



**Environmental Resource Analysts, Inc.**

2975 Brown Court  
Auburn, AL 36830  
334-502-3444  
(Fax) 334-502-8888

30 Years in Business, and Counting  
[www.eralab.com](http://www.eralab.com)

**Laboratory Testing Report**

**Sample #: 352026**

**Prepared For:**

Wiggins Engineering Services  
1624 Highway 102  
Warthen, GA 31094

**Attention: Billy Wiggins**

*We appreciate the opportunity to provide testing results for you. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data, please do not hesitate to contact the Technical Manager or the Lab Director at the number listed above.*

The analyses presented in this report were performed by ERA, Inc. Any exceptions or problems with the analyses are noted in the Laboratory Testing Report.

Any issues encountered during sample receipt are documented on the Cooler Receipt Form.

The results as reported relate only to the item(s) submitted for testing.

This report shall be used or copied only in its entirety. ERA, Inc. is not responsible for the consequences arising from the use of a partial report.



# ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

**Results of Analysis For:** Wiggins Engineering Services  
1624 Highway 102  
Warthen, GA 31094

Project: 906-1025  
Date Received: 10/9/2025

<b>Sample Number:</b> 352026-01	<b>Collection Date:</b> 10/07/2025 12:00
<b>Sample Type:</b> Grab	<b>Location:</b> X Untreated City of Port Lavaca TX

## Organics

Test	Result	Units	MDL	PQL	Method	Date / Time	Analyst	Qualifier
<b>TTHM</b>								
Chloroform	4.2	ug/L	1	1	EPA 524.2	10/09/25 12:08	EJC	*
Bromodichloromethane	17.0	ug/L	1	1	EPA 524.2	10/09/25 12:08	EJC	*
Dibromochloromethane	39.2	ug/L	1	1	EPA 524.2	10/09/25 12:08	EJC	*
Bromoform	40.9	ug/L	1	1	EPA 524.2	10/09/25 12:08	EJC	*
Total Trihalomethanes	101	ug/L	4	4	EPA 524.2	10/09/25 12:08	EJC	*
<b>Surrogate</b>			<b>Recovery %</b>		<b>Target Range</b>			
1,2-Dichloroethane-d4			113		70-130			
Toluene-d8			99.3		70-130			
4-Bromofluorobenzene			102		70-130			

<b>Sample Number:</b> 352026-02	<b>Collection Date:</b> 10/07/2025 12:20
<b>Sample Type:</b> Grab	<b>Location:</b> X 0 Minutes City of Port Lavaca TX

## Organics

Test	Result	Units	MDL	PQL	Method	Date / Time	Analyst	Qualifier
<b>TTHM</b>								
Chloroform	<1.0	ug/L	1	1	EPA 524.2	10/09/25 12:32	EJC	*
Bromodichloromethane	3.6	ug/L	1	1	EPA 524.2	10/09/25 12:32	EJC	*
Dibromochloromethane	9.7	ug/L	1	1	EPA 524.2	10/09/25 12:32	EJC	*
Bromoform	12.8	ug/L	1	1	EPA 524.2	10/09/25 12:32	EJC	*
Total Trihalomethanes	26.1	ug/L	4	4	EPA 524.2	10/09/25 12:32	EJC	*
<b>Surrogate</b>			<b>Recovery %</b>		<b>Target Range</b>			
1,2-Dichloroethane-d4			114		70-130			
Toluene-d8			98.4		70-130			
4-Bromofluorobenzene			99.9		70-130			



# ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Sample Number: 352026-03

Collection Date: 10/07/2025 12:15

Sample Type: Grab

Location: X 3 Minutes City of Port Lavaca TX

## Organics

Test	Result	Units	MDL	PQL	Method	Date / Time	Analyst	Qualifier
<b>TTHM</b>								
Chloroform	<1.0	ug/L	1	1	EPA 524.2	10/09/25 12:56	EJC	*
Bromodichloromethane	1.4	ug/L	1	1	EPA 524.2	10/09/25 12:56	EJC	*
Dibromochloromethane	4.5	ug/L	1	1	EPA 524.2	10/09/25 12:56	EJC	*
Bromoform	7.1	ug/L	1	1	EPA 524.2	10/09/25 12:56	EJC	*
Total Trihalomethanes	13.0	ug/L	4	4	EPA 524.2	10/09/25 12:56	EJC	*

Surrogate	Recovery %	Target Range
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	98.9	70-130
4-Bromofluorobenzene	98.6	70-130

Sample Number: 352026-04

Collection Date: 10/07/2025 12:45

Sample Type: Grab

Location: X 6 Minutes City of Port Lavaca TX

## Organics

Test	Result	Units	MDL	PQL	Method	Date / Time	Analyst	Qualifier
<b>TTHM</b>								
Chloroform	<1.0	ug/L	1	1	EPA 524.2	10/09/25 13:20	EJC	*
Bromodichloromethane	1.1	ug/L	1	1	EPA 524.2	10/09/25 13:20	EJC	*
Dibromochloromethane	4.0	ug/L	1	1	EPA 524.2	10/09/25 13:20	EJC	*
Bromoform	6.6	ug/L	1	1	EPA 524.2	10/09/25 13:20	EJC	*
Total Trihalomethanes	11.7	ug/L	4	4	EPA 524.2	10/09/25 13:20	EJC	*

Surrogate	Recovery %	Target Range
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	99.8	70-130
4-Bromofluorobenzene	100.0	70-130



## ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

MDL: Method Detection Limit  
PQL: Practical Quantitation Limit

\* = ERA is not TNI accredited for this analyte

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This report was reviewed for completeness and approved.  
Date Complete: 10/13/2025

Dyana Hughes, Reporting Manager

All data on this report is in compliance with the reported  
method unless otherwise noted.

Erin Consuegra, Technical Manager



# CHAIN OF CUSTODY



## ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830  
Tel. (334) 502-3444 Fax (334) 502-8888

**Requests for EXPEDITED results must be pre-arranged with the lab.**

Client: Wiggins Engineering Services  
Project: 906-1025  
Desc: TTHM- NC

G or C	Composite Sample(s)		
	Subsample Frequency	First Subsample Date/Time	Last Subsample Date/Time

Sample No.	352026-01	Grab	[Redacted]
Location	X Untreated		
Collector			
Date/Time Sample			

Sample No.	352026-02	Grab	[Redacted]
Location	X 0 Minutes		
Collector			
Date/Time Sample			

Sample No.	352026-03	Grab	[Redacted]
Location	X 3 Minutes		
Collector			
Date/Time Sample			

Sample No.	352026-04	Grab	[Redacted]
Location	X 6 Minutes		
Collector			
Date/Time Sample			

**For Client Use:**

Relinquished By: \_\_\_\_\_ Relinquished To Sealed Container:

Date/Time: \_\_\_\_\_

**Additional Signatures:** (Not Required If Relinquishing To A Sealed Container)

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By Lab: [Signature] Date/Time: 10/9/25 0900 Kit Prepared: 10-9-25 ERA

Sample	Preservation	Analysis	Preservation CK	Sample	Preservation	Analysis	Preservation CK
-01A	Sodium Thiosulfate	TTHM	Rcvd [Signature]	-01B	Sodium Thiosulfate	Duplicate - TTHM	Rcvd [Signature]
-02A	Sodium Thiosulfate	TTHM	Rcvd [Signature]	-02B	Sodium Thiosulfate	Duplicate - TTHM	Rcvd [Signature]
-03A	Sodium Thiosulfate	TTHM	Rcvd [Signature]	-03B	Sodium Thiosulfate	Duplicate - TTHM	Rcvd [Signature]
-04A	Sodium Thiosulfate	TTHM	Rcvd [Signature]	-04B	Sodium Thiosulfate	Duplicate - TTHM	Rcvd [Signature]

See next pages  
[Signature]

Page 5 of 8

# City of PORT LAVACA TX

**ENVIRONMENTAL RESOURCE ANALYSTS, INC.**  
 Auburn Technology Park • 2975 Brown Ct. • Auburn, AL 36817  
 Tel. (334) 522-3444 Fax (334) 522-4888

Requests for EXPEDITED results must be pre-arranged with the lab.

## CHAIN OF CUSTODY

906-1025

City of PORT LAVACA  
 202 NORTH VIRGINIA  
 PORT LAVACA TX  
 77979

Client: Higgins Engineering Services  
 Project: PORT LAVACA  
 Desc: TTHA-NC

Sample No.	Localn	Collector	Date/Time Sample	Composite Sample(s)		
				Subsample Frequency	Fst. Subsample Date/Time	Last Subsample Date/Time
352025-01	X Untreated	SRT	10/7/25 12:00 PM			

Sample No.	Localn	Collector	Date/Time Sample	Composite Sample(s)		
				Subsample Frequency	Fst. Subsample Date/Time	Last Subsample Date/Time
352025-02	X 0 Min. Jbs	SRT	10/7/25 12:20			

Sample No.	Localn	Collector	Date/Time Sample	Composite Sample(s)		
				Subsample Frequency	Fst. Subsample Date/Time	Last Subsample Date/Time
352025-03	X 3 Minutes	SRT	10/7/25 12:35 PM			

Sample No.	Localn	Collector	Date/Time Sample	Composite Sample(s)		
				Subsample Frequency	Fst. Subsample Date/Time	Last Subsample Date/Time
352025-04	X 6 Minutes	SRT	10/7/25 12:45			

For Client Use:

Requisitioned By: \_\_\_\_\_ Requisitioned To Sealed Container:

Date/Time: \_\_\_\_\_

Additional Signatures: (Not Required if Requisitioning To A Sealed Container)

Requisitioned By: [Signature] Date/Time: 10/10/25

Received By: [Signature] Date/Time: 10/8/25

Requisitioned By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By Lab: \_\_\_\_\_ Date/Time: \_\_\_\_\_ IQR Prepared: \_\_\_\_\_

Sample	Preservation	Analysis	Preservation OK	Sample	Preservation	Analysis	Preservation OK
-01A	Sodium Thiosulfate	TTHM	Yes	-01B	Sodium Thiosulfate	Duplicate - TTHM	Yes
-02A	Sodium Thiosulfate	TTHM	Yes	-02B	Sodium Thiosulfate	Duplicate - TTHM	Yes
-03A	Sodium Thiosulfate	TTHM	Yes	-03B	Sodium Thiosulfate	Duplicate - TTHM	Yes
-04A	Sodium Thiosulfate	TTHM	Yes	-04B	Sodium Thiosulfate	Duplicate - TTHM	Yes

This Chain of Custody serves as a contract of service between the laboratory and the client. In the case of any unforeseen event, samples may be submitted to a certified laboratory.



# ERA Cooler Receipt Form

Client Wiggins Engineering Sample # 352026

### 1. Condition of Cooler Upon Unpacking

A. Date & Time of Cooler Unpacking 10/9/25 0925 Receiving Analyst: [Signature]

B. Method of Delivery:  
 Fed Ex  UPS  USPS  ERA Driver  Client Drop Off  Other  
Tracking Number \_\_\_\_\_

C. Condition of Custody Seal upon arrival:  Absent  Present

### 2. Condition of Cooler Contents

A. Chain Of Custody Information:  Completed  Incomplete NO LOG

B. Cooling Process  Solid Ice  Ice pack  Dry Ice  None  Other

C. Broken Bottles?  No  Yes If yes, which? \_\_\_\_\_

D. Temperature °C 2.8 Thermometer ID: Mobile  
Reason for incorrect temp:  Frozen  Beginning of Cooling process  Ice melted  
 Other

### 3. Sample Information and Verification

A. Sample Numbers match Chain of Custody?  Yes  No  
Correct bottle types used for each sample?  Yes  No  
All samples arrived within holding time?  Yes  No  
Sufficient volume in each bottle for tests?  Yes  No  
B. All samples were verified & marked on the Chain of Custody?  Yes  No

C. Samples with preservative have been checked and are in the correct pH range?  Yes, no preservatives needed  No, see preservative info  Not applicable  
pH Strip Lot #: \_\_\_\_\_

Additional Preservative information	
1	Preservative Type: _____
2	Preservative Lot # _____
3	Preservative Type: _____
4	Preservative Lot # _____

D. Trip Blanks  Absent  Present  N/A

### 4. Comments and Resolutions

If any non-compliance was noted (temp out of range, holding time exceedance), the client has been informed and as needed our system has been documented in regards to the communication.

### 5. Analyst Conformation

The information regarding cooler, chain of custody, and sample receipt is correct and verified by the analyst. If conditions are not met the appropriate actions were taken by the receiving analyst and/or the lab manager.

Primary Reviewer: [Signature]

Secondary Reviewer: [Signature]



## ENVIRONMENTAL RESOURCE ANALYSTS, INC.

Auburn Technology Park - 2975 Brown Ct. - Auburn, AL 36830

Tel. (334) 502-3444 Fax (334) 502-8888

Sample #: 352026

All results are reported in Central Time.

### Abbreviations

BMDL – Below Method Detection Limit  
BOD – Biochemical Oxygen Demand  
BTEX – Benzene, Ethylbenzene, Toluene, Xylenes  
cBOD – Carbonaceous Biochemical Oxygen Demand  
CCV – Continuing Calibration Verification  
COD – Chemical Oxygen Demand  
DO – Dissolved Oxygen  
DOC – Dissolved Organic Carbon  
DW – Drinking Water  
HAA – Halo Acetic Acid  
HPC – Heterotrophic Plate Count  
HR – High Range  
ICP – Inductively Coupled Plasma  
LCS – Laboratory Control Sample  
LR – Low Range  
MDL – Method Detection Limit  
MS – Mass Spectrometer  
MS – Matrix Spike  
ND – Not Detected at or above the MDL  
NPDES – National Pollutant Discharge Elimination System  
PQL – Practical Quantitation Limit

RECRA – Resource Conservation and Recovery Act  
RL – Reporting Limit  
SID – State Indirect Discharge  
SOC – Synthetic Organic Compound  
SVOC – Semi-volatile Organic Compound  
TCLP – Toxic Characteristic Leaching Procedure  
TD – Total Dissolved  
TDS – Total Dissolved Solids  
TKN – Total Kjeldahl nitrogen  
TNI – The NELAC Institute  
TOC – Total Organic Carbon  
TOX – Toxicity  
TS – Total Solids  
TSS – Total Suspended Solids  
TTHM – Total Trihalomethanes  
UV – Ultraviolet  
VOC – Volatile Organic Compound  
VS – Volatile Solids  
WW – Wastewater

### Additional Information

Carbon Dioxide determination is a calculation using the Alkalinity and pH values.  
ADMI color is reported using 10 ordinates at 400-700nm wavelength using instrument DR4000.  
Reported TOC values are of non-purgable organic carbon.  
ERA is not TNI accredited for field analyses.

Environmental Resource Analysts, Inc is TNI accredited through Florida DOH under E87542. For a full list of analytes, methods, and matrices, please request a copy of our scope from the Reporting Manager or download from our website: [eralab.com](http://eralab.com)

## End of Report



# VaCraft Manufacturing LLC

Vacraft Manufacturing LLC  
Billy Wiggins, MS, PE  
262 Aylesbury Ln  
Sandersville, GA 31082  
November 10, 2025

Ref: Equipment Quote for Port Lavaca, Texas TX0290002

We are pleased to offer pricing for a 500 gpm Trihalomethane Removal System (TRS).

The equipment provided consists of:

1. [1] 8x8x16 (size is approximate and may vary) 304ss aeration vessel complete with sparger and atomizing spray nozzles.
2. [1] app. 30hp Grundfos or similar NSF61 pump. (1) One per skid. Flow rates for pump will be 450 gpm.
3. [4] Manual butterfly valves ((2) isolation valves for pump and (2) isolation valves at aeration tank)
4. [TBD] atomizing spray nozzles (316 SS)
5. [1] Control Panel with vfd and a PLC or RTU for controls. (Options to run in automatic w/ timer or manual)
6. (1-2) Cincinnati fans w/ MTR, app. 15HP, 2850/3450 RPM, 3PH, 50/60Hz, 190/380/50 & 230/460/60, TEFC (fans interlocked with pumps in control panel)
7. (1) electric actuated 2 position spring fail close valve (as safety feature)

Detailed approval drawings, as well as O&M manuals will be provided.

The municipality will be responsible for final conductor terminations to the pump skid disconnect. The panels will be pre-wired with some field connections required. Details will be provided.

Installation can be provided.

Estimated costs for the equipment is \$273,256

Shipping and taxes are not included. Installation is included.

Thank you for the consideration,

Billy Wiggins

If proposal is acceptable, please sign below:

\_\_\_\_\_  
Date For VaCraft Manufacturing LLC \_\_\_\_\_  
Date

Terms and Conditions:



# VaCraft Manufacturing LLC

**Scope of Supply:** Only the material detailed in this proposal is being offered. No assumptions should be made that anything not specifically defined is included.

**Submittal:** Estimated at 2 Weeks after purchase order acceptance by Wiggins Engineering Services PC.

**Shipment:** Average shipment is 10 to 12 weeks after receipt of approved submittal. Actual lead-times may be longer or shorter due to order volume, size, and/or component lead-time.

**Validity:** 30 Calendar Days from November 10, 2025

**Terms:** Pending Account Review the following Vacraft Manufacturing LLC standard progress payment terms may apply

20% With Order  
40% with Submittal Approval  
40% Net 30

**Freight:** Prices are FOB our plant and do NOT include freight or taxes

- 1) Prepaid and Added to Final Invoice (FOB Lawrenceville, Georgia 30043)
- 2) Customer Provided 3<sup>rd</sup> Party Billing Freight Carrier
- 3) Customer Advised COD
- 4) Customer Scheduled 3<sup>rd</sup> Party Shipping Method

**Tax:** Not Included in Proposal

**Spare Parts:** Not Included in Proposal

**Submittals:** Electronic PDF Included in Proposal - Additional Hard Copies are \$30 Each

**O&M's:** Electronic PDF Included in Proposal - Additional Hard Copies are \$30 Each

**Cancellation Fees:** Cancellation Charges will be assessed at time of cancellation based on project status, restocking fees associated with returning items received or scheduled for delivery before cancellation order is issued.

**Limited Warranty:** Products manufactured by Vacraft Manufacturing LLC are warranted to be free of defects in materials and workmanship for 12 months from date of startup but not exceeding 18 months from manufacture. Wiggins Engineering Services PC will not be liable for damage or wear to products caused by abnormal operation conditions, accident, abuse, misuse, or if the product was not installed in accordance with VaCraft Manufacturing LLC installation and operating instructions.

Should this proposal become an order, please address, and send to:



# VaCraft Manufacturing LLC

VaCraft Manufacturing LLC  
262 Aylesbury Ln  
Sandersville, GA 31082  
Email: [wigginsengineeringpc@gmail.com](mailto:wigginsengineeringpc@gmail.com)

If you have any additional questions, or require any additional information, please let us know.

# **PSI WATER TECHNOLOGIES**

A cleanwater1 Company



## **BUDGET PROPOSAL**

### **THM REMOVAL SYSTEM**

### **FOR Port Lacava, TX – 0.5MG George Tank**

PSI Water Technologies, Inc.

File No.: P24-6120

CA Contractor's License: #877235

Prepared on: 3/4/24

### **SALES REPRESENTATIVE**

Environmental Improvements (EI2)

Blake Roye

1183 Brittmoore Rd, Suite 100

Houston, TX 77043

T: (717) 461-1111

Email: [blake@ei2hou.com](mailto:blake@ei2hou.com)

# **PSI WATER TECHNOLOGIES**

A cleanwater1 Company

## **TABLE OF CONTENTS**

Section 1: Scope of Supply

Section 2: Technical Information

Section 3: Brochure



**IMPORTANT NOTICE:** All the information in this Proposal is confidential and has been prepared for Buyer's use solely in considering the purchase of the Equipment described. Transmission of all or any part of this Proposal to others or use by Buyer for other purposes is unauthorized without Seller's advance written consent.

# PSI WATER TECHNOLOGIES

A cleanwater1 Company

March 4, 2024

Wayne Schaffer  
Director of Public Works  
Port Lavaca, TX.

Re: PAX THM Removal System (PAX TRS™) for Port Lavaca, TX – 0.5MG George Tank  
PSI Water Technologies, Inc. File No.: P24-6120

Dear Wayne,

Thank you for your interest in PSI Water Technologies, Inc. (PSI), a cleanwater1, inc. company. We are pleased to provide a Proposal for one (1) THM Removal System (PAX TRS™) for the 0.5MG George Tank. Our Proposal is based on the following design criteria:

## Design Criteria

Tank Volume, gal	500,000
Reservoir Type	Elevated Composite
Tank Diameter, ft	50.0
Tank Height, ft	48.1
Turnover, gpd	1,500,000
Operating Description	Steady-state
Required Power On-site	480VAC/3Ph
Guaranteed THM Removal Rate	45%

Equipment start-up can be provided by PSI or the local PSI representative. PSI will provide a single start-up checklist form.

A detailed scope of work and budget price is listed in Section 1 of this Proposal. Sections 2 and 3 includes our technical information and brochure. **The pricing is valid for 30 days.**

## System Features & Advantages

The PAX TRS™ is a set of equipment installed in a water storage tank to remove THMs by volatilization or air stripping. The PAX TRS™ is compatible with any type of drinking water storage tank, and consists of the following sub-systems:

1. An active mixing system to continuously circulate and homogenize the water inside the tank, eliminating chemical and thermal stratification and ensuring THM-laden water is continuously introduced to the transfer zone at the water surface.
2. An active ventilation system to continuously circulate fresh exterior air into the tank and providing force for mass transfer.
3. An active aeration system to increase the available surface area for mass transfer of THMs from the water to the air.

# **PSI WATER TECHNOLOGIES**

A cleanwater<sup>1</sup> Company

We look forward to working with you on this project. If we can be any of further assistance, please do not hesitate to contact our sales representative, Blake Roye at Environmental Improvements (E12), or me on (936) 537-7356.

Sincerely,

John Busse  
Regional Sales Manager

cc: Solomon Bruce-Oliver, PSI Water Technologies, Inc.  
Blake Roye, Environmental Improvements (E12)

# **PSI WATER TECHNOLOGIES**

A cleanwater1 Company

## **SECTION 1**

### **SCOPE OF SUPPLY**

- A. Scope of Work by PSI Water Technologies, Inc.
- B. Scope of Work by Others
- C. Clarifications



# PSI WATER TECHNOLOGIES

A cleanwater<sup>1</sup> Company

## A. SCOPE OF WORK BY PSI WATER TECHNOLOGIES, INC.

The following equipment and services are included in our scope of work. All equipment will be manufactured in accordance with the descriptions below.

### Breakdown below:

<u>No.</u>	<u>Item Description</u>	<u>Qty</u>
1.	<b>PWM250 Mixer Wet Assembly</b> , including: <ul style="list-style-type: none"><li>• Stainless-Steel Ballast Ball and Housing</li><li>• EPDM Molded Foot</li><li>• 2.0 HP Water-Cooled Motor powered by the Integrated Control Panel</li><li>• Integral Power Cable</li><li>• Stainless-Steel Installation/Replacement Chain</li></ul>	1
2.	<b>Cable 130 ft.</b> , including: <ul style="list-style-type: none"><li>• Flat-jacketed 4 conductor</li></ul>	1
3.	<b>Tank Penetration Accessory</b> <ul style="list-style-type: none"><li>• Stainless steel strain relief for 4 wire flat-jacketed cable</li></ul>	1
4.	<b>Powervent<sup>®</sup>, PPV-600</b> <ul style="list-style-type: none"><li>• Motor: Standard 480 VAC, 3-Phase, 60 Hz powered by Integrated Control Panel</li><li>• Power Switch: NEMA 1 safety disconnect switch</li><li>• Air Flow: 6,000 CFM @ 0.50 in. H<sub>2</sub>O Static Pressure</li><li>• Motor Power: 2 HP</li><li>• Nominal Power Draw: 1.21 kW</li><li>• Dimension (L x W x D): 61" x 61" x 34"</li><li>• Weight: 376 lbs.</li><li>• Material: Heavy gauge powder-coated aluminum</li><li>• Filters: Standard one-inch</li></ul>	1
5.	<b>Surface Aerator, SAN-150</b> <ul style="list-style-type: none"><li>• Power Supply Requirement: Standard 480 VAC, 3-Phase, 60 Hz</li><li>• Motor Specification: 15 HP, 3450 RPM, 86°F (30°C) temperature rating, submersible motor, hermetically sealed windings, factory sealed, 10 AWG, flat cable extension.</li><li>• Float Material: NSF-61 approved HDPE filled with closed cell polyethylene foam material.</li><li>• Minimum Hatch Clearance: 31" square or 40" round</li><li>• Weight – Pump and Motor Assembly: 250 lbs.</li><li>• Weight – Float Assembly: 225 lbs.</li><li>• Weight – Reserve Buoyancy: 150 lbs.</li><li>• Includes 50 ft. power cable</li></ul>	2

# PSI WATER TECHNOLOGIES

A cleanwater<sup>1</sup> Company

<u>No.</u>	<u>Item Description</u>	<u>Qty</u>
6.	<b>Cable Mount System</b> <ul style="list-style-type: none"><li>• Specification – System Mounting Bracket: 316 SS, 0.25" thick</li><li>• Specification – Wire Rope: 316 SS, 3/8" diameter, 2,352 lbs. working capacity, 7x19 Class IWRC, RoHS compliant</li><li>• Specification – Extension Spring: 302 SS, 2.1" outer diameter, 213.3 lbs. load capacity</li><li>• Specification – Eyebolt: 4,000 lbs. vertical capacity</li><li>• Specification – Turnbuckle: 316 SS, 2,200 lbs. workload limit</li><li>• Specification – Strong-Grip Wire Rope Stud End Fitting: 316 SS, 5/8"-18 thread size for 3/8" rope, 3,000 lbs. workload limit</li></ul>	2
7.	<b>Integrated Control Panel</b> <b>NEMA 3R enclosure:</b> <ul style="list-style-type: none"><li>• Lockable, floor standing enclosure</li><li>• Powder Coated White 316 SS enclosure with Sunshield</li><li>• Indicator lights and controls on outer door</li><li>• Green and Red LED Indicator lights show motor status</li><li>• Hand/Off/Remote (three position selector switch)</li><li>• Thermostat-controlled fan (AC not Included)</li></ul> <b>Motor Controllers/VFDs:</b> <ul style="list-style-type: none"><li>• VFD for Mixer and Powervent</li><li>• NEMA Starter Size 2 for Surface Aerators</li><li>• Manual speed control</li><li>• Current overload protection built-in</li></ul> <b>Digital Inputs from Customer SCADA</b> <ul style="list-style-type: none"><li>• Remote Estop (1 input)</li><li>• System Enable/Disable (1 input)</li><li>• Run Command per Product (4 inputs)</li><li>• Remote Fault Reset per Product (4 inputs)</li></ul> <b>Digital Outputs to Customer SCADA</b> <ul style="list-style-type: none"><li>• Main Power Failure (1 output)</li><li>• Motor Running per Product (4 inputs)</li><li>• Fault per Product (4 inputs)</li></ul> <b>Analog Outputs to SCADA</b> <ul style="list-style-type: none"><li>• Motor Amps per Product via 4-20 mA (4 outputs)</li></ul>	1
8.	<b>Manufacturer's Field Services (in English only), including:</b> <ul style="list-style-type: none"><li>• Installation Inspection</li><li>• System Start-Up</li><li>• Operator Training</li></ul>	Included
9.	<b>Submittal and Operation &amp; Maintenance Manual as Follows (In English Only)</b> <ul style="list-style-type: none"><li>▪ Submittals: Qty. One (1) Sent Electronically</li><li>▪ O&amp;M Manual: Qty. One (1) Sent Electronically</li></ul>	Included

# PSI WATER TECHNOLOGIES

A cleanwater1 Company

<u>No.</u>	<u>Item Description</u>	<u>Qty</u>
10.	FOB Factory, Milpitas, CA with Full Freight Allowed to Jobsite, Port Lavaca, TX.	Included

**BUDGETARY PRICE [1 – 10]**

**[US] \$230,000**

## ADDER: MACRO EPOXY COATED POWERVENT

<u>No.</u>	<u>Item Description</u>	<u>Qty</u>
11.	<b>Powervent®, PPV-600</b> <ul style="list-style-type: none"><li>• Motor: Standard 480 VAC, 3-Phase, 60 Hz powered by Integrated Control Panel</li><li>• Power Switch: NEMA 1 safety disconnect switch</li><li>• Air Flow: 6,000 CFM @ 0.50 in. H<sub>2</sub>O Static Pressure</li><li>• Motor Power: 2 HP</li><li>• Nominal Power Draw: 1.21 kW</li><li>• Dimension (L x W x D): 61" x 61" x 34"</li><li>• Weight: 376 lbs.</li><li>• <b><u>Special Coating: Macro Epoxy</u></b></li><li>• Filters: Standard one-inch</li></ul>	1

**ADDER PRICE [1 – 3, 5 – 10,11]**

**[US] \$253,000**

# PSI WATER TECHNOLOGIES

A cleanwater1 Company

## B. SCOPE OF WORK BY OTHERS

1. Equipment unloading and installation.
2. All civil works and concrete pad for equipment.
3. Any underground or structural work.
4. Anchor bolts and seismic restraints.
5. Heat tracing and insulation of all interconnecting equipment.
6. Room ventilation, air conditioning or lighting.
7. Any video recording.
8. Electrical power to control panel.
9. Any electrical conduit runs.
10. Any tank recoating services, labor, or parts.
11. Any tank hatch or roof penetrations.
12. **Any required custom curb for mounting Powervent®.**
13. All electrical conduit, wiring, electrical material, etc. between control panel, SCADA, etc.
14. All taxes, fees, lien waivers, bonds and licenses.
15. Any permitting or regulatory approvals.
16. Any items not explicitly listed under Scope of Work by PSI above.

## C. CLARIFICATIONS

1. **The power requirement to the Integrated Control Panel is 480VAC/3Ph.**
2. **The THM Removal System is assuming a 100% Chloroform speciation.**
3. The performance of aeration design reported in this document is dependent on the tank operations data provided and requires a minimum headspace of 4 feet and a minimum water level of 4 feet.
4. The performance of the equipment may vary significantly under different operating conditions and/or scenarios.
5. If the ambient temperature is 90°F or higher, AC is required for all control panels.
6. It is not recommended to have any PLC HMI's be directly exposed to UV light.
7. If the transaction is tax-exempt, please submit Tax Exemption Certificate to PSI.
8. Once the on-site service has been scheduled, PSI requires a minimum of one (1) week notification in the event of a delay. Notice of delay received less than one (1) week prior to a scheduled site visit may result in a change fee.

# **PSI WATER TECHNOLOGIES**

A cleanwater1 Company



## **BUDGET PROPOSAL**

### **THM REMOVAL SYSTEM**

### **FOR Port Lacava, TX – 0.5MG Village Tank**

PSI Water Technologies, Inc.

File No.: P24-6119

CA Contractor's License: #877235

Prepared on: 3/11/24

## **SALES REPRESENTATIVE**

Environmental Improvements (EI2)

Blake Roye

1183 Brittmoore Rd, Suite 100

Houston, TX 77043

T: (717) 461-1111

Email: [blake@ei2hou.com](mailto:blake@ei2hou.com)

# **PSI WATER TECHNOLOGIES**

A cleanwater1 Company

## **TABLE OF CONTENTS**

Section 1: Scope of Supply

Section 2: Technical Information

Section 3: Brochure



**IMPORTANT NOTICE:** All the information in this Proposal is confidential and has been prepared for Buyer's use solely in considering the purchase of the Equipment described. Transmission of all or any part of this Proposal to others or use by Buyer for other purposes is unauthorized without Seller's advance written consent.

# PSI WATER TECHNOLOGIES

A cleanwater1 Company

March 11, 2024

Wayne Schaffer  
Director of Public Works  
Port Lavaca, TX.

Re: PAX THM Removal System (PAX TRS™) for Port Lavaca, TX – 0.5MG Village Tank  
PSI Water Technologies, Inc. File No.: P24-6119

Dear Wayne,

Thank you for your interest in PSI Water Technologies, Inc. (PSI), a cleanwater1, inc. company. We are pleased to provide a Proposal for one (1) THM Removal System (PAX TRS™) for the 0.5MG Village Tank. Our Proposal is based on the following design criteria:

## Design Criteria

Tank Volume, gal	500,000
Reservoir Type	Elevated Composite
Tank Diameter, ft	50.4
Tank Height, ft	41.4
Turnover, gpd	1,500,000
Operating Description	Steady-state
<b>Power Requirement</b>	<b>480VAC / 3PH</b>
Guaranteed THM Removal Rate	45%

Equipment start-up can be provided by PSI or the local PSI representative. PSI will provide a single start-up checklist form.

A detailed scope of work and budget price is listed in Section 1 of this Proposal. Sections 2 and 3 includes our technical information and brochure. **The pricing is valid for 30 days.**

## System Features & Advantages

The PAX TRS™ is a set of equipment installed in a water storage tank to remove THMs by volatilization or air stripping. The PAX TRS™ is compatible with any type of drinking water storage tank, and consists of the following sub-systems:

1. An active mixing system to continuously circulate and homogenize the water inside the tank, eliminating chemical and thermal stratification and ensuring THM-laden water is continuously introduced to the transfer zone at the water surface.
2. An active ventilation system to continuously circulate fresh exterior air into the tank and providing force for mass transfer.
3. An active aeration system to increase the available surface area for mass transfer of THMs from the water to the air.

# **PSI WATER TECHNOLOGIES**

A cleanwater<sup>1</sup> Company

We look forward to working with you on this project. If we can be any of further assistance, please do not hesitate to contact our sales representative, Blake Roye at Environmental Improvements (E12), or me on (936) 537-7356.

Sincerely,

John Busse  
Regional Sales Manager

cc: Solomon Bruce-Oliver, PSI Water Technologies, Inc.  
Blake Roye, Environmental Improvements (E12)

# **PSI WATER TECHNOLOGIES**

A cleanwater1 Company

## **SECTION 1**

### **SCOPE OF SUPPLY**

- A. Scope of Work by PSI Water Technologies, Inc.
- B. Scope of Work by Others
- C. Clarifications



# PSI WATER TECHNOLOGIES

A cleanwater1 Company

## A. SCOPE OF WORK BY PSI WATER TECHNOLOGIES, INC.

The following equipment and services are included in our scope of work. All equipment will be manufactured in accordance with the descriptions below.

### Breakdown below:

<u>No.</u>	<u>Item Description</u>	<u>Qty</u>
1.	<b>PWM250 Mixer Wet Assembly</b> , including: <ul style="list-style-type: none"><li>• Stainless-Steel Ballast Ball and Housing</li><li>• EPDM Molded Foot</li><li>• 2.0 HP Water-Cooled Motor powered by the Integrated Control Panel</li><li>• Integral Power Cable</li><li>• Stainless-Steel Installation/Replacement Chain</li></ul>	1
2.	<b>Cable 130 ft.</b> , including: <ul style="list-style-type: none"><li>• Flat-jacketed 4 conductor</li></ul>	1
3.	<b>Tank Penetration Accessory</b> <ul style="list-style-type: none"><li>• Stainless steel strain relief for 4 wire flat-jacketed cable</li></ul>	1
4.	<b>Powervent<sup>®</sup>, PPV-600</b> <ul style="list-style-type: none"><li>• Motor: Standard 480 VAC, 3-Phase, 60 Hz powered by Integrated Control Panel</li><li>• Power Switch: NEMA 1 safety disconnect switch</li><li>• Air Flow: 6,000 CFM @ 0.50 in. H<sub>2</sub>O Static Pressure</li><li>• Motor Power: 2 HP</li><li>• Nominal Power Draw: 1.21 kW</li><li>• Dimension (L x W x D): 61" x 61" x 34"</li><li>• Weight: 376 lbs.</li><li>• Material: Heavy gauge powder-coated aluminum</li><li>• Filters: Standard one-inch</li></ul>	1
5.	<b>Surface Aerator, SAN-150</b> <ul style="list-style-type: none"><li>• Power Supply Requirement: Standard 480 VAC, 3-Phase, 60 Hz</li><li>• Motor Specification: 15 HP, 3450 RPM, 86°F (30°C) temperature rating, submersible motor, hermetically sealed windings, factory sealed, 10 AWG, flat cable extension.</li><li>• Float Material: NSF-61 approved HDPE filled with closed cell polyethylene foam material.</li><li>• Minimum Hatch Clearance: 31" square or 40" round</li><li>• Weight – Pump and Motor Assembly: 250 lbs.</li><li>• Weight – Float Assembly: 225 lbs.</li><li>• Weight – Reserve Buoyancy: 150 lbs.</li><li>• Includes 50 ft. power cable</li></ul>	2

# PSI WATER TECHNOLOGIES

A cleanwater1 Company

<u>No.</u>	<u>Item Description</u>	<u>Qty</u>
6.	<b>Cable Mount System</b> <ul style="list-style-type: none"><li>• Specification – System Mounting Bracket: 316 SS, 0.25" thick</li><li>• Specification – Wire Rope: 316 SS, 3/8" diameter, 2,352 lbs. working capacity, 7x19 Class IWRC, RoHS compliant</li><li>• Specification – Extension Spring: 302 SS, 2.1" outer diameter, 213.3 lbs. load capacity</li><li>• Specification – Eyebolt: 4,000 lbs. vertical capacity</li><li>• Specification – Turnbuckle: 316 SS, 2,200 lbs. workload limit</li><li>• Specification – Strong-Grip Wire Rope Stud End Fitting: 316 SS, 5/8"-18 thread size for 3/8" rope, 3,000 lbs. workload limit</li></ul>	2
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# PSI WATER TECHNOLOGIES

A cleanwater<sup>1</sup> Company

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# PSI WATER TECHNOLOGIES

A cleanwater<sup>1</sup> Company

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