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The Challenging Road to Long Term Supply of Sustainable Carbon Black to meet Growing Demand

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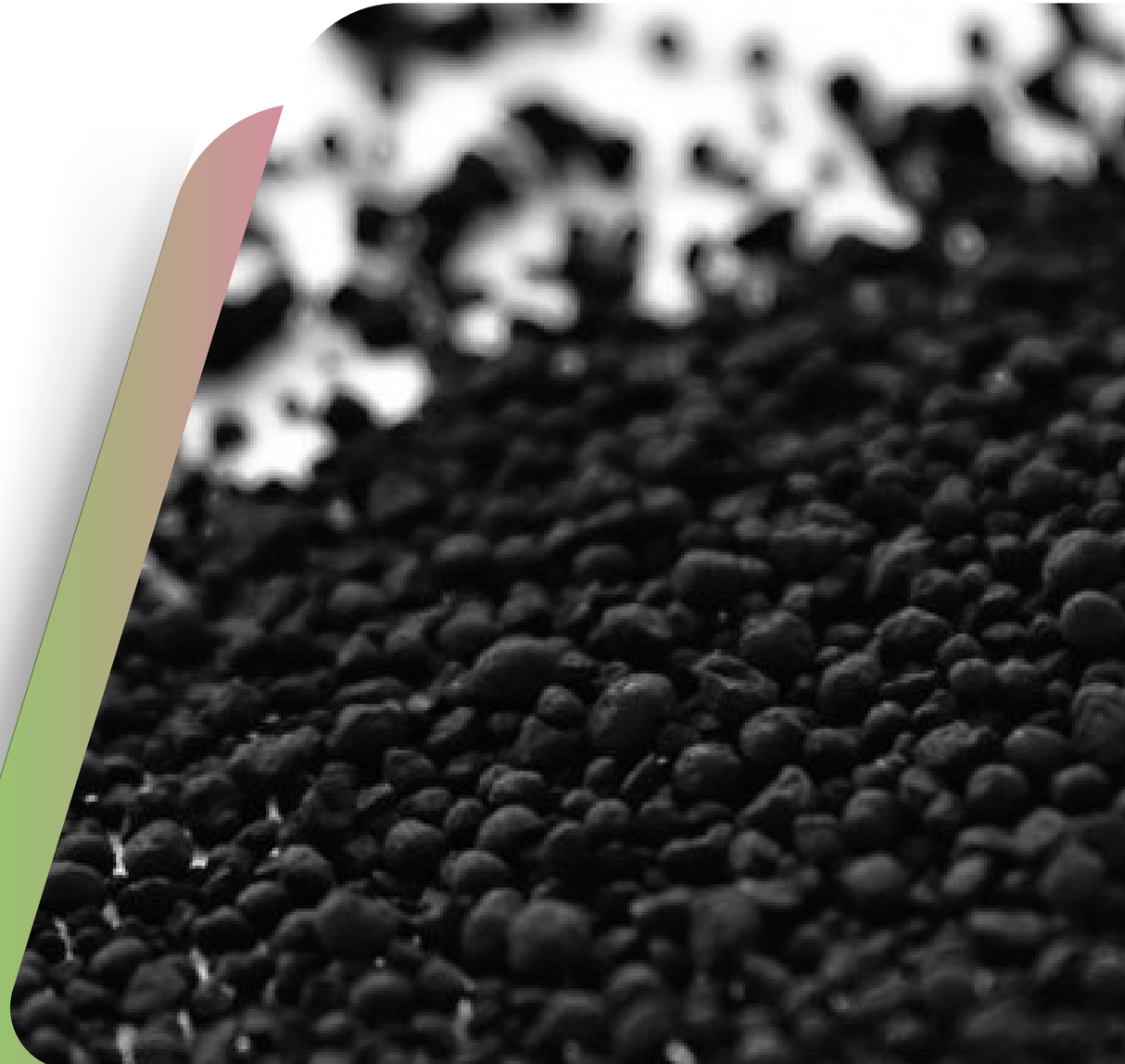


The Challenging Road to Long Term Supply of Sustainable Carbon Black to meet Growing Demand





Theory

Reality

Vision





Global & North American Tire and Carbon Black Market Overview

CB Demand

Region	2024	2028 f
Global	14,413 Millions Tons	16,125 Millions Tons
North America	1,771 Millions Tons	1,960 Millions Tons

CB Imports and Exports

	2023	2024
North America Imports	179,580 Millions Tons	193,943 Millions Tons
North America Exports	132,972 Millions Tons	142,498 Millions Tons
Trade Deficit	46,608 Millions Tons	51,445 Millions Tons

Tir es Production

Region	Annually
Global	2.2 Billions
North America	337 Millions

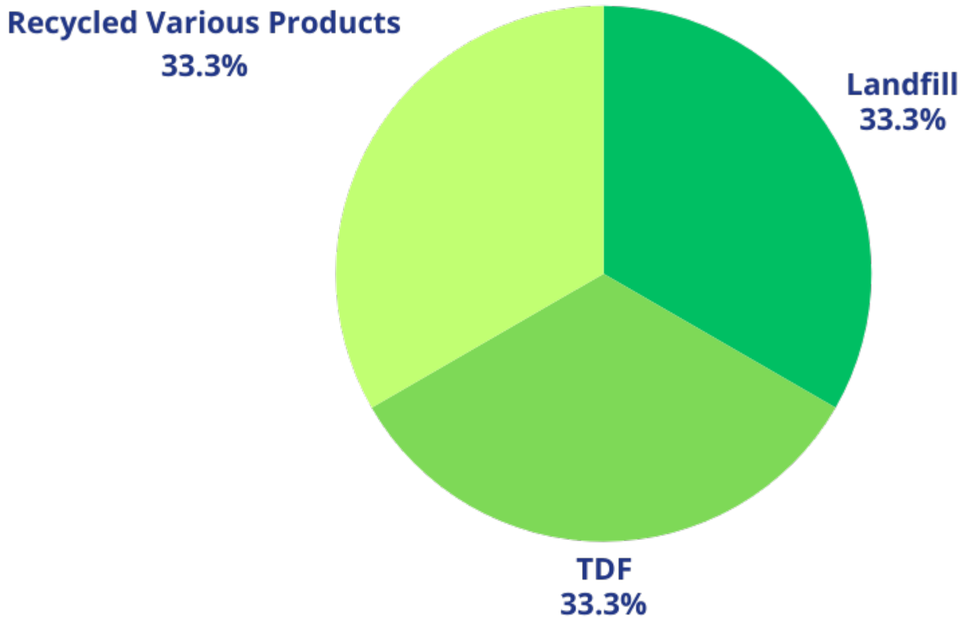
ELTs Generation

Region	Annually
Global	1.7 Billions
North America	350 Millions

Source: IndexBox, GlobeNewswire, EMR, Smithers, USTires, SSRN,Streets.mn, Source: Prospects for 2024 Recovered Carbon Black. Wolfersdorff Consulting

End-Of-Life Tire (ELTs) in North America

ELTs Destination



350 million end -of-life (ELT) tires are generated each year.

Source: https://www.ustires.org/newsroom/elts-explained

State -Level Annual ELT Generation (Million PTEs)

State	ELTs (PTE) in M
Mississippi	3.0

State	ELTs (PTE) in M
Louisiana	4.5
Arkansas	3.0
Tennesee	7.0
Alabama	5.1
Sub Total	**19.6**

Source: Department of Environmental Qualitylack. Wolfersdorff Consulting

North America increase in Carbon Black demand and how to meet it

Demand Growth: 1.771 MT 2024 and 1.960 MT 2028 equivalent to 189,000 MT of CB (undefined) , how to meet it?

USA trade deficit in in the US in 2024 51,445 tons

Meeting new demand: rCB and sFCB (Furnace CB with rTPO hence Sustainable Furnace Carbon Black)

Total of 10 new 30,000 MT rCB plants : 105,000 MT rCB (159,000 MT rTPO)=}106,000 MT sFCB

WHERE IS THE SUPPLY TO the 10 NEW PLANTs COMING FROM: 300,000 MT tire chips=} 35.4 million of ELT

Louisiana. Arkansa, Tennessee, Alabama; Total:19.6 million ELT

Texas Oklahoma, Georgia, Florida; Total 61.0 million ELT

THESIS for North Americas, focus USA FIRST CIRCULAR COUNTRY IN THE WORLD

USA Total: 350 million ELT =} rCB 1.18 million and sFCB 1.19 million rFCB, TOTAL 2.37 million MT

North America demand 2028: 1.960 million MT

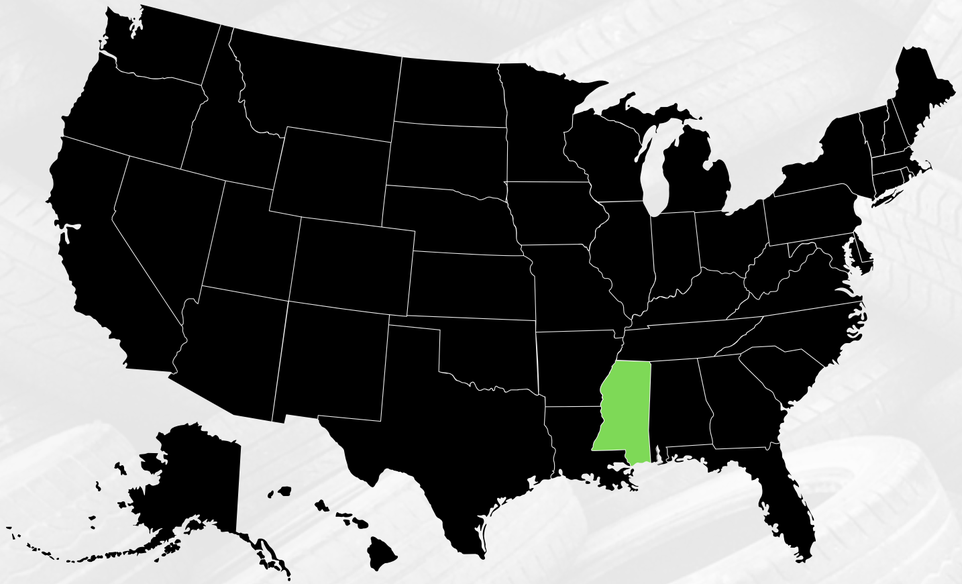
USA Exports 410,000 MT

USA the FIRST CIRCULAR STATE MANAGING ELT TIRES PROBLEM AND TURNING INTO NEW SUSTAINABLE RAW MATERIALS FOR NEW TIRES

Reality: Mississippi — Leading the Way as the First Fully Circular ELT State

Available Supply in Mississippi: 3.0 Million ELTs

Phibro rCB Capacity: 24,000 MT of Chips





Phibro rCB - Overview

- Acquired Delta Energy Group assets in Natchez in December 2023 and established in early January 2024
- Challenges: Regulatory Risks, Customer Base, Operation, Community Support
- Operates all 4 reactor lines and 2 finishing lines
- ISO 9001 certified & ISCC PLUS registered
- Team of 50+ professionals focused on innovation and sustainability



Phibro rCB

Phibro rCB Property



Phibro rCB

Phibro rCB Property



Phibro rCB

Phibro rCB Reactors & Finishing Line





Phibro rCB

Operational Highlights



Processing & Finishing

- Tire shred fed at ~20 ST/day (18.1 MT/day)
- Jet milling, pelletizing, drying & bagging

Product Output

- ~35% rCB
- ~53% rTPO
- ~5% rH
- ~10% misc. (flare, water, etc.)

Logistics & Storage

- Fully functional tank farm
- Metered truck & rail loading (recently completed)

Phibro rCB

Vision: Addressing North America's Future Demand for Carbon Black

Increase in Carbon Black demand by 2028: +189,000 MT

Phibro rCB's solution:

10 new rCB plants (each 30,000 MT capacity)

→ 90,000 MT rCB, plus 159,000 MT rTPO → 106,000 MT sFCB

5 rCB plants in Natchez

→ 52,500 MT rCB, 79,500 MT rTPO, 53,000 MT sFCB

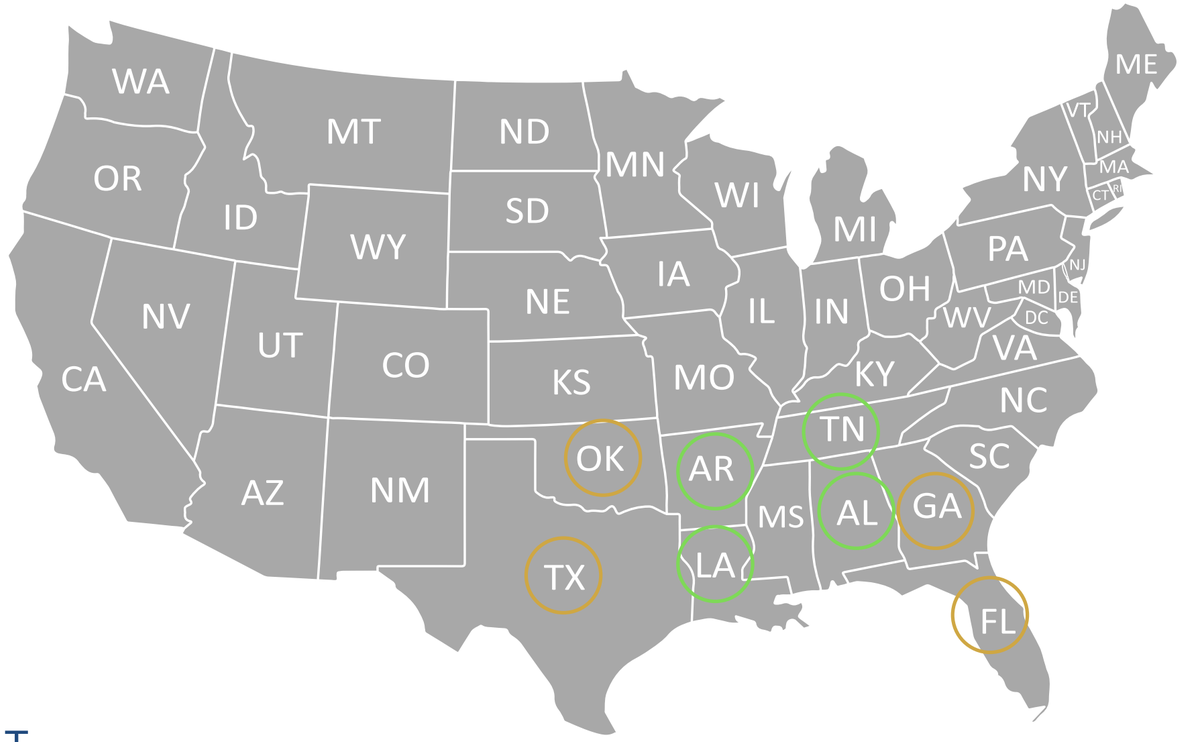
→ Requires 17.7 million ELTs

→ Supplied by Louisiana, Arkansas, Tennessee, Alabama (Total: 19.6 million ELTs)

5 additional rCB plants in neighboring states

→ Requires 17.7 million ELTs

→ Supplied by Texas, Oklahoma, Georgia, Florida (Total: 61.0 million ELTs)

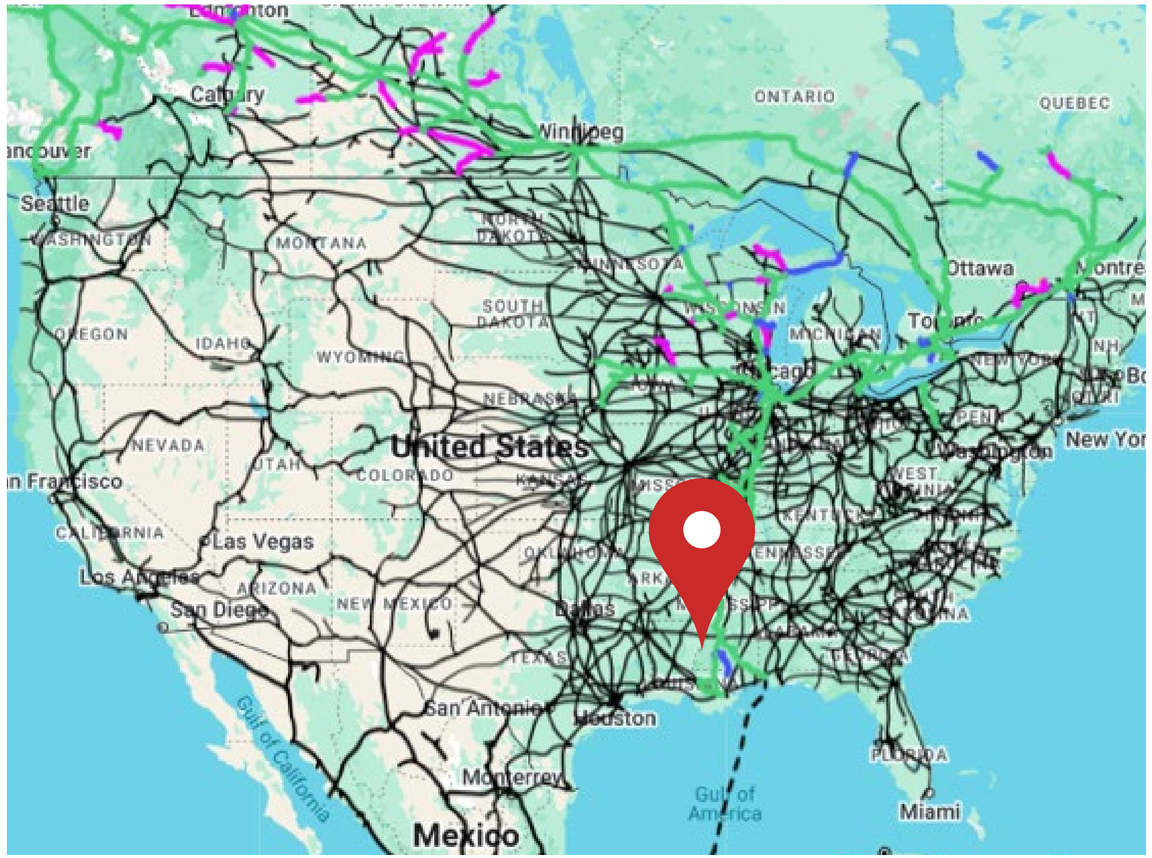


Summary:

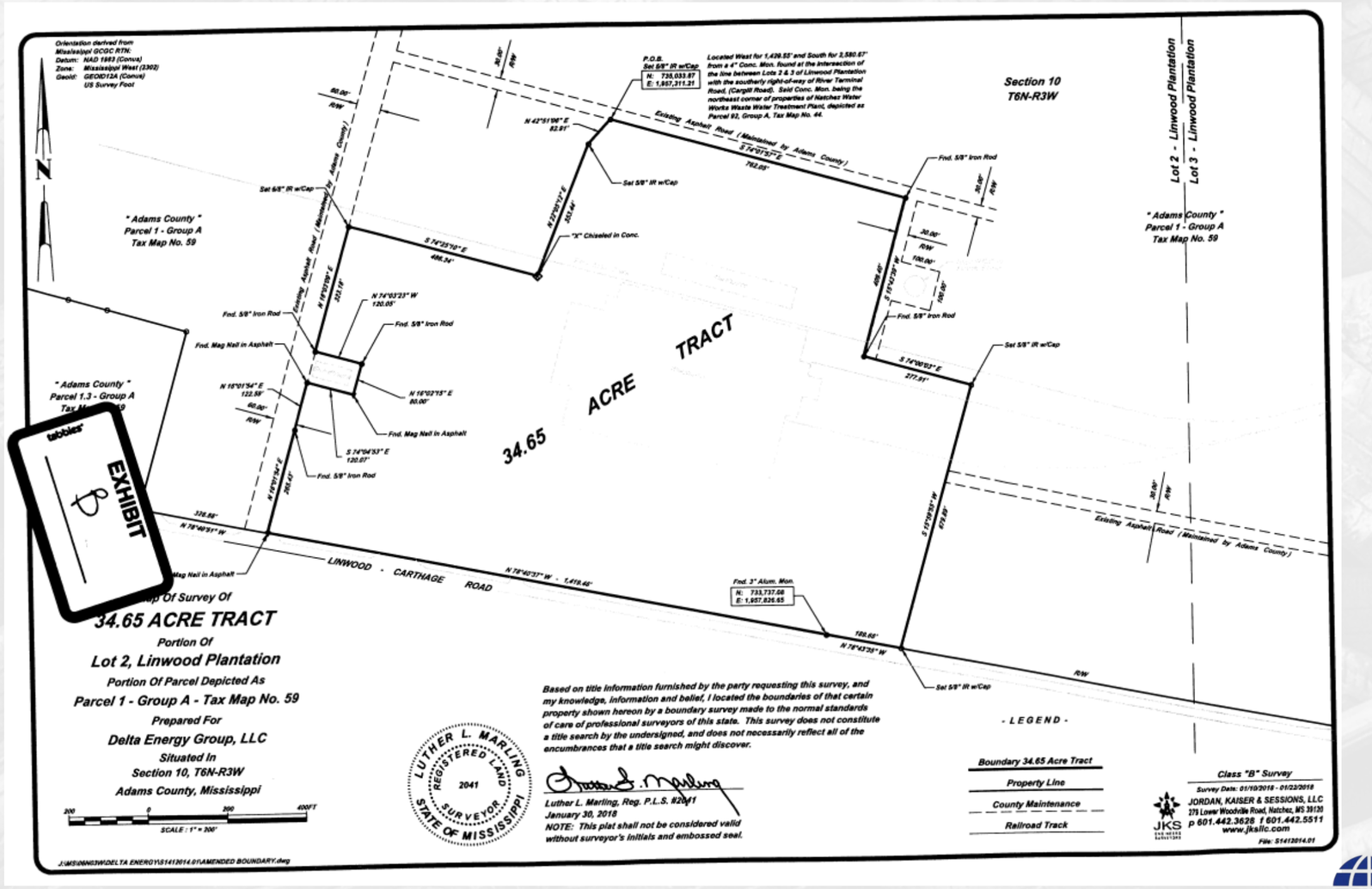
- Total circular output = 211,000 MT (rCB + sFCB)
- Louisiana, Arkansas, Tennessee, and Alabama: Fully circular ELT states
- Texas, Oklahoma, Georgia, Florida: On track to achieve full ELT circularity

Strategic Location & Rail Access

- Connected to 4.24 million miles of U.S. & Canadian rail system
- Connected to Class I Canadian National (CN) Rail via Brookhaven, MS
- Directly served by Natchez Railway Short Line (NTZR)
- Rail switch point at Brookhaven, MS
- Just 90 miles north of Baton Rouge, LA
- 300 miles south of Memphis, TN
- Access to 4.24 million miles of North American rail network

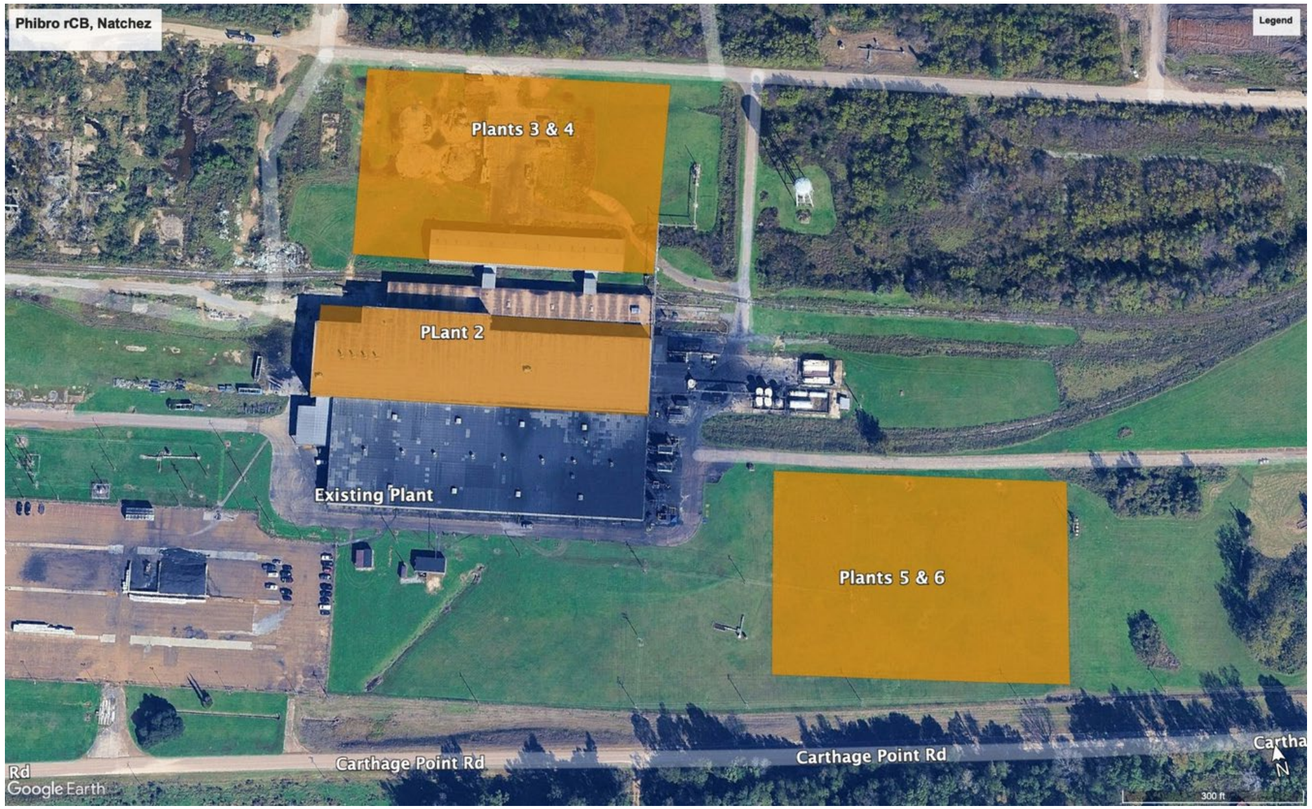


Phibro rCB Property



Phibro rCB

Vision: Scaling Up – 5 New Phibro rCB Facilities

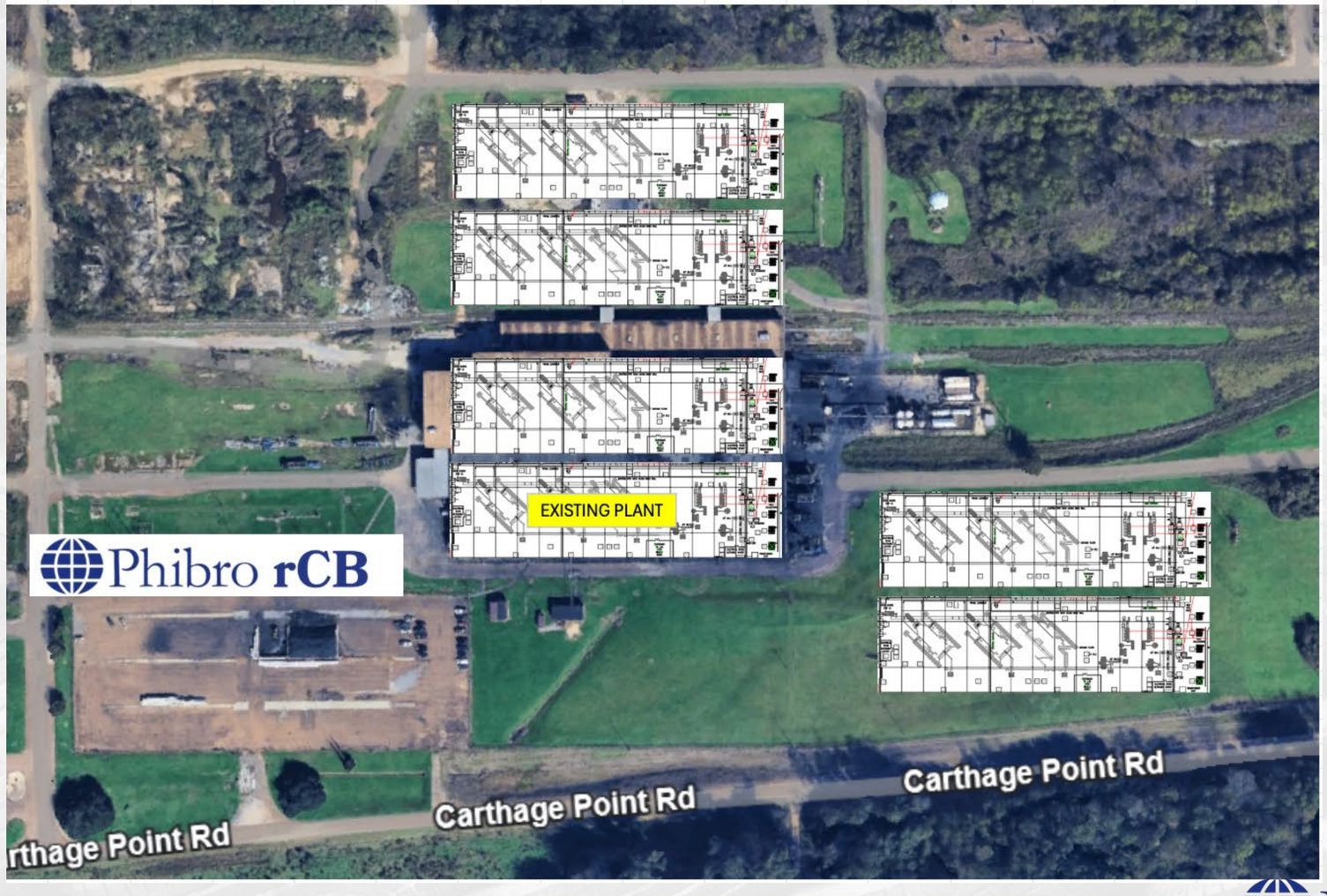


17,000 sq yd expansion underway to support increased processing capacity

- **5 functional areas:**
  - Raw Material Storage (Rubber Tire Chips)
  - Production Workshop
  - Carbon Black Storage
  - Fuel Oil & Off-Gases Handling
  - 6 Pyrolysis Processing Units
- **Facility footprint:**
  - Operating floor: 101,228 sq ft (2.32 acres)
  - Under roof (excluding north warehouse/upstairs): 5 acres
  - Total site: 34.6 acres
- **Scalability** :
  - Room for 5 additional optimized plants based on current footprint

Phibro rCB

Preliminary Layout: 5 New Phibro rCB Plants in Natchez



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Thank You For Your Attention

Any Questions?

Phibro rCB

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