





#### HELIUM AND RARE EARTH GASES IN THE U.S. SOUTHWEST





#### FORWARD LOOKING STATEMENTS

Statements in this presentation that are forward-looking statements are subject to various risks and uncertainties concerning the specific factors. Such forward-looking information represents management's best judgment based on information currently available. No forward-looking statement can be guaranteed and actual future results may vary materially. Desert Mountain Energy Corp. does not assume the obligation to update any forward-looking statement.

#### DESERT MOUNTAIN ENERGY CORP.

Exploration and development of Helium and Rare Earth Gas properties in the U.S. Southwest.

High-grade tier 1, Helium project in Arizona

Proven, successful management team that knows how to find, develop, package and vend projects.

World Class technical team with decades of experience in exploration and development of Helium, Hydrocarbons and other minerals.

Excellent access to capital markets.

Tight share structure and no long-term debt.

Now trading on TSX Venture Exchange under ticker symbol "DME.V". Also trades on the U.S. OTCQX as "DMEHF" and Frankfurt as "QM01". The Company has more value in place than ever before.

Corporate philosophy that respects the environment, the community and education



#### **MANAGEMENT TEAM**

Robert Rohlfing, CEO & Executive Chairman, is a seasoned oil & gas industry operations executive with a strong geological background and over 25 years' experience in formulating, conducting and managing successful exploration, drilling, development and production programs for oil & gas and minerals worldwide.

Don Mosher, President & Director - Don Mosher has 35 years of experience in corporate finance, business development, management and marketing. He has served on boards and management teams of many publicly traded companies, advising companies on marketing, financing and corporate strategies.

Scott Davis, CPA, CGA, CFO, is a partner of Vancouver-based Cross Davis & Company LLP Chartered Professional Accountants.

Jessica Davey, Vice President of Land & Director - Jessica Davey is an international oil and gas geologist with more than 10 years of experience in research and reporting on resource evaluation, environmental studies, feasibility reports, competent person reports, litigation support and mine closure procedures.

Eric Witt, Drilling Operations Manager - Eric Witt was previously the drilling engineer for Conoco Philips and Marathon Drilling.

James Hayes, Vice President of Engineering - James Hayes received his BS in mechanical engineering from Oklahoma State University. He has over 14 years of experience in engineering design and with on-site field operations in Oklahoma, Texas, Colorado, North Dakota and Alaska.

Ched Wetz, Vice President of Risk Management - Ched Wetz has served as the director of risk management/facility ethics as well as compliance officer/safety officer at various hospitals, care centres and businesses. He has served in a distinguished manner on numerous boards, both for profit and non-profit, and joint commissions on accreditation for state departments.

Dr. James Cronoble, VP of Exploration and Director - He earned his B.S. in Geology from the University of Oklahoma followed with both his M.S. and PhD. in Geology from the Colorado School of Mines. He has more than forty years of exploration and operations experience in the Rocky Mountains and Mid-Continent of the United States.

#### **BOARD OF DIRECTORS**

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Don Mosher, President & Director - Don Mosher has 35 years of experience in corporate finance, business development, management and marketing. He has served on boards and management teams of many publicly traded companies, advising companies on marketing, financing and corporate strategies. He has extensive experience in the resource sector, having been associated with a number of junior resource companies across the mineral spectrum and in oil & gas.

Jessica Davey, Vice President of Land & Board of Directors - Jessica Davey is an international oil and gas geologist with more than 10 years of experience in research and reporting on resource evaluation, environmental studies, feasibility reports, competent person reports, litigation support and mine closure procedures.

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Dr. Kelli Ward, Independent Director - Dr. Kelli Ward has dedicated herself to medicine, business, public policy and politics for the past 25 years. In 2012, she ran and was elected for the Arizona State Senate. She was then elected Chair of the Republican Party of Arizona in 2019 and was re-elected in January 2021. Dr. Ward is proud to be the first woman to be elected Chair of the State Party in over thirty years.

Soren Christiansen, Independent Director - Soren has overseen drilling and other oil field operations both onshore and offshore in all corners of the globe, including Alaska, Argentina, Australia, Canada, Chad, and the U.S. Recently, he has been serving as Chairman & Director of EnerMad Corp.

Jenaya Rohlfing, Independent Director - Jenaya Rohlfing is a Petroleum Engineer who has exhibited exceptional technical, leadership and organizational skills in all facets of drilling operations for oil & gas over the past 13 years in various management positions with ConocoPhillips. Currently, she is the Drilling Engineering Supervisor for ConocoPhillips' Kuparuk Alaska Program.

#### CAPITAL STRUCTURE

Outstanding shares: 71,035,574

**Options:** 6,267,500

Warrants: 3,445,101

**Fully diluted:** 80,748,175

**TSX Venture Exchange: DME** 

U.S. OTC: DMEHF

Frankfurt Exchange: QM01

#### **2020 ACHEIVEMENTS**

August 2020 - Drilled, set and cemented production casing in wells State 10-1 and State 16-1

**August 2020** – Management and board changes

August 2020 – Tested both wells and announced the discovery of Rohlfing Field

October 2020 - Closed a \$1.60 unit financing for \$13,000,000

November 2020 - Received drill permit to drill well State 26-1

**December 2020** – Set and cemented production casing in State 26-1 in Meteor Crater Field



#### **2021 ACHEIVEMENTS**

**February 2021** – Acquired additional 9885.2 acres of Arizona leases

March 2021 – Forced \$2 warrants from \$1.60 unit financing, resulting in over \$29,000,000 in the treasury

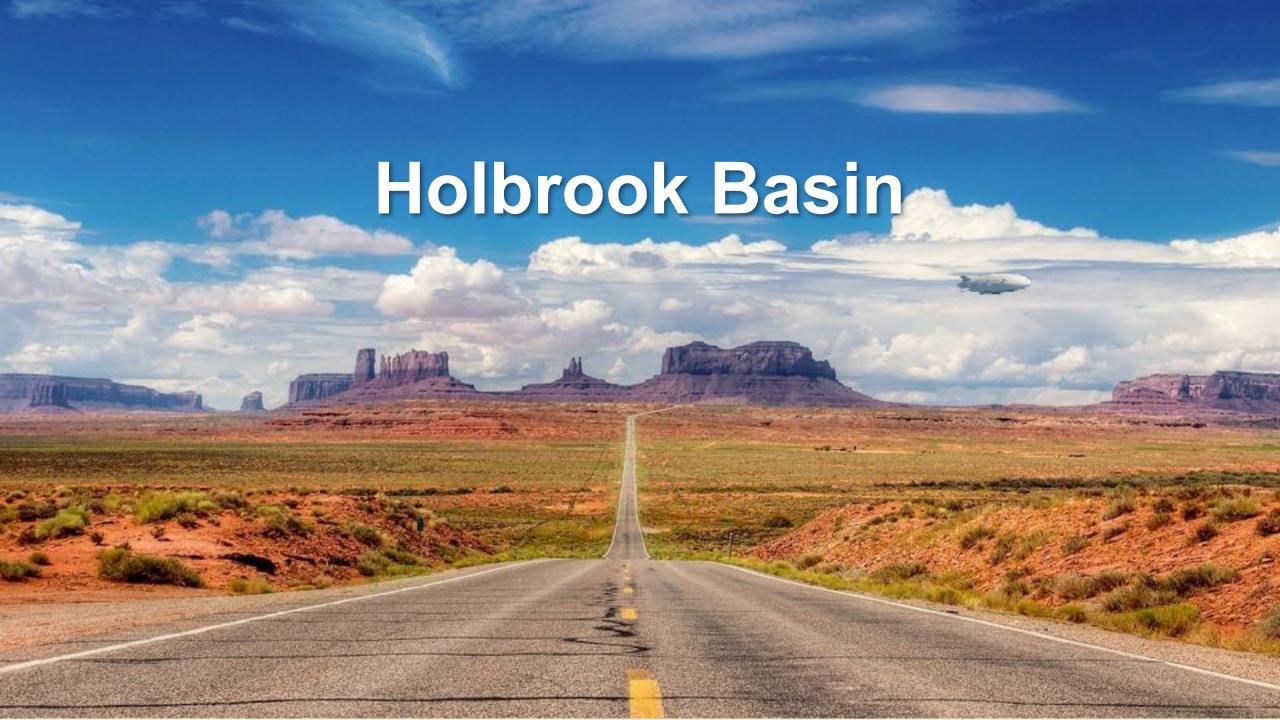
March 2021 – Graduated to the OTCQX listing

May 2021 – Started operations on well #4

July 2021 – Added Jessica Davey as VP of Land and Director

August 2021 – Set and cemented production casing in Well # 4

September 2021 – Announced initial results for Well #4 testing and the discovery of McCauley Field



# EXPLORATION FOR HELIUM AND OIL & GAS IN ARIZONA'S PROLIFIC HOLBROOK BASIN

Early mover among junior explorers in the Helium space.

+85,000 acres of Tier 1 Helium prospects under lease throughout the Holbrook Basin. Among the highest He grades in world produced there ranging from 8% to 10% vs. benchmark commercial grades of 0.3% to 1%.

World's best address for Helium: "The Saudi Arabia of Helium"

Worldwide shortage of Helium reflects huge demands from high tech and the new economy. Helium is now the "High Tech Rare Gas".

He supplies are limited with U.S. National Helium Reserve in Amarillo, TX projected to be exhausted in 2020. The worlds largest supplier for 70 years.

Worldwide market size approximately \$1.5 Billion and projected to grow sharply. The U.S. Currently now provides approximately 40% of worldwide supply.

Recent prices at BLM public auction averaged \$279 per thousand cu ft. (Mcf) for Crude He, reflecting an 135% increase over past 12 months.

Well positioned to provide a secure source of He supply to users in the high tech and aircraft industries in nearby California, the Western U.S. and worldwide.

Many existing and potential sources of He are in high risk countries far from end users: Qatar, Algeria, Russia, Tanzania.

Proven management team includes highly experienced oil & gas professionals with Helium experience in Arizona.

Successfully completed and tested 3 high grade wells with excellent pressures

# THE HOLBROOK BASIN



A large salt basin approximately 160 mi. by 100 mi. with thickened sedimentary rocks.

Situated in east-central Arizona South West of the defiance uplift near the South margin of the Colorado plateau in Apache, Navajo & Coconino Counties.

Highly prospective for Helium, hydrogen and other minerals.

Abundance of reservoir rocks with numerous showings of oil & gas in 28 stratigraphic intervals up to 150 ft. wide. Holbrook Helium typically found in the Fort Apache limestone and Coconino sandstones.

Many geologic similarities to the Permian basin of West Texas with extensive evaporate deposits.

Extremely underexplored with only one well drilled per 100 sq. mi. Most historic drilling was for minerals. Modern exploration, drilling and production techniques enhance potential.

**9.23 Billion cu ft. (Bcf)** of Helium gas produced from 22 wells in 3 fields in the Holbrook basin from 1961–1976: Pinta Dome, Navajo Springs & East Navajo Springs.

**6.5 Bcf** produced from **Pinta Dome** alone, averaging **1400 Mcf per day** over 15 year period from only 11 wells. **Labelled "some of the richest helium-bearing gas ever produced in the world"** at that time.

Largest well at Pinta Dome, Kerr McGee 01 Macie-State, produced stunning 1.779 Bcf Helium gas over that period; 304.7 Mcf per day.

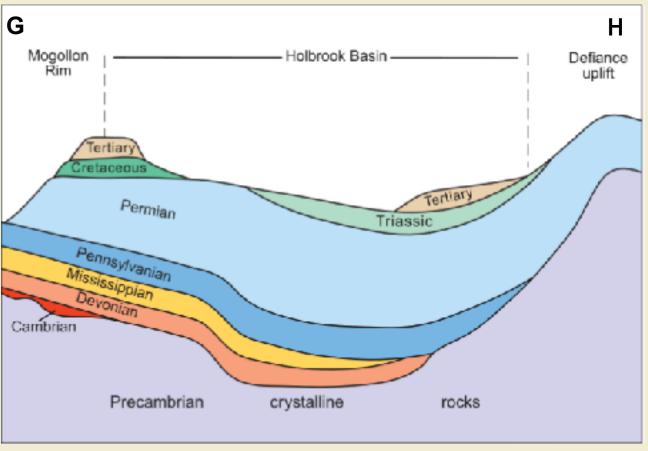
Avg. Grades produced from Pinta Dome were **8-10% Helium**; 90% Nitrogen; 1% Carbon dioxide from avg.depths of 1050 ft.

Elsewhere in N.E. Arizona He was produced in smaller concentrations with oil & natural gas production, e.g., the Dineh Bi Keyah field.

Production ended in 1976 due to low Helium prices and liquidation of He inventories by the U.S. National Helium Reserve.

### UT CO 6 Page ΑZ A • i NM SHIP ROCK BLACK MESA BASIN Flagstaff 018 400 Holbrook St. Johns Springerville Miles

#### THE HOLBROOK BASIN



Diagrammatic northeast-southwest geologic cross section from the Mogollon Rim to the Defiance uplift (From Peirce, 1970). This Figure shows line of cross section. The distance from G to H is about 150 miles. Not to scale.

#### **GEOLOGICAL SETTING**

The Pinta Dome, Navajo Springs & East Navajo Springs gas fields characterized by: (i) anticlinal features; (ii) favorable reservoir rocks and (iii) impermeable caprock traps.

#### **Anticlinal Features**

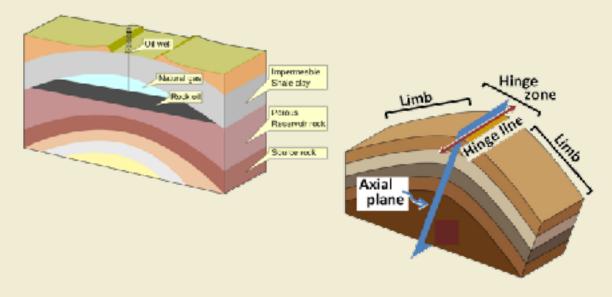
An anticline is an arch-shaped fold with the oldest beds at its core. Typically convex up with the greatest curvature at the hinge or crest. The limbs or sides of the fold dip away.

Contains rock layers that become progressively older toward the center of the fold. Anticlinal ridges typically develop above thrust faults.

Anticlines, structural domes and stratigraphic traps are favorable for sourcing oil & natural gas, as well as Helium.

80% of the world's oil was found in anticlinal traps.





#### **Reservoir Rocks**

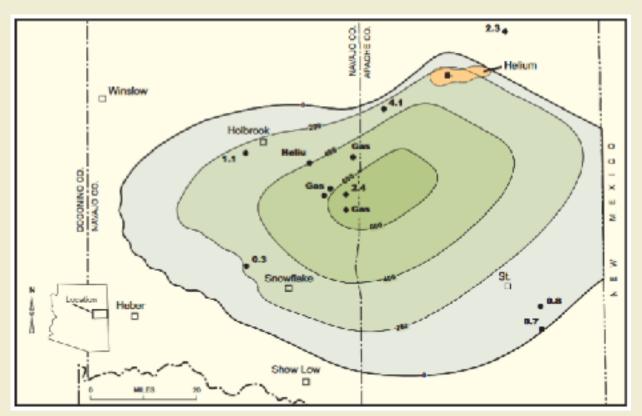
Helium in the Holbrook Basin generally found in pay zones 60-70 ft. wide in the Coconino sandstones and Fort Apache limestones at depths of approximately 1050 ft.

These reservoir rocks are abundant in the Holbrook Basin.

Coconino sandstones are particularly hospitable to hydrocarbons and helium with average porosity(14%), average permeability (110 millidarcies); and water saturation (29%)

#### **Capping Mechanism**

The Holbrook Basin is essentially a salt basin with salt and anhydrite acting as capping mechanisms to trap Helium in the reservoir rocks.



Holbrook Salt Basin showing the thickness of salt (in feet) and helium content (percent) of selected wells.

#### **ROHLFING FIELD**

#### DESERT MOUNTAIN ENERGY ANNOUNCES SIGNIFICANT HELIUM PERCENTAGES IN TWO NEW WELLS IN ARIZONA

#### **State 10-1**

Flow rate of 24,214 MCFGPD water free

The average gas analysis showed:

**Helium 7.1321%** 

Nitrogen 77.0837%

CO2 4.0183%

Methane and other assorted minor gases. 2.6512%

#### **State 16-1**

Flow rate of 1,251.2 MCFGPD water free

The average gas analysis showed:

Helium 4.0904%

Nitrogen 90.2742%

CO2 0.0063%

Methane and other assorted minor gases. 3.5535%



"This is what 24.2 million cubic feet of gas blowing out of the ground looks like!!"

#### McCAULEY FIELD

DESERT MOUNTAIN ENERGY ANNOUNCES COMMERCIAL GRADE HELIUM PERCENTAGES IN DISCOVERY WELL

#### **Chevlon Well 11-1**

Flow rate of 1587 MCFGPD water free The average gas analysis showed

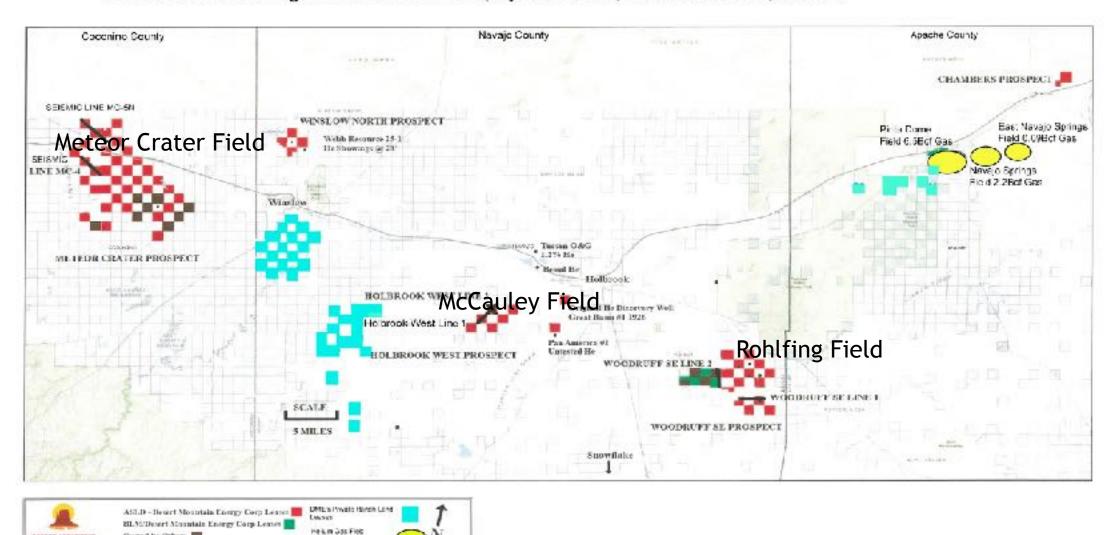
- HELIUM 1.137%
- Nitrogen 94.6536%
- Methane 3.1311%
- Ethane .2732%
- CO2 .1428%
- O2 .6623%



#### DME's Lease Holdings & 2D Seismic Geophysical Lines, Holbrook Basin, Arizona

Crosed by Others

DESCRI HOUNTAIN



#### PLAN TO PRODUCTION



Chevlon Well 11-1 "McCauley Field"

- Drill Wells #5, 6 & 7 in McCauley Field
- Acquire a processing facility estimated cost between \$4.5 m and \$6.5 m
- Production from 4 wells in the McCauley Field late Q1 or early Q2
- Drilling Gunner Dome Prospect wild cat well
- Drill 2 or 3 off setting wells in the Rohlfing Field
- Production for 4 to 5 wells in the Rohlfing Field starting Q4 2022 or Q1 2023
- Bring on 60 to 70 new wells over a 5 year period

#### What is Helium?

An inert, monatomic gas that is non-flammable, colorless, odorless, tasteless, and has a boiling point of -452.07 f (-268.93 c), lowest of any element on earth.

Symbol is He and its atomic number is 2; part of the noble gas group.

Prevalent throughout the universe but rare on earth.

Its very small atom makes it extremely mobile, allowing it to penetrate most rocks and escape from earth's gravity, so trapping mechanisms are critical to retain it in host rocks.

Two sources on earth: (1) primordial, part of the original formation of the planet; (2) radioactive decay of uranium and thorium in the earth's crust.

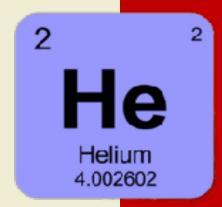
Isotope composition of He in Arizona is consistent with preponderance of He arising from radioactive decay.

Helium historically found incidental to oil & gas exploration but exploration now underway specifically for Helium.

Helium often found in wells associated with natural gas. In Holbrook Basin it has generally been associated with nitrogen and carbon dioxide.

After initial separation from other gases in the well, He is typically sold as raw Helium product grading 50-80% He; it is further processed into Grade A He.

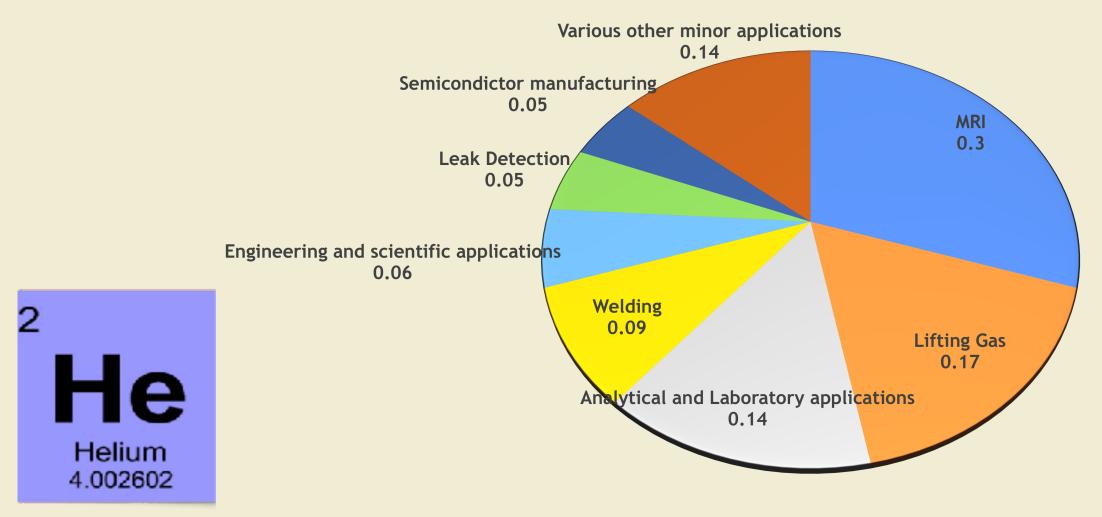
Typically shipped as liquid to distribution centers in trucks and sold as bulk liquid He or gasified and compressed into tanks or small cylinders for delivery to end users.



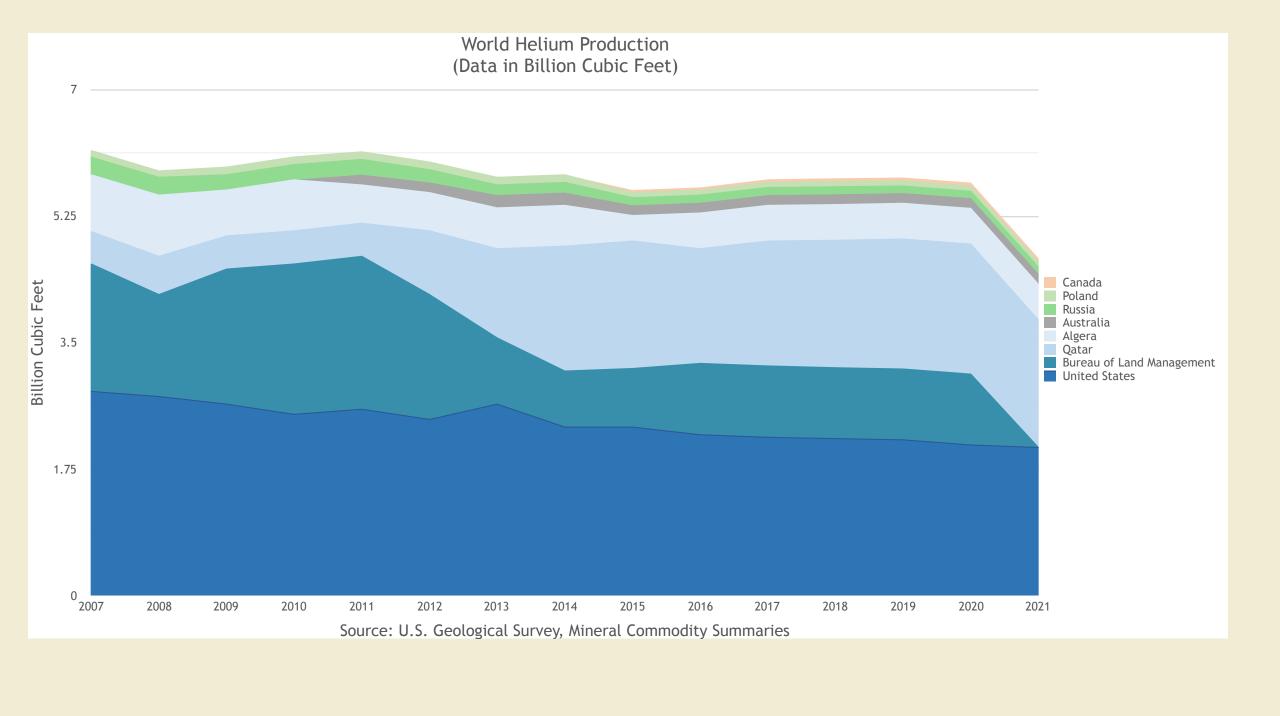




#### 2017 Estimated Domestic Helium Consumption and Usage by Application



Source: U.S. Geological Survey, Mineral Commodity Summaries, January 2018



#### Natural Gas Gross Withdrawals and Production

(Volumes in Million Cubic Feet)

• l	II.C		Don't and Harries [	Annual Million Ouble Foot	
Area:	0.3.	~	Period-Unit:	Annual-Million Cubic Feet	~

Download Series History Definitions, Sources & Notes								
Show Data By:  O Data Series	Groph Clear	2015	2016	2017	2018	2019	2020	View History
Gross Withdrawals	<b>*</b> -	32,914,647	32,591,578	33,292,113	37,325,539	40,892,458	40,689,764	1936-2020
From Gas Wells	<b>-</b>	9,371,281	7,287,858	6,161,420	7,864,063	7,586,579		1967-2019
From Oil Wells	<b></b>	6,537,627	6,385,120	6,217,438	4,503,499	4,624,343		1967-2019
From Shale Gas Wells	<b>*</b>	15,819,319	17,847,539	19,927,602	23,977,248	27,773,024		2007-2019
From Coalbed Wells	<b>←</b> □	1,186,420	1,071,062	985,653	980,730	908,512		2002-2019
Repressuring	<b>←</b> □	3,412,269	3,548,108	3,538,733	3,587,368	3,549,763		1936-2019
Vented and Flared	<b>-</b>	289,545	230,410	255,488	470,601	538,479		1936-2019
Nonhydrocarbon Gases Removed	<b>*</b> -	440,789	413,013	260,066	258,703	289,028		1973-2019
Marketed Production	<b></b>	28,772,044	28,400,049	29,237,825	33,008,867	36,515,138	36,172,542	1900-2020
NGPL Production, Gaseous Equivalent	<b>•</b> •	1,706,584	1,807,934	1,897,242	2,234,593	2,547,631	2,736,764	1930-2020
Dry Production	<b>*</b>	27,065,460	26,592,115	27,340,583	30,774,274	33,967,557	33,435,778	1930-2020

Click on the source key icon to learn how to download series into Excel, or to embed a chart or map on your website.

Notes: Beginning with 2006, "Other States" volumes for the production series include the following states/areas: Alabama, Arizona, Florida, Idaho, Illinois, Indiana, Kentucky, Maryland, Michigan, Mississippi, Missouri, Nebraska, Nevada, New York, Oregon, Scuth Dakota, Tennessee, and Virginia. Federal Offshore Pacific is included in California through 2019, and in "Other States" starting in 2020. Production series data for 2020 forward are estimates. Final 2020 state-level production series data will not be available until the 2020 Natural Gas Annual is published (scheduled for the third quarter of 2021). Gross withdrawal volumes in Florida fluctuate from year to year because nonhydrocarbon gases are occasionally included in gross withdrawals. See Definitions, Sources, and Notes link above for more information on this table.

Release Date: 5/28/2021 Next Release Date: 6/30/2021

<sup>- =</sup> No Cata Reported; -- = Not Applicable; NA = Not Available; W = Withheld to avoid disclosure of individual company data.



#### **CONTACT INFORMATION**

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Don Mosher, President & Director Email: don@desertmountainenergy.com Phone: (604) 617-5448

## Website: www.desertmountainenergy.com