El Dorado Chamber of Commerce

LSB Industries

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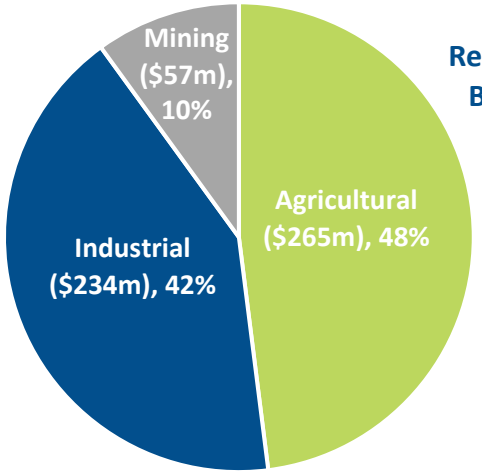
February 8, 2023

LSB Industries at a glance

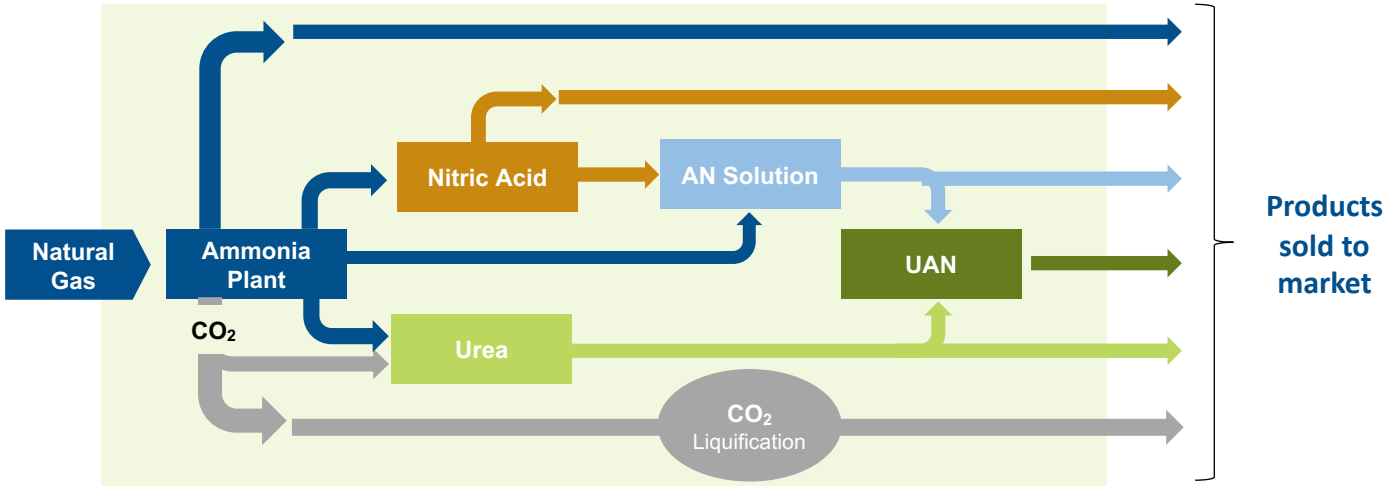
Business Overview

- LSB Industries, founded in 1968 and headquartered in Oklahoma City, OK, is a publicly traded company that manufactures and sells chemical products for the agricultural, mining and industrial markets
  - $550+m in annual revenue in 2021
- Three production facilities strategically located near customer demand areas
  - El Dorado, AR: Manufactures ammonia, ammonium nitrate, nitric acid, sulfuric acid, CO_2 and AN solution
  - Cherokee, AL: Manufactures UAN, ammonia, AN solution, nitric acid, CO_2 and diesel exhaust fluid
  - Pryor, OK: Manufactures UAN, ammonia and CO_2

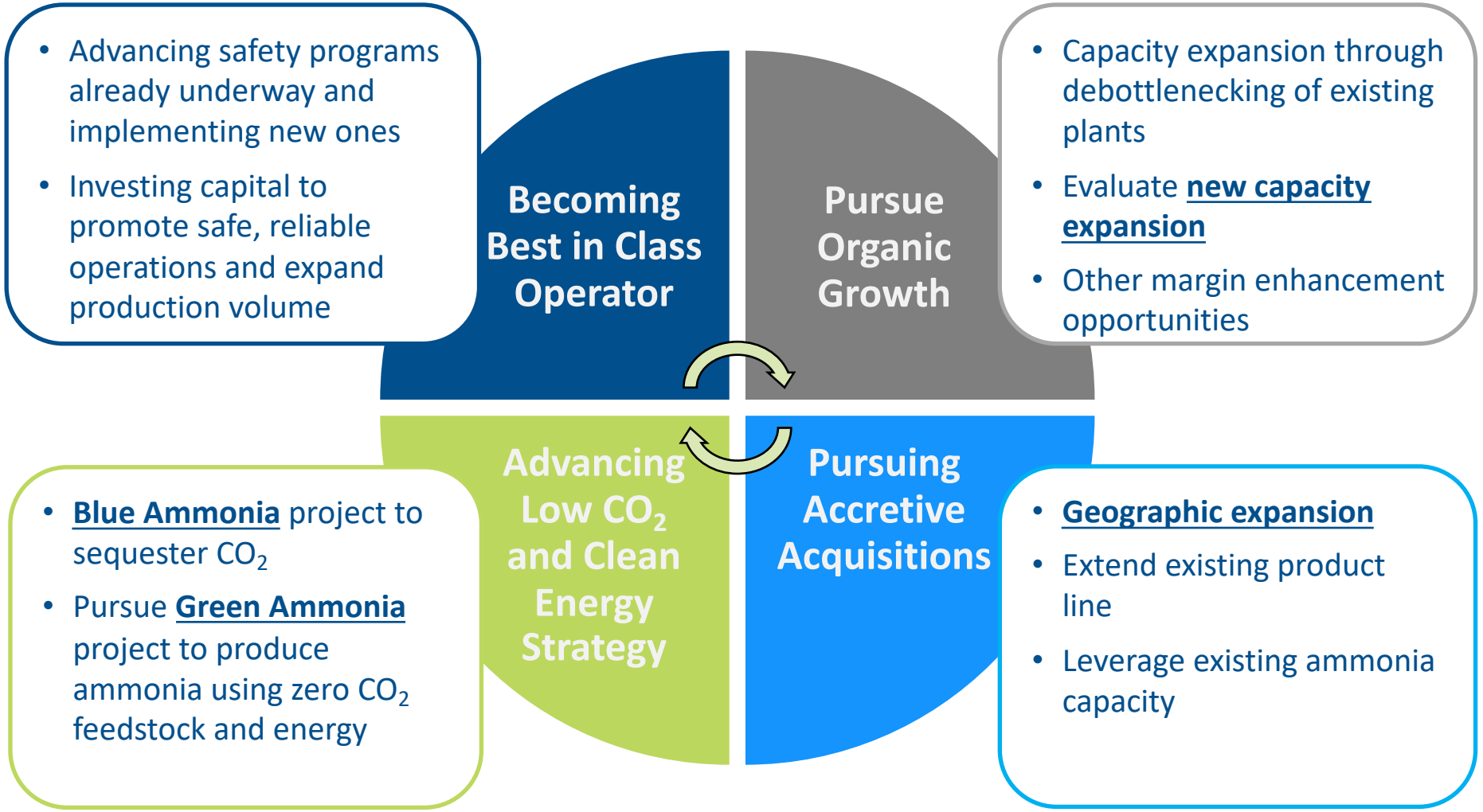


Revenue by Business

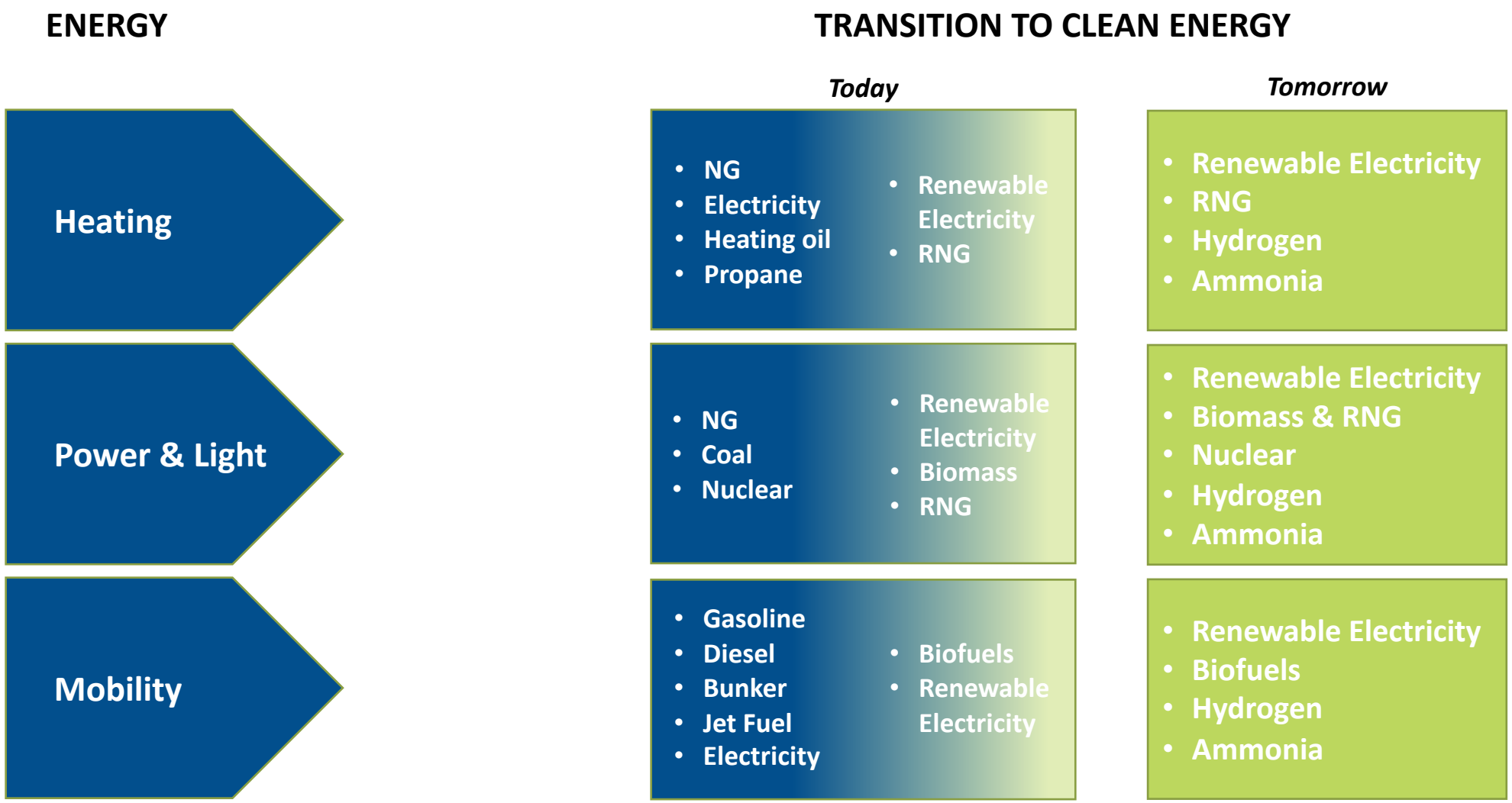
LSB is the fifth largest ammonia producer in the U.S.



LSB Industries Growth Initiatives



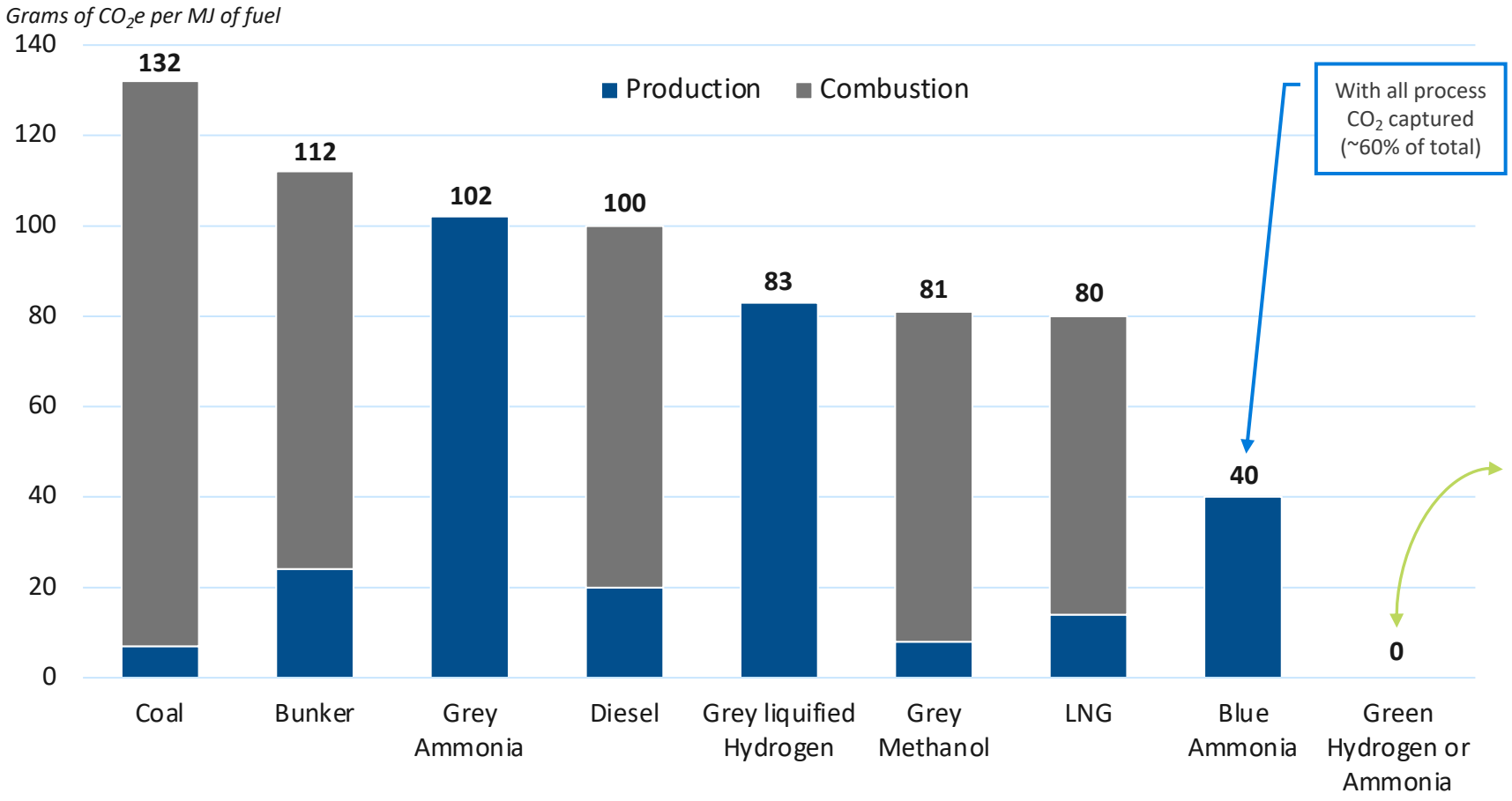
Hydrogen and ammonia are expected to be the main carbon-free energy sources in the future



Source: U.S. Energy Information Agency

Why is low carbon ammonia an essential fuel to decarbonize societies in the future?

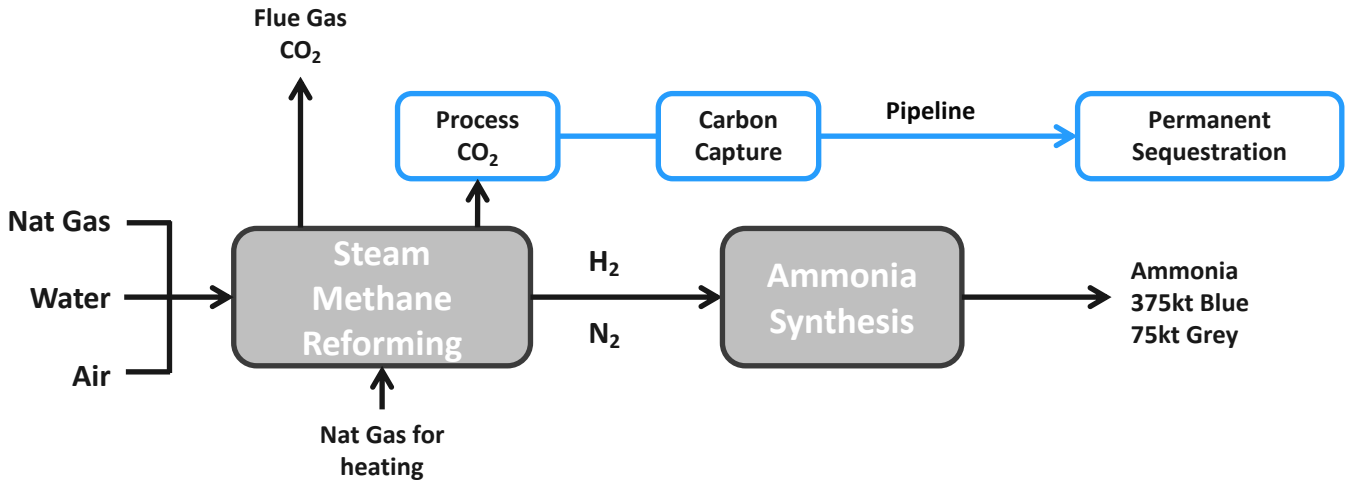
Levelized CO_2e Emissions from the Life Cycle of Various Fuels

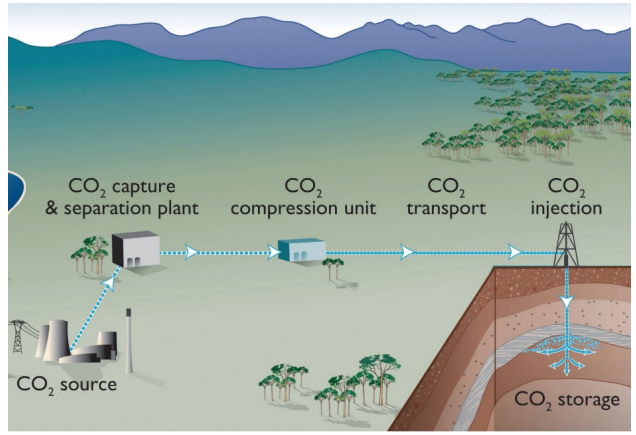


H_2	NH_3
Energy Density (MJ/Gal)	
11.0	26.9
Boiling point (F)	
-423	-27
Non-Toxic	Toxic
Highly flammable	Not highly flammable

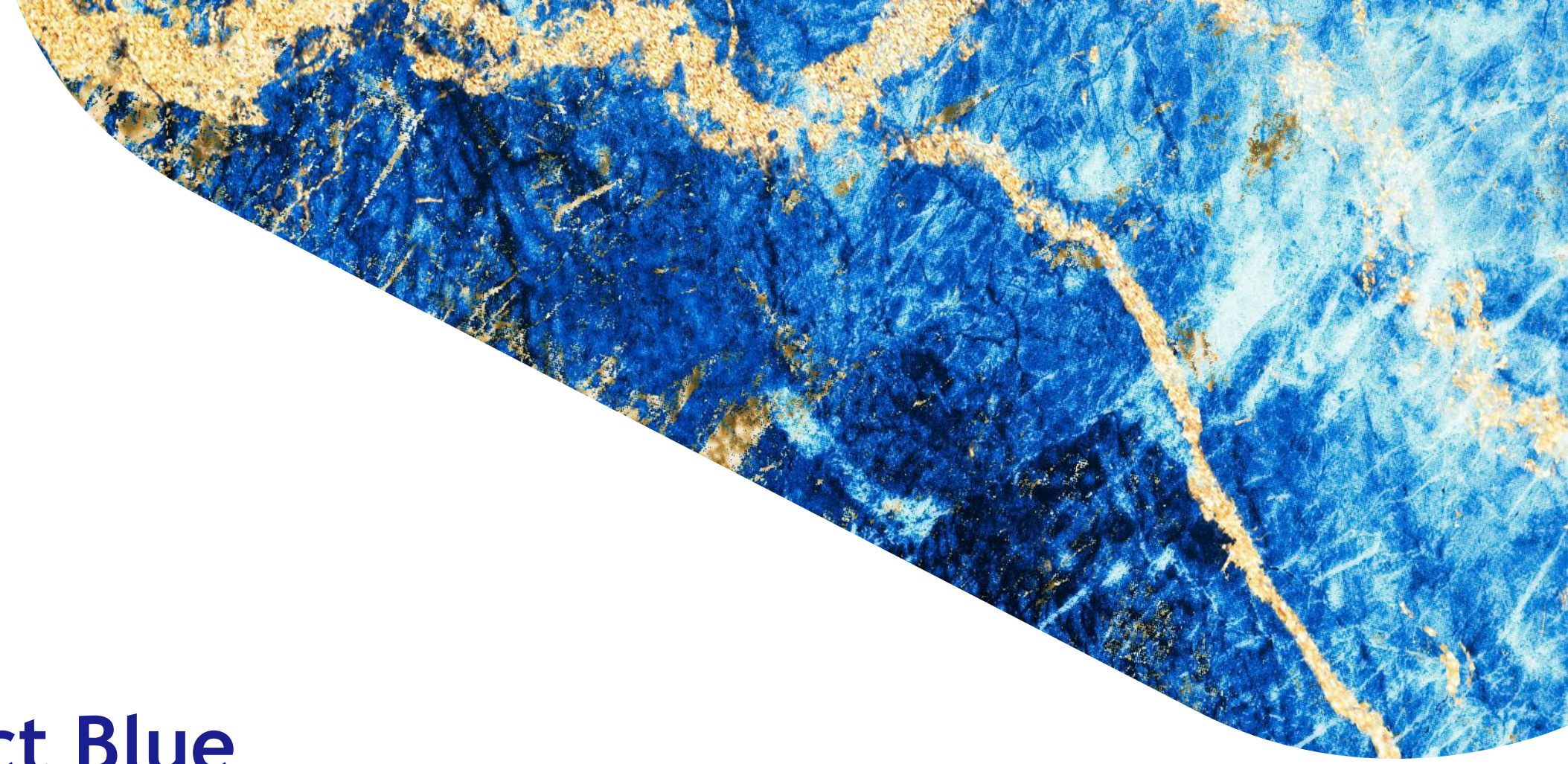
Source: Energy Information Agency, Environmental Protection Agency, Progress in Energy and Combustion Science, Vol 69 Nov 2018

Producing low carbon ammonia at El Dorado, AR





- Agreement with Lapis Energy to develop the CO_2 capture and sequestration (CCS) project
- Project will receive 45Q tax credits of $85 per metric ton of CO2 sequestered for the first 12 years of operation
- Project operations expected to begin by early 2025, subject to Class VI EPA permitting
- >375k metric tons of low carbon ammonia per year (assuming 100% of process CO_2 captured and sequestered)
- Permanently sequestering >450k metric tons of CO_2 in saline formations directly under the facility. The sequestered CO_2 will reduce the company's scope 1 GHG emissions by ~25% from current levels



Project Blue

El Dorado Chamber of Commerce

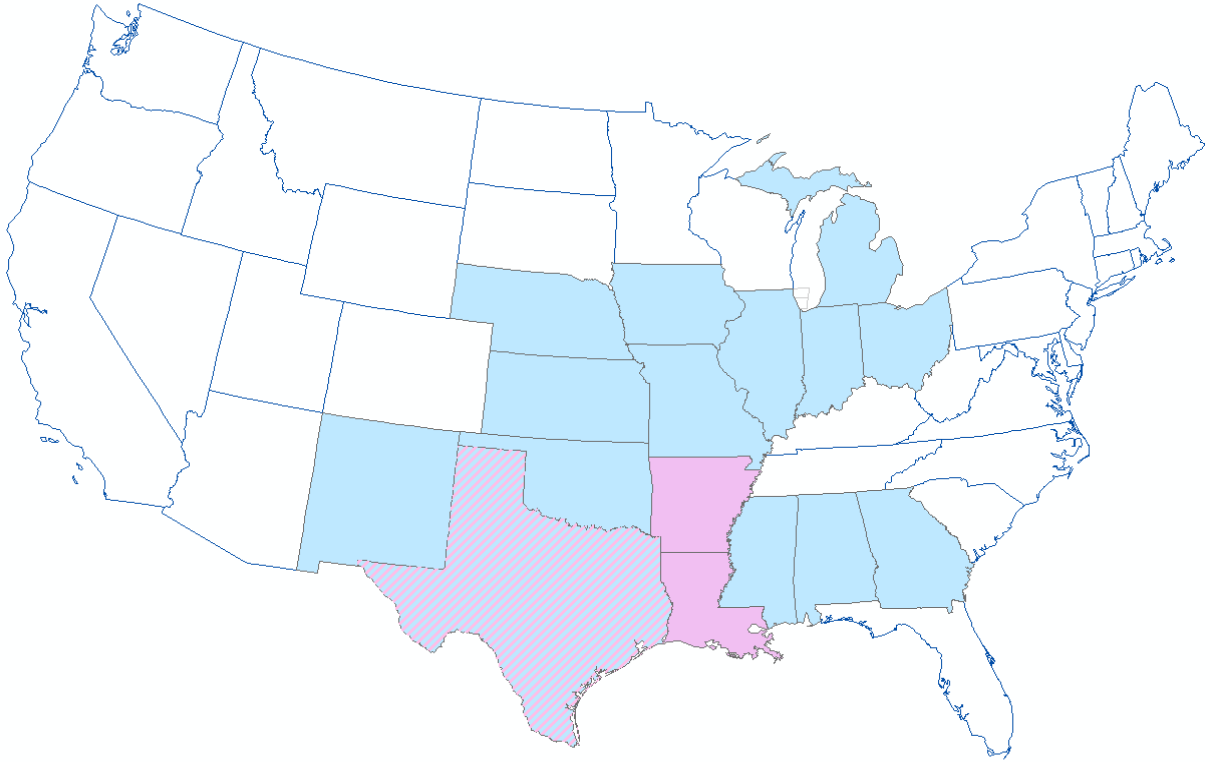
8 February 2023

Reg Manhas - CEO, Lapis Energy

Lapis Energy

Lapis enables cost-effective decarbonization for energy-intensive industries through carbon capture and sequestration (CCS). As the partner of choice, we prioritize health, safety and the environment and foster strong relationships with local stakeholders through early and transparent engagement.

Lapis US Lower 48 Activity



Lapis value proposition

- World class CCS and energy transition expertise
- Proven large subsurface technical team
- Expertise in complex project delivery
- 100% capital commitment to FID
- Cresta financial sponsorship
- Entrepreneurial culture built from Kosmos Energy experience
- Unburdened by fluctuations in oil price
- Single point responsibility: full service CCS developer and operator

Cresta Fund Management Overview

A strong history of supporting teams that develop customized solutions for energy and industrial customers

- Cresta Fund Management ("Cresta") is a Dallas-based middle-market infrastructure investment firm founded in 2016
- Founded by energy infrastructure professionals that have developed, operated and financed over $13B of infrastructure assets
- Firm leverages in-house technical expertise to help its partners develop, construct, operate and commercialize best-in-class infrastructure projects
- Seek partnership with blue chip operators to develop and operate critical infrastructure assets
- Supporting capital base comprises organizations that collectively manage over $100B in capital
- Cresta-sponsored portfolio companies have executed complex greenfield and brownfield infrastructure projects for some of the largest energy producers and consumers

Based in Dallas, TX | **~$1.4 Billion AUM**

18 Investment Professionals | **Infrastructure Development**

Key Experience	Project Description	Project Cost	Customer
BLACKBUCK RESOURCES	Greenfield buildout of a water gathering and disposal system in the Delaware Basin	~$30mm	Chevron
Easton energy	Natural gas liquid distribution and storage business on the Gulf Coast serving large petrochemical and refining counterparties	~$300mm	bp, DOW, Enterprise Products Partners L.P.
ENERCOAST MIDSTREAM	Joint venture that owns and operates crude oil pipelines and related transportation infrastructure in the Houston area	~$75mm	ExxonMobil

Project Blue - Benefits for El Dorado and Arkansas

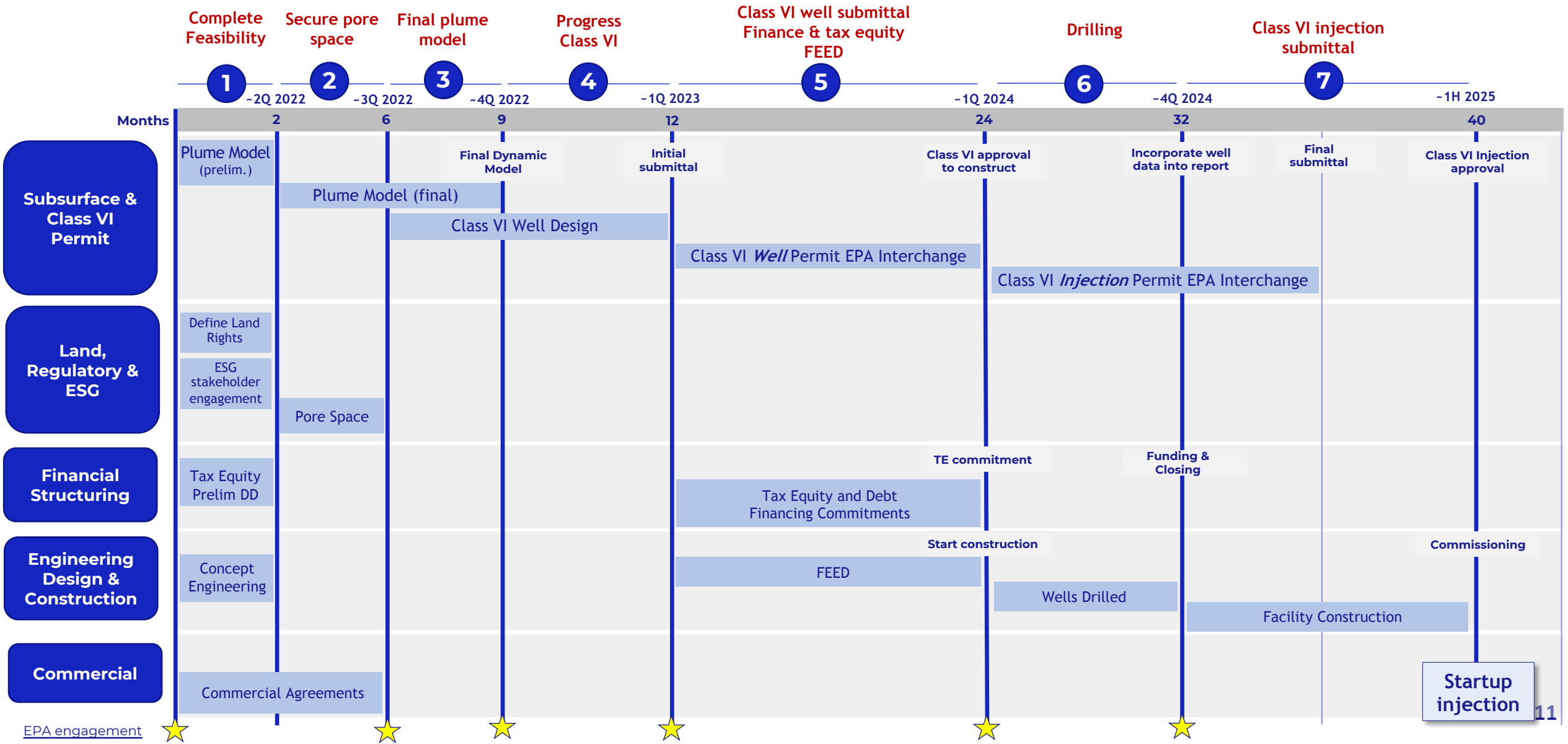
Opportunity for State and El Dorado to demonstrate global leadership in a new & growing industry

Enabling local industry to maintain competitiveness in marketing and sales of “blue ammonia”

- Capital budget of complete project in excess of $50 million
- Significant local contractor needs re: onsite construction, installation and operation
- Increased local tax base from higher employment and hotel/restaurant usage during construction
- Local pore space lease payments (signing bonuses and CO2 injection payments)

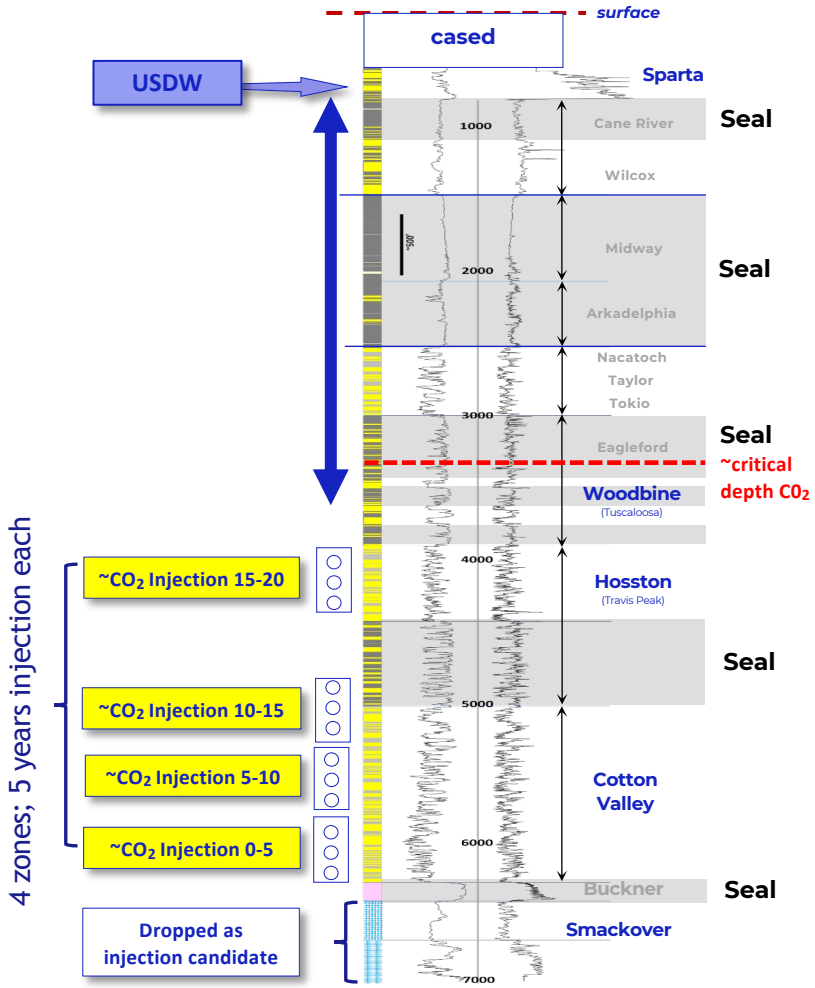
Project Blue Update

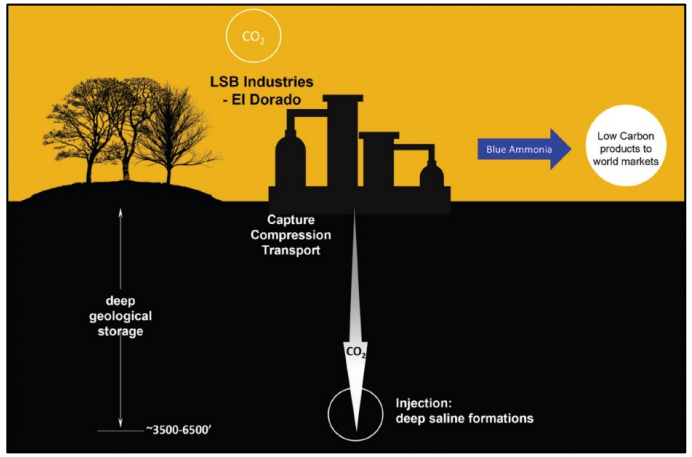
Schedule to start injection in 1H 2025 (subject to timing of EPA Class VI approval)



How is CO2 captured and stored?

Injected into deep reservoirs, permanently containing the CO_2 and avoiding atmospheric release





- The reservoirs holding the CO2 are approximately 3500-6500 ft below the surface and 3000 ft below the area drinking water supply.
- A 1000 ft thick, impermeable layer of shale separates the injection zone and the area drinking water and prevents any upward migration of CO2
- A stringent set of safety requirements will need to be satisfied before the U.S. Environmental Protection Agency (EPA) will give permission to start CO2 injection
- CO2 injection pressures will be very carefully monitored by monitoring wells installed to further ensure integrity
- Increasing the number of possible injection zones will reduce the plume size significantly, and thus the need for private pore space rights

Managing the CO2 plume for 50 years post injection

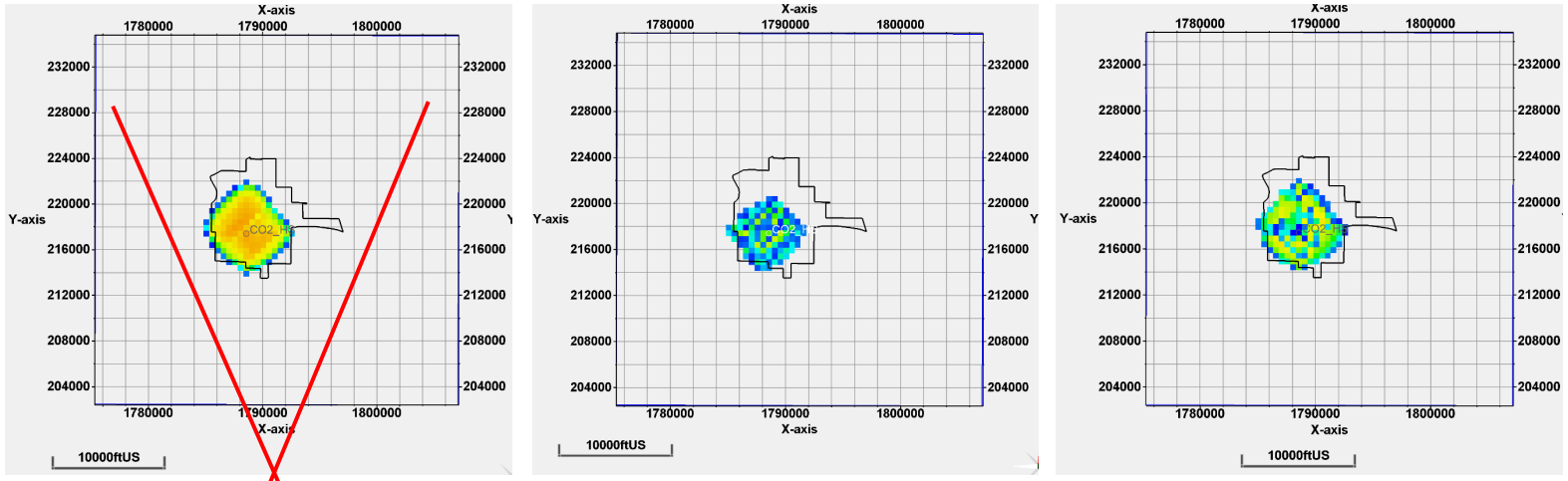
Plume models - base case 5-year injection per zone

- Models include dissolution, but not hysteresis (models after inclusion of injection well core data will probably reduce further)
- 4 injection intervals provide redundancy if one or two zones are not connected to enough pore volume, or the plume expands too aggressively
- Consider injecting longer (5-10 years) in some of the Cotton Valley intervals if zone is well connected and permitted volumes per zone have need been reached yet
- Smackover has a large plume size because of high permeabilities, salinities & Kv/Kh **- excluded**

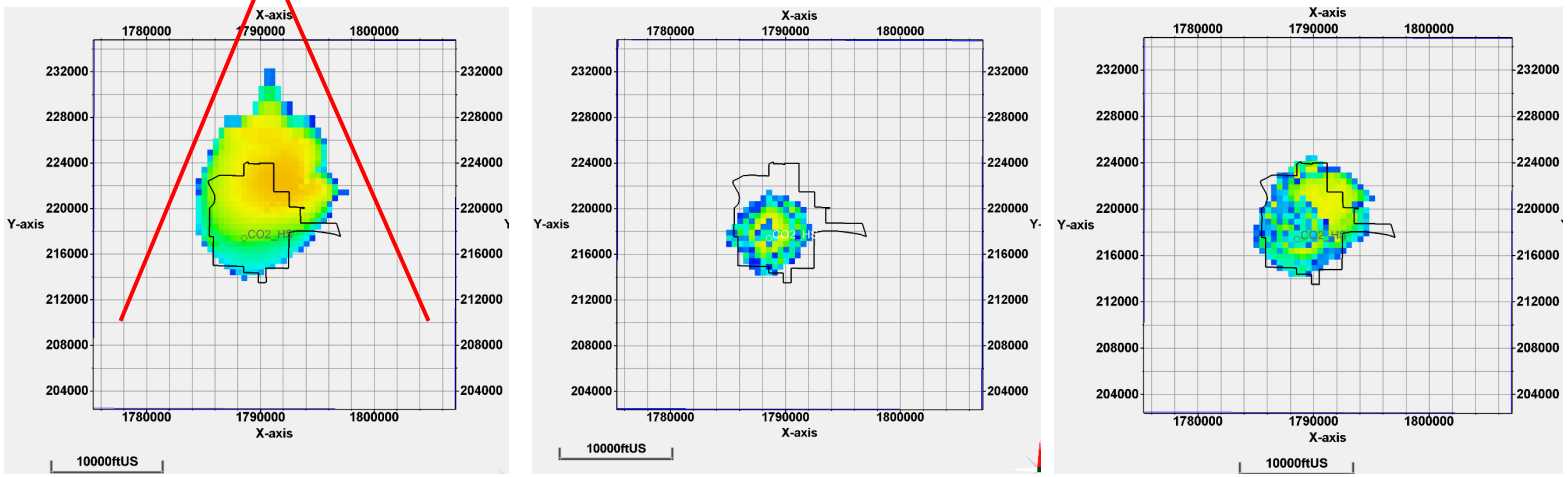
	simmulation phasing								
	Av. 5 year injection per zone				50-year post injection				
Completion	**5**	**5**	**5**	**5**	**10**	**10**	**10**	**10**	**10**
Lower Hosston									
Cotton Valley 3									
Cotton Valley 2									
Cotton Valley 1									

Smackover | *Cotton Valley 1, 2 & 3* | *Hosston*

After 5-year injection

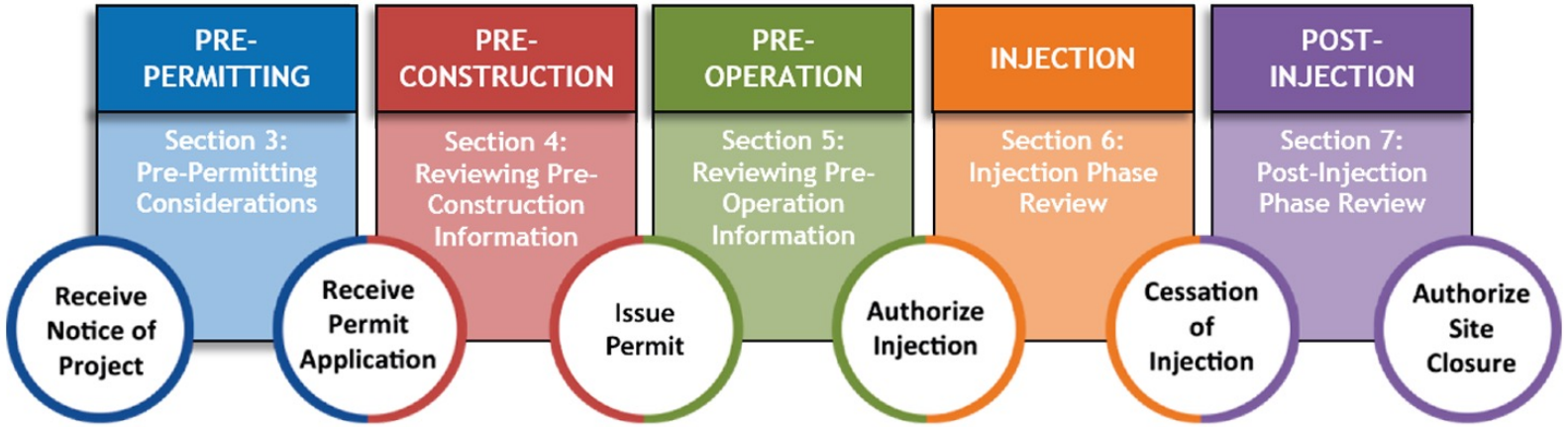


After 50-year post injection



EPA class VI approval process

Close involvement of the EPA in all aspects of the CCUS project from inception to closure



Class VI Permitting Preparations
Permit Applicant Engagement
Communication and Outreach
Other Pre-Permitting Considerations

current focus

Reviewing the Permit Application
- Site Characterization
- AoR and Corrective Action
- Financial Responsibility
- Injection Well Construction
- Pre-Operational Testing
- Proposed Operating Conditions
- Testing and Monitoring
- Injection Well Plugging
- PISC and Site Closure
- Emergency and Remedial Response
- Injection Depth Waivers
- Aquifer Exemption Expansions

Preparing the Permit
Planning for the Pre-Operation Review

Evaluation of Pre-Operational Information
- Site Characterization
- AoR and Corrective Action
- Financial Responsibility
- Injection Well Construction
- Operating Conditions
- Testing and Monitoring
- Injection Well Plugging
- PISC and Site Closure
- Emergency and Remedial Response
- Injection Depth Waivers

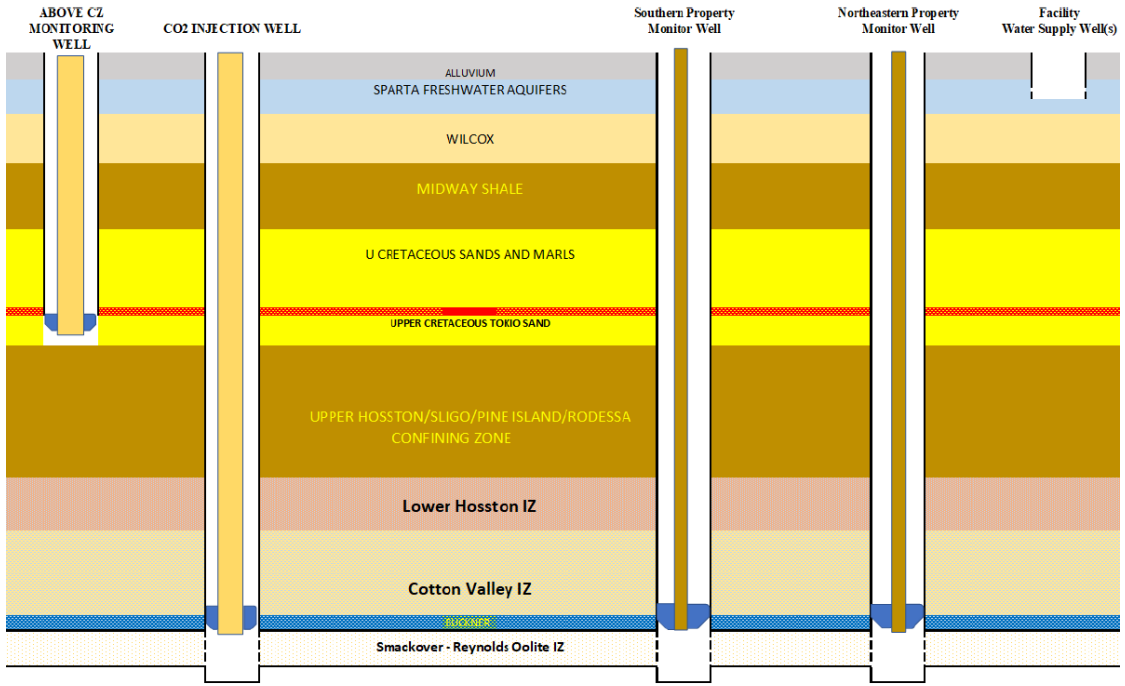
Authorizing Injection
Planning for the Injection Phase Review

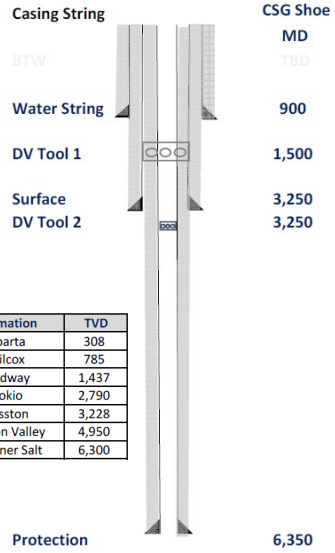
Testing and Monitoring
AoR Reevaluations
Project Plan Updates
Financial Responsibility Updates
Occasional Injection-Phase Reviews
Planning for the Post-Injection Phase

Injection Well Plugging
Reviewing PISC Information
AoR Reevaluations
Project Plan Updates
Emergency and Remedial Response
Non-Endangerment Demonstrations
Site Closure

Proposed monitoring scheme and injection well

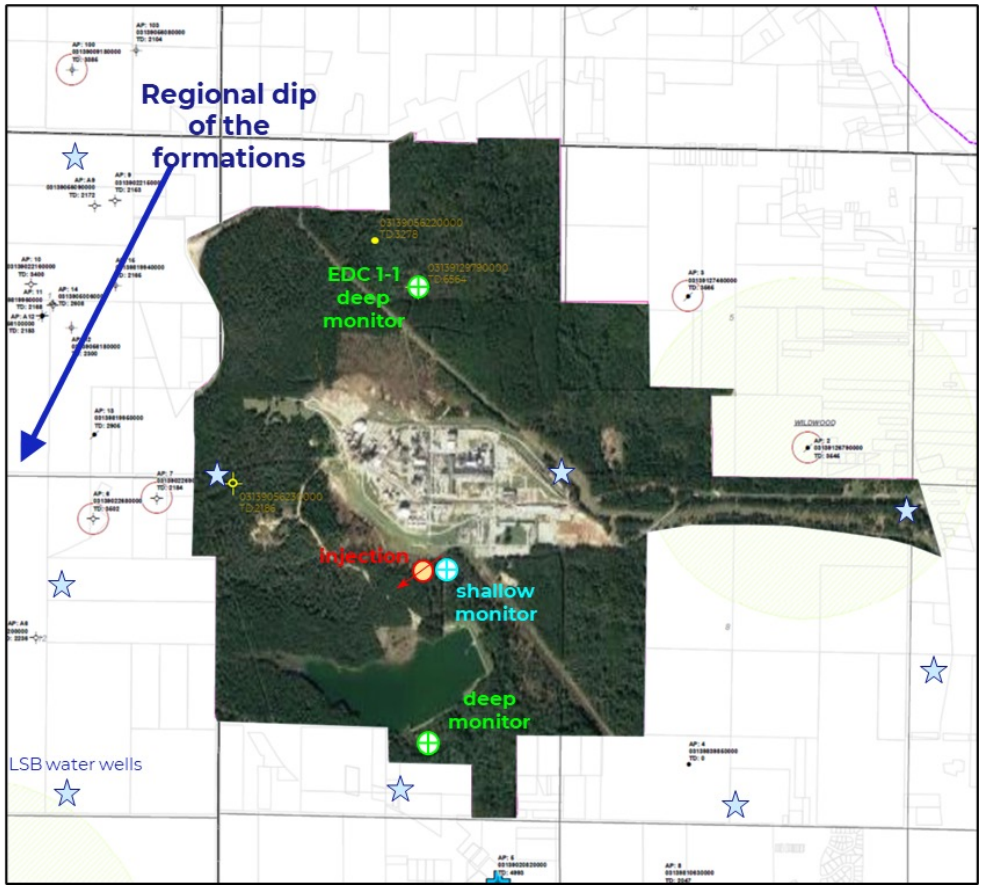
Two deep monitoring wells and one shallow monitoring location, one injection well





Formation	TVD
Sparta	308
Wilcox	785
Midway	1,437
Tokio	2,790
Hosston	3,228
Cotton Valley	4,950
Buckner Salt	6,300

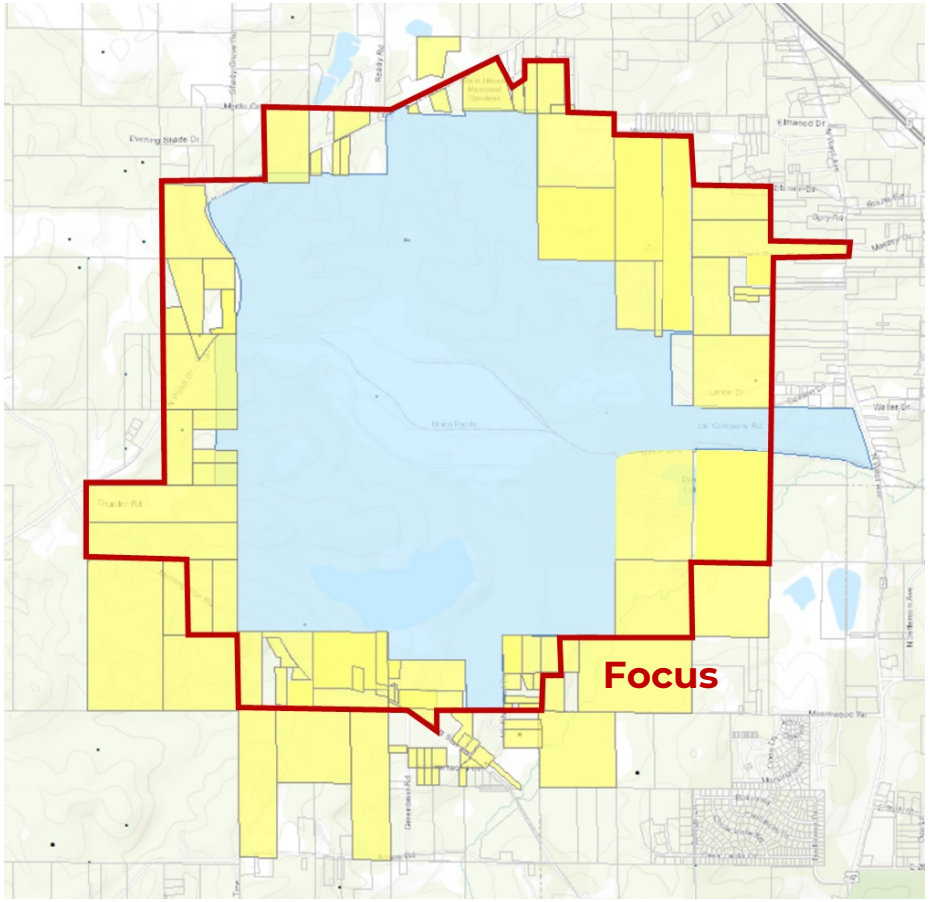
Proposes Injection Well Design



- Firm-up final well locations, based on drilling rig access
- Supplement subsurface monitoring with indirect monitoring; 4D VSP, 4D sparse array seismic or 4D 2D
- EPA well construction requirements are aimed to protect the USDW and provide zonal isolation

Pore space rights required for the project

As plume models increase in accuracy, they indicate less pore space (surface tracts) are required



Pore Space Rights:

There is no oil and gas (or other mineral value) beneath the project/plume area

Pore space rights reside with the surface rights holder

Have been engaging with LSB neighbors to acquire the right to store CO2 beneath their land

Estimates of required pore space rights is evolving:

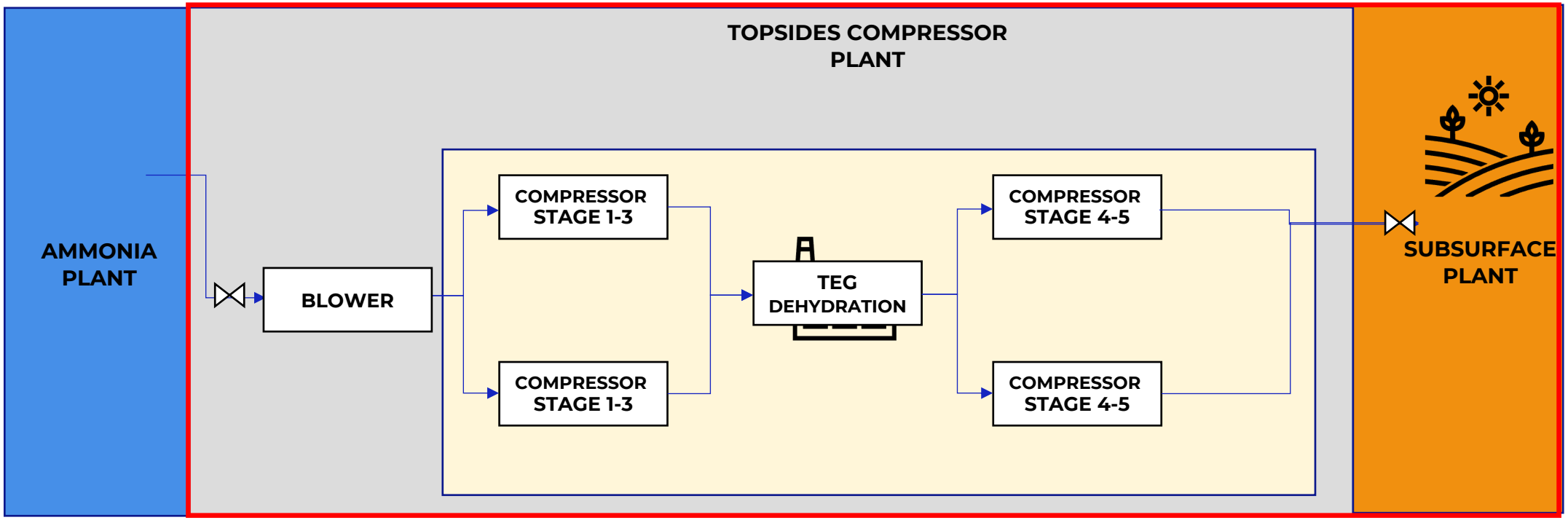
Early models of plume extent suggested that the project area would be relatively large (yellow tracts)

As the plume models evolve (and become more accurate) it is evident we will likely require far less acreage then first expected

Offers to landowners are being made:

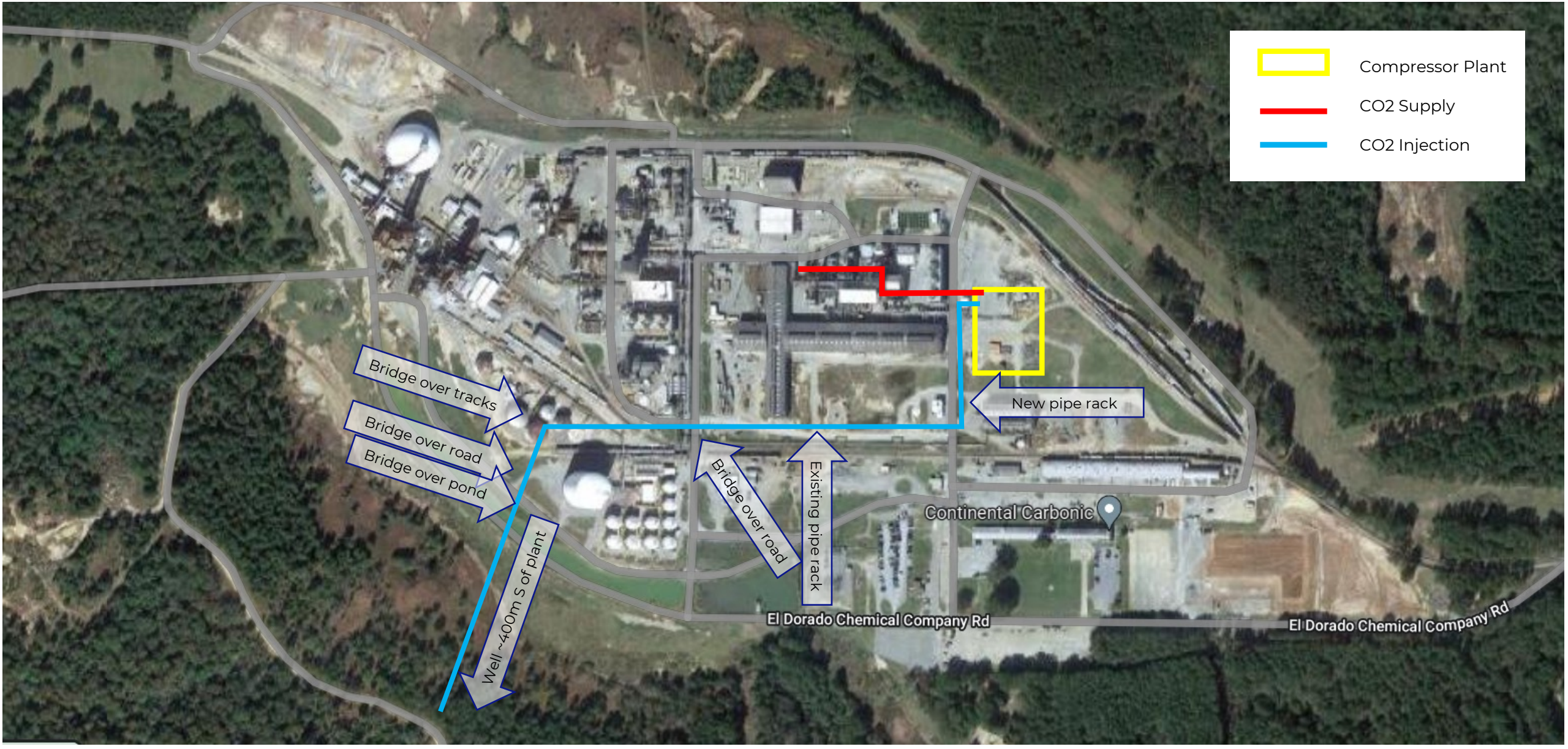
We continue to honor our initial landowner offers (early tracts estimate) in a good faith effort but are currently focused on a subset reflecting the reduced need, because of the shrinking plume size predictions. Plumes sizes might even reduce more, based on actual injection well core data measurements.

Topsides Plant



CO2 Supply & CO2 to Injection

Final Route



Early and Transparent Stakeholder Engagement

Lapis and LSB have been actively discussing the project in El Dorado and Little Rock

Lapis has been engaging with local stakeholders since June 2022

- We have met with local El Dorado energy industry leaders
- Lapis has joined the El Dorado Chamber of Commerce
- We have met with Mayor Paul Choate
- Conducted December 2022 townhall with EDC employees
- We are consulting on how best to engage with other local community groups to ensure the project is understood and well received

Lapis/LSB have also been building relationships in Little Rock

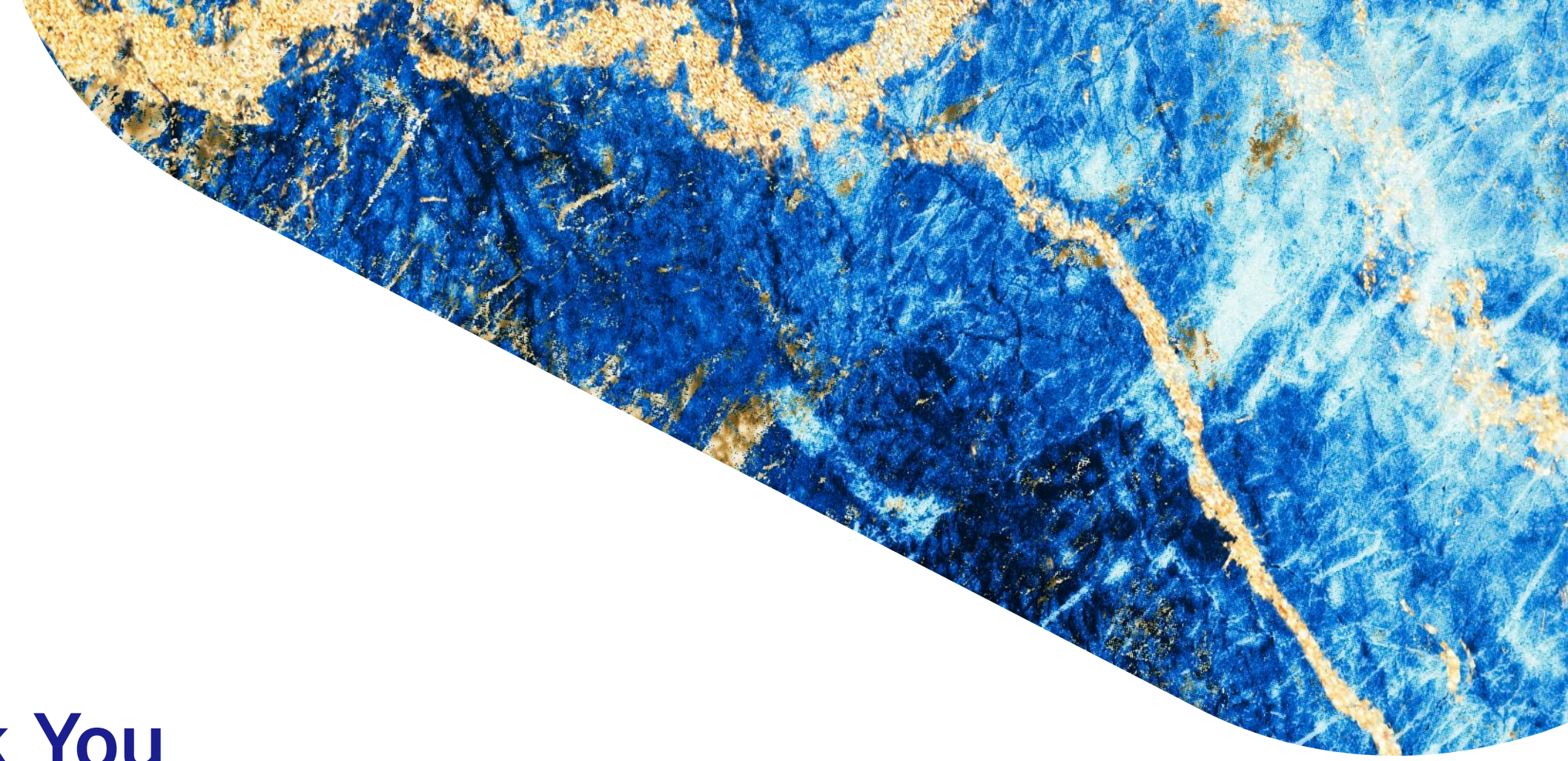
- Former and new Energy Secretary and team
- Legislative representatives from the El Dorado area
- Governors Hutchinson and Huckabee Sanders (and teams)

Project email address:

info@eldoradoCCS.com

Project telephone #:

870-724-4016



Thank You