ULTRESSA®

Pilot Proposal

Ultressa® Silicon Carbide (SiC) Full-Sized Pressurized Ceramic Module (CPM) UF Drinking Water Pilot

Jefferson City, Tennessee

September 14, 2026

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Confidentiality

This proposal is confidential and contains proprietary information. It is not to be disclosed to a third party without the written consent of Ultressa

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1. Introduction

Ultressa is pleased to have the opportunity to present this proposal to Jefferson City, TN for Ultressa® Silicon Carbide (SiC) Ceramic Pressurized Module (CPM) UF drinking water pilot testing. This pilot proposal replaces a previous proposal dated April 22, 2026, as the consideration to retrofit the existing ZW1000 membranes has been abandoned. This document proposes the Ultressa pressurized membrane system which is more economically suited for a new 15.0 MGD treatment facility.

This proposal summarizes our understanding of the project conditions and presents an overview of our pilot testing system and services. Please review the information provided herein and notify us immediately if any corrections or modifications are necessary.

Table 1. Client (Owner) Information

Client Information	
Company:	City of Jefferson City, TN
Address:	112 City Center Drive
City, State, Zip:	Jefferson City, TN, 37760
Telephone:	865.475.9071
Contact Person:	Porter Massengill
Title:	Public Works Director
Email:	pmassengill@jefferson citytn.gov

Table 2. Engineer Information

Engineer Information	
Company:	
Address:	
City, State, Zip:	
Telephone:	
Contact Person:	
Title:	
Email:	

Table 3. Pilot Location

Project Location:	
Site Name:	Jefferson City Water Treatment Plant
Address:	445 E Broadway BLVD
City, State, Zip:	Jefferson City, TN, 37760
Telephone:	865.475.3251
Site Contact:	TBD
Title:	TBD
Email:	TBD

2. Project Understanding

Jefferson City operates a 5 to 7 MGD ground water treatment plant, treating water from wells which access local zinc mines. The existing treatment technology consists of inline coagulation followed by 4 trains of ZeeWeed 1000 submerged UF membrane filtration, and post-treatment disinfection. While there was an initial interest to retrofit the existing ZW1000 membranes with ceramic technology, a decision has been made to build a new treatment facility with a capacity of 15.0 MGD. In response, Ultressa recommends its pressurized membrane for the new and larger capacity system.

This proposal covers the scope of supply, schedule and pilot equipment description, but does not include a detailed test plan. Ultressa will work with the Owner and their assigned Engineer to provide input on the pilot operation to meet treatment goals specific to site.

3. Purpose and Objectives

The purpose of the pilot is to assess site-specific performance of the pressurized silicon carbide membrane technology.

Specifically, the objectives of the pilot test are:

1. Demonstrate filtrate quality suitable for drinking water distribution per site and EPA requirements
2. Daily Integrity Testing
3. Demonstrate highest sustainable flux and cycle duration for pressurized silicon carbide membranes that meet the project requirements.
4. Determine appropriate pretreatment required to meet water and sustainable flux goals.
   Coagulant: It is recommended that alum be used in conjunction with ceramic membranes. However, the preferred coagulant will be determined through the course of the pilot study.
5. Demonstrate and optimize the hydraulic cleaning sequence with a water recovery goal to minimize waste.
6. Demonstrate an effective chemical cleaning regime including maintenance cleaning (Chemical Enhanced Backwash) as well as recovery cleaning (CIP).
7. Determine the number of Ultressa CPM modules to treat the proposed design capacity of 15.0 MGD.

A Daily Report was provided by Jefferson City, and dated 3/28/26. This report noted the source water pH is less than 7.4, the alkalinity is > 230 ppm, the turbidity is < 3 NTU, and the water temperature is approximately 16 degrees C. The current polymeric membranes are being fouled with a silicate clay material which seems to be pre-formed within the water source. This material will be filtered out on the ceramic membranes, and we feel that high (e.g., 12) or low (e.g., 2) pH cleanings will address this issue. However, it will be necessary to stay ahead of any excessive fouling in order to maintain optimum membrane performance.

4. Typical CPM UF Operation

Ultressa® SiC ceramic UF membranes operate under pressure and utilize an "inside-out" flow path. The membrane will be operated in a dead-end process with alternating filtration and backwash sequences. In this mode, 100% of the water feeding the membrane will go through as filtrate. All suspended solids in the water will build a cake layer on the membrane surface. Periodically this water is backwashed (reverse direction) to hydraulically clean the membrane.

Backwashing: With dead end filtration mode there will be periodic backwashing with filtrate water in the reverse direction of filtration flow. No air scouring is employed in the backwash operation. Filtrate travels through the membrane surface from the clean side to the dirty side to remove suspended solids that have built up on the surface. This water is then diverted to drain to remove solids from the system. Following the backwash, the system undergoes a feed flush (at production flowrate) to purge remaining solids from the system. No chemicals are used for normal backwashing.

Maintenance Chemical Cleaning: Maintenance chemical cleaning is used periodically, to prolong production time between recovery cleanings. Maintenance clean frequency is subject to the feed water quality, pretreatment chemistry and operating conditions. Sodium hypochlorite (NaOCl) is the standard cleaning agent. In certain applications NaOH may be used to elevate the pH either by itself or with the NaOCl. Citric acid or HCl/H2SO4 may also be used in a separate maintenance cleaning step in cases with scale potential. Maintenance cleaning may be performed as a chemically enhanced backwash (CEB) step or as a short automatic clean in place (mCIP) step.

Recovery Chemical Clean-In-Place (CIP): Recovery CIP is used to restore the permeability of the membranes by removing the foulants from the membrane surface that are not completely removed by the backwashes and maintenance cleaning. Typical cleaning is with NaOCl with NaOH to raise the pH to 12 followed by a cleaning with citric acid and/or HCl. Both cycles also use heat to raise the temperature to 35°C.

5. Scope of Supply and Services

The following summarizes the pilot lease and services for the Jefferson City study:

A. Summary

Items	Description	Cost
Hardware	Full Scale CPM Pilot Rental (1 months) • Includes 1 CPM Module	$10,000
Services: On-site Trip 1 (Ultressa)	1 trip (4 man-days + 1 travel day): • Offloading / placement by Others • Pilot Commissioning and Startup	$6,900
Services: Remote Full Scale Pilot Op	4 man-days (CPM) • Performance and Data Analysis • Final pilot report preparation	$4,800
Shipping	Shipment from WY to TN	$6,000 (Estimate)
Services: On-site Trip 2 (Ultressa)	1 trip (1 site day + 1 travel day) • Loading equipment by Others • Pilot breakdown, packing	$4,000
Total	Freight is not included in this total. Freight will be charged to the Client based on the actual invoice.	$25,700

B. Pressurized Silicon Carbide CPM Pilot Hardware

- Columbia CPM Pilot: Pressurized Silicon Carbide UF Pilot System
- 1x Silicon Carbide Pressurized Ceramic Module 25m^2
- Remote Data Logger
    - Time, TMP, Temperature, Flowrate, Feed Pressure, Filtrate Pressure, Filtrate Turbidity
- Other items included in the Pilot Unit:
    - Feed tank, BW Supply/Filtrate tank, CIP tank with heater
    - Sampling valves for Feed and Filtrate
    - Automated Integrity Testing capability
    - Air-line connection for air hook-up
    - Chemical dosing points for chemical cleaning (i.e. NaOCl)
    - Coagulant Dosing Pump
    - Hypo Dosing Pump
    - Air compressor for integrity testing air supply

C. Services

- Onsite Trips
    - Pilot setup
    - Commissioning and startup of CPM Pilot System
- Remote Engineering Support
    - Technical discussions and operations review with Site and Engineer during pilot testing
    - Data analysis and summary for pilot report submittal
- Decommissioning
    - Equipment decommissioning and pack-up

- Field Engineering Support
    - Travel (flight and transportation), lodging and daily per diem
    - Commissioning and startup of pilot unit(s)
    - Plant operator training to support pilot operation

Ultressa has included on-site technical assistance during pre-commissioning and startup to ensure the equipment is installed and commissioned per Ultressa requirements.

Any additional trips that the customer may request will be billed at the standard Ultressa daily rates ($1,200/day) plus travel and living expenses, pending availability. Monthly pilot rental fee will be charged at $10,000 per month for the CPM pilot.

D. CLIENT (OWNER) Responsibility

The CLIENT is responsible for sample analysis for compounds in the project scope of interest but additionally also compounds specified by Ultressa for purposes of evaluating membrane and system performance. For the successful execution of the pilot, all analytical data and systems operations data will be shared between CLIENT and Ultressa, with updated data provided at minimum of biweekly.

In addition, the CLIENT will provide the following:

- Building space within the existing facility to locate the pilot equipment
- Chemical consumables – cleaning chemicals, coagulant, feed pH/alkalinity adjustment chemical, and CIP neutralization chemical (if needed). Ultressa can provide at additional cost.
- Power supply (220 V, Single Phase) and connected to the Ultressa pilot
- Provide connection to the same feed water as applied to the existing Pall membranes, to the Ultressa pilot skid
- Waste drain (sump) access for backwash waste, chemical cleaning waste, startup flush-to-drain
- Shipping to customer and back to Ultressa designated location (to be charged the Client based on actual freight invoices)
- Unloading and loading of Pilot Equipment for shipping
- Ancillary Equipment and Interconnecting Piping to Pilot Unit
- Installation and removal of Pilot Unit

Personnel Requirements

Ultressa will provide a field engineer operator to support installation, commissioning, and startup of the pilot study as outlined elsewhere in this document. Additional days for Ultressa field engineering support for follow-up visits and adjustments are also outlined elsewhere.

The CLIENT's personnel will be required for daily checkup of the pilot system and to refresh chemicals such as coagulant and membrane chemical cleaning.

Maintenance and Return

It is expected that the CLIENT will provide daily routine preventative maintenance on the equipment, advise Ultressa of any looming major mechanical deficiencies as they arise, and that the equipment will be returned to Ultressa in the same working condition it was accepted onsite. At any time during the testing Ultressa will be able to access the site to assist and observe. All equipment should be cleaned and free of water, deposits, sludge, debris and other materials while on-site and prior to shipment. Ultressa may elect to assist the customer in the decommissioning of the equipment and assist the customer in breaking down the systems and preparing them for return – but this responsibility also lies with the customer. Any costs incurred by Ultressa associated with repairing damaged or misused equipment or additional cleaning of equipment and the subsequent disposal of waste will be passed on to the customer.

Insurance

While staying at CLIENT site, the CLIENT has to insure the rental property (reference: Pilot Datasheet) against the usual risks such as fire, theft and so on. The replacement value of the pilot plant is 200,000 USD.

Performance Guarantees

Unless otherwise specified or agreed upon in writing, Ultressa makes no claims of performance guarantee with the rental equipment. Ultressa is not liable for any fees, fines, or costs associated with discharge permit violations should they ever occur as a result of improper rental system operation or mechanical failure.

6. Commercial Summary and Agreement

A. CPM Price

Description	Cost
SiC CPM Pilot Unit for three (3) month study	$10,000 (for 1-month)
Pressurized SiC CPM x1	Included
Round-trip Pilot Shipping	$6,000 (estimate; to be billed to Client at cost)
Onsite (2 trips) - **Commission and startup (5 days)** - **Decommissioning and pack-up (2 days)**	$10,900 - $6,900 - $4,000
Data analysis and Final Report (4 days)	$4,800
Total [Does not include freight]	$25,700

Optional Services	
- ***Onsite support from Ultressa***	$1,200 Daily Rate + Travel + Expense
- ***Additional Monthly Pilot Rental***	$10,000 per month

B. Schedule

The following estimated schedule is subject to review at time of rental based on equipment availability, shop schedule, and vendor delivery schedule.

Shipment Date	April 2026
Commissioning Start Date	October 2026
Pilot Study Start Date	October 2026
Pilot Study Completion Date	November 2026

C. Payment Terms

Purchase order for the complete scope of supply, payable as follows:

50% or $12,850 with purchase order, due upon receipt of invoice
25% or $6,475 at time when unit arrives on job site, net 30 days
25% or $6,475 upon submittal of the pilot report to Client, net 30 days
Ultressa is not obligated to start work until a signed contract is received
All additional service and rental charges will be billed at the end of the month during which the activity occurred
Ultressa requires written 7-day notice prior to demobilization of our unit from the site. An e-mail notification would be acceptable
All payments will be made via wire transfer to an account nominated by Ultressa
Should the rental duration be cut short of the minimum term of 1 month for any reason, it is still expected that the costs identified for the minimum term will be covered.

D. Agreement Acceptance

Ultressa hopes that this proposal meets the project requirements. If any question, comments, or modifications are required, please let us know.

CLIENT (OWNER):
By:_____
Title:_____

Signature:_____

Date:_____

Ultressa LLC
By:_____
Title:_____

Signature:_____

Date:_____

7. Lease and Service Terms and Conditions

- See attached

8. Supplemental Information

- Columbia Pilot Data Sheet
- Ultressa®CPM Product Data Sheet

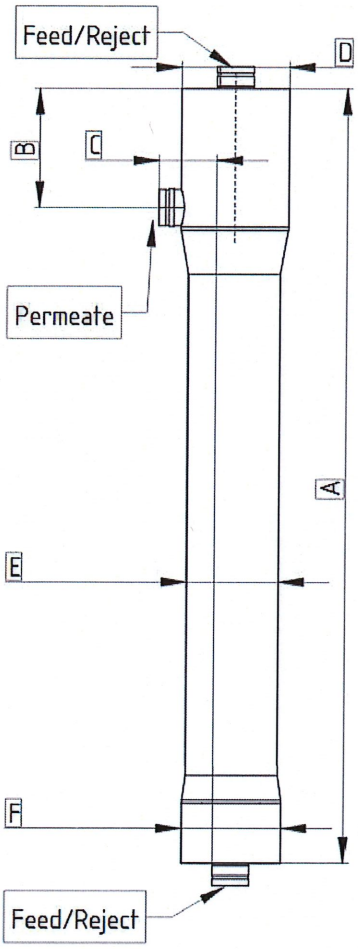
ULTRESSA®

CPM Module Datasheet

900 Technology Park Drive, Suite 101
Billerica, MA 01821
www.ultressa.com

Physical Dimensions

Membrane Module			Ultressa CPM Module	
Vessel Length	(+/- 4 mm)	A	1845 mm	72.64 in
Side Port Dimension	(+/- 4 mm)	B	270 mm	10.63 in
	(+/- 1 mm)	C	119.6 mm	4.71 in
Module Diameter	(+/- 4 mm)	D	245 mm	9.65 in
	(+/- 2 mm)	E	225 mm	8.86 in
	(+/- 3 mm)	F	245 mm	9.65 in
Grooved Fitting Feed/Reject (Qty 2)			DN-50	2 in
Grooved Fitting Permeate			DN-50	2 in



Specifications

Surface Area		25 m^2	269 ft^2
Nominal Channel Size		3.2 mm	0.126 in
Weight (+/- 5 kg)	Dry	78 kg	172 lbs.
	As Shipped	80 kg	176 lbs.
Module Hold Up Volume		32 L	8.5 gal
Vessel Material		Fiberglass	
		Ethylene-propylene rubber (EPDM) seal with fiberglass ports	
		Outlet end port, Thermoplastic end cap	
Membrane Material		SiC	
Membrane material Pore Size		40 nm	
Module Operating Position		Vertical	

Operating Parameters*

Continuous pH	2-12	
Max. Applied Pressure @ 77°F/ 25°C	7 bar	100 psi
Operating Temperature Range*	1-45°C	33-113°F
Coagulant Compatibility	Iron and Aluminum based coagulants	
Continuous Free Chlorine	<5ppm	
Free Oil and Grease	<5ppm	
Continuous Peroxide**	<5ppm	
Filtration Flux	85-425 $l/m^2/hr.$	50-250 GFD
Filtration Flow	2.1-10.6 $m^3/hr.$	9.2-46.8 GPM
Filtration Modes	Dead end inside/Out	
Backwash Flow	9 $m^3/hr.$	40 GPM

*Consult Ultressa to Determine Process Specific Parameters
**Contact Ultressa for Limitations

Cleaning Parameters and Compatibility**

Cleaning pH Range	1-13
Cleaning Temp Range	1-55°C
Hydrochloric Acid	$pH \geq 1$
Citric Acid	$pH \geq 1$
Sodium Hydroxide	$pH \leq 13$
Free Chlorine Cleaning	2000 ppm
Other chemicals	Consult Ultressa

**Contact Ultressa for limitations on use frequency for chemicals

Other Information

Certification type 1	ANSI / NSF 61
Certification type 2	ANSI / NSF 419



Columbia Pilot Datasheet



Overview

Description
Ceramic Pressure Membrane Pilot

Dimensions
Foot Space Needed: W 60" x L 192" x H 130"
Skid: W 50" x L 110" x H 125"
Feed Tank: W 48" x L 48" x H 60"
BW Tank: D 36" x H 72"

Weight
Skid Dry; Without Crate: 1,500 lbs.

Maximum Temperature
Inlet feed: 49°C / 120°F
Main system: 60°C / 140°F

Maximum Pressure
Inlet feed: 3.45bar / 50psi
Main system: 4.13bar / 60psi

Wetted Materials
PVC, CPVC, HDPE, 316 SS, PP, NBR

Utilities

Power Requirements
2 standard 3-prong power plugs @ 120 V for:

- Compressor, 10 amps (device located within 10 ft of membrane skid)
- Turbidity meter, 1 amp (device located within 3 ft of membrane skid)

1x220V/1P/60Hz/60 Amp Power Cord:

- With neutral and optional ground, hardwired to membrane skid control panel for PLC, feed/backwash pumps/VFDs, CIP Heater, instruments and solenoid valves

Site Water Connection Requirements

1. **Raw Feed Supply:**
    a. <50 gpm up to 20 psig which will operate in continuous flow with <10 gpm overflow
    b. Feed into 1.5" male camlock connection
    c. Overflow gravity drain capable of ~50 gpm: 1.5" male camlock connection
2. **Backwash and Feed Flush Waste Discharge:**
    a. Pressurized ~5 psig capable of ~50 gpm for backwash events: 2" male camlock
3. **Gravity Drain**
    a. Capable of ~20 gpm for infrequent system drain events: 2" male camlock connection
4. **Filtrate (Production) Overflow Gravity Drain**
    a. Capable of <40 gpm of filtrate flow: 1.5" male camlock connection
5. **Potable Water Supply for CIP**
    a. 10-20 psi pressure, garden hose connection

Chemical Supply Requirements

- Coagulant, Pretreatment (in order of preference, subject to change depending on site water quality restraints)
    - Alum, 48wt% solution
    - ACH
    - PACL
- Cleaning chemicals as required for project
    - typically 50 wt% Citric Acid and/or mineral acid (HCl, H2SO4)
    - 12.5 wt% Sodium Hypochlorite and/or 25-50 wt% Caustic

Compressed Air

- 80-100 psi, clean, oil free, dry air
- Compressor provided for DIT and pneumatic valves

Membranes

One (1) ceramic pressure membrane with an area of 25 m^2 (269 sqft).

Capabilities and Features

- System installed on steel frame with locking caster for easy mobility
- Feed tote with a coagulant dosing point (coag pump is on membrane skid), an influent supply flow meter (< 50 gpm) and throttle valve, and a mixer pump inside the tote for coagulant mixing, as well as a level switch to protect the feed pump (on membrane skid)
- Membrane skid with Allen Bradley control panel with remote connection modem using Ultressa Fuzion system for data reporting (site to provide wireless internet), feed pump/ VFD, backwash pump/VFD, flow transmitter for production and backwash, pressure transmitters for TMP measurement (feed and filtrate), temperature transmitter, chemical pump (bleach) for automated CEB, automatic daily pressure decay system, automatic water heaters for CIP
- Backwash tank with level switch and overflow port for filtrate outlet under gravity
- Filtrate turbidity meter compliant with EPA requirements
- Compressor for DIT and operating pneumatic valves



Ultressa Membrane Technology Lease and Service Terms and Conditions

1. Lease and Service Terms and Conditions

These Lease Terms and Conditions shall form an express part of the Ultressa Membrane Technology LLC ("ULTRESSA") Proposal to the Client. When accepted by Client and properly executed by authorized representatives of both parties, the Proposal, taken together with these Terms and Conditions, shall form a binding Lease Agreement by and between the parties. Terms and conditions contained in any purchase order or other instrument issued by Client for the subject project shall be null and void and of no force or effect.

1.0 LEASE TERM

1.1 The minimum term of the Lease shall be as defined in the Proposal. For purposes of determining Equipment lease charges the lease term shall commence upon the date of delivery of the Equipment to the project site or ten (10) business days after written notification of Equipment availability for delivery is issued to the Client, whichever occurs first. The lease term shall terminate on the date the Equipment is returned to ULTRESSA's facility.

2.0 PAYMENTS BY CLIENT

2.1 Lease payments are calculated and invoiced on a calendar month basis. Partial months are prorated. The Client shall prepay one full month's lease payment when the Lease Agreement is executed. ULTRESSA may also require advance partial payment for ancillary equipment and materials purchased through ULTRESSA. Subsequent months' payments are payable Net thirty (30) days from the date of invoice receipt. ULTRESSA shall not be obligated to start work until a fully executed Lease Agreement and the specified deposit are received.

2.2 Client will be invoiced for support services associated with the mobilization, installation, and start-up of the Equipment; periodic operations and maintenance services; non-warranty repair services; and demobilization services as described in the Proposal. Support services shall be invoiced monthly in accordance with ULTRESSA's Labor Rates and Reimbursable Schedule and payments shall be due Net 30 days.

2.3 If Client has any objections or disputes regarding an invoice, Client agrees to notify ULTRESSA in writing within ten (10) business days of receiving such invoice. Both parties agree to work in good faith to resolve any invoice disputes. If any such dispute cannot be resolved within sixty (60) days, either party may take action under Article 19.0, Dispute Resolution.

2.4 If undisputed invoices remain outstanding beyond the payment terms specified above, ULTRESSA may stop work until all past due invoices are paid in full or declare Client in default of this Lease and take action in accordance with Article 8.0, Termination for Default.

3.0 SHIPPING AND INSTALLATION

3.1 This Lease is F.O.B. ULTRESSA's shipping point. Unless otherwise agreed to in writing, all shipping and handling charges, fees, duties, transit insurance, and sales tax shall be prepaid by ULTRESSA and added to Client's invoice. Shipping and installation costs are not included in the prices quoted by ULTRESSA unless specifically listed. Shipping dates provided by ULTRESSA are approximate only.

3.2 ULTRESSA shall provide Client with minimum site requirements for Equipment installation. Client shall be responsible for preparation of the site prior to receipt of the Equipment. Unless otherwise stated in the Proposal, Client shall provide all labor, equipment and materials to unload the Equipment, set it into place, and install, anchor, and connect it, as required.

4.0 EQUIPMENT OPERATIONS, MAINTENANCE AND REPAIRS

4.1 Client shall assume all obligation and liability with respect to the possession of the Equipment, and for its use, operation, maintenance and storage during the lease term. Client warrants that it will employ or engage individuals with an appropriate level of skill and expertise to operate the leased Equipment and provide adequate security to avoid tampering, vandalism or misuse of the Equipment.

4.2 Client shall be provided an operating manual setting forth the operation and minimum maintenance requirements for the Equipment. Client, at its own cost and expense, shall operate and maintain the Equipment in good repair, condition and working order, in accordance with the procedures set forth in the operating manual. Client agrees to reimburse ULTRESSA for all damage to the Equipment arising from any vandalism, misuse, or operation of the Equipment in any manner that is inconsistent with ULTRESSA's operating manual, or arising from the negligent acts, errors, or omissions of Client, its employees or agents.

4.3 Unless otherwise stated in the Proposal, Client will be responsible for all Equipment operating expenses, including but not limited to electricity, chemicals, discharge and permitting fees, routine operations and maintenance labor and supplies, laboratory charges, telephone line expenses, and all other charges in connection with operation of the Equipment.

4.4 Client shall keep maintenance logs evidencing the maintenance performed and authenticating same by means of signatures of the persons charged with the responsibility thereof. When requested by ULTRESSA, Client shall supply copies of the maintenance logs. Client shall not remove, alter, disfigure or conceal any numbering, lettering or insignia displayed on the Equipment.

4.5 Client shall not operate the Equipment in violation of any applicable federal, state, or local statute, ordinance, rule, permit to operate, or regulation and shall indemnify and hold ULTRESSA harmless for any liabilities, fines, or penalties for violation thereof, unless such liabilities, fines, or penalties are caused by the negligence of ULTRESSA.

4.6 All installations, replacements, and substitutions of parts or accessories with respect to any of the Equipment shall constitute accessions and will become part of the Equipment and will be owned by ULTRESSA. Client shall document any substitutions or replacements of major system components, parts or materials and provide copies of such documentation to ULTRESSA.

4.7 Client shall not move or relocate the Equipment to any other location, either on-site or off-site, without the advanced written approval of ULTRESSA.

5.0 ULTRESSA'S RIGHT OF INSPECTION AND REPAIR

5.1 ULTRESSA, at its discretion during Client's regular business hours and with twenty-four (24) hours prior notice to Client, shall have the right to enter, for the purpose of inspection, the premises where the Equipment is located or used. If, in the sole opinion of ULTRESSA, the Equipment covered by this Lease is not being properly maintained or is in disrepair, ULTRESSA shall have the right, but not the obligation, to have it repaired or maintained at the expense of Client.

6.0 RETURN OF EQUIPMENT UPON LEASE EXPIRATION

6.1 Upon the expiration of this Lease, Client will return to ULTRESSA, at Client's expense, the Equipment, together with all accessories, free from damage and in the same condition and appearance as when received by Client, allowing for ordinary wear and tear. ULTRESSA shall be consulted on proper procedures for decommissioning, removing, and transporting the Equipment.

6.2 ULTRESSA shall inspect the returned Equipment and provide written notice to the Client within fifteen (15) business days after receipt of returned Equipment if ULTRESSA determines that Equipment repairs are necessary. After allowing for ordinary wear and tear, any costs incurred by ULTRESSA to return the Equipment to its proper operating condition shall be invoiced to Client within thirty (30) days of receiving the Equipment from the Client. ULTRESSA and Client agree that the Equipment referred to herein shall be presumed to be in acceptable returned condition should ULTRESSA fail to provide written notice to Client as described above.

7.0 TERMINATION FOR CONVENIENCE; TERMINATION FEES

7.1 Subsequent to the effective date of this Lease and during the lease term, the Client may terminate the Lease for convenience subject to all of the following conditions:

a) Any past due outstanding invoices shall be paid in full at the time written notice of termination is provided to ULTRESSA;

b) ULTRESSA shall recalculate the total lease fees that should have been paid based on the actual term of the lease and ULTRESSA's standard lease rate applicable thereto. Client will be invoiced for and agrees to pay any difference between the lease rate actually applied and the rate that should have been applied for the shorter term.

c) The Equipment is returned to ULTRESSA, at Client's expense, in good condition, excepting normal wear and tear within a time frame mutually agreed to with ULTRESSA. ULTRESSA shall be consulted on proper procedures for decommissioning, removing, and transporting the Equipment.

d) An invoice for reasonable termination expenses incurred by ULTRESSA, such as equipment offloading charges and equipment repair costs, excepting reasonable wear and tear, shall be submitted to the Lessee within thirty (30) days of receiving the returned Equipment. Client shall pay the termination expenses in full within thirty (30) days.

7.2 The Lease terms and conditions shall remain in full force and effect until all of the conditions described in Article 7.1 are satisfied and written acceptance of the Lease termination is issued by ULTRESSA.

8.0 TERMINATION; DEFAULT

8.1 If the Client makes, or attempts to make, an assignment of the Equipment for the benefit of creditors; if the Client fails to make payments to ULTRESSA in accordance with the terms hereof; if the Client fails to maintain insurance policies required by this Lease; if bankruptcy proceedings are initiated, voluntarily or involuntarily, for or against the Client; if Client moves the Equipment from its originally installed location; or if the Client fails to perform or observe any other terms and conditions of this Lease, ULTRESSA, at its option, may declare the Client in default of this Lease.

8.2 If ULTRESSA fails to supply Equipment or support services in accordance with the terms of this Lease, Client, at its option, may declare ULTRESSA in default of this Lease.

8.3 Written notice shall be issued to any party declared to be in default. The defaulting party shall have a minimum of five (5) business days from the date of notice to cure any condition of default. The extension of a cure period beyond five (5) business days is at the sole option of the non-defaulting party. If said default is cured to the satisfaction of the non-defaulting party within the cure period, the Lease will be restored.

8.4 If the condition causing a default by Client is not cured to ULTRESSA's satisfaction within the cure period, ULTRESSA may declare the entire remaining amount of the Lease immediately due and payable; take possession of the Equipment without demand or notice, or without a court order or other process of law; terminate this Agreement; and pursue any other remedy at law or in equity. Notwithstanding any repossession, or any other action that ULTRESSA may take, Client shall remain liable for all fees under the term of the Lease.

8.5 If the condition causing a default by ULTRESSA is not cured to the Client's satisfaction within the cure period, the Client may terminate the remaining term of the lease and no fees shall be due ULTRESSA from the date of written notice of default. Client shall also have the right to obtain comparable Equipment and support services to complete the work under the Lease Agreement at a reasonable cost and obtain reimbursement from ULTRESSA for all charges in excess of the fees originally agreed to between Client and ULTRESSA, or to pursue any other remedy in law or in equity.

9.0 WARRANTIES

9.1 ULTRESSA warrants the Equipment against defective materials and workmanship, under normal and proper use, for the duration of the Lease, provided the initial start-up of the Equipment is supervised by ULTRESSA, and the routine operation, maintenance, and storage of the Equipment is conducted by the Client in conformance with the Equipment operations manual. ULTRESSA's liability under this warranty is limited to repairing or, at ULTRESSA's sole option, replacing the Equipment that meets the defective materials or workmanship criteria. No allowance shall be granted for repairs or alterations made to the Equipment by Client without ULTRESSA's consent.

9.2 If maintenance and repair of the Equipment is required as a result of Client's failure to comply with the Equipment operating manual, failure to perform the minimum periodic maintenance prescribed by ULTRESSA, or due to Client's misuse of the equipment or other non-warranty cause, Client agrees to pay for such maintenance service, parts, travel and subsistence charges in accordance with ULTRESSA's Labor Rates and Reimbursables Schedule. This warranty shall be void as to any Equipment damaged or rendered unusable by the willful misconduct, negligence and/or tampering by Client, its employees, or agents.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE INCUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND IN LIEU OF ALL OTHER LIABILITIES OF ULTRESSA, INCLUDING DIRECT, INDIRECT, SPECIAL AND CONSEQUENTIAL DAMAGES OR PENALTIES, EXPRESS OR IMPLIED, WHETHER ARISING OUT OF CONTRACT, NEGLIGENCE, AND OTHER TORT.

10.0 RISK OF LOSS; INSURANCE

10.1 All risk and liability for the loss of or damage to the Equipment, for the death or injury to any person or property, and for all other risks and liabilities arising from the use, condition, possession, or storage of the Equipment shall pass to Client upon placement of the Equipment for shipment at ULTRESSA's facility. Risk of loss for the Equipment shall pass back to ULTRESSA when the Equipment is received at ULTRESSA's facility.

10.2 During the Lease term, Client agrees, at its own expense, to maintain commercial general liability and property insurance issued by companies satisfactory to ULTRESSA and naming the ULTRESSA as additional insured. The policy will be for primary coverage and will have limits of no less than $1,000,000 each occurrence and aggregate (bodily injury), and $1,000,000 each occurrence and aggregate (property damage). Such insurance shall be evidenced by providing appropriate Certificates of Insurance to ULTRESSA.

10.3 If the Equipment is lost, stolen, destroyed, or damaged beyond repair, Client shall pay ULTRESSA in cash the fair market value of the Equipment at the time of lease initiation, minus any net proceeds of insurance for the Equipment received by ULTRESSA. On payment, this Lease will terminate and Client will become entitled to the Equipment on an "as is" basis, without warranty, express or implied, for any matter whatsoever.

10.4 During the Lease term ULTRESSA agrees, at its own expense, to maintain commercial general liability insurance (limits of no less than $1,000,000 each occurrence and aggregate for both bodily injury and property damage) and worker's compensation and employer's liability insurance in accordance with statutory requirements.

11.0 INDEMNIFICATION

11.1 ULTRESSA shall indemnify and hold harmless Client and its employees, officers, directors, and agents from and against claims, liability, losses, liens, penalties, costs, or damages, including reasonable attorney's fees, to the extent arising out of the negligent acts, errors, or omissions of ULTRESSA, its officers, agents, or employees, under this Lease.

11.2 Client shall indemnify and hold harmless ULTRESSA and its employees, officers, directors, and agents from and against claims, liability, losses, liens, penalties, costs, or damages, including reasonable attorney's fees, to the extent arising out of the negligent acts, errors, or omissions of the Client, its officers, agents, or employees, under this Lease.

12.0 PATENT INFRINGEMENT

12.1 ULTRESSA shall indemnify and hold harmless Client and its employees, officers, directors, agents, and customer from and against any claim, suit, or proceeding brought against Client or its customer and any liability there from based on a claim that the Equipment furnished by ULTRESSA under this

Agreement constitutes an infringement of any United States patent issued prior to the date this Agreement is executed. ULTRESSA shall provide such indemnity and shall defend, at its sole expense, any such claim, suit, or proceeding if notified promptly in writing of, and given all necessary authority, information, cooperation and assistance for, the defense of such claim, suit, or proceeding. ULTRESSA shall have the exclusive right to control such defense. If the Equipment in any suit or proceeding is held to constitute an infringement of any such patent and the provision thereof be enjoined, ULTRESSA shall, at its sole discretion and expense, either:

a) procure the right to continue provision or use of the Equipment, b) replace the Equipment with non-infringing Equipment,

c) modify the Equipment such that it becomes non-infringing, or

d) take such other action as necessary to allow Client to complete the contracted scope of work without violating the injunction.

12.2 Notwithstanding any other provision in this Agreement, Client agrees to indemnify ULTRESSA and its employees, officers, directors, and agents against all judgments, decrees, attorney fees and costs resulting from infringement of any United States patents issued prior to the date this agreement is executed, to the extent that such infringement arises from designs, specifications, or equipment furnished or expressly required by Client hereunder.

13.0 FEES AND TAXES

13.1 During the term of this Lease, the Client shall pay any applicable sales and use taxes related to use of the Equipment. Client will also be liable for any fees for licenses, registrations, permits, and other certificates that may be required for the lawful operation of the Equipment. All quoted prices exclude applicable fees and taxes unless otherwise noted.

14.0 LIENS

14.1 Client shall not pledge, encumber, create a security interest in, or permit any lien to become effective on the leased Equipment. If any of these events takes place, Client will be deemed to be in default of the Lease, at the option of ULTRESSA. Client shall promptly notify ULTRESSA of any liens or other encumbrances of which Client has knowledge. Client shall promptly pay or satisfy any obligation from which any lien or encumbrance arises, and will otherwise keep the Equipment and all title and interest free of any liens and encumbrances. Client shall deliver to ULTRESSA appropriate satisfactions, waivers, or evidence of payment when so requested.

15.0 ASSIGNMENT

15.1 Client shall not assign this Lease or any part of the Equipment described in it, assign any interest in the Lease or Equipment, or sublet any of the leased Equipment without the expressed written consent of ULTRESSA.

16.0 FORCE MAJEURE

16.1 Neither ULTRESSA nor Client shall be liable for any delay or failure in its performance of any of the acts required by this Lease, and a delay shall not be deemed to have occurred, if such delay or failure arises due to causes beyond the control and without the fault or negligence of such party, provided that

such party promptly notifies the other party in writing of such delay or failure. Such causes include, but are not limited to, acts of God, acts of public enemies, labor disputes, strikes or riots, fire, flood, or other natural causes, or acts of state, local, or federal government.

17.0 NOTICES

17.1 All notices required or permitted under this Lease shall be in writing and shall be deemed to have been duly given when delivered in person or upon receipt when transmitted by certified or registered first class mail, postage prepaid, return receipt requested, addressed to the appropriate party, or if sent via email, when receipt is acknowledged by recipient in writing by return email.

18.0 GOVERNING LAW

18.1 This Lease shall be construed in accordance with the laws of the State of Nebraska.

19.0 DISPUTE RESOLUTION

19.1 ULTRESSA and Client agree to make a good faith effort to mutually resolve any disputes as quickly as practical without litigation. Such efforts shall include, but not be limited to a meeting(s) attended by each party's representative(s) empowered to resolve the dispute. ULTRESSA and Client agree that before either party commences an action against the other party, they will consider the use of alternate forms of dispute resolution. Pending the outcome of any dispute resolution, both parties shall take reasonable and appropriate steps to mitigate any damages.

19.2 Notwithstanding the above, ULTRESSA and Client each reserves the right to pursue any and all remedies at law and / or in equity should such efforts at dispute resolution fail. Any dispute, claim or controversy arising out of or relating to this Agreement or the breach, termination, enforcement, interpretation or validity thereof, shall be determined by arbitration before a single arbitrator administered by JAMS, in accordance with JAMS' streamlined arbitration rules and procedures. Judgment on the award may be entered in any court having jurisdiction. If Client files, the arbitration shall be conducted in English in Boston Massachusetts. If ULTRESSA files, the arbitration shall be conducted in English in Nebraska with the location as close to the pilot site as possible.

19.3 In the event either party hereto shall bring any action or proceeding for damages or to enforce, protect or establish any right or remedy arising hereunder, the prevailing party shall be entitled to recover reasonable attorney's fees, in addition to any other relief to which the prevailing party may be entitled.

20.0 INDEPENDENT CONTRACTOR

20.1 This Lease is made with ULTRESSA acting as an independent contractor and it shall not constitute, create, or be interpreted as a joint venture, partnership, agency, or formal business organization of any kind with Client. ULTRESSA shall not make any representation, express or implied, that ULTRESSA is an agent or legal representative of Client, nor will ULTRESSA assume or incur liability or obligations of any kind of any third party in the name or on behalf of Client without the prior written approval of Client.

21.0 CONFIDENTIALITY

21.1 ULTRESSA has expended considerable resources and funds to develop, manufacture, and market the Equipment and has filed patent applications for the particular technology and process. ULTRESSA

desires to maintain the confidentiality of certain trade secrets and proprietary information relative to the Equipment provided hereto. As a material inducement for ULTRESSA entering into this Lease, Client agrees to take every precaution, to the extent practical, to keep in confidence all confidential proprietary information which it may gain access to in the course of leasing and/or operating the subject Equipment and to refrain from divulging, communicating, or using same to the detriment of ULTRESSA. Such obligation shall not apply with respect to information that is publicly known or later made public through no wrongful act of Client, or is required to be disclosed by operation of law. Client is hereby notified that, confidential proprietary information is defined as operation manuals, blueprints, drawings, plans, proprietary software, programming and operating parameters, and manufacturer's names of specific components used in the production of said Equipment.

21.2 ULTRESSA shall similarly hold as confidential, the terms of this Lease and information about the Client's project site, business or plant operations, site conditions, regulatory compliance status, and any other information that Client identifies as confidential. Such obligation shall not apply with respect to information that is publicly known or later made public through no wrongful act of ULTRESSA, or is required to be disclosed by operation of law.

21.3 Client grants to ULTRESSA the right to use pertinent site-specific Equipment performance information in ULTRESSA technical papers, presentations or other forms of communication so long as the Client is not specifically identified by name or by such specific inference that the identity of the Client's site or project can be reasonably ascertained by third parties.

22.0 SEVERABILITY

22.1 If any provision of this Lease Agreement or the application of any of its provisions to any party or circumstance is held invalid or unenforceable, the remainder of this Lease, and the application of those provisions to the other parties or circumstances, will remain valid and in full force and effect.

23.0 WAIVER OF TERMS AND CONDITIONS

23.1 The failure of either party in one or more instances to enforce one or more of the terms and conditions of this Lease or to exercise any right or privilege in this Lease, or the waiver by either party of any breach of the terms and conditions of this Lease shall not be construed as thereafter waiving any such terms, conditions, rights, or privileges, and the same shall continue and remain in full force and effect.

24.0 ENTIRE AGREEMENT; PRECEDENCE AND MODIFICATIONS

24.1 These Lease Terms and Conditions, ULTRESSA's Proposal, including other attachments thereto, and any other documents that are incorporated by specific reference in the Proposal shall constitute the entire Lease Agreement between the parties and supersedes any prior agreements, whether written or oral, between the parties respecting this subject matter. No terms, conditions, representations, or warranties other than those specifically set forth in this Lease Agreement shall be binding on the parties.

24.2 Client stipulates that the terms and conditions attached to or incorporated in any Client purchase order(s) issued for the Equipment and services provided under this Lease Agreement shall in no way be binding upon ULTRESSA. Client further stipulates that ULTRESSA's performance under this Lease does

not constitute acceptance, tacit or otherwise, of any such purchase order terms and conditions whether or not ULTRESSA signs such purchase orders.

24.3 If there are any conflicts between the Lease Agreement documents, the following precedence shall apply: ULTRESSA's Proposal, followed sequentially by these Lease Terms and Conditions, other attachments to the Proposal, and documents incorporated into the Lease Agreement by specific reference.

24.4 This Lease Agreement may be modified or amended only upon the express written consent of authorized representatives of both ULTRESSA and Client.