



Corporate Profile 2019

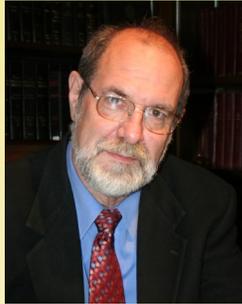
123 East Commerce St.

Fairfield, TX, 75840

877-711-2382

r.hill@cetaenergy.com

CETA LEADERSHIP



Roy W. Hill
President & Chairman
of the Board



Michelle Moore
Executive Vice President
Board of Directors



Al Thomas, II
Board Vice President



Robert Buller
Chief Global Strategist
Board of Directors



Charles Moncla
Board of Directors



Richard Sapienza, PhD.
Science Director



Tracy Thompson
Vice President of Construction

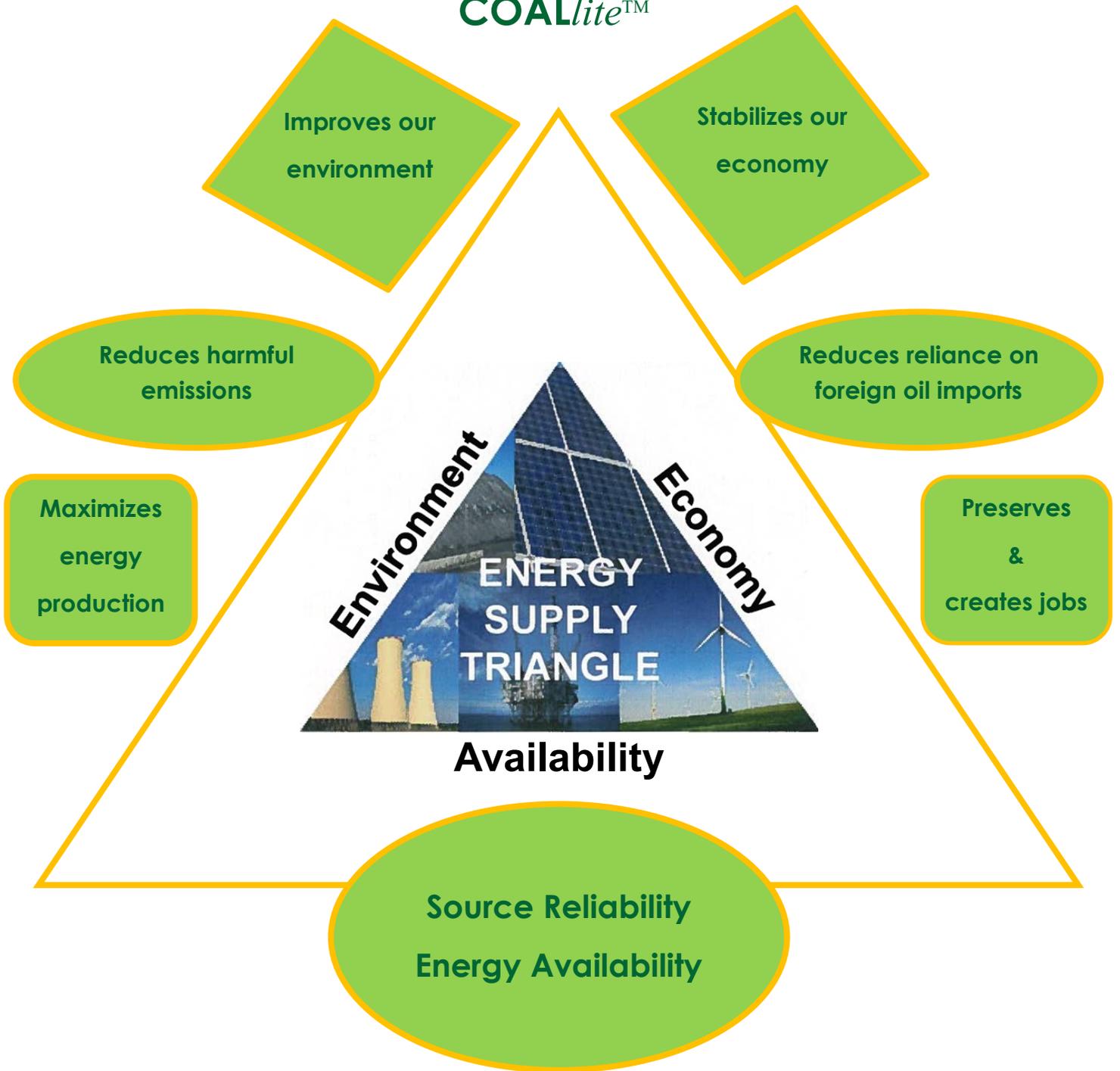
Dedication and Experience
that comes from decades of collaboration within
the oil, gas, chemical, and coal industries.

Today's Energy Sources Must Meet Demanding Criteria

U.S policy-makers are constantly trying to find fuel sources which can serve the nation's energy needs, and simultaneously achieve positive impacts on our **environment** and **economy**, while assuring sustained **availability**.

CETA has developed the TRIFECTA energy source solution.

COALite™



COAL*lite*TM

CLEANER, HOTTER, BETTER

LOWER EMISSIONS, HIGHER BTUs, COMPETITIVE PRICE

CETA's unique, proprietary distillation process transforms raw coal into a much cleaner, hotter, better coal we call, **COAL*lite*TM**.

Our distilled coal product can be used in traditional power plants and other industrial facilities, such as steel plants, with lower emissions, and higher energy efficiency. It's competitive price point results in a highly attractive economic margin.

CETA's **COAL*lite*TM** will help power plants meet strict EPA standards by providing a 98% reduction in mercury emissions as well as a 20% reduction in key sulfur emissions. And, when used with our CO₂ absorption equipment, can remove most of the CO₂ as well.

VALUE ADDED BENEFITS

REDUCED COSTS, COMMERCIALY MARKETABLE BYPRODUCTS

Lighter weight makes it easier to handle.

Homogenized, stable and dry fuel is easier to burn.

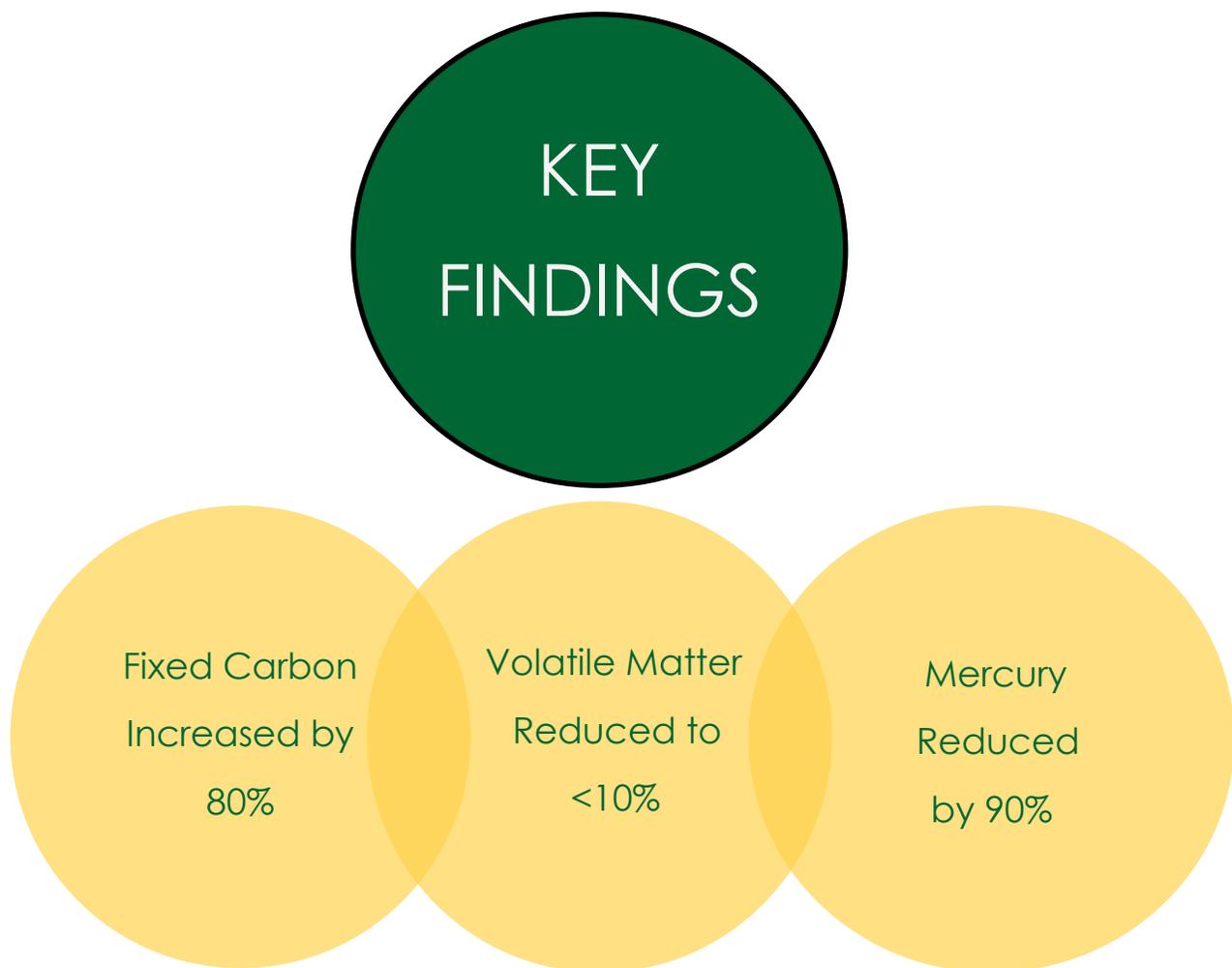
Reduced fly ash will not require increased bag house capacity.

CETA's distillation process results in commercially viable byproducts.

More heat per ton means you need less, reducing transportation costs and other emissions.

Distillation of Bituminous Metallurgical Coal Greatly Enhances the Viability of the Industry

After testing several blends, **CETA** discovered that a 50/50 Bituminous/Lignite or PRB blend most effectively extracts volatile matter from metallurgical coal. Key-findings indicate that the resulting metallurgical **COALite™** has similar characteristics to that of met-coke which is used for more cost-effective and more environmentally-responsible steel manufacturing.



Trusted Expertise Ensures Reliable Data

COALite™ is cleaner and more energy-efficient than raw coal. But you don't have to take our word for it. Extensive evaluations by the nation's leading laboratories consistently confirm **CETA**'s research.

Comparison of Raw Coals to Respective COALite™ Product							Market Standard
Physical Properties (% by weight)	Pre-Distillation			Post-Distillation			Steel Quality Met Coke (Averages)
	Raw Lignite	Raw PRB	Raw Bituminous (pulverized, washed)	Lignite COALite™	PRB COALite™	Bituminous COALite™	
Volatiles	29.2	32.93	40.16	13.62	10.59	9.01	.4 - 2.0
Moisture	29.5	37.5	7.69	1.62	1.67	0.7	2.5 - 10.0
BTUs	7,181	8,232	13,400	9,660	12,132	13,217	13,000 - 14,000
Fixed Carbon*	27.52	43.65	46	54.2	71.85	80	84 - 88
Mercury	0.18	0.098	0.0116	0.04	0.012	0.013	0.079
Organic Sulfur	0.58	0.3	0.7	0.98	0.4	1.71	0.5 - 1.0
Pyritic Sulfur	0.19	0.05	0.8	0.1	0.02	0.08	0.2 - 0.4
Total Sulfur*	0.77	0.35	1.5	1.08	0.42	1.82	0.5 - 1.0
Ash*	13.8	7.93	6.15	31.53	14.92	10.29	8.0 - 13.5

*Fixed Carbon can be increased with extended distillation time.

*Sulfur can be reduced with extended distillation time.

*Ash can be reduced by washing if desired.

Verified Quality
Backed by nearly a decade of research.



Precision Analysis



Texas Oil Tech Laboratories



Standard Laboratories, INC.



Energy & Environmental Research Center



Energy Laboratories



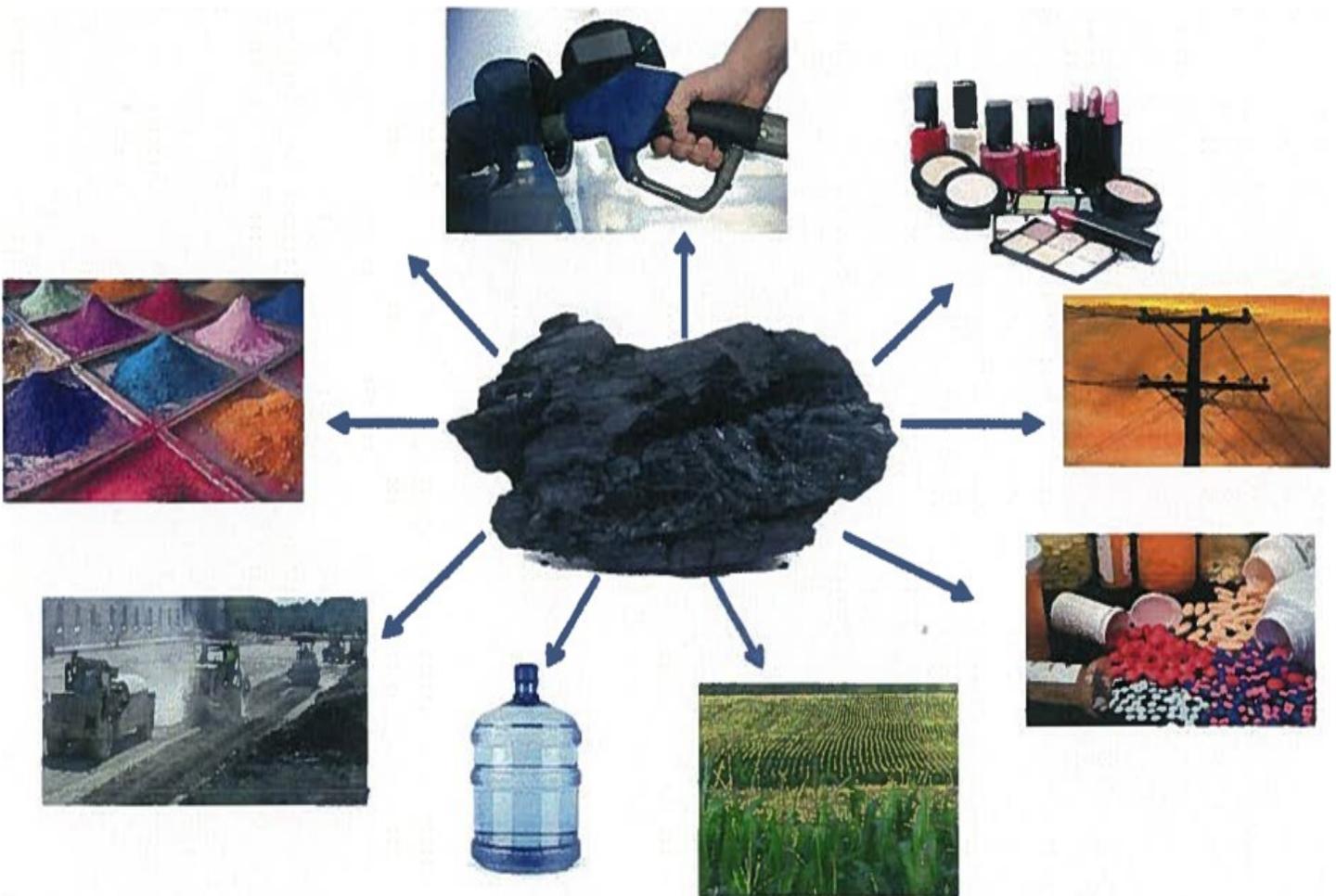
Avomeen Analytical Services



Heritage Research Group

Coal's Hidden Potential

CETA knows that the use of **COALite™** as a clean energy source is only the beginning. Our patented distillation process yields highly marketable byproducts, and unlocks an untapped commercial viability for coal.



Distillation Converts Coal Into Much More

COALite™

More bottom ash for roads, cement, and rare earth elements.

CETASolve™

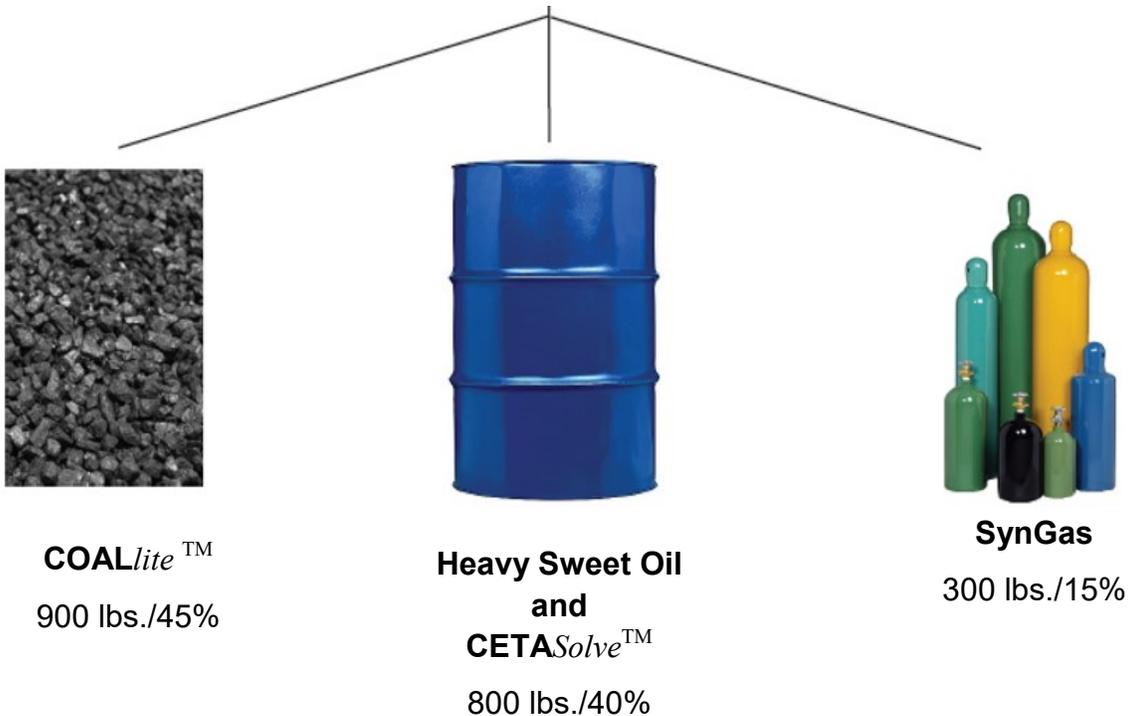
Feed stock for other chemical products, drilling, fracking, secondary recovery, cleaning agents and CO₂ absorption.

Heavy Sweet Oil

For use in making pharmaceuticals, cosmetics, dyes, resins, firefighting fluids, and other products.

SynGas

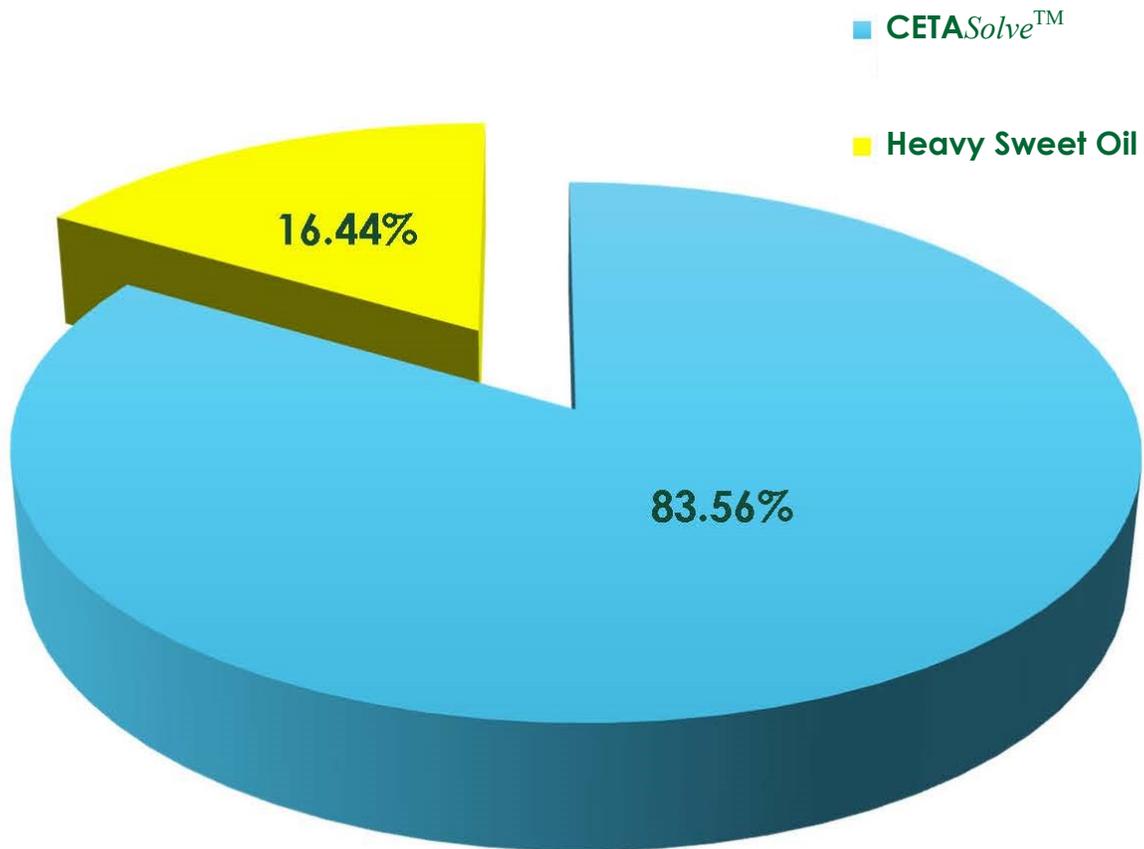
High in Nitrogen and Hydrogen for clean fuels, agricultural applications, and gasification uses.



Liquid Byproduct Composition

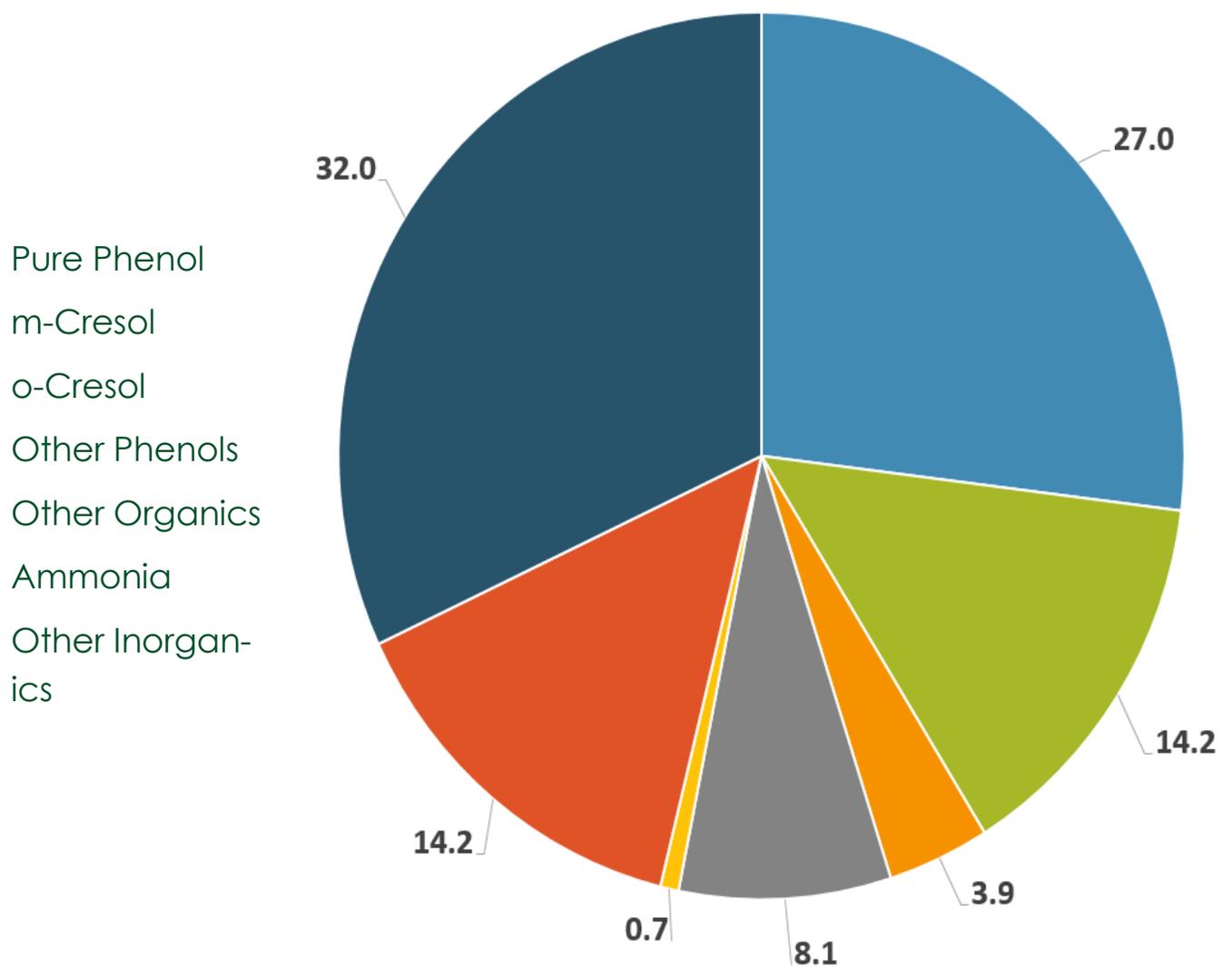
The distillation process produces liquid byproducts that trade at high-value; producing a revenue stream that should pay-off the initial cost of a distillation plant in less than five years.

Liquid Byproduct Composition



CETASolve™ Chemical Composition

Detailed chemical breakdown and composition percentages are available up-



Heavy Sweet Oil & **CETASolve™** Profitability

CETASolve™ can be priced at \$235.63 per 42-gallon barrel. This chemical feedstock offers inherently substantial profitability. Listed below are just a few examples of the extractable, and highly marketable chemicals that will refine out of this valuable feedstock, including the Heavy Sweet Oil.

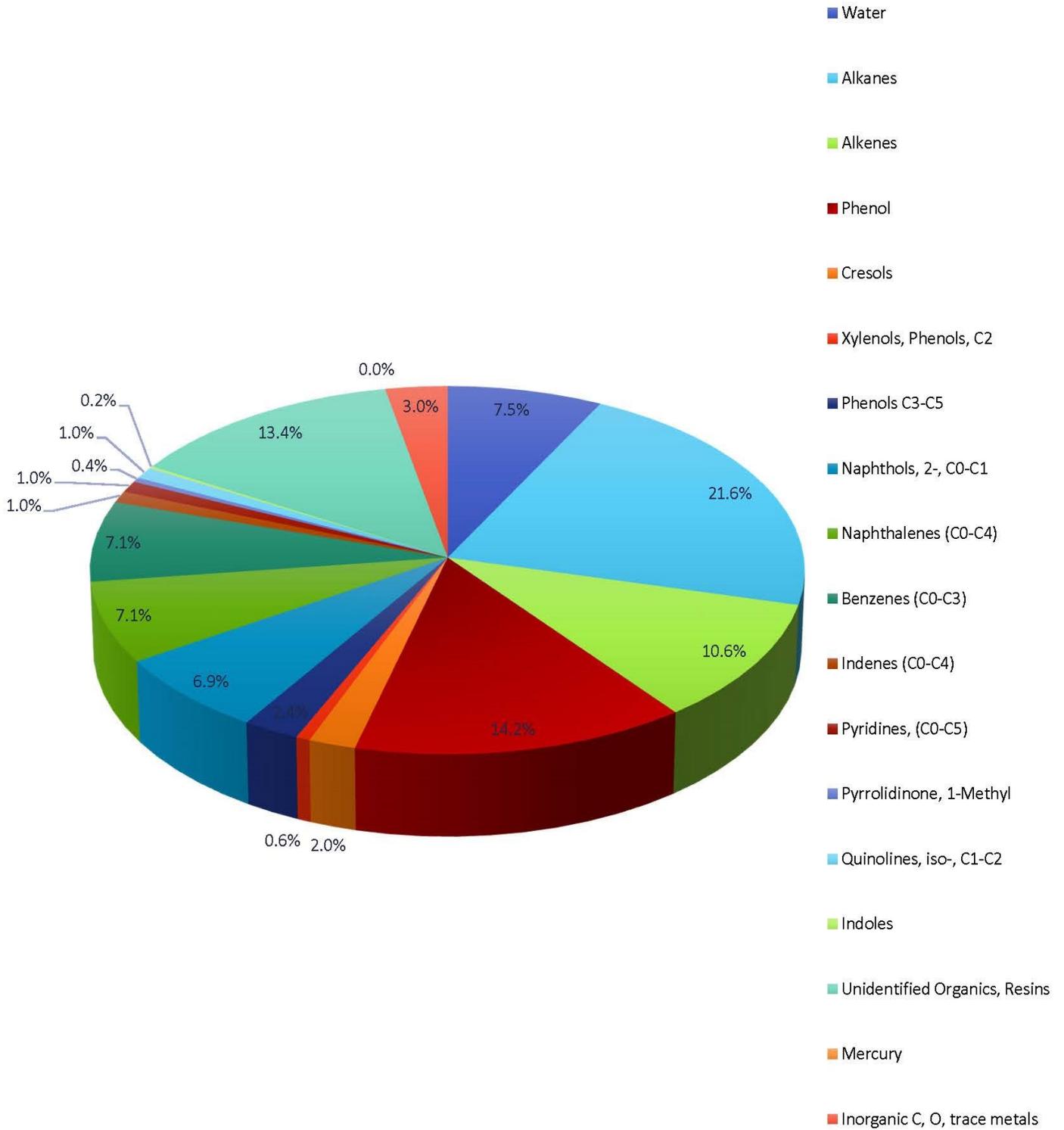
Heavy Sweet Oil

Extractable Chemical Content	Pure Chemical Values Price Per Barrel	Extracted & Refined Chemical Value Per 42 Gallon Barrel of Heavy Sweet Oil
ALKANE	\$ 95,392.33	\$ 20,604.74
PYRROLIDINONE, 1-METHYL	\$ 709,480.46	\$ 2,837.92
PHENOL	\$ 215.01	\$ 30.53
NAPHTHOL	\$ 196.84	\$ 13.58
BENZENE	\$ 175.54	\$ 12.46

CETASolve™

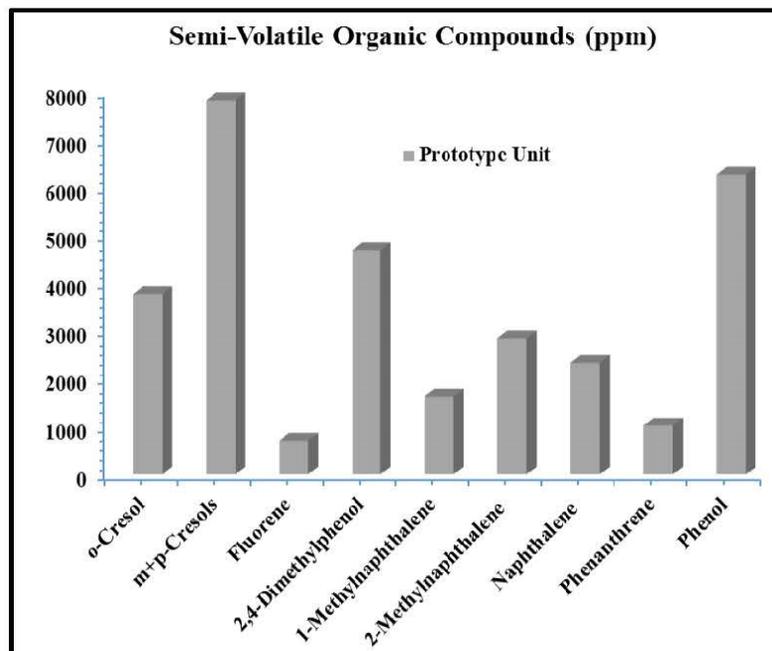
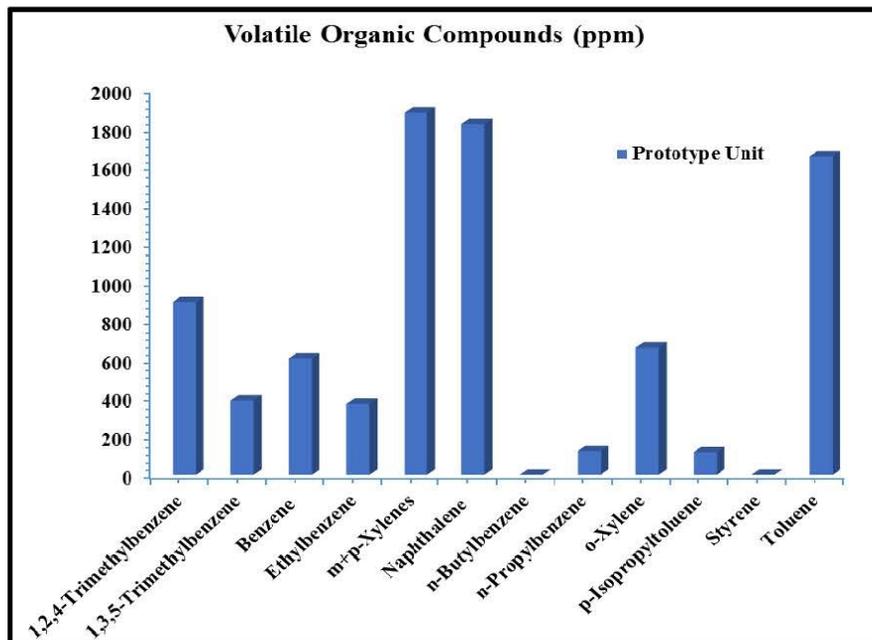
Extractable Chemical Content	Pure Chemical Values Price Per Barrel	Extracted & Refined Chemical Value Per Barrel of CETASolve™
AMMONIA	\$ 1,338.67	\$ 437.75
2,3-DIMETHYL-2-CYCLOPENTEN-1	\$ 611,343.72	\$ 5,502.09
PURE PHENOL	\$ 215.01	\$ 58.05
M-CRESOL	\$ 429.64	\$ 61.01
2-ETHYLPHENOL	\$ 5,999.87	\$ 156.00
PYROCATECHOL	\$ 3,577,212.45	\$ 3,577.21

Heavy Sweet Oil Composition



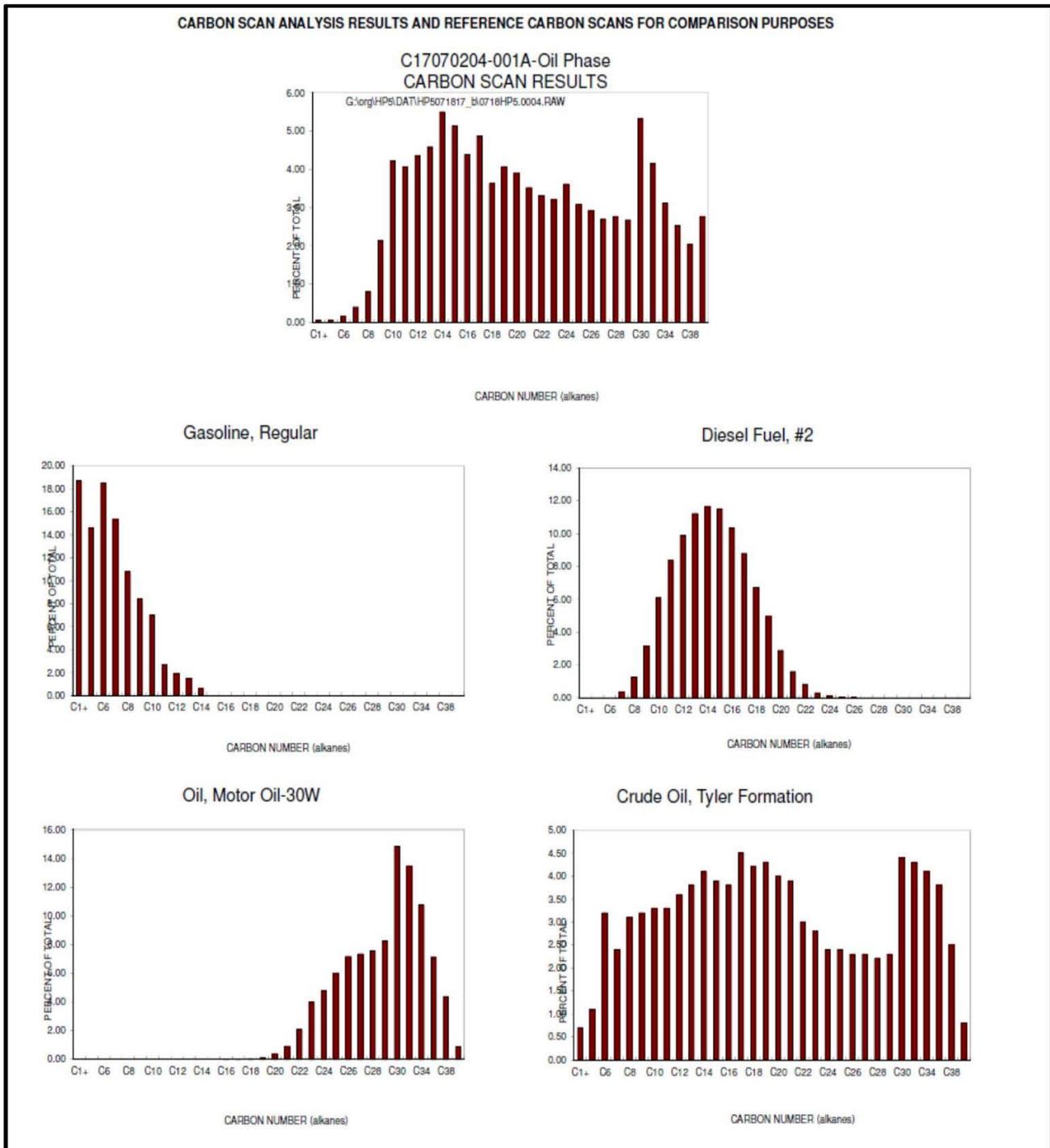
Heavy Sweet Oil Volatile and Semi-Volatile Organic Compounds

After optimal parameters were realized using a blend of lignite, and metallurgical coal; several liquid byproduct samples were analyzed to determine its organic composition and potential marketability.



Heavy Sweet Oil Comparisons

According to this carbon scan comparison, which is based on Energy Laboratory's library of compounds, **coal-extracted Heavy Sweet Oil** is similar to Crude Oil, Tyler Formation, further confirming its marketability as a crude oil.



Heavy Sweet Oil Profitability

CETAOil™ Compared to Heavy Crude Oils from Around the World

Parameter	CETA (Freestone)	Venezuela (Menemota)	USA (Nacatosh/LA)	Mexico (Maya)	Arababic (Heavy)
API Gravity	20	20.7	21.7	22.2	27.4
Specific Gravity	0.95	0.93	0.92	0.92	0.89
Sulfur (wt%)	0.90	2.07	0.55	3.3	2.8

Heavy Sweet Oil byproduct is marketable to existing refineries with an attractive profit margin.

Raw Coal +
Distillation Costs
per M/T
\$100

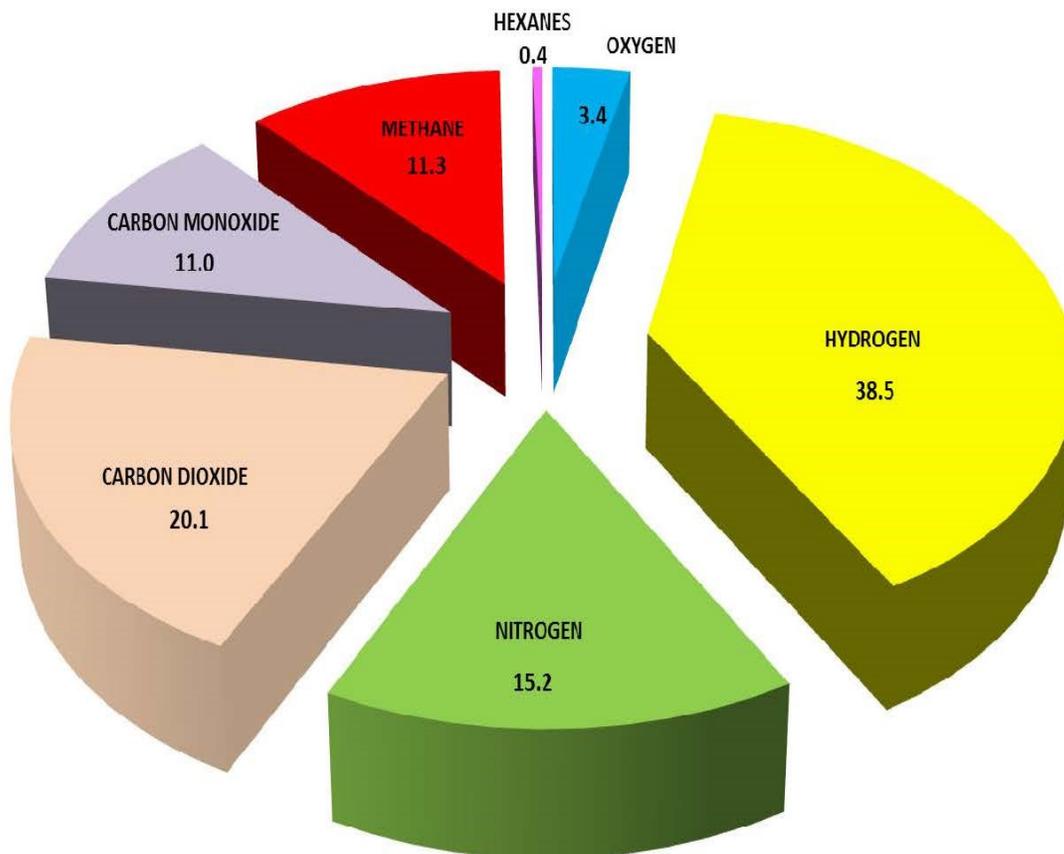
Distillation Revenues
per M/T
\$200

CONSERVATIVE
Profit Margin
\$100 per M/T

CETA SynGas Composition & Marketability

- Distillation off-gas averages 325 BTU/ft³.
- It is marketable as a Clean SynGas (no H₂S) for pharmaceuticals and clean fuels.
- After separation, is marketable as a powerful driver for turbine generators to produce electricity.
- Portions of gases can be used to make high-end fertilizers for agriculture.
- Portions of gases can be used to improve coal quality and marketability.

EXAMPLE OF COMPOSITION OF GASES BY VOLUME





PATENTED
Coal Distillation Units

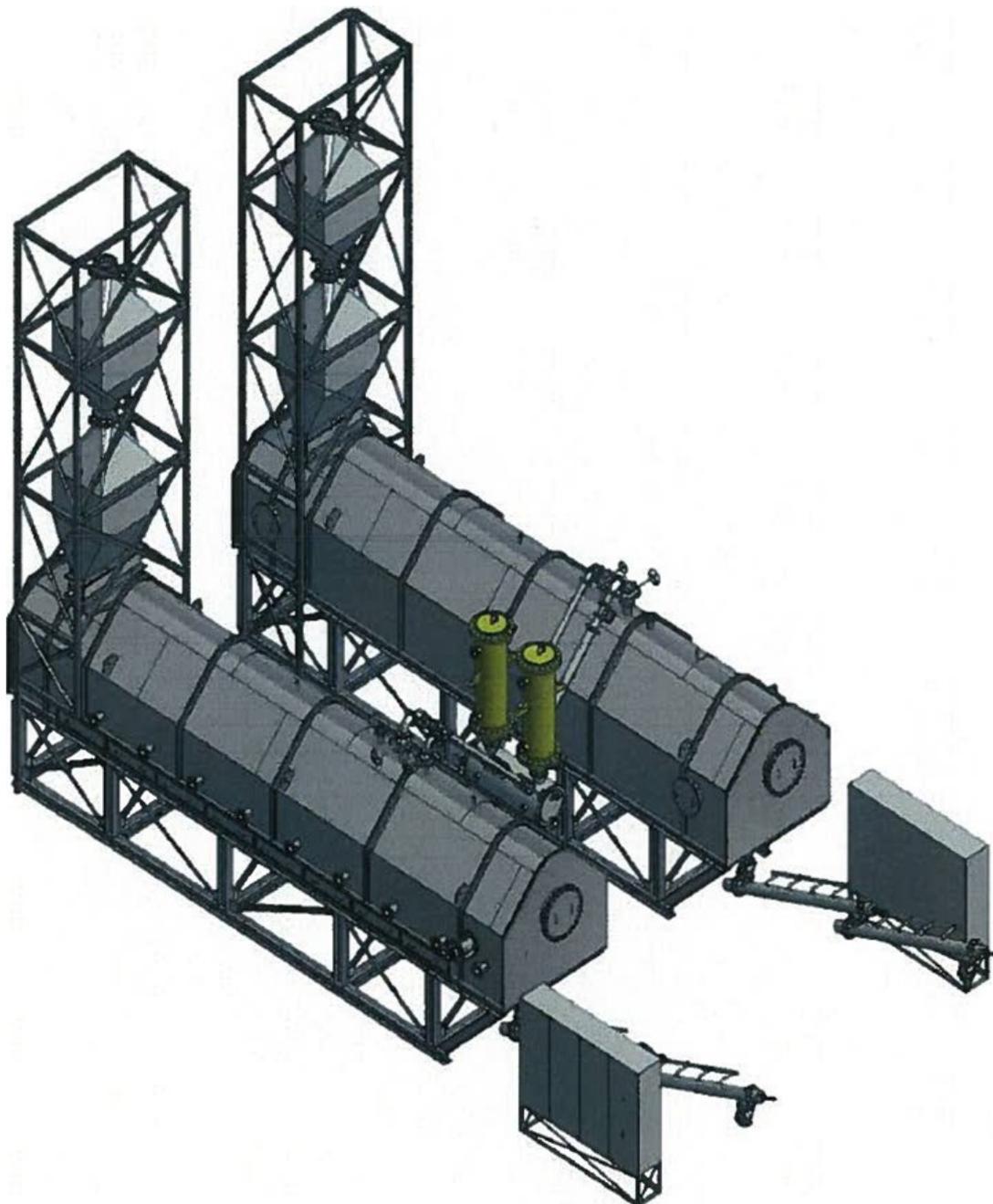


CETA Coal Distillation Unit

Over a 10-year period, **CETA** developed our commercial distillation units and process. The technology and proprietary process have been fully vetted and are now patented.

Patent Number: US 10,174,256 B2

Distillation Unit for Carbon-Based Feedstock Process System



Hey!
**Don't throw
that away!**

CLEANER COAL IS SAFE COAL!

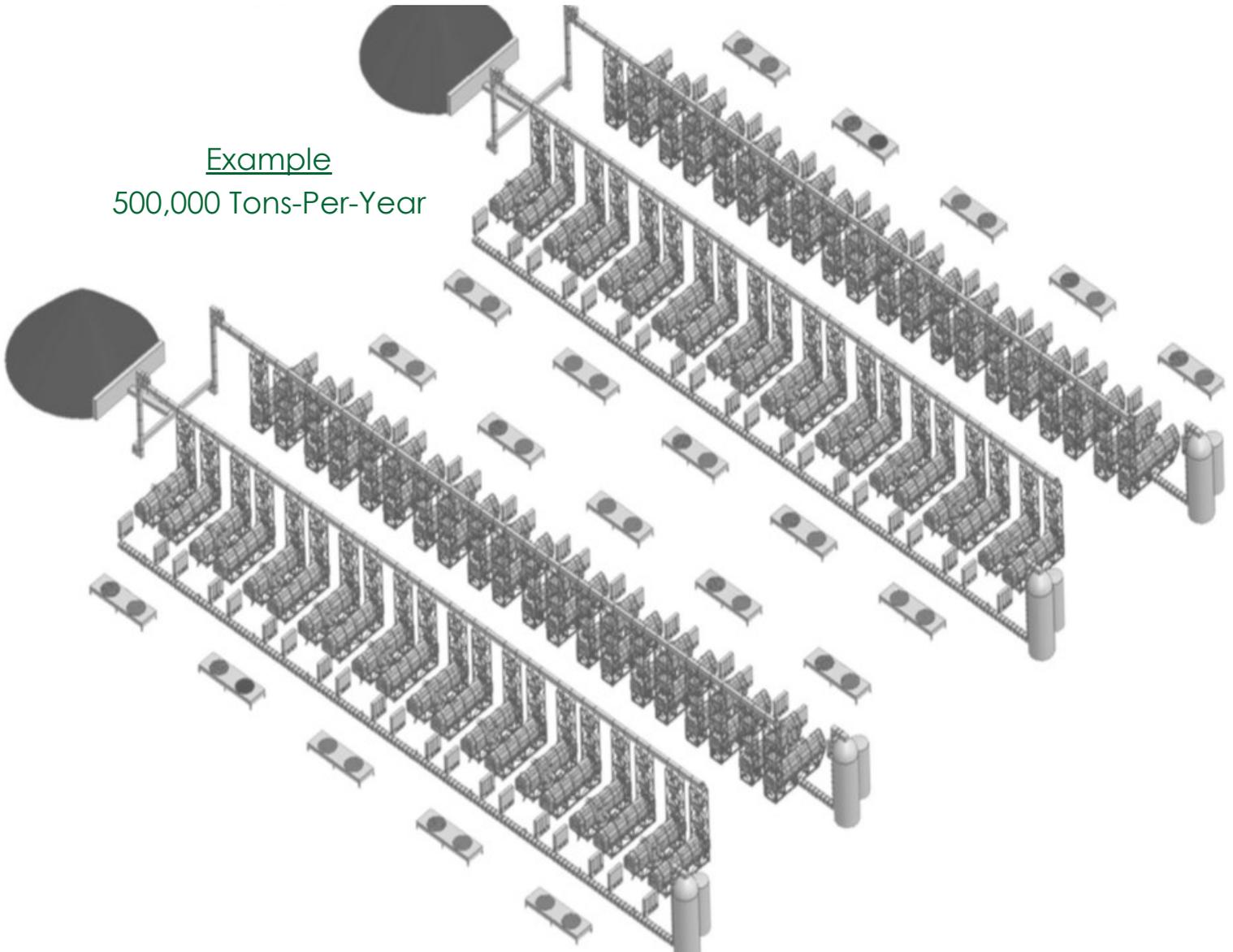


WHY THROW IT AWAY WHEN WE CAN CLEAN IT?

Recently strengthened coal mining regulations and land reclamation efforts show increased respect for worker safety and environmental responsibility, but of course, this *fossil* of a fuel itself has not changed... until now!

CETA ADVANCES COAL FROM “FOSSIL” TO “NEXT-GEN” FUEL

An 80-unit **CETA** distillation plant can refine raw coal into **COALite**TM to service an electric power plant. This model is laid out in four rows of 20 units. They intake raw coal from two large stockpiles that feed into 40 units each. The resulting **COALite**TM is fed directly to the power plant, where it cleanly and efficiently generates heat to make electricity. By implementing coal distillation plants alongside the existing U.S. coal-fired power fleet, we can renew it to power future generations without jeopardizing environmental health.



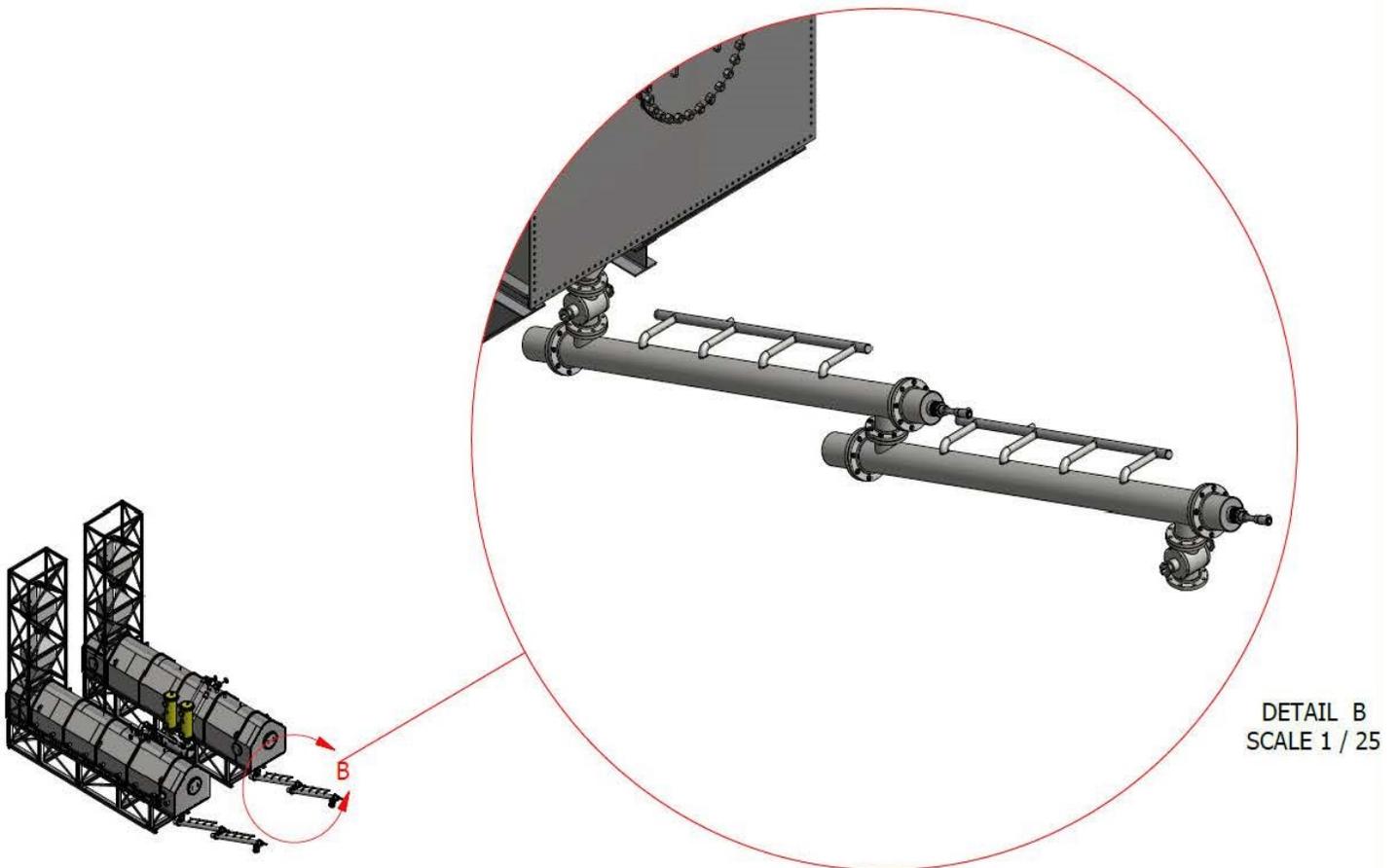
Example
500,000 Tons-Per-Year

CETA COAL^{lite}™ Cooler

This proprietary cooling technology uses both direct cooling (nitrogen & geothermal cooling) and indirect cooling (glycol water jacket with air heat exchanger) to greatly improve effectiveness. It also allows distilled coal to cool without releasing harmful gases into the atmosphere.

Patent Number: US 10,174,257 B2

Cooler for Carbon-Based Feedstock Processing System



Comparing Traditional Coal Coking to **CETA's** Coal Distillation

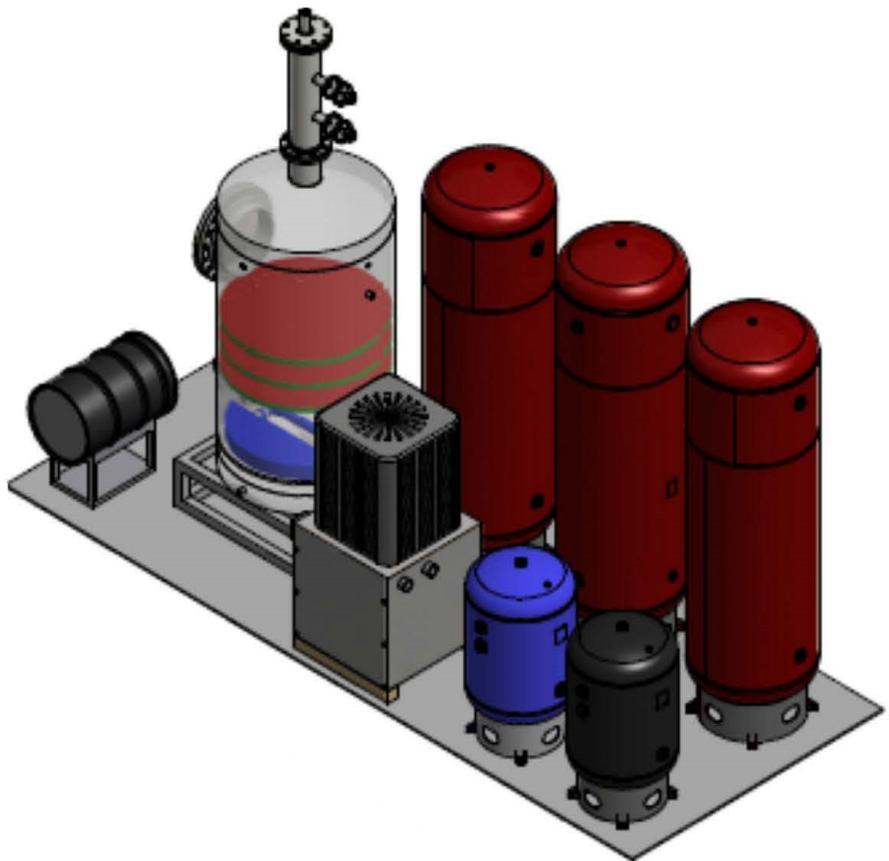
Traditional coal coking processes use a batch system to remove volatile matter from raw metallurgical bituminous coal. This process, used for over a century, heats the coal in a batch oven and then cools it in a quenching bath, venting harmful gases into the atmosphere. Temperatures typically reach 2,000°C, and each batch takes over 24 hours to process. Coal tars are sometimes captured and sold to a specialized refinery for further processing.

In contrast, **CETA's** coal distillation takes place as a continuous process within a closed loop system that captures the liquids and gases volatilized from the raw coal, greatly reducing the gas emissions. It also introduces much less heat into the coal (typically 600°C), using the coal's inherent water to remove the volatile matter in less than 6 hours. See the side-by-side comparison below.

Key Factors	Traditional Coking	CETA Distillation
Type of Process	Batch Processing	Continuous Processing
Type of System	Closed Heating/Open Cooling	Closed Loop System from Start to Finish
Plant Emissions	Substantial Emissions of Volatile Organic Compounds Due to Open Cooling	Essentially NO Emissions of Volatile Organic Matter Using Closed Loop System
Residence Time	24 Hours	6 Hours
Product Capture	Substantial Loss of Gases Due to Open Cooling	Complete Capture and Sale of Liquid and Gas Products
Economics	Total Cost to Mine and Coke Metallurgical Coal = \$145 or more	Total Cost to Mine and Coke Metallurgical Coal/Lignite Blend = \$115 or less

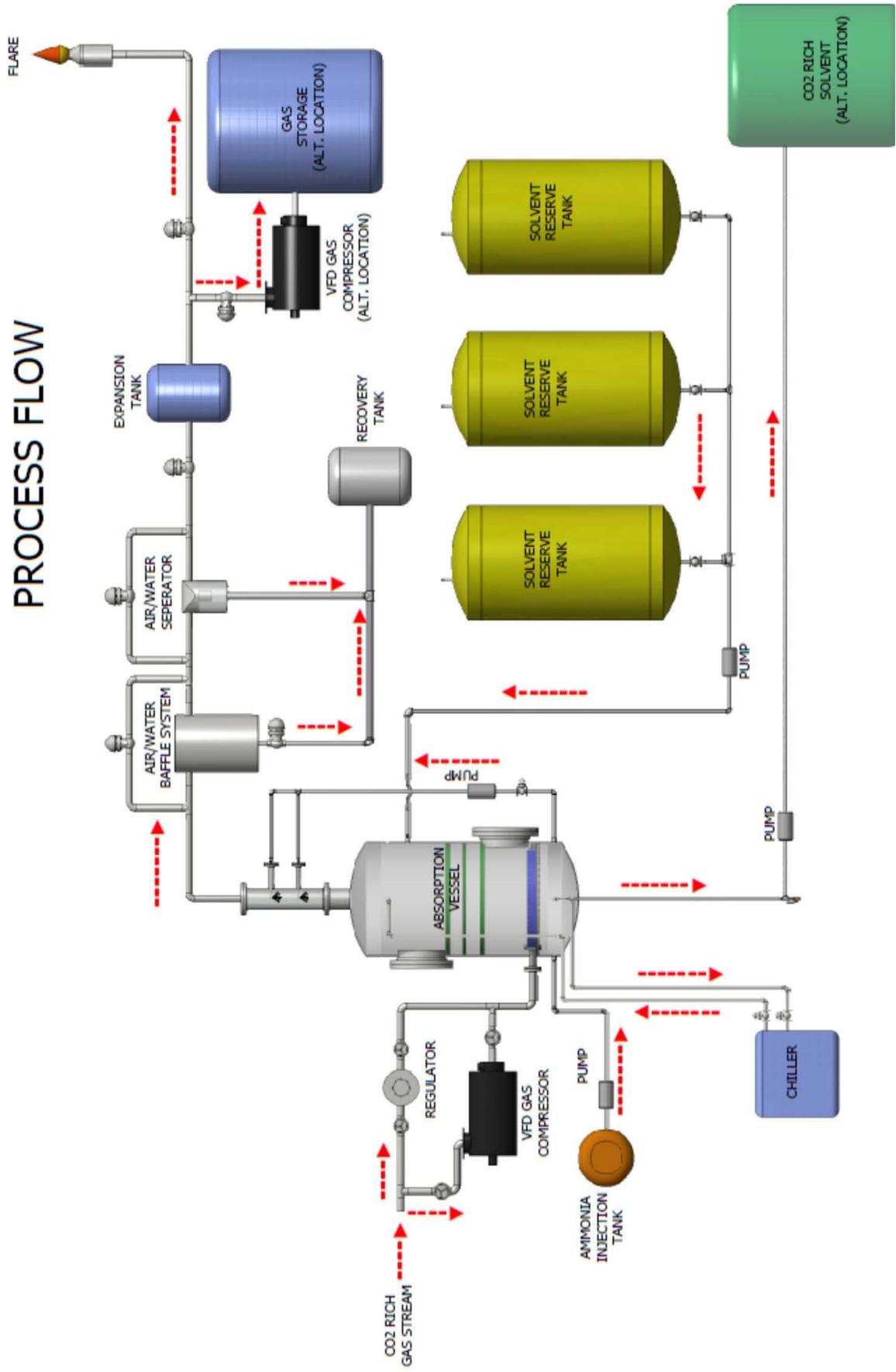
CETA CO₂ Capture and Use

Based on the composition of **CETA***Solve*[™], we have also designed a CO₂ absorption technology which removes CO₂ from natural gas, or a combustion gas stream. Our proprietary chemical solvent, extracted from coal, absorbs CO₂ into solution, making ammonium bicarbonate as a byproduct. The resulting solvent with absorbed CO₂ is marketable for enhanced oil and gas recovery without separating and compressing CO₂ gas as it returns to CO₂ when injected into well bores above 180° F.



CO₂ Absorption Tank-4 (CAT-4)

CETA CO₂ Absorption Process Flow For a Post-combustion Gas Stream



Business Plan Options

Coal Mine Company Integration

Integration of **CETA**'s coal distillation process at coal mines will allow coal companies to sell metallurgical coke directly to customers:

- Lower coke production costs
- Provide higher margins for coal companies
- Preserve and create jobs in the coal mining industry
- Allow coal companies to sell metallurgical coke directly to customers
- Compete in domestic & export markets with maximum flexibility and lower prices

U.S. Steel Company Integration

Integration of **CETA**'s coal distillation process within steel companies would catalyze beneficial conditions within the U.S. steel industry:

- Lower costs to produce coke used in making steel
- Reduce the environmental impact on air quality in the region
- Create additional jobs in the steel and coal mining industries
- U.S. steel becomes more competitive with foreign steel imports

Merchant Coal Distillation Company

Installation of **CETA**'s coal distillation units within coal coking companies would:

- Preserve and create jobs due to increased production of U.S. steel
- Scale coke production to merchant levels
- Serve growth in domestic and export coke use
- Lower emissions from existing coking facilities
- Lower steel production costs
- Increase competitiveness
- Maximize revenue & Stabilize margins

CETA STAFF



Rebecca Dodge

Director of Logistics



Brandi Rhodes

Director of Accounting Services



Michelle Childs

HR Administrator



Jessica Growden

Executive Assistant



Bill Brown

Foreman of Operations



David Housewright

Special Advisor to
President

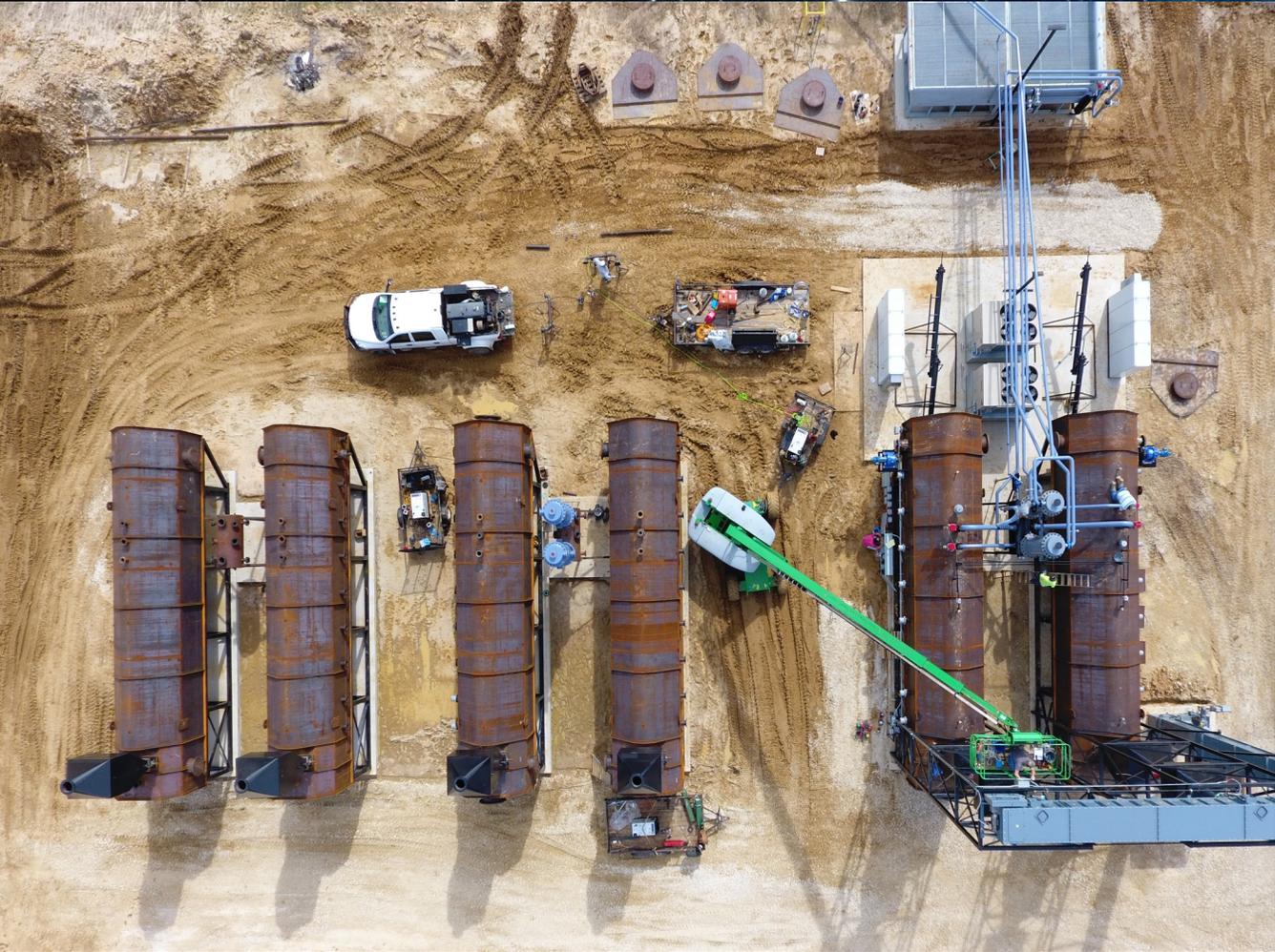


Coy Turner

Foreman of Operations



WITH CETA LEADING THE WAY



A NEW DAY



FOR COAL IS DAWNING





AMERICAN PROGRESS AMERICAN PRIDE

JOIN THE CETA MOVEMENT

Developing
Foreign Export
Markets

Monetizing
Coke
Production

Acquiring
Coal-fired
Power
Plants

Reviving the U.S.
coal-fired power
fleet for
generations
to come

Producing
more
domestic
oil and
solvents

Exploring
for
Domestic
Rare Earth
Mineral
Fields

Inventing
Economical
Rare Earth
Extraction
Methods

