

# LIQUID RECYCLING

used oil | parts cleaning | anti-freeze | filters & absorbents | wastewater | chemicals

## 2022 NORA Annual Conference & Trade Show

**Naples, Florida • November 9-12th, 2022**

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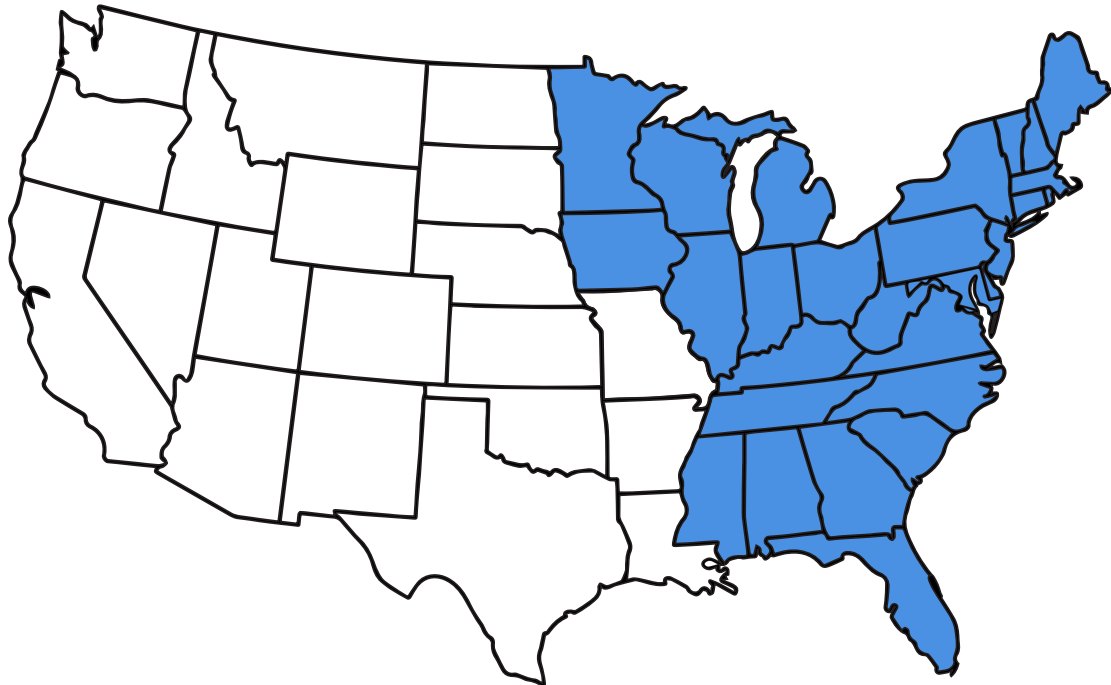
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**What's In a Name?**

Recently, I was on a planning call regarding an upcoming lubricants conference. While reviewing the proposed agenda, it became clear that sustainability was a major theme for the event. For the two day conference, five of the sessions were specifically focused on sustainability.

I spoke at the same conference ten years ago. I happen to have saved the agenda. During that event in 2012, none of the sessions had a sustainability theme.

But what is sustainability? I thought this would be an easy question to answer. My initial thought was in line with what is in the dictionary: "the ability to be maintained at a certain rate or level." Seems straight forward enough.

If you dig a little deeper, understanding what sustainability is becomes murkier. Although historical sustainable definitions have focused on using natural resources in a responsible way, the definition has been broadly expanded in recent years.

Today, the concepts of social equity and economic development are often embedded in sustainable definitions and literature. While there are many that would find these as noble efforts, the addition of too many concepts into one term makes the word ambiguous. That creates confusion and creates opportunity for special interest groups to hijack the term.

The Federal government has taken notice of companies misusing certain environmental terms, including "sustainability". What was once an intangible description ("we are a 'green' company") has taken on new importance given financial institutions interest in the issue.

Last year, the Federal Trade Commission (FTC) announced that it would be reviewing and revising its Green Guides in 2022. The head of the U.S. Securities and Exchange Commission stated that, "climate risks and sustainability are critical issues for the investing public and our capital markets."

There have been some court cases and FTC regulatory actions regarding "greenwashing" by some companies.

No matter how you or anybody else defines it, NORA members have been involved in "sustainability" well before the term took on its current popularity. For decades, members of the association have been collecting and beneficially reusing billions of gallons of used oil. In addition, our industry collects antifreeze, filters, wastewater and much more for recycling to reduce the need virgin materials. To me, that is the very essence of sustainability.

While many are trying to determine their "sustainability" message, NORA members know they were in the "sustainability" business before it was the buzzword it is today. ■

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## INDUSTRY CALENDAR

(meeting dates are tentative and subject to change)

### 2022

#### Independent Lubricants Manufacturers Association Annual Meeting

October 1-4, 2022  
Marco Island, Florida

#### NORA Annual Conference & Trade Show

November 9 - 12, 2022 Naples, Florida

### 2023

#### National Asphalt Pavement Association Annual Meeting

February 5-8, 2023  
Miami Beach, Florida

#### NORA Winter Meeting

February 22 - 24, 2023 New Orleans, Louisiana

#### Texas Commission on Environmental Quality (TCEQ) Trade Fair & Conference

May 16-17, 2023  
Austin, Texas (NORA will be exhibiting.)

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## **Blue Tide Announces Hydrotreater at Baytown Facility**

NORA Member Blue Tide Environmental announced that it has reached a final investment decision (FID) for the addition of a hydrotreater to its Baytown, Texas facility. The hydrotreating expansion will allow for the facility to become a full base oils (lubricants) recycling operation, processing Blue Tide produced and additional third-party-sourced VGO into Group II+ base oils. Once the hydrotreater is operational and the facility redesign is completed, the plant will produce up to 5,000 barrels per day of environmentally responsible Group II+ base oils, with the option to upgrade production to Group III in a capital efficient manner.

“The addition of hydrotreating units to our redesigned facility will significantly expand the breadth of our capabilities from not only recycling high-quality UMOs but allowing us to produce even more environmentally friendly Group II+ base oils directly,” said Mark Bouldin, Chief Executive Officer of Blue Tide.

## **Maine Proposed Used Oil Rulemaking**

The State of Maine has announced an upcoming rule making regarding used oil, the first major update since 1985. The new rule will include generator, collection site, burner, marketer, transporter and facility (processor) standards. A pre-rulemaking event regarding the concepts for the new rule will be held September 30 and October 6 via webinar. NORA will participate and inform members at the NORA Conference of the plan. At this point, it is not know what the proposed changes will be.

## **National Lubricant Container Recycling Coalition Announces Atlanta Pilot Program**

The National Lubricant Container Recycling Coalition (NLCRC) is launching an industry-first collaborative recycling pilot program that focuses on consumer plastic packaging for engine oil and other petroleum-based products. The recycling pilot is a one-year project involving over 40 locations in Atlanta, including retail stores and auto care centers, instant oil change locations, and several commercial facilities. The pilot aims to assess and measure the economic and market drivers for post-consumer recovery and recycling, better understand consumer waste disposal behaviors, and define parameters for model development and future scalability. Project partners include retail companies, commercial entities, Safety-Kleen, and Nexus Circular.

## **SquareOne Energy Announces New Jersey Re-Refinery**

SquareOne Energy, LLC has announced he development of its initial discarded and used oil recycling facility in the Philadelphia region, the first to serve the northeast U.S. and mid-Atlantic markets. The facility will accomplish this by converting a wide array of used oils and other waste hydrocarbon streams into clean transportation fuel products, primarily ultra-low sulfur diesel (“ULSD”). SquareOne’s ULSD, which will meet Colonial Pipeline specifications, will be available for immediate delivery into vehicles, transportation pipelines, and marine vessels, giving SquareOne the ability to recycle discarded oil into high quality on-road fuel.

A photograph of a water treatment facility at sunset. The sun is low on the horizon, casting a golden glow over the scene. In the foreground, a long, narrow channel of water flows over a series of metal weirs, creating a series of small cascades. The water is dark and reflects the sky. In the background, there are several large, white cylindrical storage tanks and a complex network of metal pipes and structural beams. The sky is a mix of blue and orange, with some clouds.

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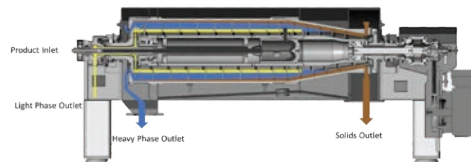
# Turning Waste into Value Streams using Three Phase Separation

BY KEVIN BELL, CEO AND OWNER, GTECH

In today's environment, leading businesses are incorporating smart, sustainable processes to make the most of the resources they use, while conserving precious natural assets. It's never been more important to make the most of our limited resources. From water, to oil, to food, a focus on reducing waste, recovering valuable materials, and maximizing everything we use introduces new value opportunities and increased efficiency to a wide range of industrial, wastewater, oil and gas, and food by-product industries.

Applying three phase separation can quickly transform a business's commercial footprint by taking a costly waste stream and splitting it into three separate and individual phases. As illustrated in the diagram the waste product is fed into the decanter through a proprietary feed zone. This helps separation quality and with the use of tungsten carbide throughout the machine maintenance costs are reduced significantly. The light phase is pumped via a fully adjustable paring pump whilst the heavy phase is discharged by gravity. Solids are conveyed with a high-torque hydraulic drive system which helps maintain dry solids. Depending on the initial waste stream, the make-up of the

ensuing three separate phases will drive the value opportunity.



A good example of the value opportunity created by three-phase technology sits within the Oil and Gas Industry. The variable price of oil and gas, global supply insecurity and increasingly arduous environmental regulations are making recovered oil an extremely valuable resource. With higher per barrel oil prices, being able to process and recycle residues containing oil greatly improves the value companies can offer to their service customers or capture for themselves.

In today's environment, the cost to dispose of tank sludge is a significant expense which includes transportation. Using a skid system with an Echo 4 decanter, one operator has been able to extract WTI crude to meet the BSW spec. In addition to the top-line value stream created by extracting WTI crude from this waste stream, this operator has found other advantages and cost reductions.

Maintaining a consistent and constant operational flow of the waste stream is another benefit of three phase separation. The operator also leverages a fully variable paring pump for the light phase. This on-the-fly adjustment optimizes operations and maximizes their uptime because the centrifuge doesn't have to be powered down to make such optimizing adjustments, which can lose valuable processing hours to come back online. Paired with high level software and in-house designed and assembled panels, this West Texas operator has established a benchmark for crude oil reclamation.



An Example of a ThreePhase Skid Decanter

Depending on your operation and the application of three phase technology, there are other benefits to the bottom line. The utilization of on-site skids can reduce transportation costs and can improve the business' carbon footprint, and any ensuing carbon credits/offsets may also drive additional value for your industrial operations. Of course, results vary based on application conditions and processes, but anytime a cost is converted into revenue, the results are irrefutable. ■

For more information, please visit [www.gtech.global](http://www.gtech.global) or contact Kevin Bell @ [kevin.bell@gtechus.com](mailto:kevin.bell@gtechus.com)

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An Example of a Three Phase Decanter

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# Treatment of PFAS in Water: Best Practices and Emerging Solutions

MITCH OLSON, PH.D, P.E., SENIOR ENGINEER, TRIHYDRO CORPORATION

KYLE MCDONALD, CES, ASSOCIATE PROJECT SCIENTIST, TRIHYDRO CORPORATION

**P**er- and polyfluoroalkyl substances (PFAS) present an emerging, large-scale challenge for water treatment providers. Widespread PFAS use in society has led to its nearly ubiquitous presence in the environment and in wastewater streams. The ever-shifting regulatory and technological landscapes around PFAS are of great interest to NORA and its members as this contaminant of emerging concern presents a unique combination of water-treatment challenges, as compared to ‘conventional’ water contaminants such as metals, hydrocarbons, and chlorinated solvents.

PFAS-containing products are widely used due to their stability, surfactant behavior, and strong ability to repel both oil and water – properties with important implications in terms of water-treatment challenges (discussed below). PFAS use is commonly associated with flammable-liquid (‘Class-B’) firefighting foams, metal-plating, textiles, manufacture of non-stick and water-repellant materials, semi-conductors, and a variety of other industries. PFAS are also associated with many consumer goods, such as food wrappers, water-proof and stain-resistant fabrics, and certain personal care products. Pervasive use of PFAS in society has led to PFAS-impacted waste streams from many sources.



Specific treatment challenges associated with PFAS are related to their complex chemistry, extreme stability, and high mobility. The PFAS chemical family includes thousands of individual compounds. PFAS are sometimes (incorrectly) referred to as “forever chemicals” due to their well-documented stability. Some PFAS exhibit high solubility and mobility in water. However, properties vary considerably across the PFAS family of chemicals; although many PFAS tend to remain mobile in water, other PFAS tend to accumulate in solids such as sludge generated in wastewater treatment processes. Many PFAS also tend to accumulate at air-water interfaces. In addition, although some PFAS are volatile, most compounds in a typical PFAS mixture are non-volatile under standard conditions. These chemical characteristics make conventional treatments such as low-pressure membranes, oxidation, biological treatments, and air stripping generally ineffective for PFAS.

There are several existing treatments which effectively separate PFAS compounds from water such as granular activated carbon (GAC), ion exchange resins (IX), and high pressure membranes (e.g., reverse osmosis [RO] and nanofiltration [NF]). Of these, GAC has been most widely used for PFAS treatment, and can effectively remove many PFAS compounds to levels below detection limits (e.g., <2 parts per trillion [ppt]). GAC is most effective for long-chain PFAS such as PFOA and PFOS, and is less efficient for removal of short-chain PFAS such as PFBA and PFBS (PFOA, PFOS, PFBA and PFBS are only four of the thousands of PFAS chemical compounds). IX has been more recently deployed for large-scale PFAS treatment, can also remove PFAS to detection limits, and can be more effective for short-chain PFAS. GAC and IX may be combined to achieve broad removal of PFAS. Also, RO and NF can effectively remove all PFAS compounds from a water stream, but are generally less efficient in treating high-volume water streams, due to high energy requirements.

Each of these separation-based technologies can effectively treat a water stream to detection limits, but effectiveness is

sensitive to water chemistry. Bench or pilot testing should always be conducted before large-scale implementation. Pre-treatment may need to be employed to ensure PFAS removal to ppt-level concentrations.

Each of these separation-based treatment technologies require management of the concentrated PFAS waste streams, comprising spent GAC, IX resin, and/or concentrated retentate water. At this time, a broadly accepted solution for ultimate destruction/disposal of these waste streams has yet to emerge. The United States Environmental Protection Agency (EPA) identifies three disposal technologies for concentrated PFAS waste streams including incineration, deep well injection, and hazardous waste landfilling, though at this time each of these have notable uncertainties as to their ultimate viability.

Emerging destructive technologies show promise for safely destroying PFAS compounds without creating harmful byproducts. These emerging technologies differ from the conventional treatment methods in that PFAS are destroyed as a result and concentrated waste streams are not produced. A selection of promising destructive technologies currently in laboratory and field demonstration stages includes super critical water oxidation (SCWO), electrochemical oxidation, plasma, sonolysis and others.

In the SCWO process, water is heated and pressurized to a state beyond the critical point of water, where oxidation processes are accelerated resulting in transformation of organic matter into carbon dioxide and water. Electrochemical oxidation uses charged electrodes placed in contaminated water to oxidize PFAS into free fluoride and carbon dioxide. Both SCWO and electrochemical oxidation have shown promise as PFAS remediation technologies in laboratory and pilot scale settings. Plasma reactors use electricity to generate plasma, an ionized gas consisting of positive ions and free electrons. Sonolysis involves high-frequency waves that generate cavitation-induced bubbles; PFAS accumulate on the bubble surfaces and are subjected to extreme conditions as the



bubbles collapse. Plasma and sonolysis both produce highly reactive conditions that can achieve complete degradation of PFAS in water.

As noted, the destructive technologies are generally limited to laboratory-scale or limited-scale field applications at this time. Due to the extreme stability of PFAS, achieving complete destruction of the molecules generally requires energy-intensive treatment that may be highly inefficient for high flow volumes. A treatment-train approach may provide a viable method for PFAS treatment. The treatment train concept involves multiple treatment steps, in which a high-volume stream is initially treated using a separation technology, creating a “clean” effluent stream comprising most of the influent water, with PFAS removed to levels below detection limits. The resulting high-concentration waste stream is subjected to high-energy treatment that destroys PFAS, permanently removing them from the environment. Although destructive technologies are limited at this time, significant efforts are underway to develop and advance these technologies.

What’s in store?

On July 12, 2022, the EPA released Updated Interim Health Advisory (HA) levels for PFOA and PFOS. The former HA levels of 70 ppt for PFOA and PFOS were reduced to 0.004 ppt and 0.020 ppt for PFOA and PFOS, respectively. Although the HA levels are not legally enforceable standards, they have a large influence on public expectations for what concentrations are considered as safe. Following this announcement, on August 25, 2022, the EPA announced that PFOA and PFOS will be proposed as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also known as “Superfund”). At the rate of activity within the EPA, additional announcements are expected to occur over the remainder of 2022 and beyond, including development of a drinking water maximum contaminant level (MCL). This unprecedented level of activity indicates that PFAS will be closely scrutinized and increasingly regulated in the near future. ■

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**CONFERENCE & TRADE SHOW**  
NAPLES, FLORIDA • NOVEMBER 9-12, 2022

*The 2022 NORA Annual Conference and Trade Show is the liquid recycling industry's premier networking and education event. Now is the time to begin making plans to attend. Everything you need for your plans is included in this magazine.*

#### **AGENDA**

The tentative agenda is on page 15. It includes the timing of the various networking events, trade show hours as well as the conference sessions. Most attendees will arrive Wednesday, November 9<sup>th</sup>. Depending on travel plans, exhibitors may want to arrive on Tuesday to be on site for booth set up. Most attendees will depart on Saturday, November 12<sup>th</sup>.

#### **BOOK YOUR ROOM**

The event will be hosted at the 4-diamond Naples Grande Beach Resort. The block of discounted rooms for NORA members are available through October 19 or until it sells out. See page 16 for information about the resort.

#### **REGISTER NOW**

Register online to attend the Conference or use the form on page 17. To save money, register early. Please note that Non-Exhibiting Supplier/Vendor Members have a separate registration rate. Supplier/Vendor Members who exhibit receive one free registration.

#### **GOLF**

Join your NORA colleagues at Naples Grande Golf Club on the afternoon of Thursday, November 10, 2022 for the annual NORA golf tournament. Learn more about this experience on page 20.

#### **CLOSING PARTY**

All attendees, exhibitors, speakers and registered spouse/companions are invited to join us for the NORA 2022 Closing Party.

The event will be held on the evening of Friday, November 11 at the Naples Grande Beach Resort in Naples, Florida. You can learn more about the closing party on page 22.

#### **FISHING**

Join your NORA colleagues on Friday, November 11th for the Annual NORA Fishing Expedition.

Boats of 3-4 people will fish using the Captain's live pilchards for bait caught in the bay. The group will move towards Mangrove trees/roots throughout the area by casting the bait up to them. Learn more about this unique fishing expedition on page 24.

#### **TRADE SHOW**

The NORA Trade Show already has almost 40 companies displaying the latest products and services available to the liquid recycling industry. See page 18 for the NORA Exhibitor Showcase. Booths are still available. Contact Casey Parker at 703-753-4277 or [casey@noranews.org](mailto:casey@noranews.org) to reserve your space.

#### **SPONSOR THE EVENT**

Many sponsorship and advertising opportunities are available for the 2022 NORA Conference & Trade Show. For as little as \$175, you can support your industry as well as promote your brand. See page 26 for details and how to secure your sponsorship.



# 2022 NORA ANNUAL CONFERENCE & TRADE SHOW AGENDA

NOVEMBER 9 - 12, 2022 | Naples, Florida

*(Tentative, Subject to Change)*

## WEDNESDAY, NOVEMBER 9

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11:00 AM - 4:00 PM	Exhibitor Check- In
11:00 AM - 4:00 PM	Exhibitor Set Up
2:00 PM - 7:00 PM	Attendee Check-In/Registration
3:30 PM - 4:30 PM	NORA Board of Directors Meeting
4:30 PM - 5:00 PM	NORA Board of Directors Reception for New Members/First Time Attendees
<b>5:00 PM - 8:30 PM</b>	<b>Grand Opening Reception in Trade Show</b>

*All exhibitors, attendees, registered spouse/companions welcome*

## THURSDAY, NOVEMBER 10

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7:30 AM - 11:45 AM	Conference Check-In/Registration
<b>7:30 AM - 8:30 AM</b>	<b>Continental Breakfast in Trade Show</b>
<b>8:30 AM - 10:00 AM</b>	<b><i>NORA Opening Session &amp; Keynote Speaker</i></b>
<b>10:00 AM - 10:30 AM</b>	<b>Refreshment Break in Trade Show</b>
<b>10:30 AM - 12:15 PM</b>	<b><i>Conference Sessions</i></b>
10:30 AM - 11:30 PM	Spouse/Companion Brunch, Open to Registered Spouses/Companions
1:00 PM - 7:00 PM	NORA Golf Tournament
1:00 PM - 4:00 PM	Spouse/Companion Off site Event

## FRIDAY, NOVEMBER 11

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<b>8:00 AM - 9:00 AM</b>	<b>Continental Breakfast in Trade Show</b>
<b>9:00 AM - 10:30 AM</b>	<b><i>Conference Sessions</i></b>
<b>10:30 AM - 11:30 AM</b>	<b>Refreshment Break in Trade Show</b>
<b>11:30 AM - 1:15 PM</b>	<b><i>Conference Sessions</i></b>
11:30 AM	Trade Show Tear Down
1:15 PM - 5:30 PM	Fishing Tournament
6:00 PM - 10:00 PM	Closing Party

*All exhibitors, attendees, speakers, and registered spouses/companions are invited to attend this great event! Wristband required*

## SATURDAY, NOVEMBER 12

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All day	Activities on your own (shopping, tours, departures, etc.)
---------	------------------------------------------------------------

- » Items in bold are dedicated trade show open hours
- » ***Items in bold/italic area trade show open hours with concurrent activities***

# NAPLES GRANDE BEACH RESORT BOOK YOUR ROOM TODAY!



## HURRICANE IAN UPDATE

After extensive research by staff and review by the Board of Directors, we are pleased to let you know that the 2022 NORA Annual Conference & Trade Show will be hosted November 9-12, 2022 at the Naples Grande Resort as originally planned.

### RESERVATION INFO

**Room Rate:** \$249/night

**The cut off for reservations in the NORA block is October 19, 2022.**

**A daily REDUCED resort charge of \$20.00 (normally \$40.00) includes:**

- Complimentary self-parking (normally \$20.00 + tax per car per night)
- High speed WIFI in guest room
- Two bottles of water in room
- Bicycle rentals
- 1 hour beach kayak or paddle board rental
- Beach towels and luxury chaise lounges
- Range balls and use of driving range at Naples Grande Golf Club
- 24-hour access to the fitness club; weekly fitness classes
- Newspaper in the lobby
- 10% discount on tennis court fees and weekly resort activities.

**Hotel Reservation Cancellation Policy:** Please note that if you need to cancel your reservation, please ensure that you do so at least 7 days prior to arrival to prevent a cancellation fee of one night's room and tax.

### Reserve by phone:

(844) 489-9663 (mention the NORA Group when booking over the phone)

If you need assistance in securing a room, please contact NORA at 703-753-4277 or visit [www.noranews.org/2022ConfHotel](http://www.noranews.org/2022ConfHotel) for more information.

### AIRPORT / TRAVEL INFO

**Book Your Flight:** It is recommended that you book your flight early. Yes, there are many airfare deals - but the main reason is to secure your desired flight. According to travel industry sources, there are fewer flight options than normal. Booking early will help you get the best flight option. Members can fly into Southwest Florida International Airport (RSW).

### Southwest Florida International Airport (RSW)

**Distance from Hotel:** 30 miles

**Drive Time:** 38 minutes

### Parking at hotel:

- Valet Parking: \$30/day
- Self Parking: Free
- Event Parking: \$10/day (for attendees not staying at hotel)



Naples, Florida • November 9 - 12, 2022

# 2022 NORA Conference Registration Form

Complete one form for each person. Only one form required to include payment information.

**EXHIBITORS:** Do Not Use This Form - Use Exhibit Agreement Form or Additional Booth Personnel Form.

## Contact Information

Name	Badge Name, If Different		
Company			
Address	City	State	Zip
Phone	Email		

## Registration Choices

Full Registration (you may assign/change names to the registration at any time) includes all conference sessions, conference materials, opening reception (members only), two continental breakfasts, breaks and Friday Night Closing Party Dinner. Payment must be faxed or postmarked by the dates to be eligible for the discounted prices.

### PRICES

	Regular <i>(paid by October 23)</i>	Late <i>(after October 23)</i>
NORA Recycler Member: First person .....	<input type="checkbox"/> \$860	<input type="checkbox"/> \$890
NORA Recycler Member: Additional person .....	<input type="checkbox"/> \$760	<input type="checkbox"/> \$790
NORA Non-Exhibiting Supplier/Vendor Member .....	<input type="checkbox"/> \$1480	<input type="checkbox"/> \$1510
Non-Member: First person .....	<input type="checkbox"/> \$2400	<input type="checkbox"/> \$2500
Non-Member: Additional person .....	<input type="checkbox"/> \$2300	<input type="checkbox"/> \$2400

### EXTRAS

- Spouse/Companion: Full Package ..... \$275\*
- Spouse/Companion: Friday Only ..... \$210\*\*
- Golf ..... \$240
- Golf Club Rental ..... \$85
- Fishing ..... \$225
- Spouse/Companion Tour ..... \$175

If you selected spouse/companion package, please enter their name here: \_\_\_\_\_

If you selected golf, please include your average score: \_\_\_\_\_

If you selected fishing, please include your shirt size: \_\_\_\_\_

Is this your first time attending a NORA Meeting?  Yes  No

*\*This package includes access to the opening reception on Wednesday including food and drinks, the Thursday spouse brunch, a spouse gift and the Friday night Closing Party. This package is for spouses and companions of registered attendees; this may not be used for employees of an attending company.*

*\*\*This package includes food and drinks at the Friday night Closing Party Dinner. This package is for spouses and*

## Payment Options

Total Amount Due \$ \_\_\_\_\_

*All payments are in US Dollars, drawn on US Bank.*

Name On Card	Signature	
Card Number (American Express, Mastercard And Visa Accepted)	Exp. Date	Security Code

## Submit Your Registration

Registration may be scanned and emailed to [marketing@noranews.org](mailto:marketing@noranews.org). Please do not email credit card information.

- Fax to 703-753-2445
- Phone in to Kim Litscher at 703-753-4277
- Mail to 7250 Heritage Village Plaza, #201 Gainesville, VA 20155
- Will pay online: following processing of paperwork, a secure payment link will be emailed to you

## Book Your Hotel Room

**NAPLES GRANDE BEACH RESORT  
NAPLES, FLORIDA**

475 Seagate Drive  
Naples, Florida 34103

**NORA Rate \$249/night**

To secure your room, call (844) 489-9663 and reference the NORA Group or reserve online by Friday, October 19, by visiting [www.noranews.org/2022ConfHotel](http://www.noranews.org/2022ConfHotel) to book at a discount rate.

# NORA CONFERENCE EXHIBITORS

For more information or to purchase a booth, contact Casey Parker at [casey@noranews.org](mailto:casey@noranews.org).



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# 31ST ANNUAL NORA GOLF TOURNAMENT

Brought to you by:



Join your NORA colleagues at Naples Grande Golf Club on the afternoon of Thursday, November 10, 2022 for the annual NORA golf tournament.

The tournament will take place following the conference sessions on Thursday.

Lunch will be waiting for you on your golf cart when you arrive.

Reception following golf and a hosted drink cart.

## About The Course

Naples Grande Golf Club is a highly acclaimed, Rees Jones-designed private course. Renowned golf architect Rees Jones designed a par 72 championship course that proves both interesting and challenging. Each hole at this demanding course promises an exhilarating new experience. With extraordinary elevations and unique water features expertly incorporating the indigenous Florida foliage, this course offers stunning fairways.

## Register

Golf is an add-on to Conference Registration - cost is \$240 + \$85 club rental.

Please note that pairings are done by the event sponsor to promote competitive play between teams. Requests for specific golf pairings are unable to be honored.



## No dinosaurs were harmed in the making of our base oils.

ReGen III products don't come out of the ground, or end up there.

ReGen III Corp. recycles motor oil through an evolutionary re-refining process to produce high grade Group II+ and Group III base oils for use in API certified formulations.

Find out more about our products and our new refinery project at [www.ReGenIII.com](http://www.ReGenIII.com)

Kimberly Hedlin – Vice President, Corporate Finance  
[info@ReGenIII.com](mailto:info@ReGenIII.com)  
1 (403) 921-9012



# ReGen<sup>III</sup>



## 2022 NORA CLOSING PARTY

Brought to you by:



All attendees, exhibitors, speakers and registered spouse/companions are invited to join us for the NORA 2022 Closing Party. This year's theme is Casino Night!

The event will be held on the evening of Friday, November 11 at the Naples Grande Beach Resort in Naples, Florida.

The Closing Party is included with all Conference registrations including attendees, exhibitors and spouse/companion registrations, but wristbands will be required to participate. Wristbands will be available for pick up at the NORA registration desk on Wednesday or Thursday, when you pick up your name badge. You will receive your drink tickets when you receive your wristband.

**Details:**

Theme: Casino Night  
Time: 6:00 PM - 10:00 PM

Wristbands required for event; wristbands may be picked up at the NORA registration desk on Wednesday or Thursday.

Dress is dressy casual/country club casual.



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# 2022 NORA FISHING EXPEDITION

Brought to you by:



Join your NORA colleagues on Friday, November 11<sup>th</sup> for the Annual NORA Fishing Expedition.

Boats of 3-4 people will fish using the Captain's live pilchards for bait caught in the bay. The group will move towards Mangrove trees/roots throughout the area by casting the bait up to them.

**The following fish will be targeted:**

Snook, Redfish, Spotted Sea Trout, Mangrove Snapper and on occasion Tarpon.

**Registration fee includes:**

- Transportation to and from fishing
- Experienced guide
- Rod, reel and tackle
- Lunch and Beverages

**Registration**

Registration is just \$225/person. Register by completing the form on page 17 or visiting [www.noranews.org/2022ConfInfo](http://www.noranews.org/2022ConfInfo)

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# 2022 NORA CONFERENCE & TRADE SHOW SPONSORSHIPS

Gain exposure for your company at this premier event in the liquid recycling industry. All members, even those not attending the meeting, may sponsor and advertise. For just a small contribution, you can support your industry and promote your business. All sponsors will be thanked on the NORA website with a link to your company's website, in *Liquid Recycling Magazine* which is distributed to 2,000 industry leaders, and in the committee book which is distributed at the event and posted on the NORA website, and on signage at the event. Contact [casey@noranews.org](mailto:casey@noranews.org) with any questions.

**CLOSING PARTY NAMING RIGHTS**.....\$7500 |  
SOLD: VALICOR

Exclusive sponsorship. Only 1 available. Offered on a first-right of refusal basis. Includes prominent logo placement everywhere closing party is mentioned - large signage at event, NORA website, Conference Book cover, Liquid Recycling magazine, conference agenda and on each table at closing party. Also includes all Level 1 Closing Party Sponsor benefits.

**PREMIER SPONSOR**.....\$5000 | SOLD: World Oil Corp  
Only one available. Your logo will be prominently displayed when the “splash screen” is displayed in the main meeting room. As an added bonus, a free full page color ad in the conference book is included (a \$625 value). Offered via lottery to be held on September 9, 2022.

**WATER BOTTLE SPONSOR**.....\$3000 |  
SOLD: Heritage - Crystal Clean, LLC  
Only one available. Your logo will be printed on reusable bottles of water that will be set at every seat at the beginning of the conference on Thursday morning. Offered via lottery to be held on September 9, 2022.

**HAND SANITIZER SPONSOR**.....\$3000  
Only one available. Your logo will be printed on the front of bottles of hand sanitizer distributed at registration in the conference bags.

**ELEVATOR CLINGS SPONSOR**.....\$3000 |  
SOLD: Lone Wolf Petroleum Co  
Only one available. Your company logo will be prominently featured on elevator doors on the hotel's main level and the meeting space level. The NORA logo and Meeting Name will also be included on signage. Offered via lottery to be held on September 9, 2022.

**LANYARD SPONSOR** .....\$3000 |  
SOLD: Circon Environmental  
Only one available. Your company logo will be printed on the lanyard distributed to all attendees. Offered via lottery to be held on September 9, 2022.

**NOTEBOOK SPONSOR** .....\$3000  
Only one available. Your logo will be on the notebook placed at each seat at the beginning of the conference on Thursday morning.

**AUDIO/VISUAL SPONSOR**.....\$3000 |  
SOLD: Ironshore Environmental

Only One Available. Your logo will be prominently displayed when the “splash screen” is displayed in the main meeting room on Thursday. This also includes a full page black and white or half page color ad printed in the committee book. (Upgrade to a full color ad for an additional \$185). Offered via lottery to be held on September 9, 2022.

**CHARGING STATION SPONSOR**.....\$3000 |  
SOLD Safety-Kleen, a Clean Harbors Company  
Only One Available. NEW FOR 2023 CONFERENCE: custom logo charging station table near the registration desk to supply power for mobile devices. Offered via lottery to be held on September 9, 2022.

**CAN COOLER SPONSOR (COOZIE STYLE)** .....\$1500 |  
SOLD: DFW Waste Oil Service, Inc.  
Only One Available. Your company logo will be printed on the can coolers placed next to the bars in the Trade Show. Offered via lottery to be held on September 9, 2022.

**KEY CARD SPONSOR** .....\$3000 |  
SOLD: Vertex Energy Inc  
Only one available. Your company logo and message will be printed on all room key cards given to attendees staying at the hotel. Offered via lottery to be held on September 9, 2022.

**LIP BALM SPONSOR** .....\$1000 |  
SOLD: Par-Kan Company  
Only One Available. Your company logo will be printed on the lip balms placed in the conference bags distributed to attendees. Offered via lottery to be held on September 9, 2022.

**LEVEL 1 CLOSING PARTY SPONSOR** .....\$5000  
Only 4 available. Your logo will be featured on the front cover of the Conference Book and displayed at the Closing Party. You also receive a reserved table for ten registered attendees/companions in premier location at the closing party, Closing Party Sponsor ribbon on badge, recognition at Closing Party dinner, full page color ad in Conference Book (\$625 value), color logo with company/exhibitor index in Conference Book, and logo on the “thank you” page in post-Conference Magazine.

**LEVEL 2 CLOSING PARTY SPONSOR .....\$2000**

Only 8 available. Your logo will be featured on the front cover of the Conference Book and displayed at the Closing Party. You also receive a Closing Party Sponsor ribbon on badge, recognition at Closing Party dinner, half page color ad in Conference Book (\$475 value), color logo with company/exhibitor index in Conference Book, and logo on the “thank you” page in post-Conference Magazine.

**KEYNOTE SPEAKER SPONSOR.....\$2000**

Your company will be thanked prior to the speaker’s keynote address and your logo will be prominently displayed. In addition, you will have an exclusive opportunity to meet with the speaker before the event and will receive a signed copy of the speaker’s book or related item.

**GOLD SPONSOR BUNDLE .....\$1800**

Your logo will be printed on the front cover of the Conference Book and on large signage at the event. You receive a free full page color ad in the event book and your company will be thanked at the opening session. Includes a golf hole sponsorship and company logo printed on the conference bags. For logo on bag, please order by September 9 (10 available). For purchases after September 9, a level 4 closing party sponsorship will be substituted for the bag sponsorship.

**DRINK TICKET SPONSOR .....\$1000**

Your logo will be printed on the drink tickets for the Wednesday Opening Reception and your company will receive extra drink tickets for the event. Please order by September 30, 2022 to allow time for printing.

**LEVEL 3 CLOSING PARTY SPONSOR .....\$1000**

Only 12 available. Includes: Name on front cover of Conference Book, logo displayed at Closing Party, Closing Party Sponsor ribbon on badge, recognized at Closing Party dinner, black and white logo with Company Listing in Conference Book, logo on “Thank You” page in post-Conference NORA Magazine.

**GLASS WALL CLINGS .....\$850**

Your full-color company logo will be largely displayed on window clings on both sides of the glass wall leading to the meeting space.

**FLOOR STICKER SPONSOR.....\$800**

Your full-color logo or ad will be displayed on 3 large floor decals in the lobby of the conference center.

**EVENT PAGE LOGO .....\$600**

Your company logo on the main event page on NORA website.

**BAG SPONSOR .....\$550**

Your logo will be printed on the conference bags distributed to attendees. Available through September 30, 2022 to allow time for printing.

**LEVEL 4 CLOSING PARTY SPONSOR .....\$500**

Your logo will be displayed at the Closing Party. You also receive a Closing Party Sponsor ribbon on badge, recognition at Closing Party dinner, black and white logo with company/exhibitor index in Conference Book, and logo on the “thank you” page in post-Conference Magazine.

**GOLF LUNCH SPONSOR .....\$500**

Your company will be recognized on the box lunches placed in each cart at the start of the tournament. This sponsorship includes a Golf Hole Sponsor Sign.

**GRAND OPENING EXHIBIT RECEPTION .....\$450**

Your logo will be prominently displayed on all signs for the reception and printed next to the event on conference agendas.

**CHARGING STATION SPONSOR.....\$400**

**NEW FOR 2023 CONFERENCE:** custom logo charging station table near the registration desk to supply power for mobile devices. Offered via lottery to be held on September 9, 2022.

**BAG INSERT SPONSOR.....\$325**

You provide the insert and NORA will distribute it in the conference or golf bags. Examples include hats, fliers, etc. Please deliver items to hotel by November 7. Items for bag inserts may not be similar to an item that is offered as a NORA sponsorship.

**THURSDAY MORNING BREAK SPONSOR .....\$300**

Your company logo will be displayed during the morning break on Thursday. Your company logo will appear on all Conference schedules

**FRIDAY MORNING BREAK SPONSOR .....\$300**

Your company logo will be displayed during the morning break on Friday. Your company logo will appear on all Conference schedules.

**SPOUSE BRUNCH SPONSOR .....\$300**

Your logo will be printed next to the event on conference agendas.

**LEVEL 5 CLOSING PARTY SPONSOR .....\$250**

Your logo will be displayed at the Closing Party. You also receive a Closing Party Sponsor ribbon on badge, recognition at Closing Party dinner, and logo on the “thank you” page in post-Conference Magazine.

**THURSDAY CONTINENTAL BREAKFAST .....\$250**

Your logo will be prominently displayed on signage at the breakfast and included next to this event on conference agendas.

**FRIDAY CONTINENTAL BREAKFAST .....\$250**

Your logo will be prominently displayed on signage at the breakfast and included next to this event on conference agendas.

**GOLF HOLE SPONSOR** .....\$225  
Your logo will be printed on a sign placed at one of the holes during the golf tournament.

**CANDY BOWL SPONSOR**.....\$175  
Only six available. Your logo will be displayed around the NORA Candy Bowl at the registration table.

**2022 NORA Conference & Trade Show Book Advertising**

**BACK COVER**..... \$1100 |  
SOLD: World Oil Corp  
Included with Premier Sponsorship. Offered via lottery to be held on September 9, 2022.

**INSIDE FRONT COVER** ..... \$1100 |  
SOLD: Heritage - Crystal Clean, LLC  
Offered via lottery to be held on September 9, 2022.

**INSIDE BACK COVER**..... \$950 |  
SOLD: Thermopac Process Engineering LLP  
Offered via lottery to be held on September 9, 2022.

**FULL PAGE COLOR AD**.....\$625  
Ad is 7.5” by 10”.

**FULL PAGE B&W AD**.....\$475  
Ad is 7.5” by 10”.

**1/2 PAGE COLOR AD**.....\$475  
Horizontal ad is 7.5” by 5”. Vertical ad is 3.75” by 10”.

**1/3 PAGE COLOR AD**.....\$375  
Ad is 7.5” by 3.5”.

**1/2 PAGE B&W AD** .....\$260  
Horizontal ad is 7.5” by 5”. Vertical ad is 3.75” by 10”.

**1/3 Page B&W AD** .....\$200  
Ad is 7.5” by 3.5”.

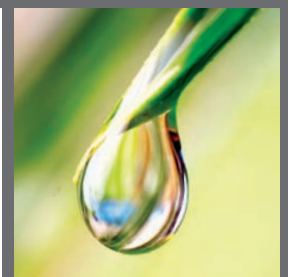
**1/4 PAGE COLOR AD**.....\$275  
Ad is 3.75” by 5”.

**1/4 PAGE B&W AD** .....\$200  
Ad is 3.75” by 5”.

**LOGO IN COMPANY INDEX**.....\$150  
1” high.

**LOGO IN EXHIBITOR INDEX**.....\$150  
1” high.

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# Gallagher's Environmental practice provides a tailored approach to risk management for the liquid recycling industry.

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**John Wasilchuk**  
Area Vice President  
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# Advantages and Disadvantages of Solvent Extraction in the production of Base Lube from re-refined Used Lube Oil

As re-refining becomes a more commonplace disposition for Use Lube Oil, and Base Oil quality and specifications improve due to improvements in technology, one of the key aspects of producing a finished product has to do with the final polishing step of the distilled Used Lube – which is usually referred to as VGO.

The raw distillate (VGO) from a ULO re-refinery tends to be dark in color (4 – 6 on the color scale) and also tends to have a strong odor. In the USA this distillate also tends to have sulfur contents of anywhere from 800 to 1200 PPM, which would disqualify it from being a Group 2 Base Lube. These qualities make it difficult to sell as a product of any kind, let alone Base Oil. To remedy this several technologies have been exploited to achieve acceptable color and odor and to reduce sulfur in the finished product.

To list the most commonly used ones:

1. Hydrotreatment,
2. Solvent Extraction,
3. And Bauxite Filtration.

There are many other types of filtration being promoted, but these have not been found to produce a consistently good product. The focus of this article is the Solvent Extraction Technology.

## SOLVENT EXTRACTION

The basic process can be broken up into 4 operations that are outlined below. The entire process is designed to run on a continuous basis.

**Extractor.** A Liquid-Liquid Extractor (LLE) is used to continuously wash the oil feed with NMP Solvent.

**Raffinate Solvent Strip.** The washed oil is referred to as the raffinate. A two step distillation process is used to strip the solvent out of the raffinate (washed oil) before the final product is pumped to the product tank.

**NMP Recovery.** The NMP solvent containing the PCA's (Polychlorinated Aromatics) is reclaimed in a 2 step distillation process prior to the PCA concentrate being pumped to storage.


**NMP Dehydration.** The solvent is stripped of water by simple distillation prior to being pumped back to the clean solvent tank for reuse in the process.

The process is assumed to be heated by a Steam Boiler providing steam at 200 psig. Cooling will be provided by an evaporative cooling tower. Steam will be used as a heating media for the distillation systems.

## PROCESS WASTES AND THEIR DISPOSITION

In this solvent Extraction System a high percentage of the lube oil fed to the system exits the plant as product. On the solvent side, greater than 99.99% of the NMP used as the aromatic extraction solvent is recovered to be used in the continuing extraction process. Only 2 small waste streams are generated. These 2 streams are detailed below.

**AROMATIC EXTRACT CONCENTRATE:** A certain percentage of the Lube Oil fed to the Solvent Extraction system



exits as an aromatic extract. The amount of this extract will depend on the PCA percentage in the feed to the system. If the aromatic content is high then the amount of extract is high. The SES does not convert Aromatics to Saturates as a hydrotreat would. It is expected that this stream will be mixed with other fuel streams generated at the Oil Re-refinery and burned onsite in their hot oil heaters to provide process heat for the ongoing operations at the plant. As in other oil refineries around the world this stream is an excellent fuel source.

**WASTEWATER:** The NMP Dehydration column is designed so that the water coming off of the top of this column is >99.9% pure water. Since the % recovery of the NMP in the NMP Dehydration Column is so high the water is assumed to have a very low BOD value and it can easily be treated with the other process wastewater generated at the Oil Re-refinery and disposed of to other treatment plants.

To list **the advantages of Solvent Extraction:**

- This is a low pressure, low temperature, technology which does not call for high pressure vessels, flanges and heat exchangers. There is no expensive catalyst involved, nothing needs to be replaced on a frequent basis. The NMP can be completely recovered – the amount lost in processing is about <.001%. Plants have run for years without having to purchase more.
- As a result of the facts stated above, it is far less expensive than a hydrotreater – often the cost is less than 25% of the cost of a hydrotreater for the same capacity.
- It is much less dangerous for the same reasons – in a hydrotreater if you have a leak around the reactors, you usually have an instant fire.

- It is easily scalable to plants of different capacities, from <200 GPH to over 15,000 GPH.

**The disadvantages of Solvent Extraction are:**

- In this process the aromatics are not converted to saturates as in hydrotreatment. This means that you will lose yield – especially if the aromatics content is high. It is removed as extract, which then can be used as fuel to provide process heat for the plant.
- It can only remove a certain amount of the sulfur in the VGO. That means if the incoming sulfur content is over 1,000 PPM it is likely that the polished product will contain over 300 PPM sulfur. In the USA, the sulfur content of VGO is usually <800 PPM and therefore you can achieve Group 2 Base Oil using solvent extraction. Otherwise it will produce a very good Group 1 Base Lube with sulfur slightly higher than 300 PPM.

In Summary, Solvent Extraction is a very good way to polish the distilled lube oil (VGO) to at least a Group 1, and often to Group 2 Base Oil. It is far less dangerous than Hydrotreatment and is much less expensive. It is also easily scalable even for plants with throughputs of 200 GPH up to 15,000 GPH. If you are considering putting in a re-refinery, solvent extraction may be an option. ■

*Luke Staengl, President & CEO  
Pragmatic Environmental Solutions Company  
Email – luke@pecscova.co*

# Disposing of Used Oil Filters

Each year the U.S. generates almost half a billion used automotive oil filters containing over 150,000 tons of iron and close to 20 million gallons of oil. Determining how to dispose of this many oil filters is a major concern that many commercial and industrial businesses face. Recycling oil filters is just as important as recycling the used oil, as undrained oil filters may be considered hazardous waste, and even illegal to dispose of in some landfills. Improper disposal of oil filters poses risk of severe economic, environmental, and workplace safety repercussions. Oil filter recycling is not only important, but holds many benefits, such as recycling both reusable steel and oil, which is both environmentally friendly, and can be profitable.

How do used oil filters impact the environment? It is found that the average used filter contains roughly 10 fluid ounces of used oil and can have up to a half a pound of scrap metal. If not recycled properly, this adds up to millions of gallons of used oil and toxic chemicals seeping into the environment, water and landfills. The United States Environmental Protection Agency (EPA) estimates that the mishandling of one gallon of used oil can potentially contaminate up to one million gallons of water. This poses a huge environmental impact on plants, animals and humans. With laws now banning the improper disposal of oil filters it has become imperative that companies find new ways of disposal. There are multiple recycling companies available for oil filter and used oil removal. However, there are affordable oil filter recycling machines that can bring the process in house making it both efficient and economically beneficial.

How can you take advantage of this while saving the environment? Commercially available machines allow businesses to recycle oil filters on site. Once installed these machines are efficient and effective in handling all oil filter recycling needs. They effectively crush and drain as much as 97% of all used oil from the oil filter, reclaiming hundreds of gallons of used oil. The used oil can be sold to refineries, as it has been found to be more cost-efficient than refining crude oil. The EPA confirmed that producing a gallon of oil from recycled base stock is less expensive than from virgin crude oil. The oil filters are crushed and formed into solid dense bricks of scrap metal; this process allows for a higher volume of scrap metal to be stored in each dumpster before needing removal and these “bricks” can typically be sold to foundries as scrap metal. Recycling scrap metal into reusable steel is less expensive than producing it from iron ores, helping the industry purchase steel at lower prices and reduces production costs.

Recycling oil filters can be profitable, improve economic demand for oil and steel, and provide an environmentally conscious way of disposing used oil filters compared to the alternative. Now that you know the impact used oil filters have on our environment and the economic benefits of oil filter processing, how will you and your company play a part in the recycling of used oil filters? ■

*For more information about this article, contact:*

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*Business Development Manager*

*Cory.f@abtmotors.com*



## **75,000,000 Gallons of Used Oil Re-Refined Per Year**

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# STRONG BUSINESS IS BUILT ON DEFENSIBLE DATA

BY MO OSMAN, PH.D AND PRESIDENT OF SUMMIT LABS

In today's world, data is at the forefront of innovation. Technology evolves at an unprecedented pace. More and more digital information is collected almost seamlessly from smartphones to supercomputers. Has your business kept up with this trend? If not, your business will likely be in jeopardy. Data collection and defensible data are now more critical than ever before. It is not simply because regulators require it, although compliance is of the utmost importance. In over 30 years of analyzing samples, our laboratory has observed that defensible data always translates to better business for both the lab and the client.

## Under the Microscope

Increased public and private investment into the Liquid Recycling and Environmental Service industries has resulted in greater scrutiny of business practices from start to finish. State and local environmental audits are on the rise nationally. With new amendments to Title 40 CFR, TSCA regulations, and RCRA protocols, it is paramount to have the first line of defense for every word and number. Audits are no longer a matter of if but when.

Without defensible lab reports, our industry would be essentially nonexistent, as we live and die by good data. Numerous facilities across the nation have had their operations disrupted and even halted due to compliance issues misidentified during a simple inspection or full-blown audit. The only undertaking that resumed operations back to glory was none other than obtaining a lab report with good and defensible data. Thriving businesses implement a thorough analytical plan and subsequently can strongly defend their operations.

## Follow the Steps

The strength behind defensible data lies in the traceability of each step of the process, from sampling to the final analytical report. The following steps should be emphasized with every

sample sent to a laboratory.

1. Sampling protocols must be consistent with established rules and regulations.
2. The Chain of Custody must be carefully and thoroughly completed.
3. The samples must be appropriately packed.
4. The samples must be shipped in a trusted and timely manner.
5. Samples must be analyzed by a laboratory focused on the Generation, Preservation, and Servicing of good data.

## It's all about the Quality

Once a laboratory receives the samples, the sample information should be logged into a Laboratory Information Management System. The date and time a sample is received and where the sample is initially stored are among the initial data. This methodology also allows analysts to be aware of their daily workload, enables the analysts to track a sample's hold time, and be mindful of rush turnarounds that a client may request. The live location of a sample can also be tracked from the data system.

Lab instruments such as GCs and ICPs should be connected to and be able to communicate with the Laboratory Information Management System directly. This facilitates the monitoring of test runs and ensures that inputted results can be free from human error.

## More Than Just a Number

Defensible and accurate analytical data goes beyond simply the results. A full lab report requires approval from the lab's own Quality Control and Assurance department and should go through a multi-tiered review. The analysis report for the client should be easy to interpret without any gaps in information on the analysis. For every client report page, many pages of detailed QC data should be available when required.



Finally, because not all seals of approval are equal, quality labs participate in rigorous and respected independent accreditation programs.

### **Protect and Retrieve**

Your lab should adequately store and protect your data, and this includes keeping your private analytical data safe from outside attacks from hackers. A solution to this problem is storing data on a cloud-based server. States often require data to be saved for five years or more. The lab must be able to retrieve your archived lab results, QC details included. You will likely be held liable if your lab of choice cannot generate your data.

### **A Bright and Data-Driven Future**

The liquid recycling and environmental service industries have steadily grown and evolved over the past few decades. They have historically adapted quickly to market change and readily adopted technologies when it translates to more efficient and profitable operations. Even though there is a continuous

increase in the complexity of regulations, your lab must have the checks and balances to manage such changes. Although the future may be hard to predict, one thing is certain. A strong business is built on defensible data. ■

*Mo Osman*  
*President of Summit Labs*  
<https://settek.com/>

# NORA Supplier/ Vendor Directory



NORA Supplier/Vendor Members in good standing as of 8/4/2022 are listed below. Companies in **bold** have an ad in this magazine. Companies with a \$ are part of the **NORA \$ave** program by offering discounts/value added services to NORA members. Contact NORA to learn more about the NORA \$ave program. Companies in **red** are exhibiting at the 2022 NORA Conference & Trade Show as of 8/4/22..

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matt.parrish@ptcoupling.com  
(580) 237-4033  
Manufacturer of American-made quick connect/disconnect couplings, safety pumping systems, tank connections and overall hose accessories.

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**Quest Resource Management Group**  
Dave.Sweitzer@questrmg.com  
(877) 321-1811  
Quest delivers comprehensive waste minimization and environmental protection with nationwide waste collection and recycling services. We help dealerships, collision centers and fleet operators reduce waste, risk and cost while streamlining operations.

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**Radian Chemicals LLC**  
jspain@radianchemicals.com  
(281) 883-4389  
Management of spent solvents for beneficial reuse and/or treatment for recycle or disposition. Spent caustics, glycols, amines, polyols, methanols, etc.

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**Seneca Tank**  
bsanford@senecatank.com  
(515) 491-6142

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**Sequoia Global Inc.**  
rohit.joshi@sequoia-global.com  
(703) 565-2558  
Vacuum distillation, wiped-film/short-path evaporation, hydrotreating, adsorption, vapor compression technologies for recycling used motor oil, transformer oil, antifreeze/ coolants, wastewater and fuel. 15 years of experience on 4 continents.

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**SESCO**  
jstout@sesco-inc.com  
(260) 422-1671  
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(425) 765-4992  
Fall Protection Equipment

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**StillClean**  
jodom@stillclean.com  
(800) 628-7657

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**Strategic Transportation Resources Inc**  
robert@strlogisticsolutions.com  
(226) 979-5890  
Tank trailer leasing and financing

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**Summit Environmental Technologies**

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(629) 256-9143  
Full service QAQC environmental laboratory. Emphasis and experience with liquid recycling and environmental service industries. Nelac and AZLA ISO certifications.

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**Sweet Gazoil Inc.**

louisbertrand10@gmail.com  
(514) 502-5098  
Engineering solutions to improve your current operations or design turnkey plants. Based on more than 15 patents our process can treat used/waste oils, VTAE and mixed waste plastics (#4, 5, 6, 2,7) ensuring long term profits and feedstock availability.

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(281) 222-6641  
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rsnyder@thefedeligroup.com  
(216) 643-2753  
Insurance & Risk Management

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**Thermopac Process Engineering LLP**

gm@thermopac.in  
(691) 97054  
Used oil Recycling plant Manufacturer ( Group I & Group II ) , Media base Polishing system, and Lube oil Blending, Grease plant. Manufacturers. Successfully Commissioned 33 Re-Refining plants in 5 different continents

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**TIPCO Technologies**

RobL@tipcotec.com  
(410) 984-7517  
Hose Assembles & Accessories

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**Titan Logix Corp.**

natashad@titanlogix.com  
(780) 462-4085

.....  
**Trailside Consulting, LLC**

edward.murray2224@gmail.com  
(770) 807-2786

.....  
**Trans Lease Inc.**

bryon.sharp@transleaseinc.com  
(612) 940-1555

.....  
**Trihydro Corporation**

grisse@trihydro.com  
(678) 428-5308  
Trihydro is a nationwide engineering & environmental firm offering due diligence; air & wastewater design/ops; multi-media permitting, compliance audits, soil & groundwater assessment/remediation services, & support on emerging matters such as PFAS.

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**Uni-ram Corporation**

jay@uniram.com  
(800) 417-9133  
Recycling parts washers, spray gun cleaners, solvent recyclers

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**WasteBits**

dpatterson@wastebits.com  
(844) 7240200  
Online waste management platform

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**WC Leasing**

ggordon@wcleasing.com  
(228) 596-0771  
WC Leasing is a full-service leasing company focusing on industrial and environmental equipment. We provide, operating, track and capital leases and straight financing with flexible terms. We also assist in locating new and used equipment and brokerage.

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**WEBA Technology**

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Weba Technology develops, manufactures, and markets additive packages for the antifreeze/coolant, gas patch, coolants, and heat transfer fluid industries.

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The environmental division of the XL Insurance companies offers integrated environmental risk management solutions through insurance, loss control and claims management to leading businesses.

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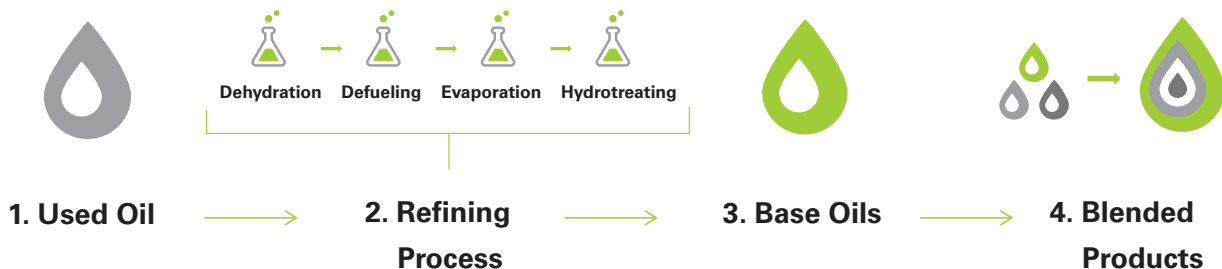
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## Saving Time & Money Never Gets Old

- ★ EASY TO USE ON-SITE
- ★ RESULTS IN 5 MINUTES
- ★ SAVE \$\$\$



### Clor-D-Tect 1000®

TOTAL CHLORINE  
IN USED OIL

YES/NO AT 1000 PPM

**RESULTS IN 5 MINUTES**

US EPA SW-846, Method 9077  
ASTM Method D-5384



### Clor-D-Tect Q4000®

QUANTITATIVE TEST FOR  
CHLORINE IN USED OIL

RANGE: 200-4000 PPM

**RESULTS IN 5 MINUTES**

US EPA SW-846, Method 9077  
ASTM Method D-5384



### HydroSCOUT®

WATER IN OIL ANALYSIS RANGE: 0-100%

**RESULTS IN 5 MINUTES**

US EPA SW-846, DRAFT METHOD 9001

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