



Technologies for a Cleaner Future

*“AMEOX® processed GAC returned to PFAS water treatment service **outperformed** the original virgin GAC in adsorption capacity.”*

**RAMBOLL**

# AMEOX® TECHNOLOGY for PFAS Destruction...

# AMEOX® TECHNOLOGY OVERVIEW

## AMEOX® TECHNOLOGY for PFAS Destruction

PFAS destruction for fluid concentrates, foamate, brines and spent Granular Activated Carbon

Removes GAC foulants/metals & increases adsorption capacity

Reactivates GAC for re-use

*The AMEOX Technology is patented/patent(s)-pending in the US and abroad*



# AMEOX® Destroys PFAS in Granular Activated Carbon for its Reactivation/Re-use

## HOW IT WORKS:

### For Granular Activated Carbon (GAC):

- AMEOX equipment attaches to carbon absorber containing PFAS-spent GAC
- AMEOX Fluid recirculates: Equipment through carbon bed and back to equipment
- AMEOX Fluid delivers powerful oxidants to PFAS on GAC where PFAS is destroyed

### For Fluid concentrates (RO Reject, Foamate) and Brines:

- AMEOX equipment attaches to a tank containing PFAS-laden brine/concentrate
- Fluid is circulated through AMEOX equipment back to tank to destroy PFAS
- AMEOX equipment generates powerful oxidants which destroy PFAS as fluid

circulates



# AMEOX® - A SOLUTION TO A CLEANER FUTURE

## KEY FACTS

- Destroys PFAS in GAC
- No discharge of AMEOX fluid. Sustainably recycled

## PRODUCT CONVENIENCE

- Small 4' x 12' footprint. Portable or fixed site applications.
- Flexibly accommodates range of GAC absorber/reactor sizes

## USABILITY

- Low power (240V/1-ph-<50A with propane heat)
- Ambient temperature (100°F), low pressure (<80psi)
- Carbon re-use estimate: ~7x. 4X to date for landfill leachate

## FACT SHEET

- **>60-65% PFAS destruction in GAC creates effective capacity in GAC for its reuse**
- >99% destruction increases operating costs if desired.
- Electric Power Platform
- Robust Vortex Mixing (no motors/moving parts)
- Stainless Steel Construction
- Skid-mounted (or trailer/shipping container housing)
- <1000 to 5000-10,000+# lb. media absorber reactor processing
- Re-usable AMEOX Fluid (oxidant carrier) with no discharge
- 2 pumps w/VFD per AMEOX Single Unit system (1hp ea.)
- AMEOX equipment is exempt from NSF certification (no contact w/drinkingwater)

NOITROS





# AMEOX® TREATMENT DEFINED

## ELECTROCHEMICAL OXIDATION

- Boron-Doped Diamond electrodes
- Minimized over-potential for maximized electron transfer
- Dimensionally stable/non-sacrificial

## CAVITATION (Mechanical and Sonolytic/Acoustic)

- Formation and collapse of propagating bubble swarm in fluid
- Bubbles have internal temperature at 1000's of deg-Kelvin & pressure to hundreds of bars
- Water vapor, oxygen and other constituents are dissociated within bubbles to yield powerful oxidants which oxidize PFAS compounds
- Cavitation bubble swarms generating oxidants
- Results in destruction of the C = F PFAS bonds
- PFAS molecules are oxidized to yield inorganic fluoride and CO<sub>2</sub>

## INTIMATE/ROBUST CONTACT STATIC MIXING



# AMEOX® - A SOLUTION TO A CLEANER FUTURE

## BENEFITS

- Onsite/Insitu Processing
- Destroys PFAS in GAC and Re-activates GAC for reuse
- Removes GAC foulants (iron, calcium, aluminum, etc.)
- No discharge of AMEOX fluid. Sustainably recycled
- Portable or fixed applications (Single Unit: 4' x 12' footprint)
- Single Unit Treats  $\leq$  5000# GAC absorber (10,000#'s w/Dual Unit)
- ~100oF and  $<85$  psi operating conditions
- Low Power: 240V/1PH/50A (propane heat); 100A (electric heat)

BENEFITS



# AMEOX® - A SOLUTION TO A CLEANER FUTURE

## TREATMENT/PROCESSING RATES

- Dual Unit Average: 50# GAC/hr\*
- AMEOX Fluid Flow Rate: 2-5 gpm
- 60-65% PFAS destruction creates effective capacity for GAC reuse
- >99.9% destruction, if desired (increases cost)

## Power

- 240V/1 PH /<100A with electric heat (<50A w/propane heat)
- Ambient temperature (100°F)/ low pressure (<80psi)
- 0.13 – 0.67 kWh/# GAC



*\*Varies with range of oxidizable material & foulant loading in GAC, treatment objectives, and carbon quality*

PRODUCTIVITY



# AMEOX® - A SOLUTION TO A CLEANER FUTURE

## DIMENSIONS

- 4' W x 12' L x 7' T (Single Unit)
- ~800 lbs. (empty)
- AMEOX Fluid capacity: 150 gallons (Single Unit)
- Dual Unit transportable in 20' weatherized shipping container

## UNIT CONSTRUCTION

- Stainless steel/HDPE/Niobium/Glass
- Skid mounted

## POWER

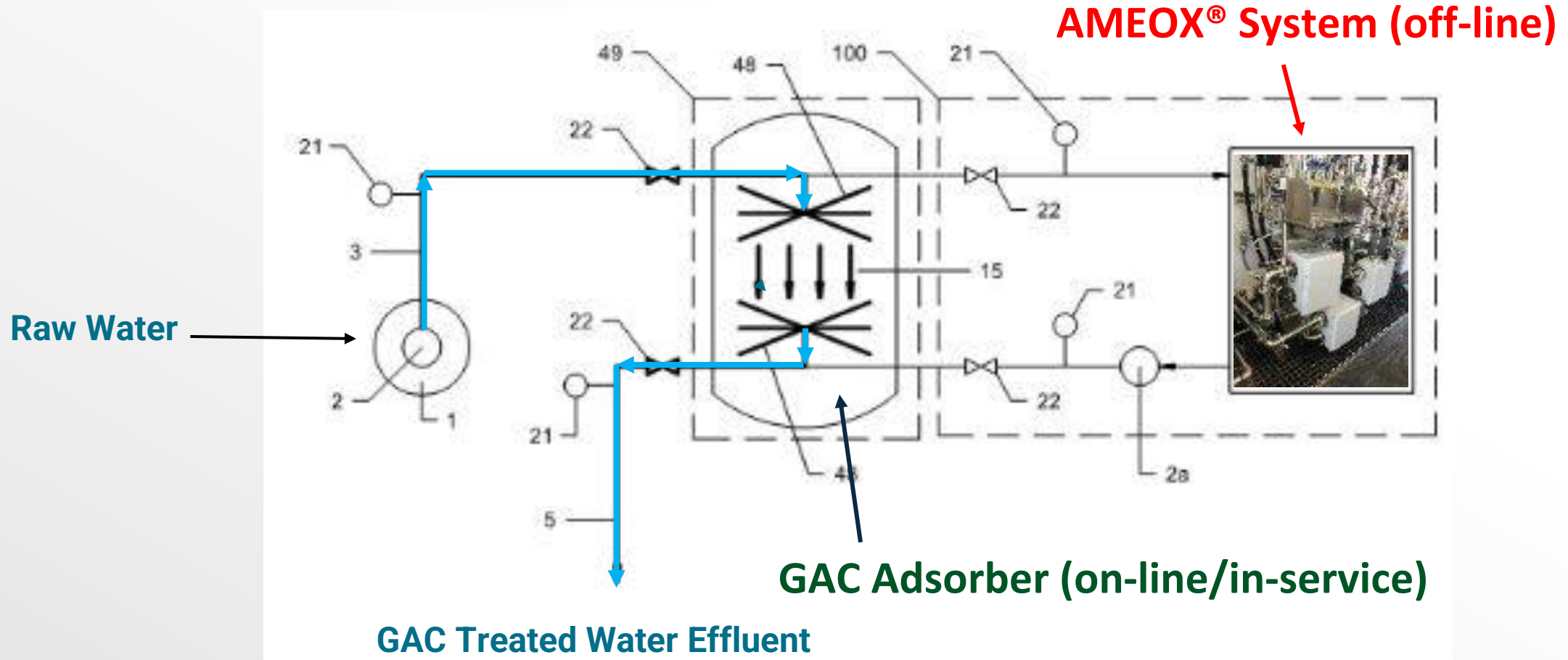
- Hard wire or generator



# MOBILITY



# On-site AMEOX Spent GAC Processing

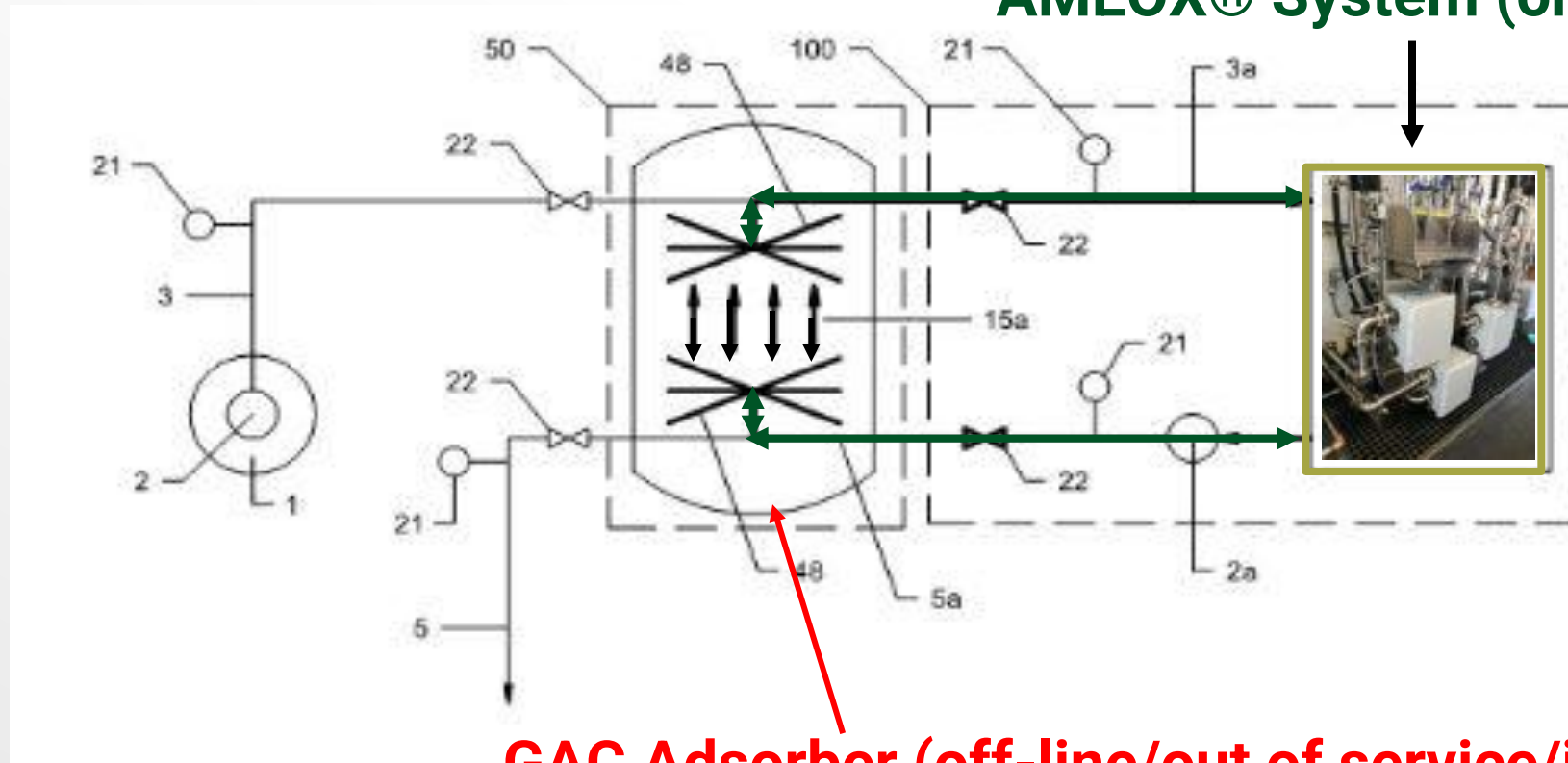


SEE OUR PFAS DESTRUCTION VIDEO: [https://www.youtube.com/watch?v=L1jl7L7\\_rxo](https://www.youtube.com/watch?v=L1jl7L7_rxo)



# On-site AMEOX Spent GAC Processing

**AMEOX® System (on-line/in-service)**

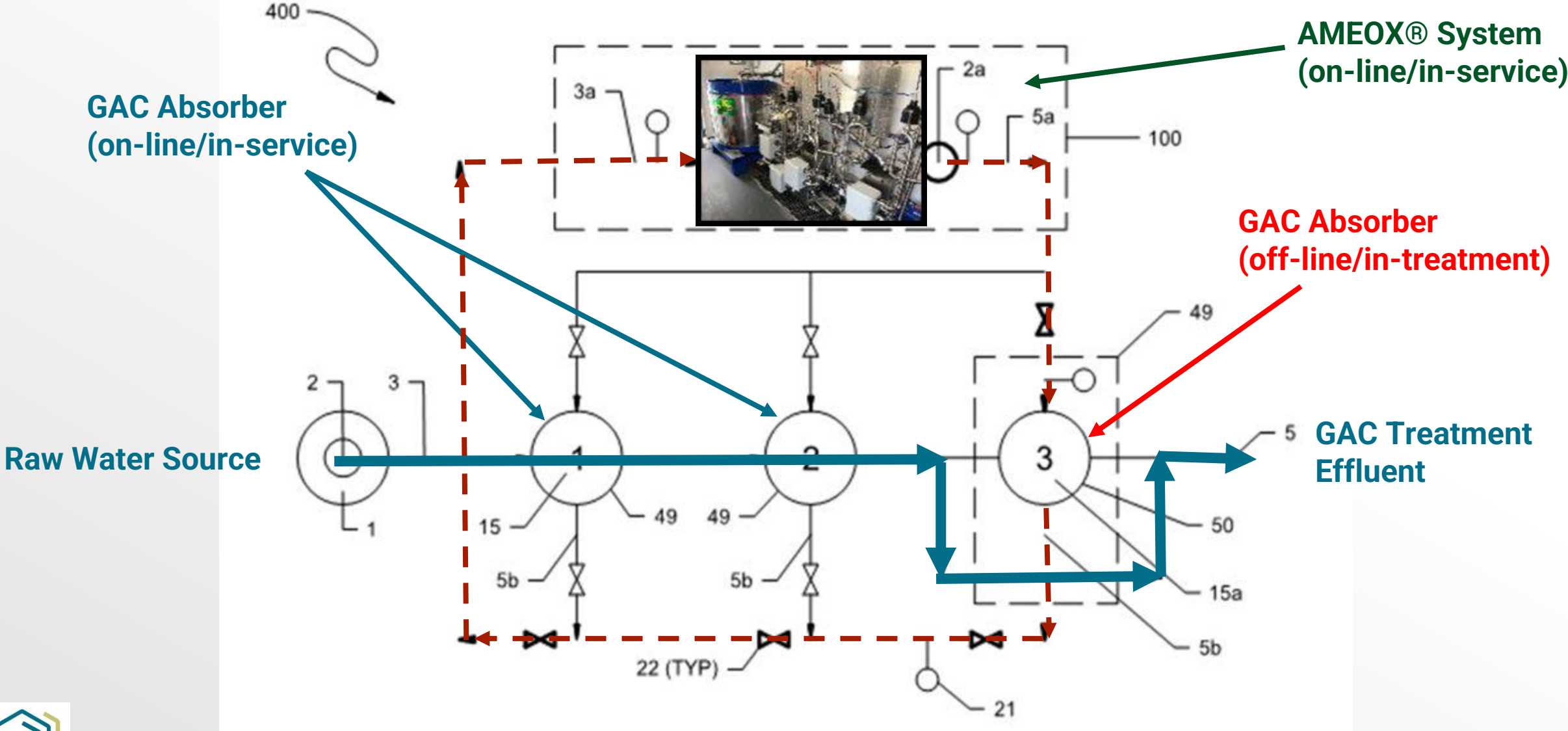


**GAC Adsorber (off-line/out of service/in treatment)**

SEE OUR PFAS DESTRUCTION VIDEO: [https://www.youtube.com/watch?v=L1jl7L7\\_rxo](https://www.youtube.com/watch?v=L1jl7L7_rxo)



# On-site AMEOX Spent GAC Processing – Absorber Train



# AMEOX DUAL UNIT IN OPERATION



AMEOX Dual Unit in 20' Connex



1000# GAC Absorber Reactor



2000# GAC Absorber Reactor



# AMEOX® FULL-SCALE COMMERCIAL SINGLE UNIT

- Compact
  - 4'W x 6.5'T x 12' L
  - <800 lbs.
- Readily Transportable
- Stainless Steel Construction
- 100°F operating temp
- Ambient to <85psig operating pressure
- Low Power Demand (240V/1Ph)
  - - Electric Heat <100A, or
  - - Propane Heat <50A



# AMEOX DUAL UNIT IN OPERATION



**2 x 10,000# Trailered GAC (right) Absorbers (left)  
AMEOX Dual Unit in 20' Shipping Container**



**AMEOX GAC Processing (-11°F)**



# AMEOX® GAC Processing Data

Take away notes from Table:

- Full Bed-Depth Treatment Data
- PFOA & PFOS TO <DL'S

			Treatment Status:		
			UNTREATED	TREATED	TREATED
			T = 0	17.3	17.3
			GAC	GAC	GAC
			Vertical Composite	Top 1/2	Bottom 1/2
			TOTAL PFAS	TOTAL PFAS	TOTAL PFAS
			(ng/Kg - dry wt.)	(ng/Kg - dry wt.)	(ng/Kg - dry wt.)
PFAS Telomers	Chemical Name	C Atoms			
PFBA	Perfluorobutanoic Acid	C4	8,000	240	230
PFPeA	Perfluoropentanoic Acid	C5	7,300	<120	<210
PFHxA	Perfluorohexanoic Acid	C6	<22,000	<120	<210
PFHpA	Perfluoroheptanoic Acid	C7	<22,000	<120	<210
<b>PFOA</b>	<b>Perfluorooctanoic Acid</b>	<b>C8</b>	<b>24,000</b>	<b>&lt;25</b>	<b>&lt;43</b>
PFNA	Perfluorononanoic Acid	C9	870	<25	<43
PFDA	Perfluorodecanoic Acid	C10	220	<120	<210
PFUnA	Perfluoroundecanoic Acid	C11	220	<120	<210
PFDoA	Perfluorododecanoic Acid	C12	220	<120	<210
PFTriA	Perfluorotridecanoic Acid	C13	220	<120	<210
PFTeA	Perfluortetradecanoic Acid	C14	220	<120	<210
PFBS	Perfluorobutanesulfonic Acid	C4	7,300	30	<43
PFPeS	Perfluoropentanesulfonic Acid	C5	2,900	<25	<43
PFHxS	Perfluorohexanesulfonic Acid	C6	<22,000	<120	<210
PFHpS	Perfluoroheptanesulfonic Acid	C7	5,400	<120	<210
<b>PFOS</b>	<b>Perfluorooctanesulfonic Acid</b>	<b>C8</b>	<b>1,600,000</b>	<b>&lt;25</b>	<b>&lt;43</b>
PFNS	Perfluorononanesulfonic Acid	C9	1,000	<120	<210
PFDS	Perfluorodecanesulfonic Acid	C10	<44	<25	<43
FtSA 4:2	Fluorotelomer Sulfonic Acid 4:2	C6	<220	<120	<210
FtSA 6:2	Fluorotelomer Sulfonic Acid 6:2	C8	8,400	<120	<210
FtSA 8:2	Fluorotelomer Sulfonic Acid 8:2	C10	<220	<120	<210
PFOSA	Perfluorooctanesulfonamide	C8	<44	<25	<43
N-EtFOSSA	N-Ethylperfluorooctanesulfonic	C12	<220	<120	<210
N-MeFOSAA	N-Methylperfluorooctanesulfonic	C11	<220	<120	<210
F-53BMin	11Cl-Pf3OUds	C10	<44	<25	<43
DONA	4,8-Doxa-3H-perfluorononanoic Acid	C8	<44	<25	<43
F-53BMaj	9Cl-PF3ONS	C8	<44	<25	<210
HFPO-DA	Hexafluoropropylene	C3	<220	<120	<210
% Moisture	% Moisture		45	43	40
<b>Summation of PFOA and PFOS:</b>			<b>1,624,000</b>	<b>ND</b>	<b>ND</b>
<b>Summation of PFAS Telomers:</b>			<b>1,666,270</b>	<b>270</b>	<b>230</b>
Lab testing by ALS, Holland, MI				>99%	>99%



DATA

# AMEOX® GAC Processing Data

## Landfill Leachate

### AMEOX® Re-activated GAC & Re-use Leachate Treatment Wyoming, MI

- **Use #1:** Originally used on PFAS groundwater pump & treat system >>AMEOX treated
- **Use #2:** Landfill leachate decant >> GAC >> AMEOX
- **Use #3:** Landfill leachate decant >> GAC >> AMEOX
- **Use #4:** Landfill leachate decant >> GAC >> AMEOX

			UNTREATED	Treated
			ALS	ALS
			06272022-1015	07252022-1020
			0	37.6
			GAC	GAC
			Total PFAS	Total PFAS
			(ng/Kg - dry wt.)	(ng/Kg - dry wt.)
PFAS Telomers	Chemical Name	C Atoms		
PFBA	Perfluorobutanoic Acid	C4	4,100	1,700
PFPeA	Perfluoropentanoic Acid	C5	4,600	1,700
PFHxA	Perfluorohexanoic Acid	C6	<29,000	4,000
PFHpA	Perfluoroheptanoic Acid	C7	<29,000	2,400
<b>PFOA</b>	<b>Perfluorooctanoic Acid</b>	<b>C8</b>	<b>47,000</b>	<b>8,400</b>
PFNA	Perfluorononanoic Acid	C9	560	200
PFDA	Perfluorodecanoic Acid	C10	610	<250
PFUnA	Perfluoroundecanoic Acid	C11	<290	<250
PFDoA	Perfluorododecanoic Acid	C12	<290	<250
PFTriA	Perfluorotridecanoic Acid	C13	<290	<250
PFTeA	Perfluortetradecanoic Acid	C14	<290	<250
PFBS	Perfluorobutanesulfonic Acid	C4	31,000	3,100
PFPeS	Perfluoropentanesulfonic Acid	C5	8,700	830
PFHxS	Perfluorohexanesulfonic Acid	C6	59,000	4,200
PFHpS	Perfluoroheptanesulfonic Acid	C7	62,000	3,900
<b>PFOS</b>	<b>Perfluorooctanesulfonic Acid</b>	<b>C8</b>	<b>7,500,000</b>	<b>780,000</b>
PFNS	Perfluorononanesulfonic Acid	C9	1,300	<250
PFDS	Perfluorodecanesulfonic Acid	C10	<59	<51
FtSA 4:2	Fluorotelomer Sulfonic Acid 4:2	C6	<290	<250
FtSA 6:2	Fluorotelomer Sulfonic Acid 6:2	C8	3,400	<250
FtSA 8:2	Fluorotelomer Sulfonic Acid 8:2	C10	<290	<250
PFOSA	Perfluorooctanesulfonamide	C8	67	<51
N-EtFOSSA	N-Ethylperfluorooctanesulfonic	C12	<290	<250
N-MeFOSAA	N-Methylperfluorooctanesulfonic	C11	<290	<250
F-53BMin	11Cl-Pf3OUds	C10	<59	<51
DONA	4,8-Doxa-3H-perfluorononanoic Acid	C8	<59	<51
F-53BMaj	9Cl-PF3ONS	C8	<59	<51
HFPO-DA	Hexafluoropropylene	C3	<290	<250
% Moisture	% Moisture		58	55
<b>Summation of PFOA and PFOS:</b>			<b>7,547,000</b>	<b>788,400</b>
<b>Summation of PFAS Telomers:</b>			<b>7,722,337</b>	<b>810,430</b>
Lab testing by ALS, Holland, MI				-89.6%
				-89.5%



DATA

# AMEOX® Pilot Data: City of Ann Arbor Drinking WTP GAC

City of Ann Arbor, MI Water Treatment Plant GAC												
Source:		UNTREATED - PFAS GAC							AMEOX Treated PFAS GAC			
Sample Type:		PFAS - Totals							PFAS Totals			% Reduction from Initial Untreated
Analytes:		Coal Carbon - Spent/Used							Coal Carbon - AMEOX Treated			
Matrix:		CHARACTERIZATION							AMEOX PILOT TREATMENT			
Treatability Phase:												
Sample ID:		06082020-0945 AA		20J0810-12 10162020-0900-I		20J0810-13 10162020-0900-D		AVG		10202020-C-1030 10212020-0930 10222020-1445		06082020-0945
Units:		(ng/Kg -dry wt.)	(ng/Kg -dry wt.)	(ng/Kg -dry wt.)	(ng/Kg -dry wt.)	(ng/Kg -dry wt.)	(ng/Kg -dry wt.)	(ng/Kg -dry wt.)	(ng/Kg -dry wt.)	(ng/Kg -dry wt.)	(ng/Kg -dry wt.)	YB-ALS Dry-Wt
Telomere	Chemical Name	C Atoms	Result	Result	Result	Result	Result	Result	Result	Result	Result	
PFBA	Perfluorobutanoic Acid	C4	5,556	36,000	8,818	11,000	12,000	14,675	12,000	4,900	2,900	-80.2%
PFPeA	Perfluoropentanoic Acid	C5	13,016	21,000	20,660	41,000	41,000	27,335	17,000	3,200	3,700	-86.5%
PFHxA	Perfluorohexanoic Acid	C6	25,397	48,000	40,312	66,000	65,000	48,942	26,000	7,800	4,800	-90.2%
PFHpA	Perfluoroheptanoic Acid	C7	36,508	74,000	57,949	100,000	99,000	73,491	33,000	15,000	5,400	-92.7%
<b>PFOA</b>	<b>Perfluorooctanoic Acid</b>	<b>C8</b>	<b>12,063</b>	<b>37,000</b>	<b>19,148</b>	<b>33,000</b>	<b>27,000</b>	<b>25,642</b>	<b>11,000</b>	<b>7,100</b>	<b>2,100</b>	<b>-91.8%</b>
PFNA	Perfluorononanoic Acid	C9	3,016	14,000	4,787	9,200	7,500	7,701	2,800	1,900	700	-90.9%
PFDA	Perfluorodecanoic Acid	C10	1,571	7,100	2,494	7,000	4,200	4,473	<2200	<2500	<2500	
PFBS	Perfluorobutanesulfonic Acid	C4	5,873	16,000	9,322	27,000	23,000	16,239	6,900	2,000	1,000	-93.8%
PFPeS	Perfluoropentanesulfonic Acid	C5	603	1,100	957	2,100	1,500	1,252	<450	<510	<500	
PFHxS	Perfluorohexanesulfonic Acid	C6	3,016	12,000	4,787	14,000	6,400	8,041	2,400	<2500	<2500	
PFHpS	Perfluoroheptanesulfonic Acid	C7	238	900	<200	720	<690		<2200	<2500	<2500	
<b>PFOS</b>	<b>Perfluorooctanesulfonic Acid</b>	<b>C8</b>	<b>30,159</b>	<b>55,000</b>	<b>47,871</b>	<b>170,000</b>	<b>91,000</b>	<b>78,806</b>	<b>23,000</b>	<b>23,000</b>	<b>4,700</b>	<b>-94.0%</b>
FtSA 6:2	Fluorotelomer Sulfonic Acid 6:2	C8	33,333	110,000	52,910	88,000	80,000	72,849	34,000	21,000	6,100	-91.6%
PFOSA	Perfluorooctanesulfonamide	C8	48	<380	<43	<680	<350		<450	<510	<500	
N-EtFOSSA	N-Ethylperfluorooctanesulfonic amidoacetic Acid	C12	333	2,400	529	1,000	<690		<2200	<2500	<2500	
<b>Summation of PFOA and PFOS:</b>			<b>42,222</b>	<b>92,000</b>	<b>67,019</b>	<b>203,000</b>	<b>118,000</b>	<b>104,448</b>	<b>34,000</b>	<b>30,100</b>	<b>6,800</b>	<b>-83.9%</b>
Summation of PFAS Telomere Totals:			170,730	436,240	270,547	570,860	457,600	379,446	168,100	85,900	31,400	-81.6%

DATA



# AMEOX® Fluid Re-Use Data

- PFAS “ND” in AMEOX fluid & settled solids.
- Fluoride generated during PFAS destruction and removed from fluid with Al, Ca, Fe, and Mn foulants.
- F<sup>-</sup> background in city makeup water for AMEOX fluid was 0.8 mg/L. Foulant metals sourced from carbon.
- AMEOX fluid returned for re-use to destroy PFAS in GAC.
- Fluid processed for metals and fluoride multiple times since spring 2023.
- Solids accumulated over treatment duration
- All 42 analyzed PFAS Telomeres @ < 5.0 ng/L in AMEOX Fluid
- All 42 analyzed PFAS Telomeres @ <35 ng/Kg-dry wt. in Settled Residual Solids



# AMEOX® Technology for PFAS Destruction

## Beneficial Iron Removal from Spent GAC

Untreated GAC:

18,000 mg/Kg

Treated GAC:

2,500 mg/Kg



# AMEOX® Technology for PFAS Destruction

## Beneficial Foulant Removal from Spent GAC

<u>Parameter</u>	<u>Untreated GAC</u>	<u>AMEOX Treated GAC</u>
Iron	18,000	2500
Aluminum	5100	2600
Calcium	9300	2200
Manganese	2800	400
Alkalinity (total as CaCO <sub>3</sub> )	250	ND (<170)

\* All units as mg/Kg (dry wt.)



# On-site AMEOX® Processing: Reverse Osmosis Reject Concentrate (Viability Study)



**RO Concentrate Treatment  
AMEOX System Setup**



**Treatment at Start**



**Treatment at 30 minutes**



# AMEOX® Processing Data

## Reverse Osmosis Reject Concentrate

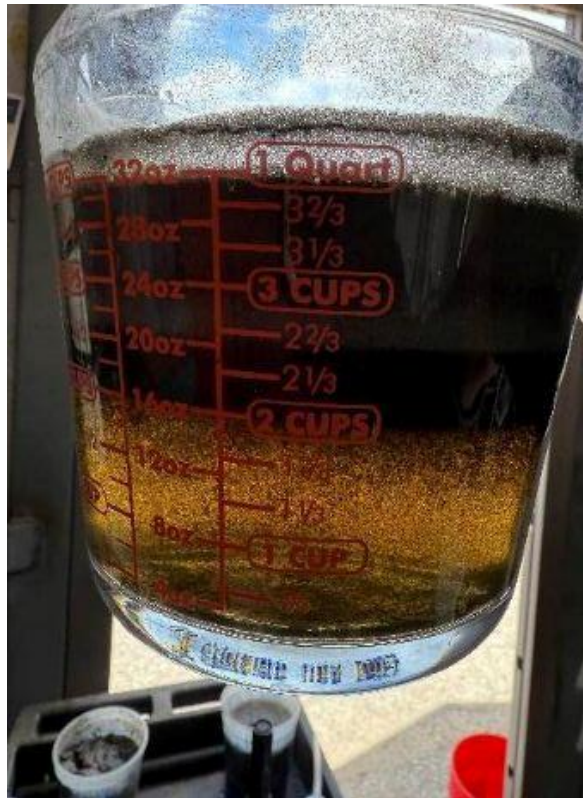
### Viability Study

- Data shows RO-90% fluid concentrate is **suitable for full-scale optimization**
- 97.4% reduction in PFOA+PFOS**

				AMEOX® Technology Viability Study for PFAS Destruction: Minnesota Landfill Leachate VSEP RO 90% Recovery Reject Concentrate		
				Untreated RO Reject (90%)	AMEOX Treated RO Reject (90%)	
				PFAS Totals/ Metals	PFAS Totals/ Metals	
				RO Concentrate Liquid	RO Concentrate Liquid	
				CHARACTERIZATION	AMEOX Treated	
				T = 0	T = 16	
				AMEOX Reactor	AMEOX Reactor	
				02092024-RO-90%	02102024-RO-90%	
				ALS	ALS	
				E-537 Mod / SW3015A	E-537 Mod / SW3015A	
				(ng/L)	(ng/L)	
				Result	Result	% Reduction
<b>Processed Fluid</b>						
VSEP Concentrate						
7/5/23						
90% Recovery						
~20 gallons						
<b>Source:</b>						
<b>Sample Type:</b>						
<b>Analytes:</b>						
<b>Matrix:</b>						
<b>Treatability Phase:</b>						
<b>Elapsed Hours Treated:</b>						
<b>Sample Source:</b>						
<b>Sample ID:</b>						
<b>Lab:</b>						
<b>Method(s):</b>						
<b>Units (unless noted):</b>						
<b>Telomere</b>	<b>Chemical Name</b>	<b>CAS No.</b>	<b>C Atoms</b>			
FtSA 6:2	Fluorotelomer Sulfonic Acid 6:2	27619-97-2	C8	910	35	-96.2%
PFBS	Perfluorobutanesulfonic Acid	375-73-5	C4	6,700	3,900	-41.8%
PFBA	Perfluorobutanoic Acid	375-22-4	C4	11,000	9,000	-18.2%
PFHpA	Perfluoroheptanoic Acid	375-85-9	C7	5,900	500	-91.5%
PFHxS	Perfluorohexanesulfonic Acid	355-46-4	C6	4,200	240	-94.3%
PFHxA	Perfluorohexanoic Acid	307-24-4	C6	22,000	17,000	-22.7%
PFNA	Perfluorononanoic Acid	375-95-1	C9	270	<25	-90.7%
PFOS	Perfluorooctanesulfonic Acid	1763-23-1	C8	580	<25	-95.7%
PFOA	Perfluorooctanoic Acid	335-67-1	C8	7,500	210	-97.2%
PFPeS	Perfluoropentanesulfonic Acid	2706-91-4	C5	250	120	-52.0%
PFPeA	Perfluoropentanoic Acid	2706-90-3	C5	11,000	9,200	-16.4%
HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	C6	<99	<25	
PFecHS	Perfluoro-4-ethylcyclohexanesulfonic Acid	646-83-3	C8	140	<25	-82.1%
PFBSA	Perfluorobutylsulfonamide	30334-69-1	C4	300	190	-36.7%
Summation of PFOA and PFOS:				8,080	210	97.4%
* Summation of PFOA, PFOS, PFNA, PFHxS, PFBS, HFPO-DA (GenX):				19,250	4,350	77.4%
Summation of PFAS Telomere Totals:				70,750	40,437	42.8%
<b>NOTES:</b>						
a) * March 14, 2023 - Proposed PFAS National Primary Drinking Water Regulation - (6) PFAS: <a href="https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas">https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas</a>						
b) VSEP Concentrate - 90% Recovery Landfill Leachate RO concentrate was processed February 9-10, 2024 using an AMEOX Single Unit						
c) AMEOX processing followed a generic treatment regime design for PFOA + PFOS and using data provided by customer for Total PFAS of up to 10ug/L						
d) Data indicate AMEOX processing conditions and RO fluid characteristics caused dissolution of metal oxide deposits accumulated on internal surfaces of AMEOX equipment from previous GAC processing.						
e) PFAS cross-over contamination not evaluated. No equipment blank was tested as fluid run through system was RO concentrate (vs. clean water) and any carryover from piping surfaces would be insignificant for this viability study.						
f) Viability data confirms the AMEOX technology is able to reduce the level of PFAS in 90% RO concentrate and indicates process optimization is feasible.						



# On-site AMEOX® Treatment: Foam Fractionation Foamate Concentrate (Engineering-Scale Study)



**Foamate – AN Pretreatment**



**AMEOX Treated Foamate**



**Viability Treatment Samples**



# AMEOX® Engineering-Scale Processing Data: Foamate Concentrate



- 99.9% reduction of PFOA + PFOS. Objective of 95%
- 90.5% reduction of Total PFAS. Objective of 85%
- Inorganic Fluoride increased from 12.2 to 159 mg/L

Foamate Treatability Study - AMEOX Technology Viability Results							
Compound	CAS	Sample Status	Untreated Foamate	AMEOX Treated Foamate			
			FTE ng/L	Round 1 AMEOX Treated Foamate ng/L	% Change from FTE	Round 2 AMEOX Treated Foamate ng/L	% Change from FTE
PFHxA	307-24-4		7840	2810	-64.2%	2220	-71.7%
PFHpA	375-85-9		8430	624	-92.6%	415	-95.1%
<b>PFOA</b>	<b>335-67-1</b>		<b>26100</b>	<b>216</b>	<b>-99.2%</b>	<b>21.6</b>	<b>-99.9%</b>
PFNA	375-95-1		2020	<8.67	> -99.6%	<4.82	>-99.8%
PFDA	335-76-2		983	<12.4	> -99.6%	<4.82	>-99.5%
PFUnDA	2058-94-8		81.6	<9.71	> -88.1%	<4.82	>-94.1%
PFDoDA	307-55-1		80.3	<6.89	> -91.4%	<4.82	>-94.0%
PFTTrDA	72629-94-8		33.3	<19.2	> -42.3%	<4.82	>-85.5%
PFBS	375-73-5		4750	3550	-25.3%	2280	-52.0%
PFPeS	2706-91-4		282	<5.54	> -98.0%	30.6	-89.1%
PFHxS	355-46-4		20700	373	-98.2%	184	-99.1%
PFHpS	375-92-8		95.9	<5.64	> -94.1%	<4.59	<-95.2%
<b>PFOS</b>	<b>1763-23-1</b>		<b>4060</b>	<b>33</b>	<b>-99.2%</b>	<b>3.26</b>	<b>-99.9%</b>
6:2 FTS	27619-97-2		5880	400	-93.2%	21.3	-99.6%
8:2 FTS	39108-34-4		444	<11.3	> -97.5%	<4.62	>-99.0%
N-EtFOSAA	2991-50-6		6210	<15.4	> -99.8%	<4.82	>-99.9%
N-MeFOSAA	2355-31-9		5320	<6.42	> -99.8%	4.82	>-99.9%
PFOSA	754-91-6		98.4	NR		NR	
Totals for reported >LOD			95,848	13,126	-86.3%	9,139	-90.5%
PFOA + PFOS			30,160	249	-99.2%	24.9	-99.9%
PFOA, PFNA, PFOS, PFBS, PFHxS			57,630	4,172	-92.8%	2,489	-95.7%
xA, PFHpA, PFOA, PFBS, PFHxS, N-MeFOSSA			73,140	7,573	-89.6%	5,125	-93.0%
Fluoride, inorganic			12.2	36.3	198%	159	1203%

DATA



# AMEOX® Technology – NSF/ANSI Standard 60 & 61 Certification

## Drinking Water Treatment Chemicals; & Drinking Water System Components

### AMEOX® equipment:

- “Is exempt from certification but not excluded.” (NSF)
- “Cannot be certified. Drinking water does not contact AMEOX equipment.” (NSF)
- “...equipment must be under control of the water treatment Utility.” (NSF)
- “must be dedicated to the (application) site facility.” (without inter-jurisdictional Agency(ies) approval) (NSF)



# AMEOX® Single Unit Mobile Systems (Fabrication to Readiness Testing)

YB Technologies, LLC

Anacortes, WA



# SUMMARY



At YB Technologies, we strive to provide THE technologies for a cleaner PFAS future. Our AMEOX<sup>®</sup>, Advanced Neutralization<sup>™</sup> and MBT<sup>™</sup> technology systems integrate to solve PFAS in media, soils, solids and liquids.



THANK YOU

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