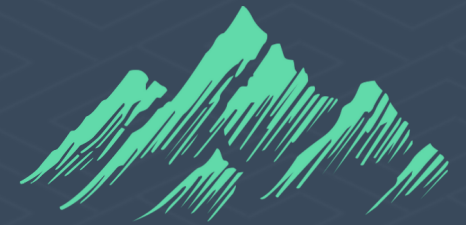


# CRITICAL MATERIALS IN THE USA

## Round Top Rare Earth / Lithium Project, Texas

MANAGEMENT PRESENTATION

January 2020



**USA** | Rare Earth

# Important Information

## Forward Looking Statements, Disclaimer and Terms of Use

This presentation contains certain “forward-looking statements”. All statements, other than statements of historical fact, that address activities, events or developments that USA Rare Earth, LLC (“USA Rare Earth” or the “Company”) believes, expects or anticipates will or may occur in the future are forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as “seek”, “anticipate”, “believe”, “plan”, “estimate”, “target”, “expect”, and “intend” and statements that an event or result “may”, “will”, “can”, “should”, “could”, or “might” occur or be achieved and other similar expressions. These forward-looking statements reflect the current internal projections, expectations or beliefs of USA Rare Earth based on information currently available to USA Rare Earth.

Forward-looking statements are subject to a number of risks and uncertainties, including those detailed from time to time in filings made by USA Rare Earth with securities regulatory authorities, that may cause the actual results of USA Rare Earth to differ materially from those discussed in the forward-looking statements, and even if such actual results are realized or substantially realized, there can be no assurance that they will have the expected consequences to, or effects on USA Rare Earth. USA Rare Earth expressly disclaims any obligation to update or revise any such forward-looking statements.

## Cautionary Note to U.S. Investors Concerning Mineral Resources

This presentation uses certain terms such as “measured,” “indicated,” or “inferred” mineral resources, which are defined in Canadian Institute of Metallurgy guidelines, the guidelines widely followed to comply with Canadian National Instrument 43-101-- Standards of Disclosure for Mineral Projects (“NI 43-101”).

We advise U.S. investors that these terms are not recognized by the United States Securities and Exchange Commission (the “SEC”). The estimation of measured and indicated resources involves greater uncertainty as to their existence and economic feasibility than the estimation of proven and probable reserves under the SEC’s disclosure rules. Under U.S. standards, mineralization may not be classified as a “reserve” unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. Mineral resources that are not mineral reserves do not have demonstrated economic viability. U.S. investors are cautioned not to assume that measured or indicated mineral resources will be converted into reserves. Inferred mineral resources have a high degree of uncertainty as to their existence and their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource exists, or is economically or legally viable. Under Canadian rules, estimates of “inferred mineral resources” may not form the basis of feasibility studies, pre-feasibility studies or other economic studies, except in prescribed cases, such as in a preliminary economic assessment under certain circumstances. Disclosure of “contained metal” in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute “reserves” by SEC standards as in place tonnage and grade without reference to contained units.



# Overview

## USA Rare Earth

### Earning 80% Interest in the Round Top Rare Earth/Lithium Project

- Privately-held Delaware LLC
- Formed to develop Round Top Project, West Texas
- \$25 million invested by Texas Minerals Resources Corp. (TMRC) – 20% junior partner
- Focused on two stage development:
  - Stage I: Pilot plant, feasibility study, permitting – \$30 million, 18-24 months
  - Stage II: Construction – \$367 million, including working capital, 12 months

## Round Top

### Will be significant, low cost, long life Critical Minerals project

- Located on state land with extensive infrastructure support
- Diversified resource base, including unique endowment of heavy rare earths
- Conventional mine – open cut hillside mine, minimal waste rock, downhill haul
- Established processing – acid leach extraction, continuous ion exchange separation
- 20-year mine plan based on ~13% of known resources
- Round Top could stimulate advanced technology manufacturing in the US



# Overview continued

## Rare Earth Independence

### Foundation of U.S. Defense and Technological Infrastructure <sup>1</sup>

- China currently dominates the global rare earth market
- ~50% of all U.S. imports (\$1.4 trillion a year) contain rare earths
- Round Top contains all the rare earths needed for REO magnets
- Round Top could supply virtually all the REO magnet needs for U.S. DOD contractors
- USA Rare Earth has 15 of the 17 rare earths – including 10 of 11 heavy rare earths
- USA Rare Earth to establish heavy rare earth separation facility in Denver in early 2020

## Robust Base Case Economics<sup>3</sup>

NPV<sub>10</sub> = \$1.56 billion, IRR = 70%

- Annual revenue – \$396 million, net of 6.25% Texas royalty
- Annual EBITDA – \$282 million (71% EBITDA margin)
- Payback – under 18 months
- Upside case economics includes:
  - lithium recovery
  - expansion
  - additional markets

1 Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States: September 2018.

2 Defined in FY2019 National Defense Authorization Act

3 Preliminary Economic Assessment, July 2019 prepared by Gustavson Associates States: September 2019.



ROUND TOP

# Aerial View of Round Top Looking Southeast



# Project Location



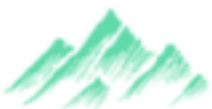
Round Top  
Texas, U.S.A

## KEY FACTS

<b>Location</b>	<ul style="list-style-type: none"><li>○ 85 miles east of El Paso, TX</li><li>○ Low population density and little vegetation</li><li>○ Private and Texas GLO land</li></ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"><li>○ Rail, road, power, water</li></ul>
<b>Round Top</b>	<ul style="list-style-type: none"><li>○ Approximately 1,250 feet high and 1 mile in diameter</li><li>○ 364 million tonnes measured &amp; indicated resources</li><li>○ Rhyolite cap is almost continuously mineralized.</li><li>○ Amenable to heap leach extraction</li><li>○ State of Texas permitting</li></ul>



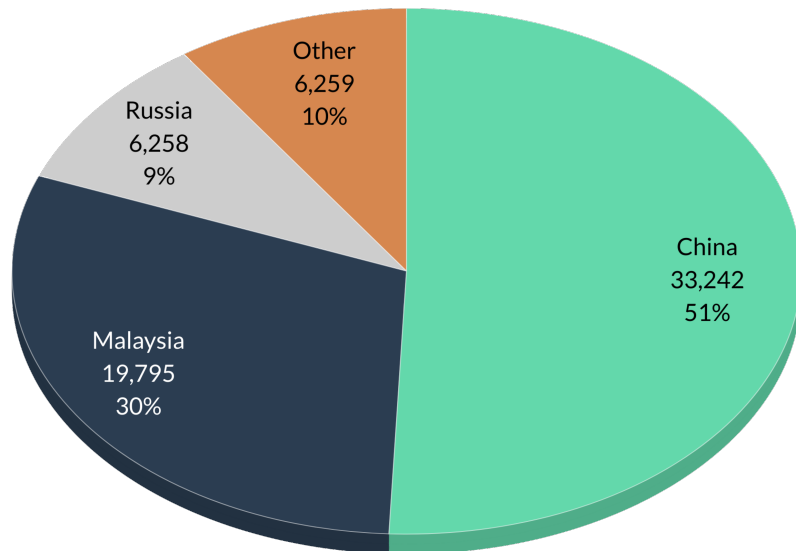
Source: Company photo of technicians collecting samples on Round Top north side.



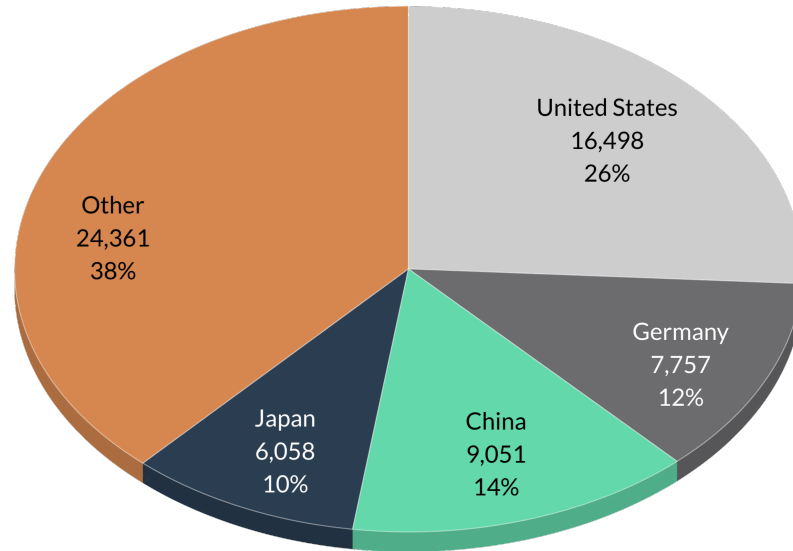
# 100% Domiciled in the U.S.A.

- ✓ U.S. is the largest importer of rare earths and is 100% dependent on China and other countries for many Critical Minerals
- ✓ China controls 90% of Rare Earth production
- ✓ Dysprosium is essential for magnets for high performance electric motors in electric vehicles and military applications
- ✓ Round Top is uniquely rich in dysprosium – 46% of rare earth value

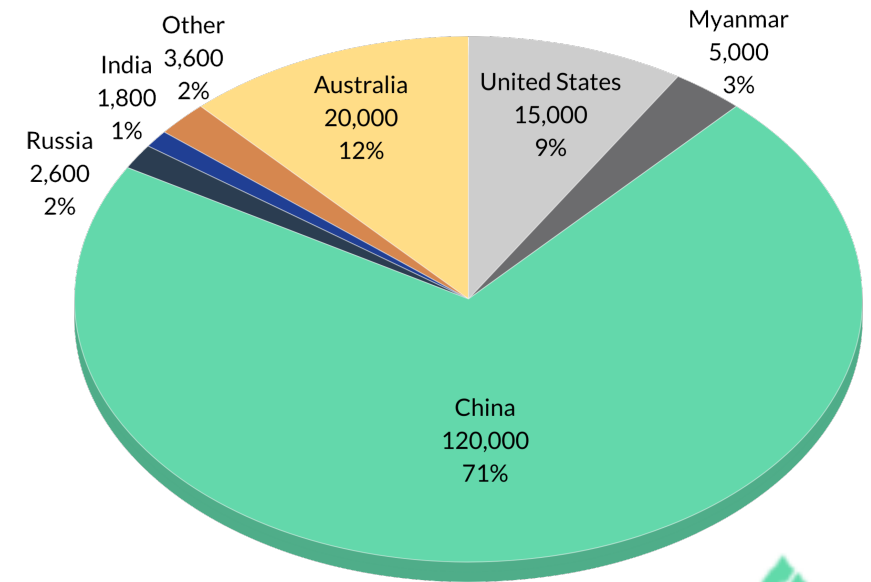
Rare Earth Exports (Tonnes)  
2018-2019



Rare Earth Imports (Tonnes)  
2018-2019



Rare Earth Production (Tonnes)  
2018-2019



# Domestic Production Matters

- ✓ Round Top offers a rare opportunity to establish new, integrated domestic industry – from defense to 5G
- ✓ America's resource endowment has always been a critical part of its economic strength
- ✓ USA Rare Earth's new processing facility in Denver, CO will be the first to produce high-purity rare earths in the U.S.
- ✓ Even friendly foreign supply cannot be relied on as a secure, long-term viable solution

- **Round Top's unique diversity of minerals provides stability and resilience**
  - Disruptive market activity in one mineral will not stop Round Top given the diversification of contained minerals
  - In addition to rare earths, Round Top will be the 2<sup>nd</sup> largest lithium producer in the U.S.

- **Australia and Canada have no downstream processing capability**
  - Australia is currently dependent on China and Malaysia to process rare earths
  - Australian companies are interested in utilizing USA Rare Earth's new facility in Denver, CO

- **Foreign governments have allowed significant direct and indirect Chinese investment and off-takes**
  - Most rare earth projects are owned by publicly traded companies – it is difficult to restrict Chinese investment
  - Foreign rare earth companies enter into off-take agreements based on commercial terms, not US strategic interests

- **Future foreign governments may become less friendly**
  - The current strong relationship between Washington DC and Canberra may not continue – previous Governments have levied onerous mining taxes that have disrupted the mining industry – not a secure solution

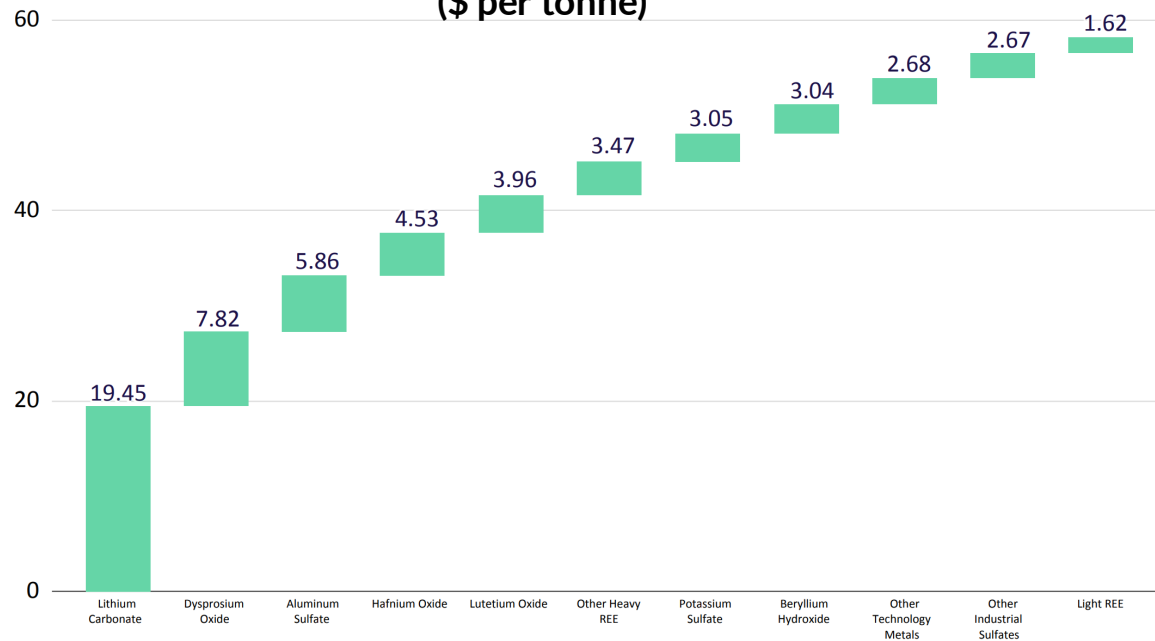




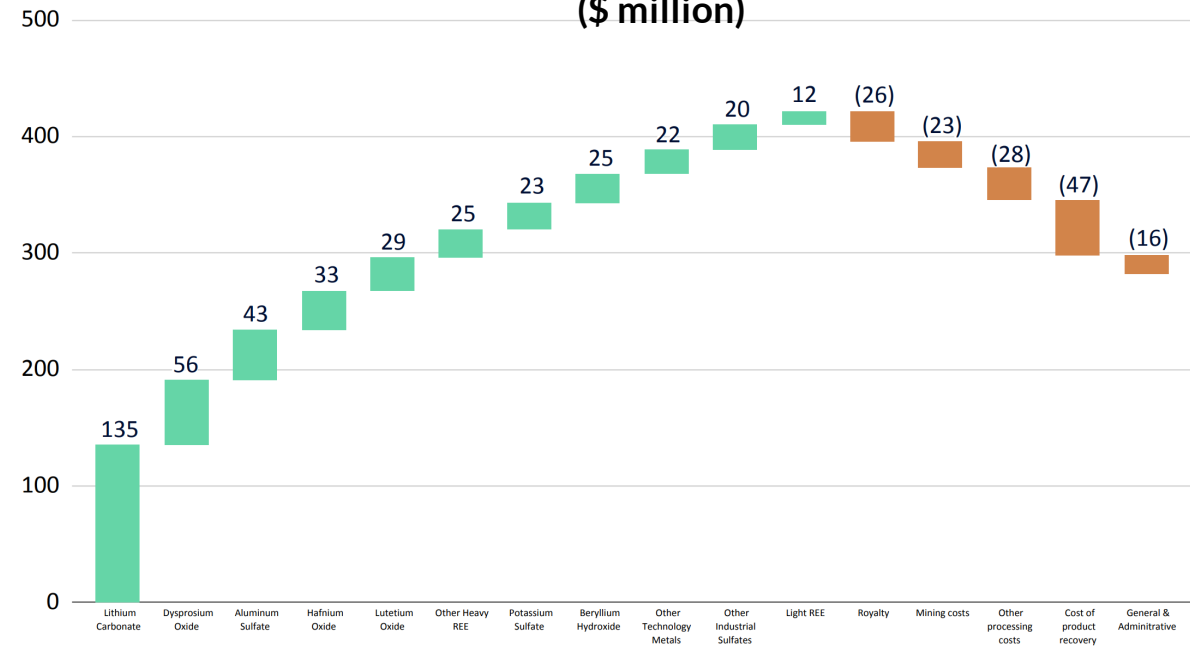
# Robust Economics, Highly Diversified

- ✓ **\$21.2 billion** – recoverable value of 364 million tonnes of measured & indicated resources (\$58.13 per tonne)
- ✓ **\$8.4 billion** – recoverable value of 146 million tonnes initial mine plan (\$57.81 per tonne)
- ✓ **\$422 million** – annual average gross revenue (before 6.25% Texas state royalty)
- ✓ **\$282 million** – annual average EBITDA (\$38.60 per tonne)

Recoverable Value of Measured & Indicated Resources (\$ per tonne)



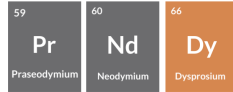
Contribution to Average EBITDA (\$ million)



# Rare Earths are Essential in Advanced Technologies



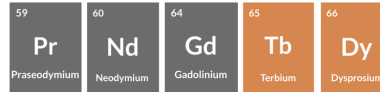
WIND TURBINES



MV: \$44.75bn  
8.34% CAGR (year)  
REE Quantity: 132kg per MW



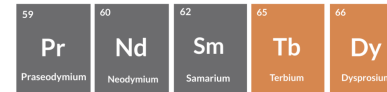
MAGNETS



MV: \$19.25bn  
8.5% CAGR  
REE Quantity: 0.6kg to power 100kW motor



ELECTRIC VEHICLES



MV: \$119m  
22.3% CAGR  
REE Quantity: 15kg



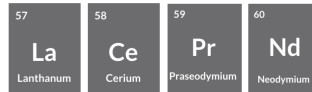
MILITARY & DEFENSE



MV: \$872bn  
1.7% CAGR  
REE Quantity: 417kg - 4.1t

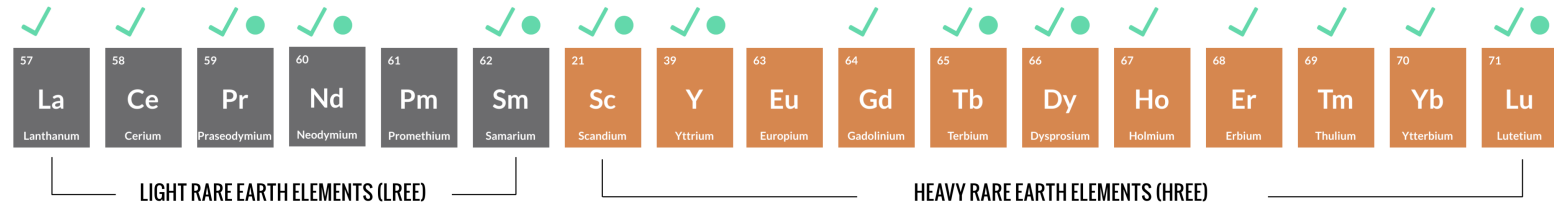


SMARTPHONES



MV: \$478.7bn  
7.9% CAGR  
REE Quantity: 0.25g

## CLASSIFICATION

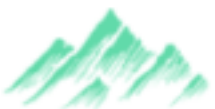


✓ CONTAINED AT ROUND TOP      ● INCLUDED IN ROUND TOP'S ECONOMIC VALUATION

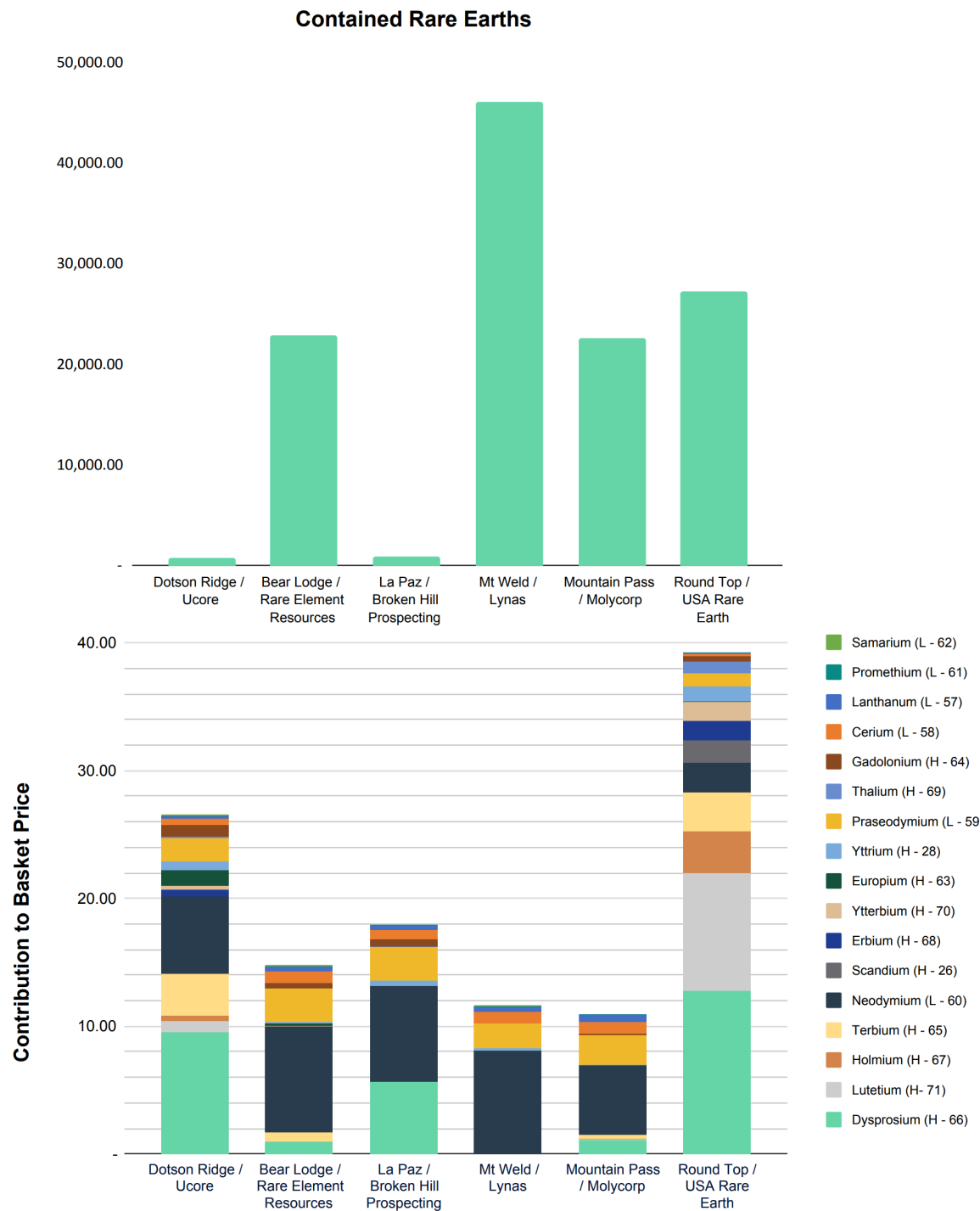
Heavy rare earths represent 84% of Round Top's measured and indicated rare earth resource by weight, included in the economic evaluation, and over 90% by value.

### Round Top Contains:

- ✓ 5 out of 6 light rare earths
- ✓ 10 out of 11 heavy rare earths
- ✓ All 5 permanent magnet materials



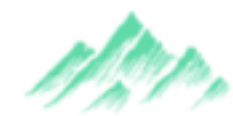
# Large Resource, Highest Basket Price, Weighted to Magnet Metals



Light rare earths are approximately 18 times more abundant than heavy rare earths.<sup>1</sup> Yttrium makes up more than 60%<sup>2</sup> of heavy rare earths.



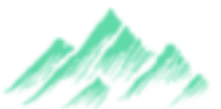
Heavy rare earths are generally higher priced than light rare earths (~\$100s v ~\$10s per kg).



<sup>1</sup>Global Potential of Rare Earth Resources and Rare Earth Demand from Clean Technologies, University of Science and Technology Beijing, October 2017

# Continued Growth for Rare Earth Consumption

Positive Outlook for Rare Earth Consumption							
Application	Main REE	Demand ('000 tonnes)				CAGR (%)	
		2017	2018	2022	2025	2018-22	2022-25
Magnets	Nd, Pr, Dy	38	43	52	61	4%	5%
Catalysts	La, Ce	30	31	37	45	5%	7%
Metallurgy	La, Ce	10	10	11	13	2%	6%
Glass	La, Ce, Er	10	11	12	13	2%	3%
Ceramics	Y, Ce, Nd	8	9	10	12	3%	6%
Phosphors	Y, Pr, Ce, La	3	3	3	3	0%	0%
Other	Ce, La, Nd, Y	59	60	60	59	0%	-1%
<b>Total</b>		<b>158</b>	<b>167</b>	<b>185</b>	<b>206</b>	<b>3%</b>	<b>4%</b>



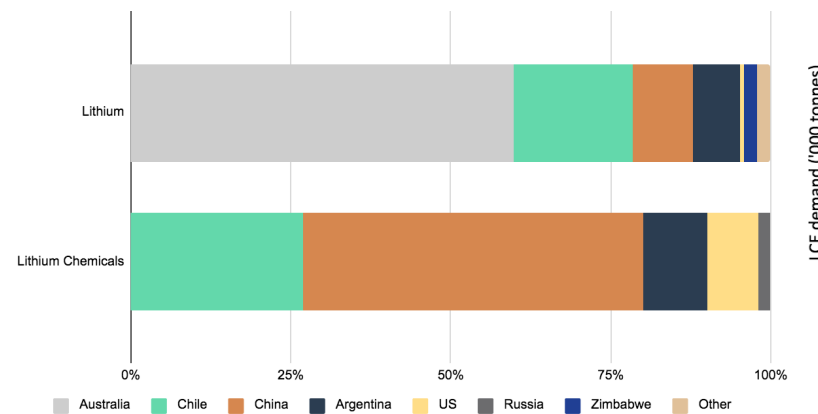
# Lithium - Driven by Electric Vehicles, Dominated by China

- ✓ China has secured a controlling position in lithium production in Chile, Australia and Argentina
- ✓ China dominates supply of both lithium materials and lithium chemicals
- ✓ Demand being driven by rechargeable batteries, in turn being driven by electric vehicles (EV's)
- ✓ Rate of demand growth softened in mid 2019 as subsidies declined in China, the U.S. and elsewhere
- ✓ However, the underlying momentum for EV growth remains very strong and therefore it is paramount that the US secures a local source

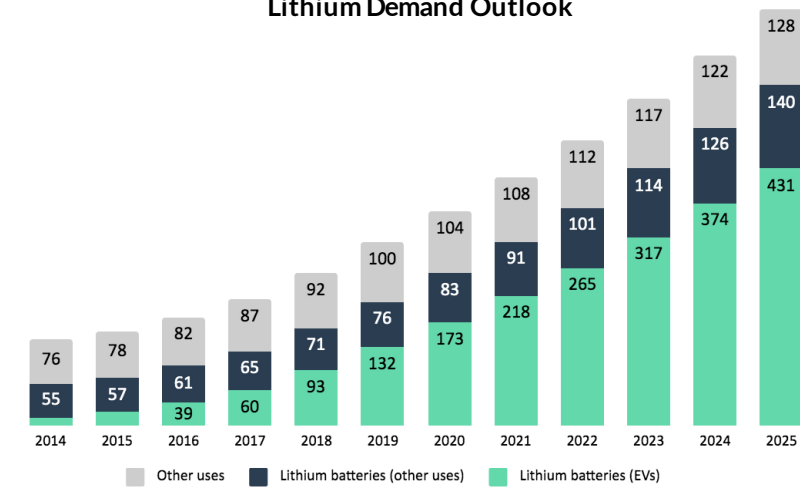
Overseas Assets of Chinese Lithium Companies (Showing % Stakes, Where Not Wholly Owned)



US Falls Short in Terms of Lithium and Lithium Chemical Production Compared to Other Regions

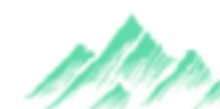


Lithium Demand Outlook



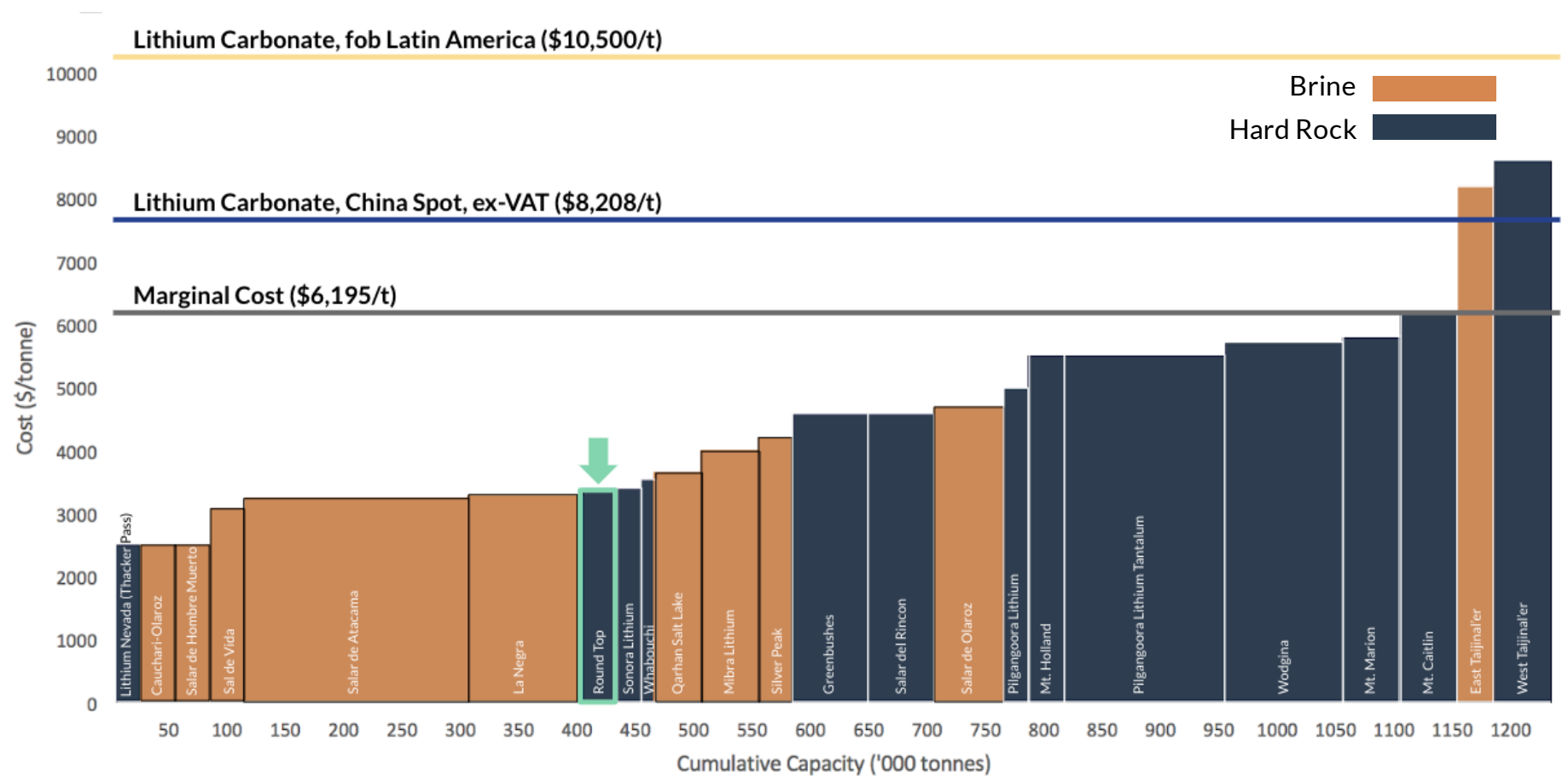
- 1 Planned Bacanora Minerals, Lithium Mine (30%)
- 2 Salar de Atacama, SQM (24%)
- 3 Planned Cauchari-Olaroz Lithium Brine Project (50%)
- 4 Mariana Lithium Brine Project (83%)
- 5 Avantonía Lithium Project (55%)
- 6 Pilbara Minerals/Pilganoora Lithium/Tantalum Project (9%)
- 7 Planned Kwinana Lithium Hydroxide Plant
- 8 Greenbushes Lithium Mine (51%)
- 9 Mt Marion Lithium Project (50%)

- Ganfeng Lithium
- Tianqi Lithium

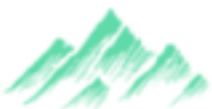


# Low Cost, Domestic U.S. Lithium Production Increasing Current U.S. Output 3x

Lithium Carbonate Industry Cost Curve Including Royalties



- Lithium is the most important single product for Round Top, representing 32% of revenues projected in the PEA
- The PEA projects annual production of approximately 10,000 tonnes of lithium carbonate (current US production = 5,000 tpa)
  - Continuing test work indicates higher lithium recovery – potential for 13,500 tonnes of lithium a year operating at 20,000 tpd
  - Expansion to 25,000 tpd could increase production to more than 15,000 tonnes per annum
- Average co-product<sup>1</sup> production cost of \$3,410/t
  - Higher recovery / operating rate could lower cash costs to less than \$3,000/t
- Projected to be one of the **lowest cost producers** in the world and the 2nd lowest cost producer in the USA



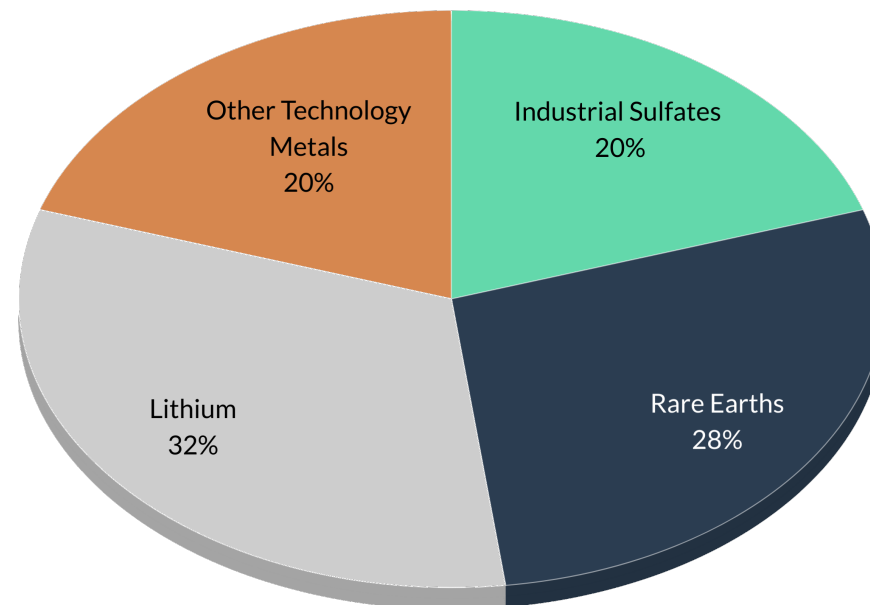
# Other Key Minerals

- ✓ Rare earths and lithium = 61% of projected revenues
- ✓ Other technology metals (including beryllium and uranium) and industrial sulfates = 39% of projected revenues
- ✓ Significant upside from potential to increase recoveries

## Beryllium

- Cyprus Minerals completed a feasibility study in 1980's:
  - Underground: 300,000 tons grading 1.9% beryllium (Not factored into PEA economics)
  - Potential for more than 5 million kg of beryllium hydroxide
  - Beryllium production contained in PEA in the rhyolite - 2.2 million kg beryllium hydroxide
  - Mid-2019 beryllium price was \$220/kg

Contribution to Revenues



## Uranium

- In 2018, domestic U.S. production was approximately 1.5 million pounds of uranium oxide
- Round Top Base Case PEA projects production of 150,000 to 200,000 pounds of uranium oxide a year - approximately 10% of current domestic production
- Expanded processing rate and improved recover could double production



# U.S. Government Support for Round Top Rare Earths



White House, September 2018

*“Rare earths are critical elements used across many of the major weapons systems the U.S. relies on for national security, including lasers, radar, sonar, night vision systems, missile guidance, jet engines, and even alloys for armored vehicles. A 2016 study by the Department of Commerce’s Bureau of Industry and Security reported that 66% of respondents, the majority of whom are vendors to DoD, indicated they imported rare earth or related materials.*

*“China has strategically flooded the global market with rare earths at subsidized prices, driven out competitors, and deterred new market entrants. When China needs to flex its soft power muscles by embargoing rare earths, it does not hesitate, as Japan learned in a 2010 maritime dispute.”*



Defense Logistics Agency  
Contract Branch of  
Department of Defense  
Produced rare earth oxides to  
99.999% purity at bench scale  
from Round Top.



Department of Energy  
Contract  
Team including Penn State  
University and Inventure  
Renewables awarded contract  
to extract rare earths  
Produced highly purified rare  
earth oxides from Round Top

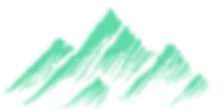
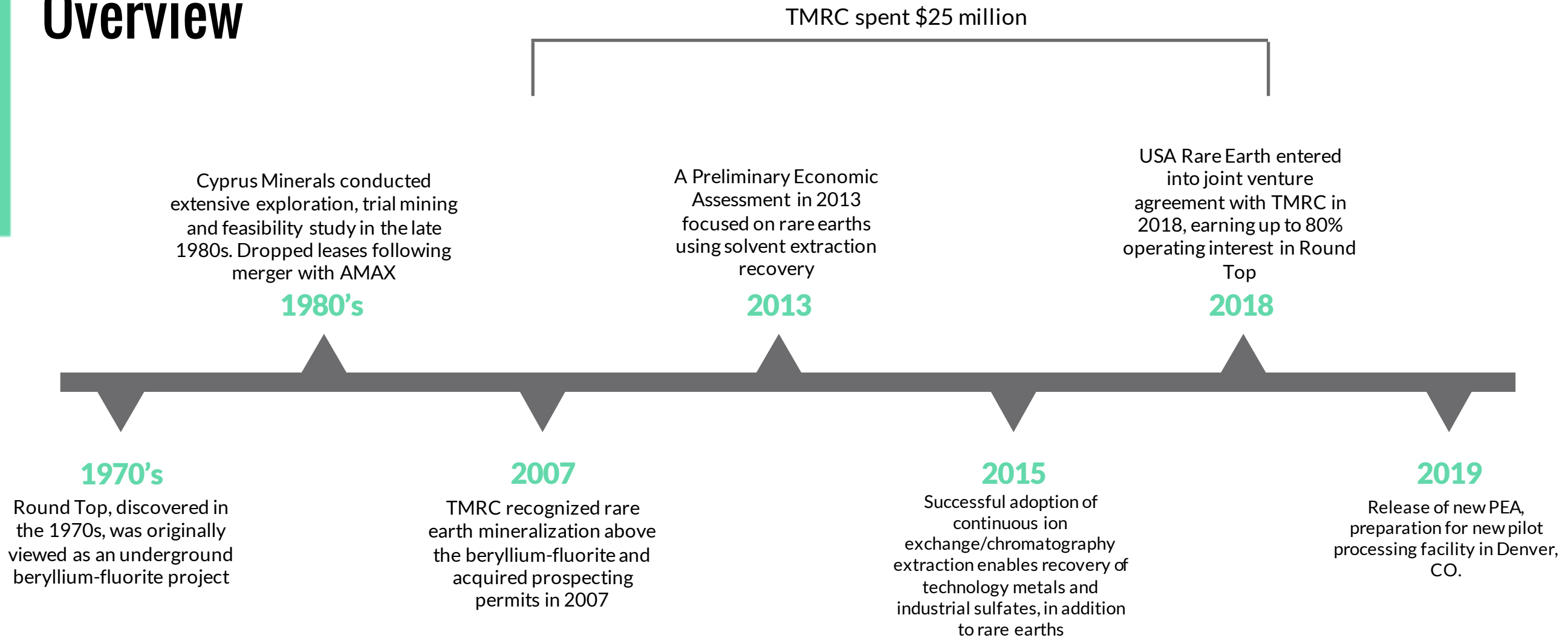


White House Council on  
Environmental Quality  
Governor of Texas  
recommended Round Top to  
the Federal Permitting  
Improvement Steering Council  
(FPISC) as a “High Priority  
Infrastructure Project”





# Historical Overview



# Management



**Pini Althaus** *Chief Executive Officer*

As an Executive Officer in the Mining & Resource sector since 2002, Pini has successfully identified and acquired several significant mining projects in the United States, Canada, Australia, China and Latin America. His responsibilities have included executive duties, as well as operational ones. Including; fund-raising, liaising with Government officials, shareholder and investor, the implementation and upkeep of Social Economics Programs with the Indigenous groups in surrounding areas and compliance with securities regulations.



**Dan Gorski** *Director of Operations*

Dan was responsible for securing the Round Top deposit from the Texas General Land Office, and has conducted work on the project since 2007, spending ~\$20m to drill it out and secure the publication of the 2013 PEA. He received an MA in Geology from the University of Texas, Austin, in 1970, and his storied career in the Mining Industry dates back to that time.



**Dan McGroarty** *Head of Government & Regulatory Affairs*

An expert on critical minerals and well-known writer on geopolitics and resources. Dan has consulted to the Institute for Defense Analyses, which supports the Department of Defense's National Stockpile reporting and heads the non-partisan American Resources Policy Network. Prior to establishing his private sector advisory practice, Dan served as Special Assistant to the President and as presidential appointee to two Secretaries of Defense. He was one of three resource professionals interviewed in 60 Minutes' "Modern Life's Devices Under China's Grip," and has provided testimony on critical minerals issues in the U.S. Senate and House of Representatives.



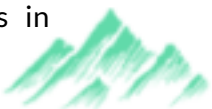
**Douglas Newby** *Chief Financial Officer*

Douglas has more than 35 years experience in mine evaluation, finance and corporate management. Most recently he was CFO of PolyMet Mining Corp., a Canadian company developing a large copper-nickel project in Minnesota, where he secured more than \$300 million in financing, established and maintained a strategic relationship with Glencore plc. He was responsible for maintaining compliance with securities regulations. He has extensive experience around the world including South America, Africa, Australasia, and Europe as well as the U.S. and Canada.



**Mike Vaisey** *Chief Technology Advisor*

Mike is an experienced mining and chemical industry executive and Chemical Engineer, with 30 years operating and project development experience across mining and refining operations, project development, operational leadership, research and technology. He has occupied numerous positions with Lynas Corporation, including Chief Technology Officer, leading the technical development of the Mt Weld Rare Earths Project that reached full production rates in March 2017.



# Pilot Plant Objectives & Scope

- ✓ First domestic U.S. plant to produce high-purity rare earth oxides
- ✓ First phase in Denver, CO in early 2020
- ✓ Second phase relocated to Round Top site incorporating continuous feed from test heap leach
- ✓ Will provide product samples to potential customers

## Background

- Heap leach using dilute sulfuric acid,
- Continuous ion exchange/ ion chromatography
  - Natural process occurs in soil fertilization,
  - Batch processing developed in the Manhattan Project in the 1940s using rare earths as surrogates,
  - Continuous process developed in 1980, widely used in water purification, fertilizers, and metallurgical processes.

## Pilot Plant Objectives

- Optimize leach operating parameters,
- Optimize extraction and separation of high-purity rare earths, technology metals and industrial sulfates,
- Provide data for feasibility studies and detailed engineering,
- Provides support for final permits.



# Processing Partners

- ✓ USA Rare Earth is working closely with process technology partners
- ✓ Inventure Renewables – successfully recovered high-purity REOs from Round Top
- ✓ Fenix NZ Ltd. – successful application of CIX/CIC in commercial metallurgical applications
- ✓ Resource Development Inc. – leading international metallurgical firm

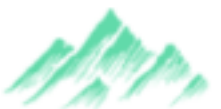
**Inventure** develops rapid, low-cost, high yield extraction processes for natural biochemical & material building blocks from low-value/waste biomass to provide cost-effective, carbon neutral biofuels, biochemicals and biomaterials.

**Fenix** is a leading results-oriented chemical engineering company, specializing in minerals processing and metal recovery by implementing the design, development, construction and installation of hydrometallurgical circuits.



# Key Statistics

Mineral	End Product	Symbol	Recovery	Units	Measured + Indicated Resource	Global Resource	Measured + Indicated Recoverable Value	Mine Plan Recoverable Value
<b>Tonnage</b>				000 t	364,000	1,099,000	364,000	146,000
<b>Technology Metals</b>								
Beryllium	Beryllium Hydroxide	Be	9%	ppm	32.2	22.8	3.04	3.41
Gallium	Gallium Oxide	Ga	6%	ppm	65.8	33.1	0.86	0.96
Hafnium	Hafnium Oxide	Hf	6%	ppm	79.4	78.0	4.53	4.54
Lithium	Lithium Carbonate	Li	58%	ppm	458.3	449.5	19.45	18.52
Uranium	Uranium Oxide	U	29%	ppm	31.8	16.1	0.61	0.59
Zirconium	Zirconium Oxide	Zr	5%	ppm	1,104	1,068	1.22	1.23
<b>Total Technology Metals</b>							<b>29.69</b>	<b>29.25</b>
<b>Heavy Rare Earths</b>								
Dysprosium	Dysprosium Oxide	Dy	83%	ppm	30.3	29.8	7.82	7.62
Lutetium	Lutetium Oxide	Lu	64%	ppm	8.79	8.59	3.96	3.94
Scandium	Scandium Oxide	Sc	65%	ppm	0.68	0.70	0.70	0.69
Terbium	Terbium Oxide	Tb	83%	ppm	3.46	3.35	1.90	1.85
Yttrium	Yttrium Oxide	Y	88%	ppm	214.0	201.8	0.86	0.85
<b>Total Heavy Rare Earths</b>					<b>257.2</b>	<b>244.3</b>	<b>15.24</b>	<b>14.95</b>
<b>Light Rare Earths</b>								
Neodymium	Neodymium Oxide	Nd	77%	ppm	27.9	27.7	1.10	1.09
Praseodymium	Praseodymium Oxide	Pr	77%	ppm	10.3	10.1	0.50	0.50
Samarium	Samarium Oxide	Sm	79%	ppm	10.1	9.9	0.02	0.02
<b>Total Light Rare Earths</b>					<b>48.2</b>	<b>47.6</b>	<b>1.62</b>	<b>1.60</b>
<b>Industrial Sulfates</b>								
Aluminum	Aluminum Sulfate	Al	7%	%	6.56	6.53	5.86	5.93
Iron	Ferrous Sulfate	Fe	35%	%	1.04	0.89	0.99	1.03
Magnesium	Magnesium Sulfate	Mg	88%	%	0.03	0.02	0.17	0.23
Manganese	Manganese Sulfate	Mn	48%	ppm	471.3	235.6	0.73	0.84
Potassium	Potassium Sulfate	K	7%	%	3.30	3.24	3.05	3.09
Sodium	Sodium Sulfate	Na	3%	%	3.77	1.88	0.77	0.87
<b>Total Industrial Sulfates</b>							<b>11.57</b>	<b>12.00</b>
<b>TOTAL</b>							<b>58.13</b>	<b>57.81</b>

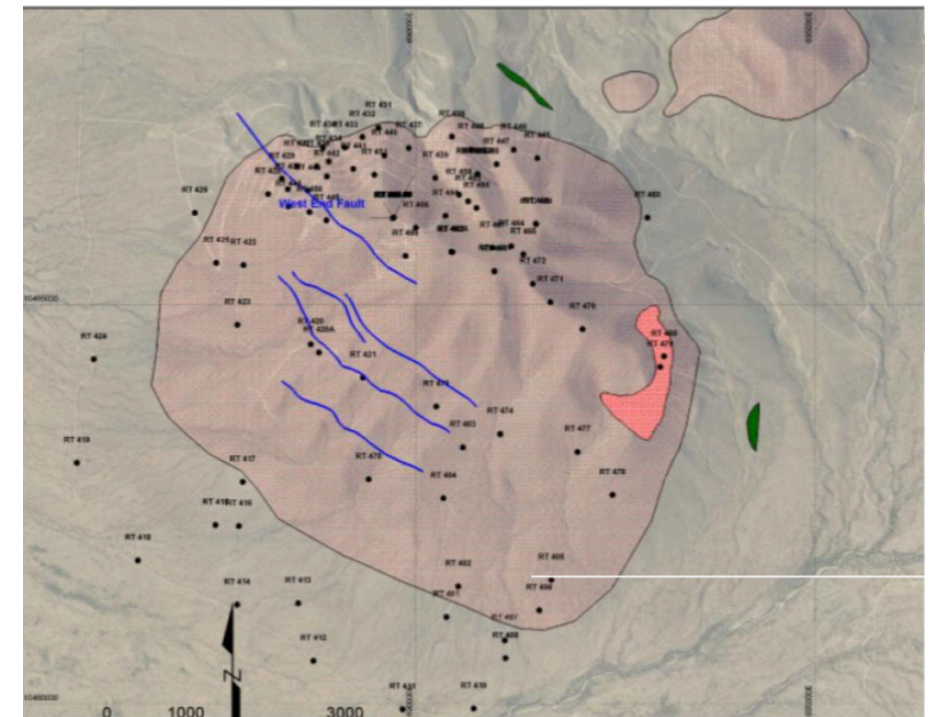


# Mining & Processing

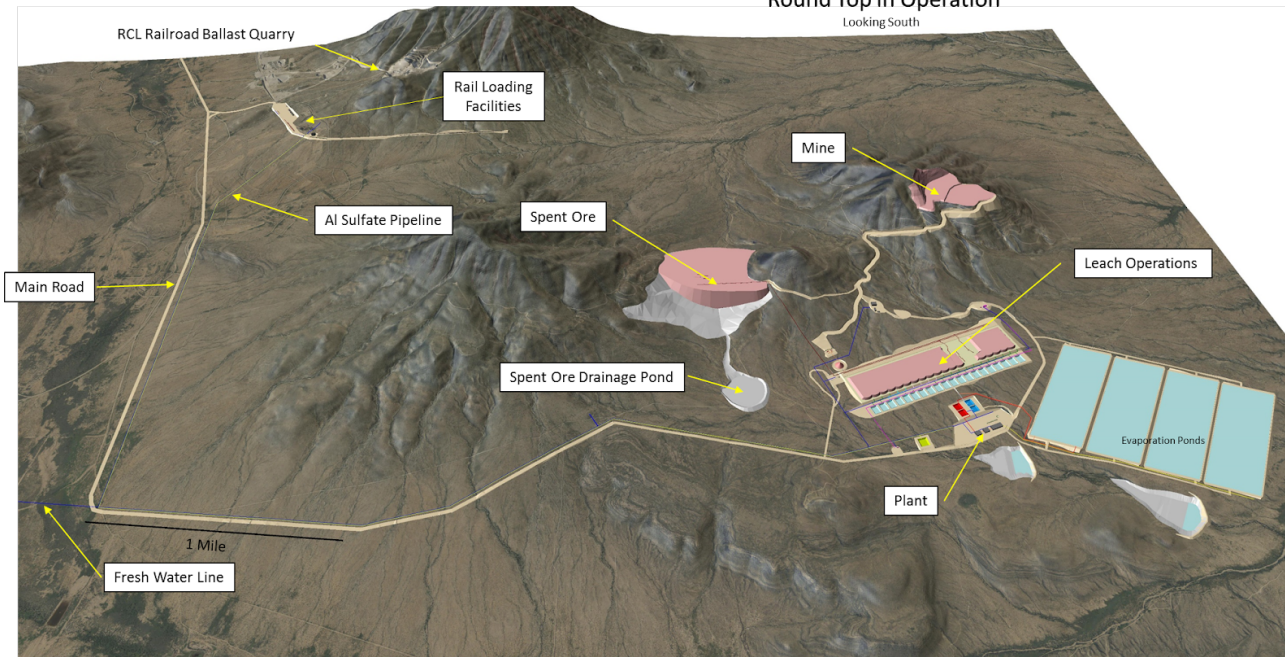


## Simple Mining

- Hillside open cut with minimal waste and downhill haul
- Moderate mining rate – 20,000 tonnes per day

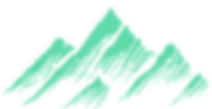


Round Top in Operation  
Looking South

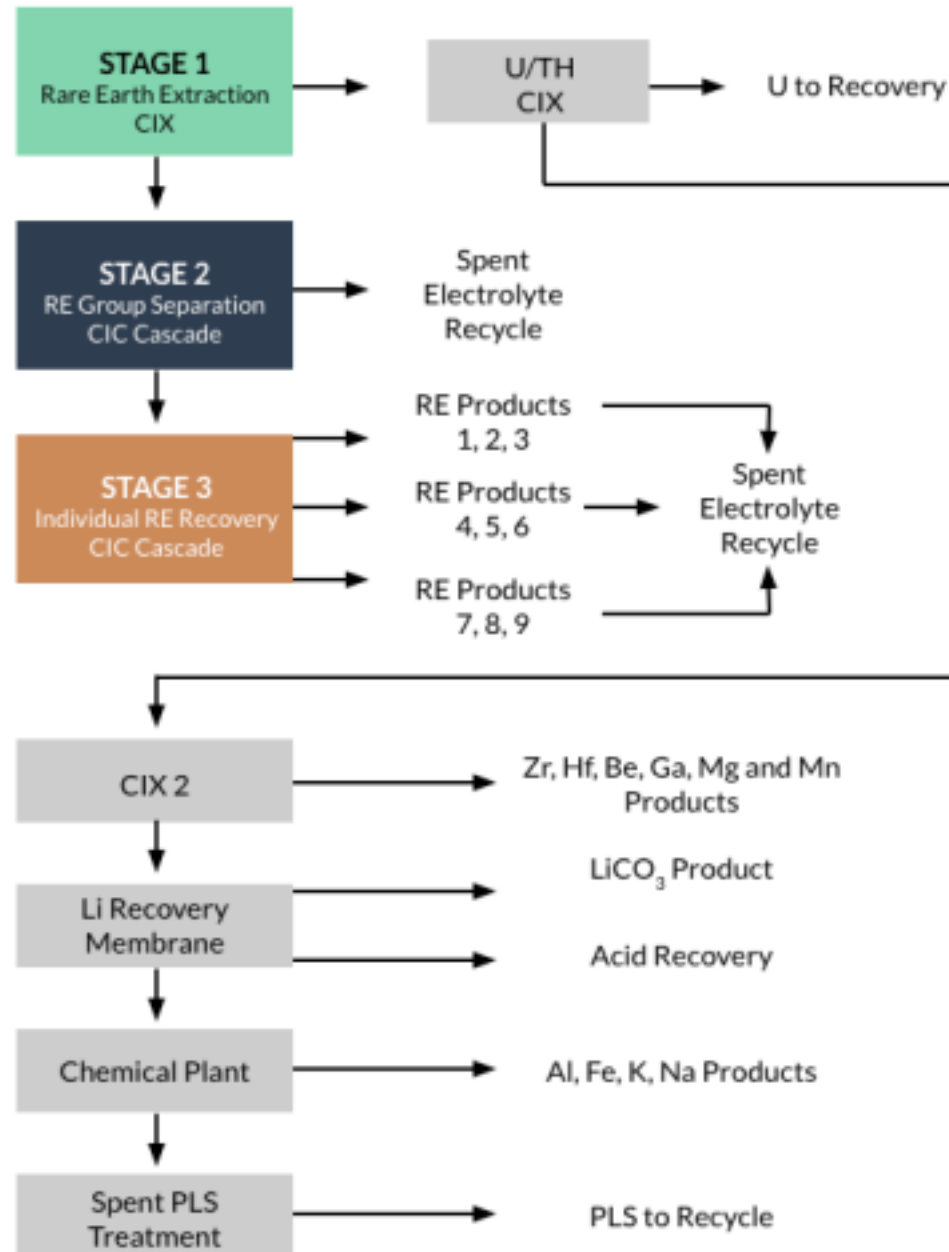


## Conventional Processing

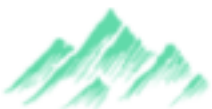
- Crushing
- Acid leach
- Continuous ion exchange/chromatography separation



# Leaching & Metallurgical Process



- Rare Earth and Lithium minerals dissolved by dilute sulfuric acid
  - Round Top mineralization is hosted in yttrifluorite and yttrocerite, both of which are highly soluble in dilute sulfuric acid. The minerals are finely disseminated throughout the porous and permeable rhyolite.
  - Round Top rhyolite does not breakdown because there is no clay.
  - Leach columns slumped by less than 0.2% during testing and crushing produces little fine material so there should be minimal plugging and channeling.
- Continuous Ion Exchange/Chromatography
  - Long, well-established track record.
  - Flexibility in targeting specific Rare Earths.
  - Uses commercially available resins.
  - Low capital and operating cost.
  - Permitting process could be streamlined.



# 2019 Preliminary Economic Assessment

## The 2019 PEA expands and updates the December 2013 report:

- Both prepared by Gustavson Associates, a leading mining engineering, exploration and consulting firm
- 2019 report incorporates commercial recovery of lithium, other technology metals and industrial sulfates in addition to rare earths
- 2019 report proposes continuous ion exchange (CIX) and continuous ion chromatography (CIC) to separate rare earths

## Incorporates improved process technology that recovers technology metals and industrial sulfates as well as rare earths:

- Initial 20-year mine life at 20,000 tonnes per day – 13% of total measured, indicated and inferred resource
- Mineral processing at site using CIX/CIC to produce high purity rare earth oxides
- 2,300 tonnes per annum of combined rare earth oxides with an average price of \$52.25/kg
- 10,000 tonnes per annum lithium carbonate – upgradable to lithium hydroxide

## Upside Potential beyond PEA:

- Test work has achieved significantly higher lithium recovery (80% v 58% in the PEA)
- Plant may be able to support processing 25,000 tonnes per day (20,000 tpd in the PEA)
- 364 million tonnes measured & indicated resources could support expansion (20 years at 50,000 tpd)
- There may be markets for other Round Top rare earths that were not included from the PEA.
- The deposit sits above 300,000 tonnes of contained beryllium that Cyprus was focused on





# Round Top Base Case Economics

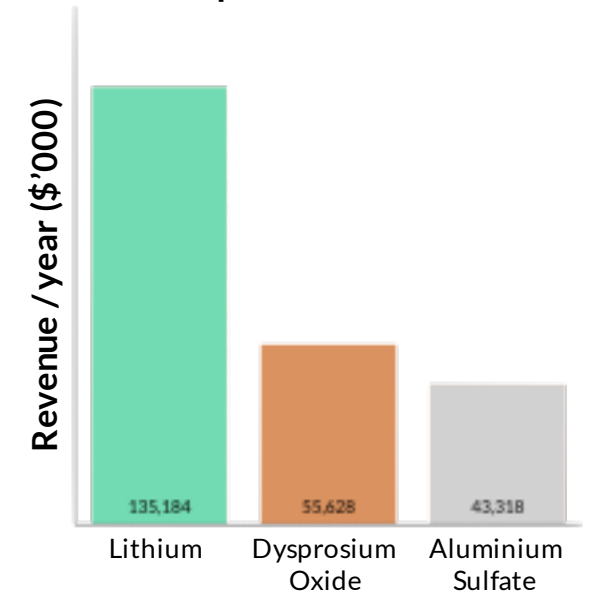
## Key Statistics

Average gross revenue	\$ millions / year	422.0
Average EBITDA	\$ millions / year	281.7
EBITDA margin	%	66.8%
Average free cash flow (after tax).	\$ millions / year	217.9
Payback	months	18
Maximum funding requirement	\$ millions	385.8
Before Tax IRR <sup>1</sup>	%	62.9%
NPV @ 10.0% <sup>1</sup>	\$ millions	1,837.1
After Tax IRR	%	57.3%
NPV @ 10.0%	\$ millions	1,487.9

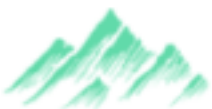
## Production

Life of mine	years	20
Average processing rate	tonnes / day	20,000

**Top 3 Revenue Products**

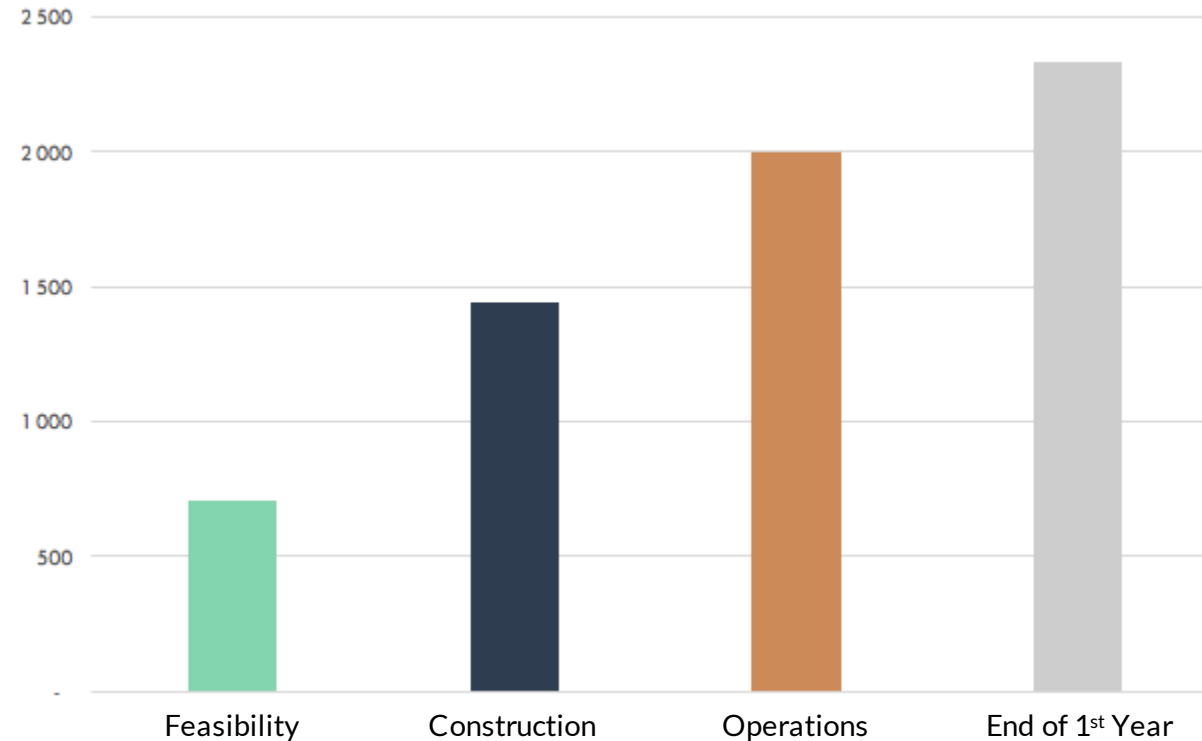


1 IRR and NPV include 90-day processing/marketing not included in PEA

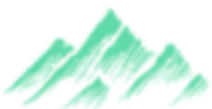


# Projected Enterprise Value

Enterprise Value  
(\$ millions - start of each phase)



- Enterprise Value is estimated as the forward-looking Net Present Value of free cash flow (after tax) using:
  - 15% discount rate pre-feasibility
  - 10% discount rate during construction and before the start of commercial operations
  - 7.5% discount rate after a year of commercial operations
- Depending on the structure of construction finance, there could be up to \$350 million in debt at the start of operations
- Considerable upside
  - Initial processing rate of 22,500 tpd expanding to 45,000 tpd in year 5 combined with 70% lithium recovery would more than double the projected Enterprise Values

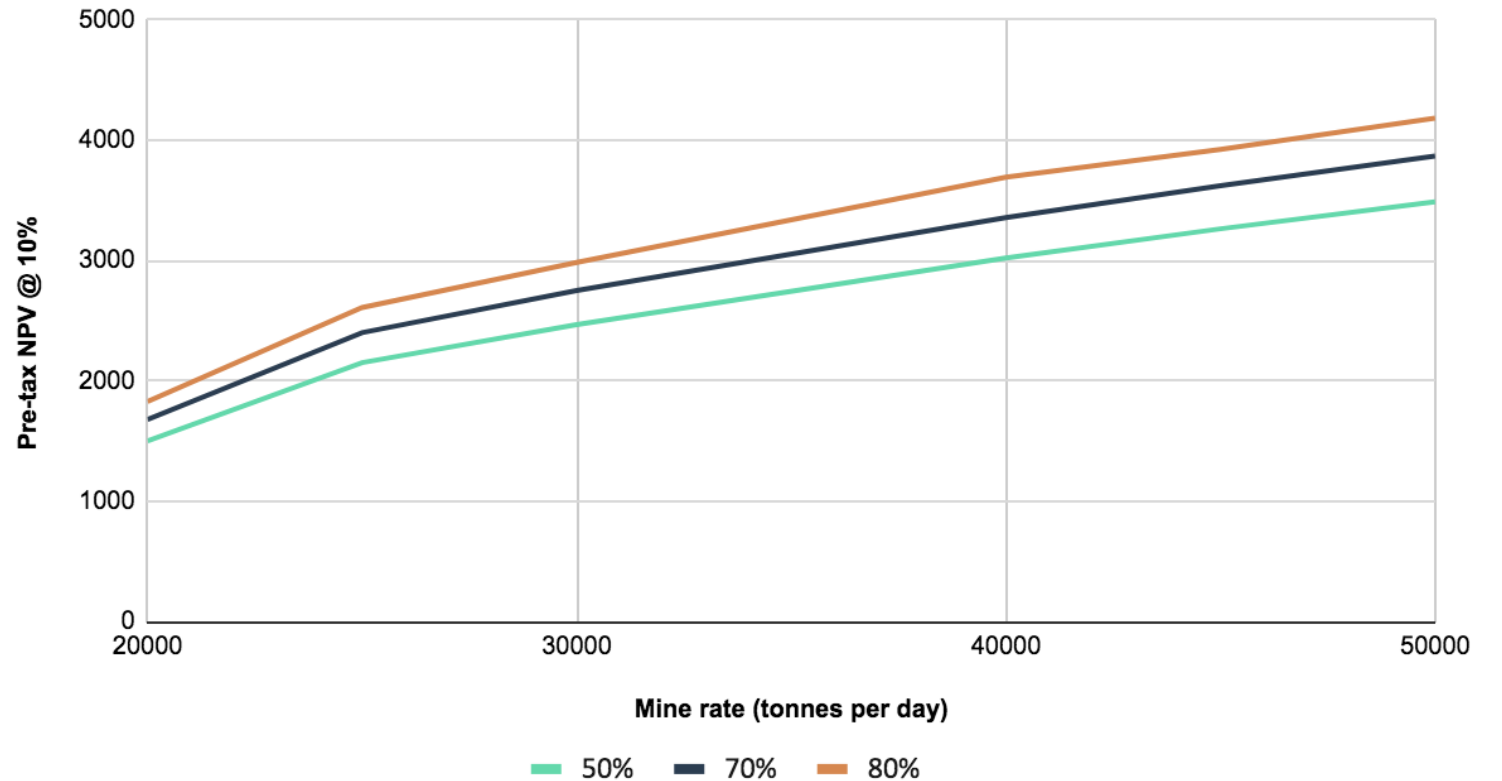


# Upside Potential from Increased Lithium Recovery

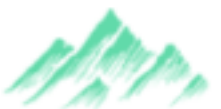
Sensitivity of NPV to Changes in Lithium Recovery

(\$m)	Mine Rate (tpd)	20,000	25,000	30,000	40,000	45,000	50,000
Recovery	58%	1,501	2,152	2,469	3,023	3,265	3,489
	70%	1,679	2,402	2,751	3,359	3,624	3,869
	80%	1,828	2,610	2,986	3,693	3,924	4,186

Sensitivity of NPV Changes in Lithium Recovery



Increasing the production rate from 20,000 tpd to 25,000 tpd, increases the pre-tax NPV rate by 43%, leaving the recovery rate unchanged.



# Path to Implementation (36 months)

## Definitive Feasibility Study

- Geotech & Hydrological Drilling
- Bench Test Work (Inventure)
- Pilot Plant - Denver
- Pilot Plant - Texas
- Preliminary Feasibility Study
- Definitive Feasibility Study

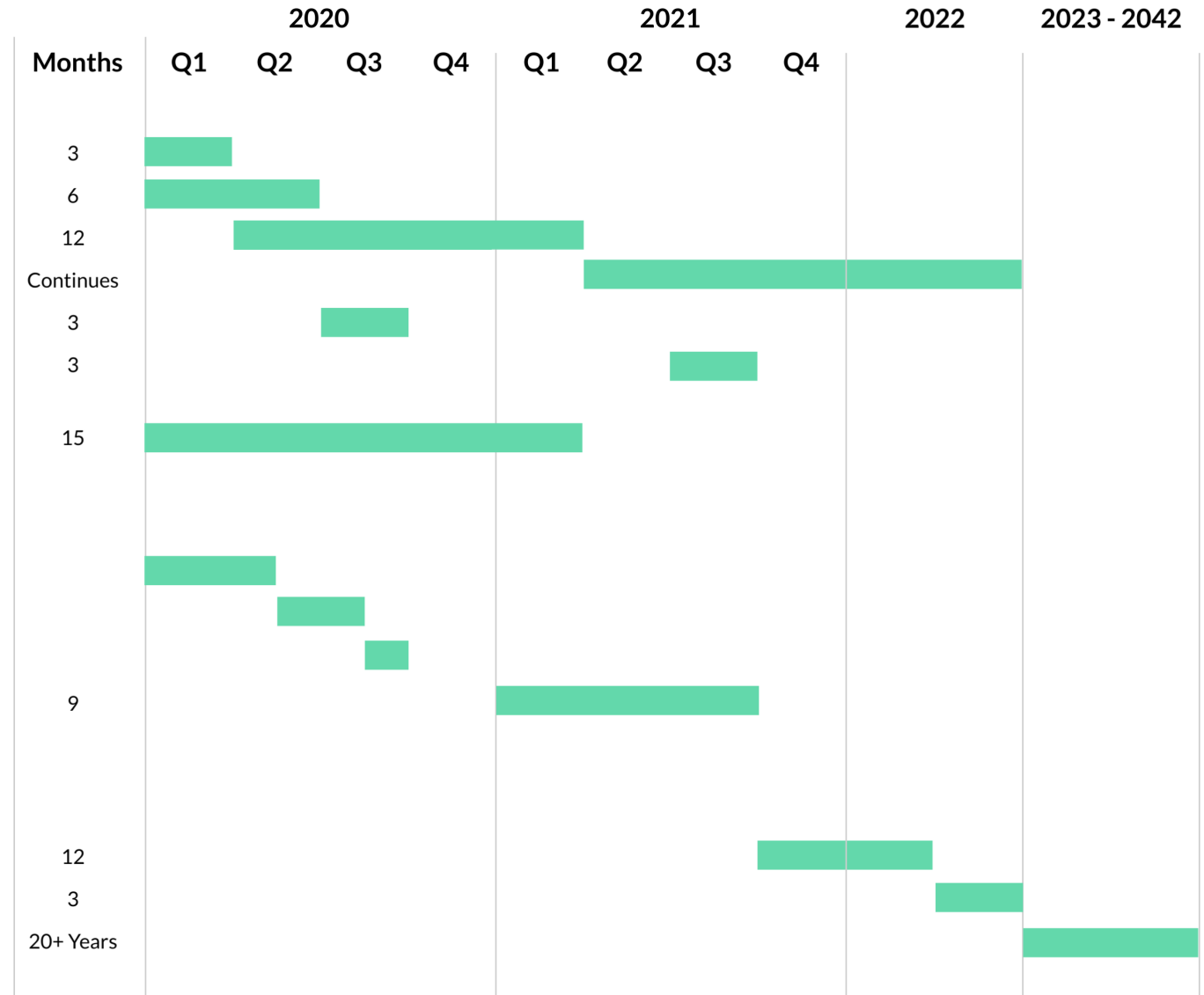
## Permitting

## Construction Contractors

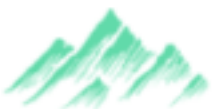
- Preliminary Discussions
- Memorandum of Understanding
- Definitive Agreement
- Project Implementation Plan

## Construction

- Construction
- Commissioning
- Commercial Production



Total Funding Requirement: \$398 million



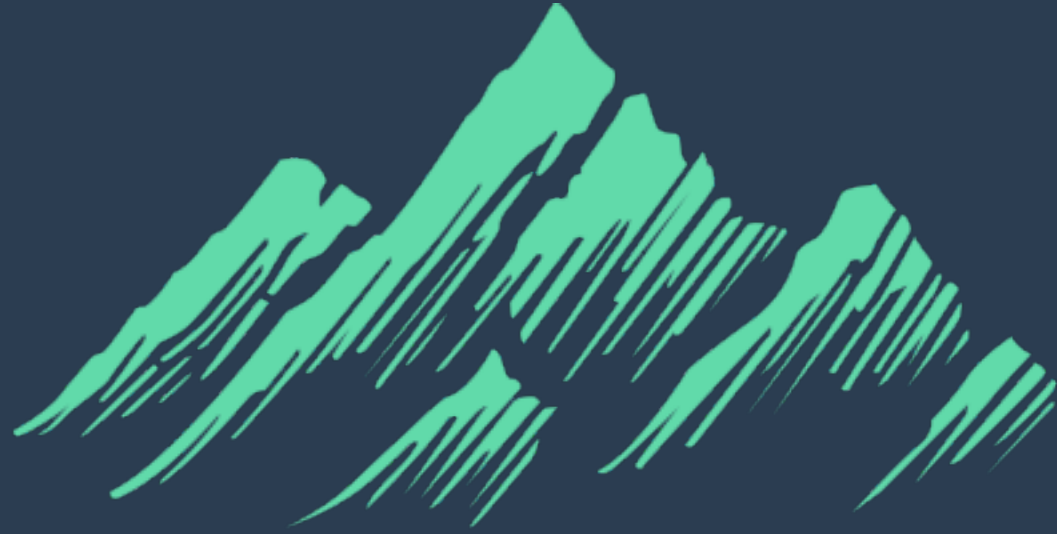
# Permitting

- Round Top is on private and Texas GLO land – no BLM or USFS approval required
- Round Top will not impact wetlands or other waterways – no Army Corps/404 permit required
- Minimal waste rock and no tailings storage facility required
- After removal of metals and minerals, residual leach pads will be benign
- Governor of Texas recommended Round Top to the Federal Permitting Improvement Steering Council (FPISC) as a “High Priority Infrastructure Project”

Media	Permit	Agency	When Required
Air	New Source Review Permit to Construct	State TCEQ	Must be obtained prior to the start of construction.
	Title V Federal Operating Permit	US EPA	Application for permit must be filed prior start of operations
Water	Construction Storm Water General Permit	State TCEQ	In advance of commencement of construction
	Industrial Storm Water Multi- Sector General Permit (MSGP)	State TCEQ	Prior to start of operation
	Public Water System Authorization	State TCEQ	Approval must be obtained prior to use of non-municipal water as drinking water source
	Water Rights Permit	State TCEQ	Must be obtained prior to using surface water
Operations	Petroleum Storage	TCEQ	Prior to storage of petroleum products on site
	Explosives permit	US Bureau of Alcohol, Tobacco, Firearms, and Explosives	Required prior to storage and use of explosives
Waste	Hazardous or Industrial Waste Management, Waste Streams, and Waste Management Units Registration	State TCEQ	Registration number must be obtained prior to engaging in regulated activity
	EPA ID Number for Hazardous Waste Activity Hazardous Waste Permit	U.S. EPA through the State TCEQ	ID number must be obtained prior to engaging in regulated activity
	Hazardous Waste Permit (including financial assurance)	State TCEQ	Must be obtained prior to commencement of hazardous waste treatment, storage, or disposal activities.
	Radioactive Material License	State TCEQ	Must be obtained prior to possession of materials containing NORM waste, as defined by THSC 401.003(26)



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