

WORLD ENERGY
BIOREFINERY PLANT SALE
CAPACITY 550 TPD 50MGY
RIVERFRONT NATCHEZ, MS

Asset Sale – Equipment, Land, Buildings, Dock

Contact

Solutions 4 Manufacturing

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ABOUT THIS NEGOTIATED SALE

BIOREFINERY 550 TPD
BIODIESEL 50MGY
NATCHEZ, MS

- **Asset Sale Only – Entire Plant is For Sale**
- **Riverfront Property**
 - **53 acres on the Mississippi River with Dock**
 - **Large Tank Farm 1.3 million gallons – barge transloading**
- **Structured Negotiated Sale**
- **Complete List of Equipment and Systems available**
 - **Contact us – we have much more information**
 - **All equipment is listed on our special website**
 - **Virtual Data Room (VDR) available with all detail & drawings**
- **Still installed – Plant Idled Aug 2023**

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GENERAL LISTING

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PLOT PLAN



← MISSISSIPPI RIVER

- PROPERTY BOUNDARY
- TANK FARM
- UTILITIES
- PRIMARY PROCESS AREA
- RAIL RACK
- BARGE DOCK

53 ACRES

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- 15 Buildings – 30,806 sq ft under roof, Most permits in place
- Process is all automatic – DCS and plc
- Electrical and Controls included
- 2 Centrifuges
- 21 Heat exchangers, 120 Pumps
- 2 Pressure Leaf Filter systems
- Firetube boiler 45,000 #/hr
- Distillation Column – Biodiesel/Methanol 84” ID x 54 ft tall
- Distillation Column – Glycerin/Methanol 60” ID x 40 ft tall
- Distillation Column – Methanol 36” ID x 71 ft tall
- 2 Reactors for continuous flow – 12 ft dia x 21 ft tall
- 1 Enzymatic Degumming Reactor – 12.5 ft dia x 20 ft tall
- 2 Decanters for Reaction – 12 ft dia x 25 ft tall
- 3 Decanters for Biodiesel/Water – 18 ft dia x 25 ft tall
- 1 Decanter for Glycerin/ffa – 26 ft dia x 22 ft tall
- 60 Tanks – Storage and In-Process
 - Tank Farm Capacity 1.3 million gallons
 - Tank Farm connected to barge dock on the Mississippi River

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LOGISTICS

- **Barge – Can Accommodate**
 - (2) 400,000 gallon barges
 - (1) 1,000,000 gallon barge
- **Trucks**
 - 5 truck spots
- **Rail**
 - 9 rail spots
 - Accommodates 23,000 gallon cars
 - Limited by rails
 - Switched by Natchez Railway (to CN)
- **Tanks**
 - 1.3 million gallons storage
 - Tank Farm – access to dock



Shutdown, Clean-out, and “Mothballing” Procedures

Care was taken during shut down to preserve and protect the equipment and systems from deterioration, and to ensure they could be re-started easily

- Centrifuges rotated monthly
- Spares and spare motors in protected warehouse.
- Large equipment rotated monthly (by their motors) to preserve bearing life
- Boiler was put in wet storage

- **Calumet Petroleum Chemicals began operations in 1969**
- **Acquired by Amoco in 1978**
- **Acquired by Ethyl in 1992 (Shutdown production in 2001)**
- **Acquired by Delta Biofuels in 2006**
- **Acquired by Elevance in 2011**
- **Started Tolling for World Energy in 2013**
- **Purchased by World Energy in September 2016**

- **Biodiesel Production:**
 - **Converted from Batch to Continuous**
 - **Capacity 50 MGY nameplate**
 - **Biodiesel Production ceased in August 2019**

- **Hydrolysis Production:**
 - Plant conversion and reconstruction in 2021
 - Began hydrolysis process of soybean oil to free fatty acids.
- **Enzymatic Refining:**
 - Plant conversion and reconstruction at end of 2022
 - Began enzymatic refining of soybean oil for feedstock for renewable diesel
 - Throughput approximately 550 tons per day (TPD)
- **Plant idled in August 2023**
- **Key Plant personnel still on site**
- **Routine maintenance performed including rotation of large motors**

PLANT CAPACITY

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Biodiesel Production:

- Permitted and Nameplate capacity was 72 million gallons per year (MGY)
- Proven production was 50 MGY
- Feedstock crude degummed soybean oil
- Will require de-bottlenecking to operate at nameplate

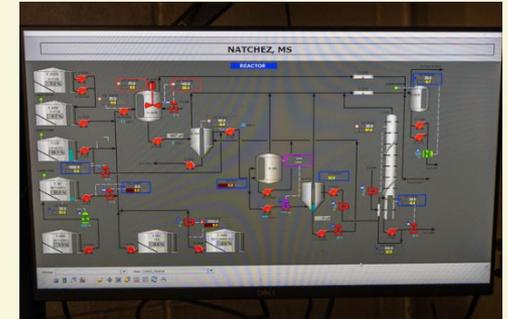
Soy Enzymatic Refining:

- Feedstock crude degummed soybean oil
- Designed to refine at 144,000 gallons per day (100 gpm) (550 TPD)
- Operation was limited by feedstock supply chain
- Proved to 86,000 gallons per day (60 gpm)

SYSTEMS ELECTRICAL & CONTROL

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- Transformer
- Switchgear Westinghouse
- MCC GE
- Controls
 - Allen Bradley plc, HMI



CENTRIFUGE

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Westfalia RSE 200



BOILERS & AIR COMPRESSORS

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- **Boilers**

- (2) Fire Tube – one operational
- CE firetube 45,000 #/hr 175 psig

- **Boiler room**

- Deaerator
- Water Softener
- Boiler Feedwater Pumps



- **Air Compressor**

- Plant Sullair 100 HP 477 cfm
- Dock Sullair 50 HP

SYSTEMS LOAD-OUT

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SPARES & MAINTENANCE SHOP

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- Spares
 - Huge Spares Inventory
 - Motor Spares
- Shop



LAB

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- GC – PE Clarus
- GC – Agilent
- ICP – Teledyne Profile Plus
- Sulfur Analyzer
- Flash Point Tester PMCC
- Rancimat

