C$1.00

Initiating Coverage: Imperial Helium Corp

Imperial Helium ("Imperial") is a new Toronto listed Canadian helium company with a market cap of ~US$17 mm. Helium has unique properties that make it critical to high growth sectors such as medical, technology and space. The helium industry has historically been an oligopoly with opaque pricing resulting in outsized margins but limited access to funding. The rapid dwindling of the world largest helium inventory (publicly available) in the US and the fast rise of price indicators have drawn some companies to helium E&P ahead of a democratization of the industry. So far the focus of this small group of players has mostly been around exploration/appraisal. Imperial offers a much lower risk proposition. The company aims to identify and acquire discounted natural gas discoveries with high helium content that can be quickly developed. The first project consists of the development of a well defined 1 bcf+ helium discovery in Alberta. ***Our C$1.00 per share target price reflects our ReNAV. It implies 4x upside.***

Rating & target		Old	New
Target		C$1.00	n.c.
Yield			0%
Implied total return			300%
Share data	**2020**	**2021e**	**2022e**
Shares dil., mm	35	140	140
Mkt cap, US$mm	$3	$23	$23
EV, US$mm	$3	$21	$36
Financial data	**2020**	**2021e**	**2022e**
Helium, mmcf/d	0.0	0.0	15.9
CFO, US$mm	($0)	($3)	($1)
Net capex, US$mm	$0	$7	$13
Net debt, US$mm	$0	($2)	$13
CFPS dil., US$/shr	($0.00)	($0.03)	($0.01)
EPS dil., US$/shr	($0.00)	($0.03)	($0.01)
Valuation	**2020**	**2021e**	**2022e**
Share price, C$/shr	$0.25	$0.25	$0.25
EV/DACF	-14.1x	-10.4x	354.7x
EV per mcf	$3.04	$3.04	$3.04
Net asset value			
CNAV, C$/shr			$0.61
RENAV, C$/shr			$0.95
Unrisked NAV, C$/shr			$1.77
P/CNAV			0.4x
P/RENAV			0.3x
P/Unrisked NAV			0.1x

All figures in US$ unless otherwise noted

1+ bcf of "easy" and very valuable helium with plenty of upside

Imperial holds 100% WI in the 1940 Steveville natural gas discovery. A blow-out occurred which flowed at >50 mmcf/d for several months (with ~5 bcf of raw gas produced). Once the blowout was brought under control, a well test on a small reservoir section (3 m) flowed 6 mmcf/d of gas (87% nitrogen and 0.63% helium). The high nitrogen content and low water production should translate into lower costs and reduced risk for the project. Three other wells confirm the structural closure which, Imperial estimate to hold >1 bcf of recoverable Helium on the 24.6 m hectares of land over the structure. This is based on very conservative reservoir parameters assumptions and we believe there is significant upside. A typical well recovers at least ~0.125 bcf of Helium and costs ~US$1 mm. With netbacks of >US$340/mcf, a single well generates >US$40 mm total pre tax cash flow, representing >40x its cost.

Near term cashflow. Smart alliances. New opportunities.

Helium production could start before YE22 and reach 134 mcf/d in 2023 and 250 mcf/d by YE24 (=US$20 mm of cashflow per year). Imperial's alliances with Uniper and ON_2 Solutions, Helium commercialization and processing specialists, de-risk key aspects of the project. With the support of Petrel Robertson (whose CEO is co-chair of Imperial), Imperial has built a data base of ~2,000 wells with high helium concentration, to scope acquisition targets.

Value build-up and newsflow

Imperial's IPO price implies EV/mcf of helium of only US$5.80/mcf, the lowest among peers, while Imperial has one of the lowest risk profiles. Some peers with no discovered volumes already trade at an EV in excess of US$120 mm. Our NAV based on 1.1 bcf is ~C$0.60 per share. The 3Q21 drilling/testing programme could add up to C$1.15 per share. A resources report by YE21 will quantify the resources that we believe are conservatively estimated. The unrisked value of each incremental 0.5 bcf is ~C$0.50 per share.

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Figure 1. Financial & operating information

Imperial Helium Corp. (IHC)		Historical & Auctus Advisors Outlook					
Financial & Operating Information		**2020a**	**2021e**	**2022e**	**2023e**	**2024e**	**2025e**
Commodity Prices							
Helium Grade A	US$/mcf	$375.00	$375.00	$375.00	$375.00	$375.00	$375.00
Henry Hub	US$/mcf	$2.00	$2.00	$2.00	$2.00	$2.00	$2.00
USD / CAD	US$/C$	0.750	0.800	0.800	0.800	0.800	0.800
Production							
Helium Grade A	mcf/d	0	0	16	134	221	252
Financials							
Cash Flow (CFO)	US$mm	($0)	($3)	($1)	$14	$19	$22
CFPS - diluted	US$/shr	($0.00)	($0.03)	($0.01)	$0.16	$0.21	$0.24
EBITDAX [a]	US$mm	($1)	($3)	($1)	$14	$25	$29
E&D Capex	US$mm	$0.30	$4.51	$12.74	$14.97	$1.49	$1.49
A&D Capex, Net	US$mm	$0.00	$2.20	$0.00	$0.00	$0.00	$0.00
Total Net Capex	US$mm	$0.30	$6.71	$12.74	$14.97	$1.49	$1.49
Total Net Capex/CFO	x	-0.6x	-2.6x	-21.2x	1.1x	0.1x	0.1x
Leverage							
Net Debt	US$mm	$0	($2)	$13	$16	$0	($19)
Net debt/CFO (Trailing)	x	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Entry Net Debt/CFO	x	n.a.	($0)	n.a.	$1	$1	$0
Capital Structure							
Basic Shares o/s @ YE	mm	17	85	85	85	85	85
Diluted Shares o/s @ YE	mm	35	140	140	140	140	140
Market Capitalization (fully diluted)	US$mm	$3	$23	$23	$23	$23	$23
Enterprise Value	US$mm	$3	$21	$36	$39	$23	$4
Dividends & Sustainability							
Dividends	US$mm	0	0	0	0	0	0
Dividends	C$/shr	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Dividend Yield	%	0%	0%	0%	0%	0%	0%
Free Cash Flow	US$mm	($1)	($9)	($13)	($1)	$17	$20
Cash Use/CFO	%	-63%	-262%	-2123%	107%	8%	7%
Performance							
Prod. Per Shr Growth (Y/Y) - dil.	%	-100%	n.a.	n.a.	743%	65%	14%
PPS Growth (Y/Y) DDA - dil. [b]	%	n.a.	n.a.	n.a.	669%	181%	630%
CFPS Growth (Y/Y) - dil.	%	n.a.	651%	-80%	-2426%	35%	15%
CFPS Growth (Y/Y) DDA - dil. [b]	%	n.a.	1045%	-91%	-2222%	129%	634%
ROCE	%	-90%	-125%	-5%	35%	42%	42%
Net Asset Value [c]							
CNAV (Atax) - diluted	C$/shr	$0.61					
RENAV (Atax) - diluted	C$/shr	$0.95					
Unrisked NAV (Atax) - diluted	C$/shr	$1.77					
P/CNAV	x	0.4x					
P/RENAV	x	0.3x					
P/Unrisked NAV	x	0.1x					
Valuation		**2020a**	**2021e**	**2022e**	**2023e**	**2024e**	**2025e**
Share Price, YE/Current	C$/shr	$0.25	$0.25	$0.25	$0.25	$0.25	$0.25
P/CF	x	-41.4x	-5.9x	-30.0x	1.3x	1.0x	0.8x
EV/DACF	x	-14.1x	-10.4x	354.7x	2.9x	1.4x	0.4x
Target EV/DACF	x	-54.9x	-42.1x	-95.0x	10.2x	6.3x	4.4x
EV per discovered Helium	US$/mcf	$3.04	$3.04	$3.04	$3.04	$3.04	$3.04

a) EBITDAX = Pre-Int. & Pre-Tax Cash Flow; b) DDA = Debt-and-Dividend-Adjusted

c) CNAV incl. 2P reserves, RENAV incl. 2P reserves + Risked LT inventory upside, ENAV incl. 2P reserves + Unrisked LT inventory upside

Source: Auctus advisors, Company Disclosures **Futures strip as of 13-May-21

Taking advantage of an Industry coming to the center stage

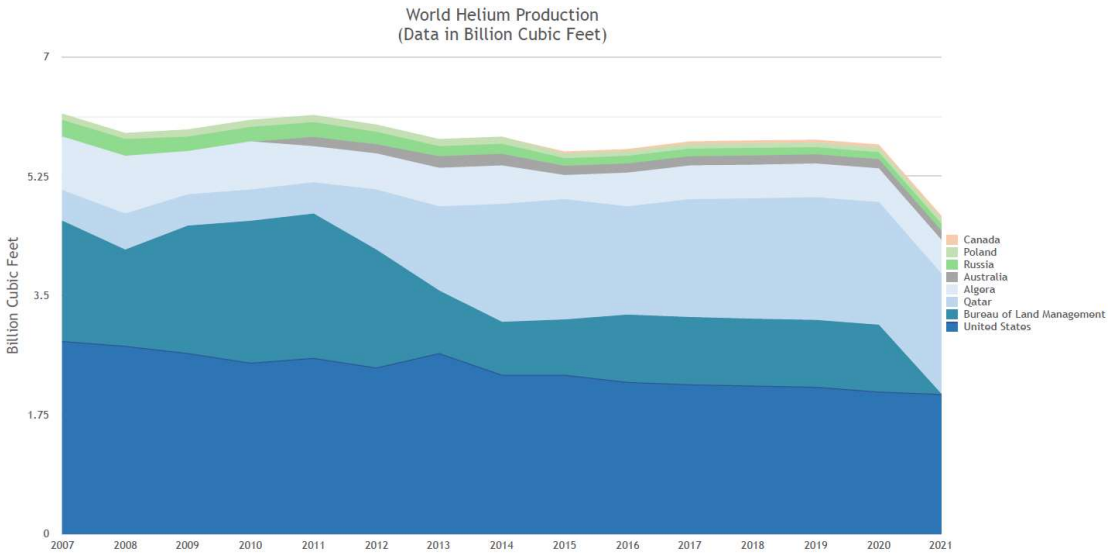
The coming of age of helium

Helium has two key characteristics that make it an irreplaceable component in some key growth industries: (1) it has the lowest boiling point of any element (i.e. it remains in a gaseous form at temperatures as low as -270 deg C, below which it becomes liquid) and (2) it is inert (ie it does not undergo any chemical reactions with other elements it might be in contact with and it is non-flammable). It is therefore mainly used in (1) liquid form in cryogenic applications to maintain components in magnetic resonance imagining and nuclear magnetic resonance spectrometers at temperatures close to -270 deg C that is required to maintain superconductivity, (2) as shielding gas for welding and (3) in semiconductor manufacturing where its inert nature is critical. It is also a critical component in scientific research. These are growth sectors requiring an increasing amount of helium.

Helium is the second most abundant element in the universe but it is also the second lightest and is therefore quite rare on earth. It is often encountered trapped with other gases such as nitrogen or with hydrocarbons in reservoirs in the earth and is commonly produced as a byproduct of natural gas production. Most of the production of helium comes from just a few fields in the USA, Qatar and Algeria. The helium industry is very opaque where the focus of the key producers has historically mostly not been about helium. While demand for helium has been growing, supply is impacted by the reduced investment from oil and gas companies in upstream hydrocarbons.

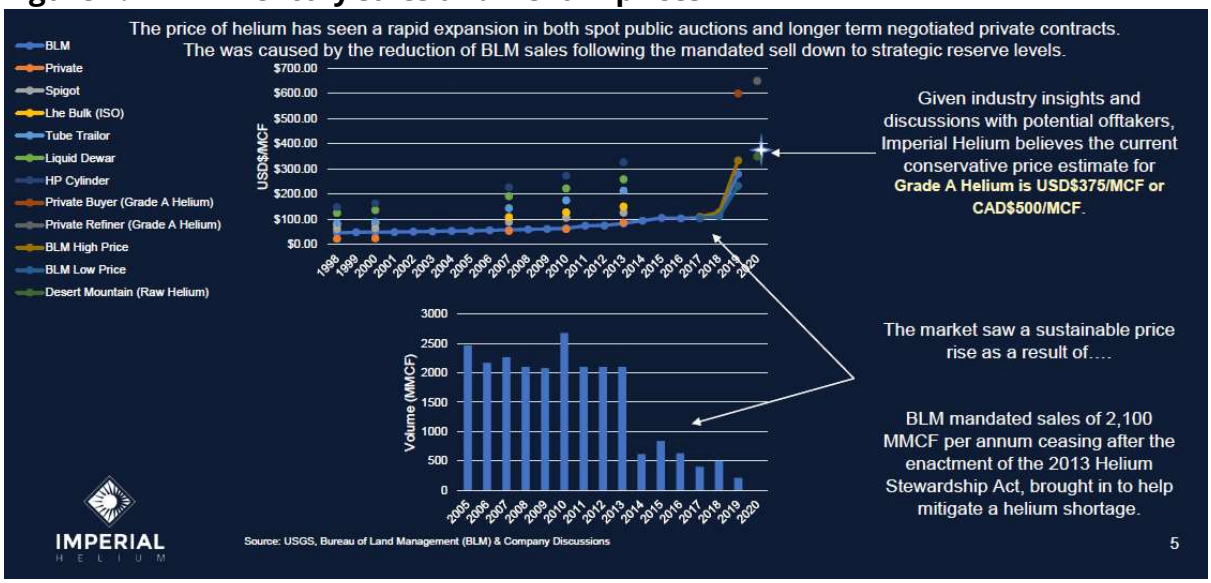
While prices for Helium have been reported to be high for some time, the lack of public data on demand and pricing has tempered the attractiveness of the sector as a destination for capital. What has recently changed is the very visible steep inventory drop in the world's largest helium storage, the Bush Dome in the Cliffside Field in the USA (managed by the Bureau of Land Management – BLM), and the associated increase in helium prices. The volumes drawn every year from the Bush Dome by the BLM represented ~25% historically, however, was more in the range of 10-15% of the world production since 2016 which had a stabilizing influence on pricing. The associated regulated and auction sales price for raw helium drawn from inventory nevertheless increased to an average of ~US$280/mcf in 2018 (up from ~U$119/mcf the year before) as the volumes in the storage progressively disappeared. By 2020, the BLM had sold all the available federal volumes in inventory at the Bush Domes putting further upward pressure on helium prices. Helium is considered a critical raw material by the EU, the US and China.

Figure 1. Helium supplies



Source: US Geological Survey, Mineral Commodity Summaries

Figure 2. BLM inventory sales and Helium prices



Source: BLM, Company

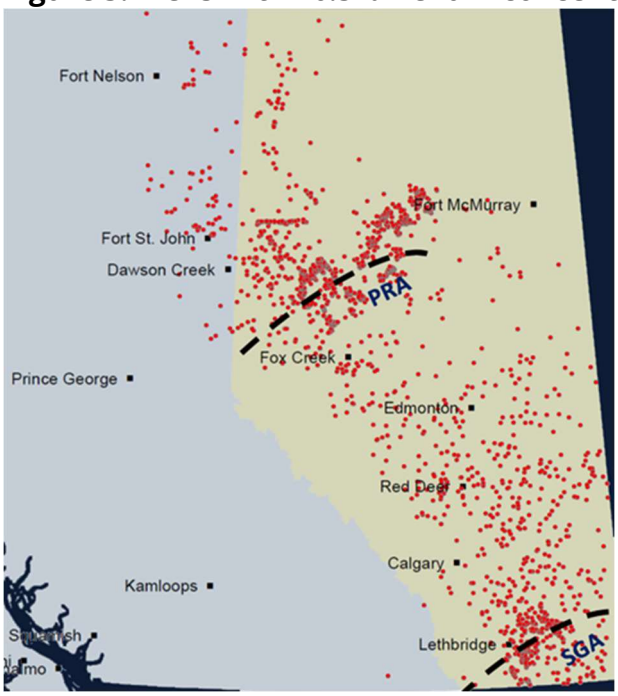
With Grade A helium, commonly known as Grade P or 99.999% pure now reported to be sold on bilateral contracts at US$500-1,000/mcf, companies and investors are entering the sector as helium pure plays and funding (debt and equity) has started to become available. Large helium fields are also being developed in Russia and the Middle East, but it remains to be seen when those fields will really start production and how much latent demand there is.

A different approach

Junior companies entering the upstream helium business can be classified into two groups. The first group, including Royal Helium and Desert Mountain (both listed on the TSX), is focused on the appraisal/exploration of helium assets where a limited amount well data is available. An extreme example of this strategy is Helium One (listed on the LSE), that is exploring for helium in Tanzania. The share prices of Royal Helium and Desert Mountain have respectively increased ~20x and ~x11 over the past 12 months while Helium One share price has multiplied by 7x since its IPO in November 2020.

Imperial is part of a second group whose strategy carries a much lower risk. The strategy is not about exploration but rather about acquiring existing hydrocarbon discoveries that had proven commercial concentrations of helium. The company was founded in 2019 to take advantage of a distressed gas sector in Canada to acquire helium-rich natural gas discoveries on very attractive terms. Imperial has a very important partnership with Petrel Robertson Consulting (a Canadian G&G technical consulting business). Petrel Robertson and Imperial reviewed a data set of ~645,000 wells in Alberta and British Columbia including ~189,000 wells with gas analysis, out of which a proprietary database has been built with ~2,000 wells that encountered helium in concentration >0.5%. This approach allowed the identification of multiple acquisition targets.

Figure 3. Wells with >0.5% Helium concentrations (red dots)



Source: Company
The Peace River Arch (PRA) has an abundance of rich helium shows and features favorable source, reservoir and seal
The Sweetgrass Arch (SGA) is another area of interest with proven helium production

Imperial's first transaction was made in late 2020 to lease lands covering a portion of the Steveville structure. This was followed in March 2021 by a second transaction expanding their coverage of the structure to 24.6 m hectares (95 sq miles). Management estimates the Steveville structure contains more than 1.1 bcf of recoverable helium.

In 1Q21, Imperial raised US$11.2 mm through an IPO on the TSX priced at C$0.25 per share to fund the development of Steveville and to continue acquiring helium-rich properties.

Steveville: High value and near term production

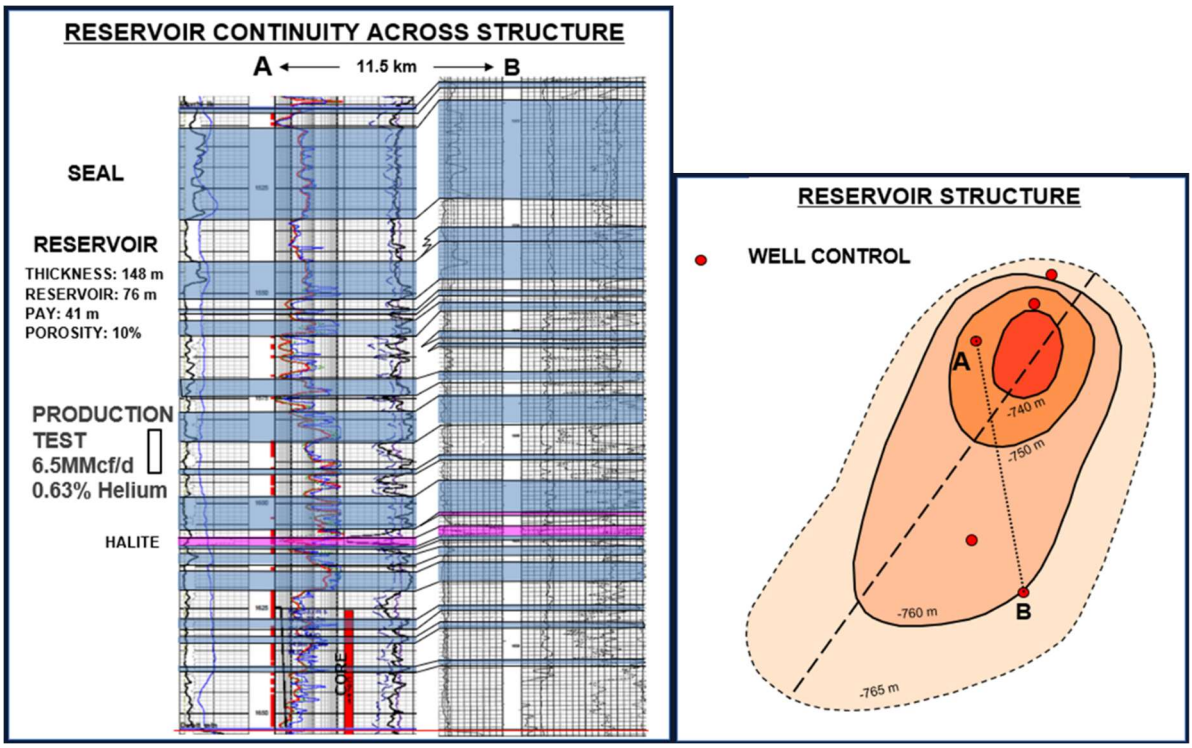
A large structure with very strong well deliverability, proven helium content and essentially no water

Imperial has secured a lease with Heritage Royalty Resource over a total of 24,635 hectares covering the >95 sq mile Steveville structure (Southern Alberta) where helium has already been encountered with a concentration of 0.63%. The lease has an initial duration of three years and can be renewed indefinitely with production.

The Steveville structure appears to be a large dome feature with four-way closure. The base of the unit is located at a depth of ~1,600 m. The first well to penetrate the structure was drilled in the winter of 1940 near Steveville resulting in a blow-out which flowed at greater than 50 mmcf/d for more than 100 days until the well was brought under control. The well is estimated to have produced 5 bcf of raw gas without evidence of declining pressure. Petrophysical analysis suggests the well had encountered only part of the over 40 m of potential pay when the blow out occurred. The reservoir is normally pressured and the blow out was the result of mechanical problems at the surface. The blowout did not catch fire which suggested the gas produced was not burnable. Of special note, the incident occurred during a particularly cold winter, yet there was no evidence of ice around the wellsite, suggesting that the well did not produce any significant amount water.

After the well was brought under control a small section of the reservoir subsequently tested 6 mmcf/d of non-burnable gas (87% nitrogen, 0.63% helium, 8% of CO2 and 3% of methane) from the Beaverhill Lake Group. At the time, there was no commercial interest in the structure because the gas results indicated high concentrations of nitrogen with helium and minimal hydrocarbons. Helium was important to the war effort but at 0.63% Helium the concentration fell short of the 1% minimum economic threshold in 1940. Three subsequent wells confirm the structure indicating reasonable reservoir characteristics. 2D and 3D seismic data is available and is being purchased by Imperial to better define the structure.

Figure 4. Logs and reservoir structure



Source: Company

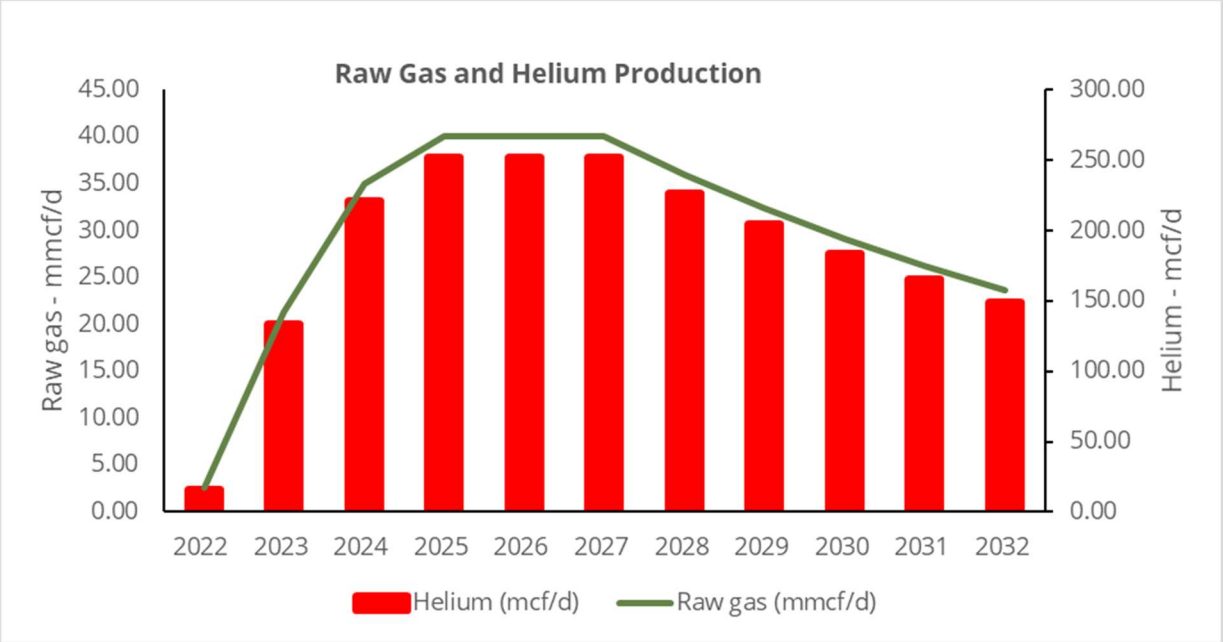
Fast paced definition and development

Imperial estimated 1.1 bcf of recoverable helium at Steveville, in the 24,635 hectare (95 square mile) structure. The upcoming activity programme consists in:

- Acquiring 3D seismic to better define the structure in 2Q21
- Fabricate a pilot plant in conjunction with ON2 Solutions
- Drill and test two wells by YE21 spudding one well in June and the next one in August
- Independent resource assessment by YE21
- Complete design and fabrication of the production facility by end of 3Q22
- Start-up production with two wells in 4Q22.

Whilst the production test will give Imperial a greater understanding of how the reservoir will produce, at this stage Imperial have assumed each well to produce 5 mmcf/d of raw gas including 0.63% of helium (~32 mcf/d of helium) with an annual decline rate of 15% per year. The overall 1.1 bcf of recoverable helium resources would be recovered with a total of eight wells producing 40 mmcf/d of raw gas (~250 mcf/d of helium) at plateau in 2023 with the field producing for >15 years. This looks very conservative in the context of the blow out rate of 50 mmcf/d for three months **from a single well** achieved in 1940 and with no observed decline.

Figure 5. Production forecast



Source: Auctus

A very profitable project with important alliances to mitigate key risks

Raw helium will be separated and upgraded on site into salable 99.999% pure helium gas (Grade A or P). The point of sale will be the exit of the processing plant on site where Imperial could get >US$375/mcf for its helium. The helium will be compressed in gaseous form to be trucked by offtakers to final customers.

Drilling costs are expected to be only ~US$1 mm per well. Overall drillex to produce 1 bcf of helium is estimated at US$8 mm. On all-in opex of US$20/mcf (of Helium) and 4.25% royalty, net backs over the life of the field are estimated at US$340 mm, representing over 40x overall drillex.

The initial surface infrastructure for a 10 mmcf/d pilot is expected to cost only ~C$5.8 mm (US$4.5 mm). A permanent plant with a 40 mmcf/d processing capacity is estimated to cost C$32 mm (US$26 mm). This is probably the riskiest component of the project as the processing facility will separate the helium from the Nitrogen, CO_2 and methane. The fact there is very little water and a very small amount of methane are important positives as it makes the separation process simpler.

The production facility will receive the raw gas stream via an inlet header flowing onward through a dehydrator to reduce the water content to 30 ppm. The gas stream then flows through an amine unit which will sequester the CO_2 from the main gas stream. At this stage, the company has not developed a CO2 sales strategy and therefore the CO_2 will in all likelihood be diverted to a well for disposal into an appropriate downhole formation. Should this change, the impacts on revenue and costs would not be significant.

The gas stream, now free of CO_2 and water, will then flow through a molecular sieve to separate the helium followed by a Vapor Pressure Swing Adsorption (VPSA) unit to complete the purification of the helium to 99.999% pure. The remaining residual gas stream is primarily a mix of methane and nitrogen. This gas stream will need to be processed to separate the methane from the nitrogen such that the methane will be used as fuel gas and the now nearly pure nitrogen gas stream would be vented to atmosphere.

The key risks to the project are (1) the surface processing of the helium to reach the right level of purity and (2) the nature of the offtake agreements, which are impacted by an opaque pricing structure and the fact there are just a few large buyers. Imperial has sought to address these risks through a strategic alliance agreement with Uniper and ON_2 Solutions to expedite the development, production and monetization of Imperial's projects in Canada. Uniper is specialized in purchasing, transporting, storing, and marketing volumes of commercial gases, including helium. ON_2 Solutions is a Canadian based private company that designs, manufactures, installs and services custom on-site oxygen and nitrogen generators and concentrators for medical and industrial use. ON_2's equipment has been installed in over 25 countries worldwide.

A commercial framework (not disclosed) is likely to make it worthwhile for Uniper and ON_2 to be involved at this early stage. For Imperial, these alliances not only boost the credibility of the project, the development concept and the business model but also reduce the risk of technical problems or cost increases for the surface facilities. Uniper has significant visibility on helium logistics, pricings and commercialization, which boosts confidence in pricings assumptions.

Volume and economics upside

The fact that the discovery well could still deliver a flow of 6 mmcf/d on testing only a small proportion of the pay after having flowed openhole at 50 mmcf/d for 100 days during the blow-out is very encouraging with regards to the deliverability of the reservoir and the size of the encountered volumes. Modern perforation techniques use shaped charges which can penetrate over a meter to get past the well bore damage caused by over-pressured mud, cement and steel casing. In 1940, a 308 calibre bullet was used to penetrate the casing, surrounding cement, and damaged reservoir rock. With this in mind, the 5 mmcf/d IP assumed by the company therefore looks very conservative. Assuming twice that rate (10 mmcf/d) would suggest a plateau of 80 mmcf/d instead of 40 mmcf/d and would have a big impact on the NPV of the project. On 15 mmcf/d per well, the plateau production would be 120 mmcf/d. Higher IP rates would also likely have a positive impact on the overall recoverable volumes.

Another important area of consideration is the size of the structure, the future acquisition of 2D and 3D seismic, and the subsequent drilling and modern production testing of the entire pay zone; only the upper portion of the pay zone had been drilled when the blow-out occurred. These are likely to have a positive impact on the recoverable resources.

An independent resources estimate will be published by YE21 and will provide better visibility on the recoverable volumes.

Valuation and financials

Financials

We have assumed realized prices for helium at US$375/mcf from 2021 onwards (no escalation). With >C$14 mm in cash at the end of March, G&A of C$3.2 mm per year and an overall programme of ~C$10 mm, the company has enough liquidity to cover its spending until first gas in 3Q22, unless major accretive acquisitions are executed on. We also note that from the time the first two wells are flow tested later in 2021, there are probably various debt instruments that would become available. For instance, Riviera Resources raised US$82 mm through an overriding royalty on future production product. In 2020, Nasco secured debt financing of US$83 mm secured on its helium asset. Since November 2019, North America Helium has raised C$123 mm of funding.

We forecast operating cashflow of C$17 mm/US$14 mm in 2023 (helium production of 135 mcf/d on raw gas production of ~20 mmcf/d) and C$30 mm/ US$25 mm in 2024 (helium production of 220 mcf/d on raw gas production of 31 mmcf/d). Helium production reaches 250 mcf/d at YE24 (on raw gas of 40 mmcf/d) with minimal capex afterwards.

Other assumptions include 4.25% royalty payable to Heritage Royalty, US$20/mcf of helium for opex and corporate tax of 25%.

Valuation

Our Core NAV of ~C$0.60 per share is based on a DCF starting in 2022 on the company's 1.1 bcf of recoverable helium resources (10% discount rate) that we have risked at 75% pending the publication of the independent resources report. We then add YE21e net cash of ~US2 mm (C$2.4 mm) and deduct a perpetuity for the ~C$3.2 mm per year G&A.

We have included the potential for potential better well performance. Given the small section of reservoir on which the 1940 well was tested (3 m out of a 40 m pay) and the >50 mmcf/ open flow rate for >100 days, we have considered two upside cases: (i) 10 mmcf/d IP per well (50% probability) or (ii) 15 mmcf/d IP per well (25% probability).

Overall, our ReNAV stands at ~C$0.95 per share with an Unrisked NAV of ~C$1.75 per share.

With the resources volumes being potentially very conservative, we estimate that each incremental 0.5 bcf has an unrisked value of ~C$0.50 per share.

Figure 6. NAV Table

Asset Valuation	WI Reserves and Resources (bcf)	CoS (%)	Unrisked (US$mm)	EMV (US$mm)	C$/Share (Risked)	C$/Share (Unrisked)	% Total
Net Cash/Debt YE21			2	2	0.02	0.02	2%
G&A + procceds from options			-14	-14	-0.13	-0.13	-14%
Steveville	1.1	75%	101	76	0.72	0.96	76%
Total Core NAV			**90**	**64**	**0.61**	**0.85**	**65%**
Steveville upside on 10 mmcf/d IP per	0.0	50%	54	27	0.26	0.51	27%
Steveville incremental upside on 15 mmcf/d IP per well	0.0	20%	43	9	0.08	0.41	9%
Total Risked Exploration			**97**	**35**	**0.34**	**0.92**	**35%**
Total			**186**	**100**	**0.95**	**1.77**	**100%**
Unrisked NAV					**1.77**		
P/Core NAV				**41%**			
P/NAV				**26%**			
P/Unrisked NAV				**14%**			

Source: Auctus Advisors, Company Reports

Relative Valuation

The share prices of peers have posted extremely strong performances with Desert Mountain Energy (DME.V CN) up 10x and Royal Helium (RHC CN) up 20x over the last 12 months. In Australia, the share price of Blue Star Helium (BNL AU) has been multiplied by ~3.5x. In the UK, Helium One (HE1 LN) has seen its share price increase by 7x since its IPO in December 2020. Since the pricing of the IPO of Imperial, the share prices of these three companies have increased by respectively by 30% (Royal Helium), 175% (Helium One) and 170% (Desert Mountain).

Given the limited visibility on near term cash flow for most of the peers, we have compared the various players along EV/recoverable resources of helium. With helium sales price representing a multiple of development and production costs, the value of a discovered mmcf of Helium is probably not too different for the various players (perhaps with the exception of Helium One given the remote location of the resources in Africa with limited domestic infrastructure). The key differences would therefore be the risk profiles of the respective resources. The helium resources of Desert Mountain and Imperial have the lowest risk given historical flow rates with measured concentrations of helium. Most of the peers do not have any identified resources or flow rates yet but already command EV of ~US$25-175 mm which compares with only US$6 mm for Imperial Helium.

We note that even if the resources of Imperial are among the least risky, Imperial is one of the cheapest names.

Figure 7. EV/Resources of Helium

	Ticker	Net cash (US$ mm)	share price	Number of shares (mm)	Market Cap (US$ mm)	EV (US$ mm)	Asset location	Asset maturity	He Resources (bcf)	EV/Helium (US$/mcf)
Avanti Energy (4)	**AVN CN**	6	2.41	41	79	72	USA / Canada	Exploration /Appraisal	n.a.	n.a.
Blue Star Helium (3)	**BNL AU**	3	0.03	1,062	26	23	USA	Exploration	4	6.59
Desert Mountain Energy (1)	**DME CN**	11	4.04	58	187	176	USA	Appraisal/Testing	n.a.	n.a.
Helium One (4)	**HE1 LN**	14	0.20	500	138	124	Tanzania	Exploration	15	8.47
Imperial Helium Corp. (2)	***IHC CN***	*11*	*0.25*	*85*	*17*	*6*	*Canada*	*Appraisal/Testing*	*1*	*5.80*
Royal Helium (1)	**RHC CN**	5	0.62	100	50	45	Canada	Exploration /Appraisal	4	10.58

(1) Net cash at YE20

(2) Net cash at at IPO in 1Q21

(3) Net Cash at the end of March 2021

(4) After latest financing in 1H21

Source: Companies, Auctus

Value build-up

The IPO price for Imperial appears to discount 0.3 bcf recoverable resources at Steveville.

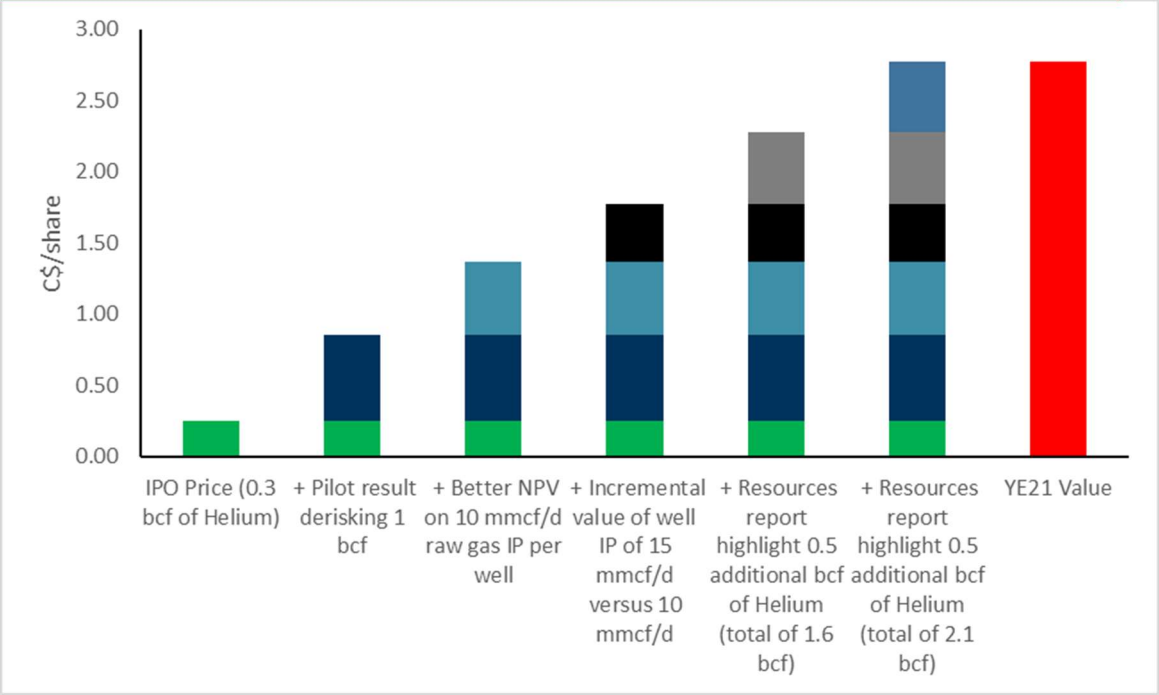
The upcoming drilling and pilot production could de-risk the base case of 1.1 bcf. This would take our NAV to ~C$0.85 per share on 1.1 bcf of recoverable resources.

Better well performance (10 mmcf/d per well instead of 5 mmcf/d) for a plateau production of 80 mmcf/d instead of 40 mmcf/d would add a further ~C$0.50 per share. If the IP rate of the new wells were to reach 15 mmcf/d, then a further ~C$0.40 per share would be derisked.

An independent resources report at YE21 would also shed light on the overall size of the recoverable volumes at Steveville. We believe that the resources estimates are very conservative. For each additional 0.5 bcf, our unrisked NAV increases by C$0.50 per share. Assuming only 2.1 bcf (+1 bcf) of recoverable helium resources would take our NAV to ~C$2.75 per share.

During 2021, Imperial also plans to make another acquisition of a new helium property.

Figure 8: Value build-up (NAV per share based on derisked Helium resources)



Source: Auctus

Valuation sensitivity

Given the lack of visibility on helium prices, we have run some valuation sensitivities at alternative prices.

Figure 9. NAV sensitivity to Helium price (producing grade p)

Helium Prices (US$/mcf)	Core NAV (C$/sh)	ReNAV (C$/sh)
200.00	0.14	0.32
300.00	0.40	0.68
375.00	0.61	0.95
500.00	0.95	1.40

Source: Auctus

Risk analysis

We have identified the following key areas of risk

1. Resources risk. The company is about to embark in a drilling campaign to drill multiple wells at Steveville. The resources of raw gas and helium have not been independently estimated yet. We however note that the management has a lot of experience in the basin. The development plan is based on conservative assumptions for IP rates in light of historical wells. We also note that four wells have been drilled in the structure.
2. Development and technology risk. The technology and the process might not be appropriate to reach the level of helium purity that is required to achieve the best realization prices. There could also be cost overruns. The fact that the wells are very low cost is a mitigating factor. The alliances with Uniper and ON_2 are other key factors to reduce this risk.
3. Commercialization risk. Helium pricing is very opaque. The project is still very profitable at a helium price as low as US$200/mcf.

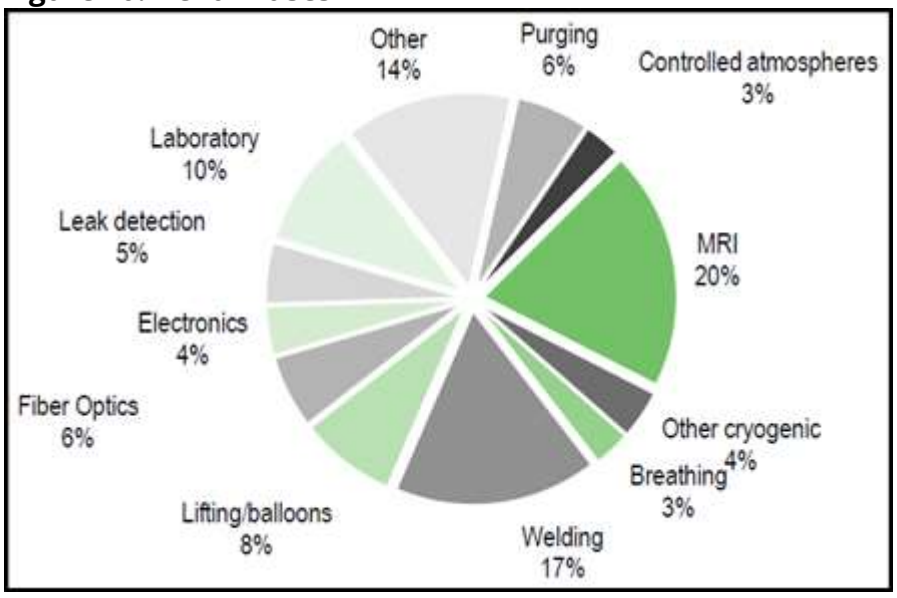
Appendix 1: More details on the Helium industry

Demand and use

Since the First World War, helium has been considered a 'strategic resource' and the production and supply of helium was heavily controlled by the United States. The initial value of helium was for use in military balloons and airships, but it now has considerable value as a 'high tech' gas used in cryogenics, heat transfer, leak detection, providing an inert atmosphere for welding and manufacturing of sensitive electronics and numerous other uses. It is used in lifting applications and is also an important element for physicists to study super-cold conditions. It is used in nuclear fusion as well as the Google X Project Loon or by Space X and NASA.

Global demand is estimated at ~6 bcf per year. The current global market for bulk liquid helium is thought to be worth over USD2.7 billion. Of note, it is very difficult to recycle helium efficient and at large volumes.

Figure 10. Helium uses



Source: Edison Research

Helium has an opaque marketplace where raw helium purchases and distribution are controlled by four main global gas competitors (including Air Liquide, Air Products and Linde) who account for ~85% of the market. These groups buy raw helium from energy extraction companies through private contracts.

Supplies, key projects and main producers

Helium gas is considered a non-renewable resource as it forms as a result of radioactive decay of naturally occurring elements. It cannot be economically manufactured by any method. The radioactive elements are generally found within minerals of the continental

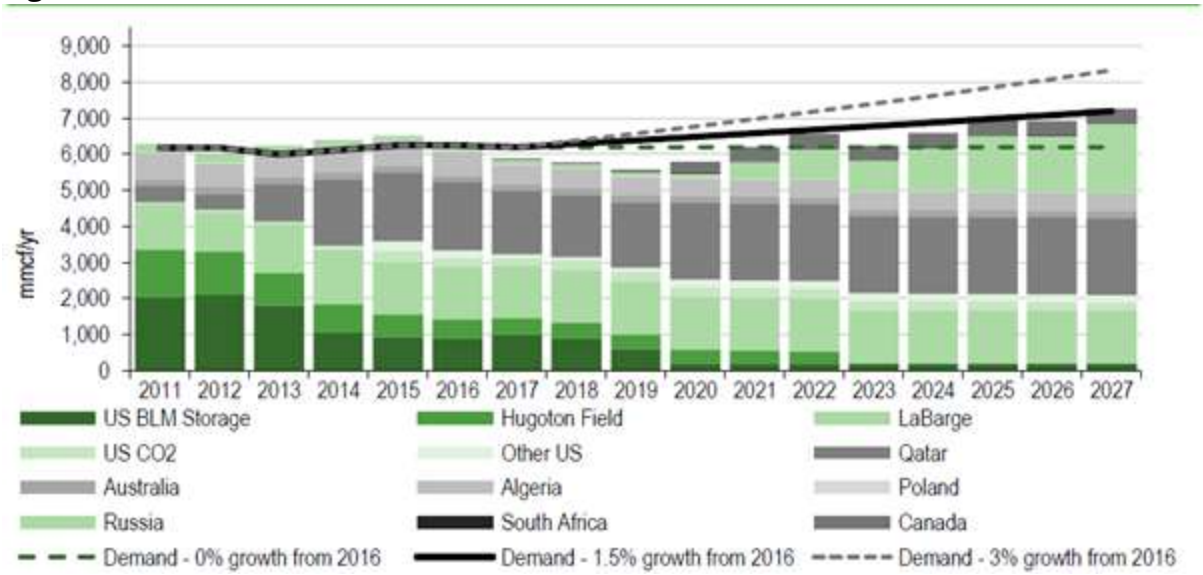
crust or deeper. Because helium is such a small, light molecule, the vast majority of it escapes the earth's crust and atmosphere. The produced helium gas must be able to migrate out of the crust into the overlying sedimentary strata. Similar to hydrocarbon exploration accumulations, helium requires a source, a migration pathway to get the helium from the source to a reservoir, a geological trap for the gas, and a seal for the gas to prevent it from migrating out of the trap.

Helium is typically found in combination with other gases such as methane and nitrogen. Most oil and gas reservoirs have trace or undetectable concentrations of helium.

Currently, most of the global helium production comes as a by-product of natural gas production with helium concentration often representing less than a percent of the overall production. With rising helium prices, some producers have started looking for Helium from non hydrocarbon sources.

The US is still the largest producer of helium (40% of total production) but other countries such as Algeria, Russia and Qatar are now producing significant quantities of helium. At present, Canada is a minor producer of global helium supply.

Figure 11. Helium sources



Source: Edison Research

Recently, the United States government sold off the last of its stored reserves and this, combined with high demand, has considerably increased the price of raw and grade p.

In Western Canada, there has been a long history of helium production albeit in a minor way. One of the first helium production plants was moved from Ontario to Calgary in 1918. In 1958 a significant percentage of helium was discovered in the B.A. Wilhelm No. 01-09 well in Saskatchewan (01-09-017-14W3). Due to the increasing demand for and price of helium in the last ten years, there has been a resurgence in activity looking for high helium concentrations in known hydrocarbon gas reservoirs. Most of the

exploration and production has concentrated in southern Saskatchewan (around the B.A. Wilhelm well) but now is also moving into south Alberta (Sweet Grass), northwest Alberta and northwest British Columbia (Peace River Arch). There are several geological reasons for this. The basement or continental crust, the likely source of the helium, is relatively shallow in this region.

The largest producing companies are (1) ExxonMobil with the La Barge field (1.4 bcf/d) in the US and its stake in Qatar LNG, (2) Qatargas (helium extracted from natural gas production in Qatar) and (3) Sonatrach (helium extracted from natural gas in Algeria). Another large producing field in the USA is the Hugoton Panhandle.

Very large new resources are being developed as part of expanding LNG production, particularly in Russia and Qatar. In Qatar, helium from Ras Laffan production could increase from 2 bcf to 4 bcf in 2030. In Russia, new production at Amur could add 2.5 bcf by YE26. Given the sheer size of these projects and the associated technology and execution risks, combined with their challenging locations, suggest that there is a lot of uncertainty on their exact size and delivery dates.

Some new players of notice include Desert Mountain in the USA and North American Helium in Canada with 58 mmcf/y production.

Extraction processes.

Helium is typically found in combination with other gases such as methane and nitrogen. Once the gases are produced from gas wells, they are separated and purified by cryogenics, pressure swing adsorption, or a combination of both. The desired percentage of helium varies by use case.

The helium extraction process consists of various steps, each increasing the helium concentration. The raw gas is (1) pre-treated, (2) undergoes fractional distillation or membrane separation to allows the separation of natural gas and nitrogen from the helium, and (3) is purified using pressure swing absorption technologies.

Main storages

The largest reserve of crude helium was historically owned and managed by the US Bureau of Land Management (BLM) and is located in Amarillo, Texas. This reserve was set up in 1960 as a strategic repository of helium. The US reserve represented the only large volume dedicated helium reserve (i.e. not indexed to the production of hydrocarbons or CO_2). At its peak, it held >30 bcf of helium. In 1996 a bill was passed by the US Government to sell off a large part of the supply and pay off the plant's debts, leading to a fall in helium prices. In 2013 the BLM announced that it would begin to auction off an increasing percentage of the reserve annually as part of the bill. The storage facility is expected to eventually be operated by a private entity and allow for private producers to use the facility.

There are other minor storages elsewhere such as Air Liquide's small salt carvern in Germany.

Appendix 2: Senior Management & Board of Directors

David Johnson: Chief Executive Officer and Director
Dr. Johnson has more than 35 years of global, Canadian frontier, and Western Canadian exploration and production experience. Previously, Dr. Johnson worked for Shell Canada, ExxonMobil, Husky Energy, Kuwait Oil Company, KUFPEC, and a public international start-up, which he founded. Dr. Johnson has extensive business development, operations, geoscience research, and technical E&P experience covering 40+ petroleum provinces, with discoveries in Alberta, Saskatchewan, the Canadian Frontiers and the South China Sea. He currently serves as a Director for the Canadian Global Exploration Forum (CGEF), and a Councilor for the Association of Professional Engineers and Geoscientists of Alberta (APEGA).

David Robinson: Chief Financial Officer
Mr. Robinson has over 10 years of accounting and capital markets experience. He has provided audit, tax and consulting services to private and public companies for a number of years at MNP LLP before moving to the Telus Pension Fund as a senior analyst, where he gained significant exposure to equity portfolio management and commercial lending. Mr. Robinson is currently the group CFO and a partner in Cronin Group, a natural resource focused merchant bank based in Vancouver, British Columbia.

Michael Zubkow: Chief Operating Officer
Mr. Zubkow has 45 years of professional experience, spending his initial 12 years as a structural engineer before transitioning to work in the petroleum industry in Western Canada. Previously, Mr. Zubkow has worked for Underwood McLellan, Dome Petroleum, Amoco Canada, Devon Energy, ConocoPhillips Canada, Penn West, and most recently Canadian Natural Resources. Mr. Zubkow has extensive experience in drilling and completing petroleum and natural gas wells, building production facilities and infrastructure, and managing production operations. As such, he is uniquely qualified with respect to the development of the helium resource in the Western Canadian Sedimentary Basin. He is currently a registered practicing engineer with the Association of Professional Engineers and Geoscientists of Alberta (APEGA).

Kyle Hookey: VP, Corporate Finance
Mr. Hookey has over 8 years of experience in international capital markets, consulting across the capital structure for corporate transactions and broad investment portfolio mandates. During his career, Mr. Hookey has advised individuals, private and public companies, primarily in Canada, Australia and the United Kingdom. Mr. Hookey is currently a Partner of Cronin Capital Corp., a natural resource focused merchant banking group based in Vancouver, Canada, Chief Executive Officer of TSXV listed Gold Rush Cariboo and a Non-Executive Director of AQSE listed Imperial X Plc.

Kyler Hardy: Executive Co-Chair
Samuel “Kyler” Hardy is a natural resources focused entrepreneur. He has been involved in the sector for over 19 years with both private and public businesses. During his career

he has gained a wide array of natural resource specific experience including diamond driller, project manager, exploration service contractor, business consultant, public company management and investor. He has built businesses from early stage start-ups to advanced operating companies in mining, energy and service providers to these sectors. Mr. Hardy has raised capital, lead M&A transactions and developed strategic partnerships globally. He is currently CEO of the Cronin Group, a natural resource focused merchant bank, CEO of Cloudbreak Discovery Plc, Executive Chairman of Imperial Helium Corp, Executive Chairman of Temas Resources Corp, director of Graycliff Resources Ltd. and a director of Hexa Resources Ltd.

Brad Hayes: Executive Co-Chair

Dr. Hayes is President of Petrel Robertson Consulting Ltd., a geoscience consulting firm engaged by industry, government, and legal and financial organizations. He joined PRCL in 1996 after 15 years of exploration experience in operating companies, including Shell Canada and Canadian Hunter. Dr. Hayes has a high level of geoscience expertise in unconventional hydrocarbons, including oil sands, tight reservoirs, and shale plays in the Western Canadian Sedimentary Basin and internationally. He is an active member of the Canadian Society of Petroleum Geologists (CSPG) and served as its President in 2001. He currently serves as a Board member for the Canadian Society for Unconventional Resources (CSUR) and recently completed his second three-year term as a Councillor for the Association of Professional Engineers and Geoscientists of Alberta (APEGA). He is also an Adjunct Professor in the Department of Earth and Atmospheric Sciences at the University of Alberta.

Peter Putnam: Lead Director

Mr. Putnam is a geologist with over 40 years of varied global experience at both technical and executive levels. Over his career he has been at various times, an employee, an advisor to technical and management teams as well as boards of directors, a board member, and a founder of new companies. Early stage companies started by Peter have raised substantial funds from investors inclusive of large private equity firms, sovereign wealth funds, pension funds and family offices. With experience on six continents, he is currently the President of Hay Valley Resources Ltd. Mr. Putnam holds a Ph.D. from the University of Calgary and is a past-President of the Canadian Society of Petroleum Geologists, a former adjunct professor at the University of Calgary, and a former councillor of the Association of Professional Engineers and Geoscientists of Alberta (APEGA). He has published widely as an author of scientific articles dealing with various facets of petroleum geology and is a regular guest lecturer at Canadian universities.

Marty Wittstrom: Director

Mr. Wittstrom is a geoscientist with more than 40 years of experience in the oil and gas industry and has held several positions in technical and business leadership, managing important exploration and field development projects in basins in the United States and overseas. Mr. Wittstrom had a 26-year career at Chevron, where he managed projects in all United States onshore basins, he was also the Vice President of International Exploration for Reliance Industries and VP of North America Business Development for

the Information Store. At Niko Resources he was the South America Business Unit Manager. Mr. Wittstrom is the current president of Oil & Gas Investments Group, a Houston-based holding company for investments in Latin America in the E&P operations and services sectors.

Monica Rovers – Director

Ms. Rovers has over 25 years of international relations experience in private, public and non-profit organizations, primarily supporting the energy sector. She was Global Head, Energy at the Toronto Stock Exchange and TSX Venture Exchange where she helped energy companies from around the world to raise money on Canadian capital markets and connected energy companies with other sources of financing to help them grow. Monica also managed partnerships with international stock exchanges where they would jointly help energy companies raise capital. Monica was Business Development Manager, Energy at Calgary Economic Development where she helped energy services companies expand their operations internationally by taking them to new international markets and advising them on market entry. Monica holds an MBA in Global Management and a Bachelor of Business Administration in Management.

Stephen Burleton – Director

Mr. Burleton, is an experienced mining executive with significant experience in capital raising, corporate development and strategy. At present, Mr. Burleton is the President and CEO of Angus Gold and most recently prior to that, he was the President and CEO of GT Gold where he brought Newmont Corporation in as a strategic investor. Prior to that he was Vice President, Business Development, at Richmont Mines Inc. prior to Richmont being acquired by Alamos Gold Inc. for US$770 million in November 2017. Mr. Burleton was responsible for the financing at Richmont and worked closely with its executive team in determining the Company's strategic direction. He has over 18 years of experience in the Canadian investment banking industry as Managing Director of Investment Banking at Wellington West Capital Markets Inc., Scotia Capital Inc. and BMO Capital Markets advising on strategic transactions and executing debt and equity financing for companies in the mining, fertilizer and industrial products sectors. Mr. Burleton is a CFA® Charterholder, has an MBA from York University and received his ICD.D from the Rotman School of Management.

Appendix 3: Capital structure and man shareholders

There are approximately 85.5 mm common shares in issue and 14 mm performance shares to be issued to management and directors on milestones being achieved. In addition there are 37.8 mm options and warrants that can be converted into an equivalent number of shares at a price ranging from C$0.25-0.375 per share. Out of this, Executive and Directors hold ~7.2 mm shares, ~5.95 mm options and warrants combined and 11.3 mm performance shares.

Upon listing, 19,388,000 common shares will be escrowed for 6 months and therefore free float is ~77%.

Management notes approximately 50% of common shares are owned by institutional investors, 40% by retail and 10% by management.

Management also notes approximately 36% of common shares are owned by the top 10 shareholders.

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