**master SERVICES AGREEMENT**

**Issued under Purchase Order Number:**

THIS MASTER SERVICES AGREEMENT(the “Agreement”) is entered into by and between **Velocys, Inc**. (“Velocys”) and **orange ultrasonics inc.** (“Company”).

WHEREAS, by their signatures below, Velocys agrees to purchase, and the individual or business entity designated above as “Company” agrees to provide, the services hereinafter described, upon the terms and conditions hereinafter set forth.

1. **Services.** Company shall on the terms and conditions more particularly described herein provide Velocys and/or its affiliates with services incidental to the performance of the project and work more set forth in Attachment Schedule A;
2. **Project Term.** Company shall provide services during the period indicated below:

Commencement Date: Award

End Date: To be determined by mutual agreement of the parties

The Company is not authorized to perform any work under Agreement beyond the performance period set forth above unless such period is extended by written modification to this Agreement;

1. **Compensation.** In consideration of Company’s responsibilities under this Agreement, Company shall on the terms and conditions more particularly described herein be compensated based upon time actually spent providing services to Velocys and in accordance with the following agreed rates specified in Schedule B;
2. **Reimbursable Expenses.** Company shall be responsible for all costs and expenses it incurs in connection with its performance of said services, except for reimbursable expenses (if any) specified on Schedule A, and is subject to the limitations described in Schedule C; and
3. **Technical Representative.** Velocys’ Technical Representative for this Agreement shall be Kai Jarosch, reachable at 614-733-3371 or [kai.jarosch@velocys.com](mailto:kai.jarosch@velocys.com);
4. **General Terms and Conditions.** This Agreement and the relationship between Velocys and Company shall be subject to the general terms and conditions set forth on Schedule D;
5. **The Complete Agreement.** The complete Agreement comprises of this page and Schedules A, B, C, and D hereto.

The rest of this page is left intentionally blank.

In order to obtain payment, “Company” must sign and return this agreement indicating “Company’s” acceptance of these terms and conditions. Further, unless as otherwise provided in this Agreement, any modifications to this Agreement shall be effected by a written supplemental agreement by both parties.

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| --- | --- |
| **VELOCYS, INC.**  7950 Corporate Blvd., Plain City, OH 43064 | **orange ultrasonics Inc.**  86 Concession Street West Unit 2,  Bowmanville, Ontario, L1C 1Y9 Canada |
| AGREED TO AND ACCEPTED BY: Authorized Representative  Signature: | AGREED TO AND ACCEPTED BY: Authorized Representative  Signature: |
| Typed Name: Crystal Mayle | Typed Name: Russell Philion |
| Title: Controller | Title: President & CTO |
| Date: | Date: |

**SCHEDULE A**

**statement of work**

Velocys is engaged in an effort to develop methodologies, processes and equipment that will allow it to rapidly, reliably and repeatedly discharge spent catalyst from its microchannel Fischer-Tropsch reactors (MCFTR or FTR) without damaging the reactor or internals. After preliminary discussions between Velocys and Orange Ultrasonics under CDA, we have a reasonable expectation that a joint effort between Velocys and Orange Ultrasonics would produce an ultrasound system that either alone, or in conjunction with methods already demonstrated by Velocys, would meet the aforementioned criteria.

The ideal system would have the following characteristics:

* Non-damaging to reactor and internals (required)
* Effective for both catalyst discharge (required) and post-charging densification (not required)
* Capable of effecting discharge of a 4-core reactor in less than 24 hrs
* Fully automated and operable by third party
* Non-integral/Portable (can be moved from reactor to reactor)

Our ultimate goal is to have both the equipment and processes required to discharge 4-core reactors using ultrasound by the end of March 2016. However, as full-scale reactors containing spent catalyst will not be available in the near future we wish to demonstrate the general approach and efficacy on a pilot scale reactor(s) operated by Velocys. It is understood that methods and equipment developed for discharging a pilot scale reactor may not be directly applicable to discharge of a full-scale reactor and that subsequent development work may be required. For this reason, the following phased approach is proposed:

**Phase 1 – Approach Development for Pilot Plant Discharge**

*Objective*

Develop proposal for ultrasound assisted discharge demonstration of a Velocys pilot plant reactor

In this phase, Velocys and Orange Ultrasonics will jointly review options for applying an advanced ultrasound approach to the discharge of an operated Velocys pilot plant reactor and down select to an approach to be demonstrated on a pilot plant reactor (Phase 2). Velocys and Orange will complete any additional testing, measurement or assessment required for to ensure a successful demonstration. Cost and schedule for Phase 2 to be developed as part of this effort.

*Timeline:* 6 weeks from completion of service agreement

*Cost Estimate:* To be determined

*Deliverables*

Written recommendation for Phase 2, including:

* Documentation of options considered and reasoning for down select
* Required equipment for a discharge demonstration on a pilot plant reactor (includes modifications that may need to be done by Velocys to the pilot reactor)
* Cost estimate for Phase 2
* Timeline to complete Phase 2

**Phase 2 – Demonstration on Pilot Plant Reactor**

*Objective*

Demonstrate discharge of Velocys pilot plant reactor using advanced ultrasound approach

In this phase Velocys and Orange Ultrasonics will acquire the required equipment, complete any required planning and conduct a demonstration of ultrasound assisted discharge on a pilot plant reactor. We envision that staff from our catalyst handling vendor, Mourik, may be present during the demonstration.

*Timeline:* Complete before the end of 2015

*Cost Estimate:* To be determined

*Deliverables*

* Ultrasound equipment required for discharge
* Preliminary written assessment of steps required for scale-up to 4-core (commercial scale)

**Phase 3 – Assessment of requirements for scale-up to commercial scale**

*Objective:* Develop proposal for scale-up to commercial scale

After a successful demonstration at the pilot plant scale, Velocys and Orange Ultrasonics will assess what measurement or testing may be required to transfer our learning from the pilot reactor to the 4-core reactor.

*Timeline:* To be determined

*Cost Estimate:* To be determined

*Deliverables*

* Detailed plan of what measurements and/or testing would be required to apply the learnings from the pilot plant discharge to achieve successful discharge at the 4-core scale.
* Generic cost estimate for commercial-scale advance ultrasound system

Additional phases can/will be added as justified by results.

**SCHEDULE B**

**Compensation**

1. **Company’s Total Agreement Ceiling Amount; Applicable Time-and-Materials Rates; Other Direct Costs; Accounting Records; and Notification**

In consideration of Company’s responsibilities under this Agreement, Velocys shall pay Company on no more than a monthly basis and upon presentation of proper invoice. Such payment shall be in accordance with standard Payments provisions established for Time-and-Materials or Labor-Hour type Contracts.

1. Agreement Ceiling Amount. The total Agreement ceiling amount is $ To be determined by mutual agreement of the parties (U.S. Currency); subject to the funding restrictions below in Section(s) A.2 thru A.4 below. In no event shall Velocys be required to reimburse, and Company shall not incur, any charges in excess of this amount. This ceiling amount may be increased or decreased upon written, mutually agreed upon agreement modification.
2. Applicable Time-and Materials Rate:

|  |  |  |  |
| --- | --- | --- | --- |
| Labor Category | Hourly Rate | |  |
| Company | $ |  |  |

1. Other Direct Costs. All allowable other directs costs, including travel, shall be reimbursed at Company’s actual cost, exclusive of any fees and are subject to the limitations described in Schedule C hereunder.
2. Notification. Whenever Company has reason to believe that the total cost of the work under this Agreement shall be greater or substantially less than the amount authorized, Company shall promptly notify the Velocys.

**SCHEDULE C**

**Reimbursable Expenses**

Business expenses incurred by Company in the course of providing services to Velocys shall be subject to the following restrictions:

**Transportation:** Velocys shall not reimburse any transportation costs associated with this agreement unless agreed to in advance by Velocys and in writing by Velocys’ Technical Representative.

**Lodging:** Velocys shall not reimburse any lodging costs associated with this agreement unless agreed to in advance by Velocys and in writing by Velocys’ Technical Representative.

**Meals:** Velocys shall not reimburse any meal costs associated with this agreement unless agreed to in advance by Velocys and in writing by Velocys’ Technical Representative.

**Project Materials:** Velocys shall not reimburse any project material costs associated with this agreement unless agreed to in advance and in writing by Velocys’ Technical Representative.

**SCHEDULE D**

**General Terms and Conditions**

Company, as identified in the Schedule A, agrees to provide to Velocys, Inc. (“Velocys”)services substantially in accordance with the Statement of Work, under the following terms and conditions together with those set forth in the Schedule(s) hereunder:

1. Payment of Fees and Expenses: Company shall submit regular, periodic invoices, no more often than monthly and shall include such detail as a breakdown of labor to include the number of hours worked in each labor category, the applicable hourly rate, and the total labor charge for each category and month costs were incurred (where applicable). Charges other than labor shall be accompanied by such satisfactory supporting documentation (i.e., Show on all packages, invoices, shipping bills, etc.). Invoice terms are net 30 days. ***The final invoice should be marked “Final Invoice.”***

Invoices shall be payable on receipt but shall not be deemed overdue if paid within 30 days of receipt. Invoices and invoice related questions shall be submitted by Company to:

* Velocys, Inc., 7950 Corporate Blvd., Plain City, OH 43064 or [Accountspayable@velocys.com](mailto:Accountspayable@velocys.com); **Attention:** Accounts Payable.

***All invoices must reference the valid purchase order number provided on the face of this Agreement. Failure to do so shall result in the return of the invoice to Company and a delay in payment.***

1. Withholding: Velocys may withhold payment if Company has not complied with any material requirement of this Agreement. Said payment shall be made only when the requirement is complied with. Any payment so withheld shall not accrue interest.
2. Changes: This Agreement may be modified or amended only by mutual agreement in writing. No course of dealing, usage of trade, waiver or non-enforcement shall be construed to modify or otherwise alter the terms and conditions of this Agreement.
3. Insurance:
4. Company shall purchase and maintain during the term of this Agreement and any extensions thereof, insurance in amounts reasonable and customary for the industry in which Company is engaged. Company shall maintain all insurance which is required by any law, statute, ordinance or regulation of any jurisdiction having authority in whole or in part over the Company’s operations or Agreement activities.
5. Company’s insurance shall be primary and non-contributing over any and all insurance that may be maintained by Velocys. Company and its insurer(s) shall waive all rights of subrogation against Velocys, its officers, directors, agents, trustees and employees. If any of the required insurance is maintained on a claims-made basis, Company shall maintain such insurance for a period equal to that of the Warranty period of this Agreement.
6. Such minimum insurance limits shall not limit Company’s liability under this Agreement.
7. Upon request, Company shall provide Velocys a Certificate of Insurance evidencing Commercial General Liability including Product Liability with limits not less than one million dollars ($1,000,000.00).
8. No insurance charges, which increase shipping costs, shall be allowed.
9. Work Stoppage: Velocys may at any time require Company to stop all or any part of its work and, upon receipt of such written instruction; Company shall immediately take all reasonable steps to minimize the incurrence of costs during any period of work stoppage. Following such written instruction, Velocys shall, within a reasonable period of time, either (i) cancel the stop work order or (ii) terminate the work covered by such order.
10. Termination:
11. **Default**: Velocys, by written notice, may terminate this Agreement for default, in whole or in part, if Company fails to comply with any of the terms of this Agreement, fails to make progress so as to endanger performance of this Agreement, or fails to provide adequate assurance of future performance. Company shall have ten (10) calendar days (“Cure Period”) (or such longer period as Velocys may authorize in writing) to cure any such failure(s) after receipt of notice from Velocys. Default involving performance delays shall not be subject to the cure provision. Company shall be compensated only for the work actually delivered and accepted. Velocys may require Company to deliver to Velocys any supplies and materials or other items that Company has specifically produced or acquired for the terminated portion of this Agreement. Velocys and Company shall agree on the amount of payment for these other deliverables.
12. **Convenience:** Either party may terminate this Agreement, with or without cause, upon not less than thirty (30) days’ written notice to the other. Notwithstanding the foregoing, Company agrees to provide Velocys with all reports, materials, or other deliverable items available as of the date of the termination. Velocys agrees to pay all non-cancellable costs incurred by Company, prior to receipt of Velocys’ termination notice, within thirty (30) days of receipt of a final invoice.
13. Independent Contractor: At all times, Company’s relationship with Velocys shall be that of an Independent Contractor. Company shall be solely responsible for all of its financial obligations, including without limitation wages, employee benefits, overhead, general and administrative expense, and all other direct and indirect costs and expenses associated with the operation of its business and the performance of services hereunder. Company is not an employee or agent of Velocys and Company shall make no representations nor take any actions to the contrary. Company shall have no power or authority to bind Velocys or to act on behalf of Velocys in any manner as the result of its provision of services pursuant to this Agreement.
14. Confidentiality: Company, its employees and all others providing services under this Agreement pursuant to Company’s direction, shall maintain in strictest confidence all information received from Velocys or any of its affiliates, whether relating to the project or otherwise, and all information generated by Company in connection with its work under this Agreement, including but not limited to research and development, product specifications, test data, financial information, business and marketing plans, business methodologies, testing plans and results, protocols, analyses, project notebooks, project documentation and all other technical, business, financial, proprietary and trade secret information (collectively, the “Information”). During the terms of this Agreement and at all times thereafter, Company shall not use, for its own or another’s benefit, or disclose any of the Information. All such Information shall be the sole and exclusive property of Velocys.

The previously established Mutual Confidential Disclosure Agreement (“CDA”) made effective on **July 17, 2015** between Velocys and Company addresses confidentiality obligations of the parties and is incorporated herein by reference as if fully set forth herein. For avoidance of doubt, all services and/or deliverables performed by Company under this Agreement are Velocys Information and Company shall assure that the services/deliverables are kept in the strictest of confidence and used only to fulfill the obligations of this Agreement.

1. Return of Property: Promptly upon request or upon termination hereof, Company shall deliver to Velocys all proprietary or business sensitive Information as described in section No. 8., entitled, “Confidentiality” and all other records, reports, data, memoranda, notes, models, and equipment of any nature (hereinafter "Property") that is in possession of or under control of, prepared or acquired by Company in the course of services under this Agreement. Further, Company agrees not to take with them or to disclose any such Property or reproductions of any such Property, that relate to the business activities of Velocys without the prior written consent of an authorized representative of Velocys*.*
2. Intellectual Property: It is agreed that efforts under the statement of work are not for research and development services and there is no expectation of any “invention(s)” (defined as any discovery which is or may be patentable or otherwise protectable under Title 35 of the U.S. Code) anticipated therein. Notwithstanding, Companyhereby acknowledges that Velocys shall be the sole and exclusive owner of all inventions, concepts, improvements, computer codes, writings, discoveries, and any and all other intellectual property made, conceived or suggested by Company in the course of or as the result of its work under this Agreement (the “Intellectual Property”). Company shall fully cooperate with Velocys in securing such exclusive ownership and all available protections of Intellectual Property to Velocys. Company shall disclose to Velocys immediately and with full documentation, any and all Intellectual Property.

All copyrightable works included in Intellectual Property shall be deemed “works for hire” under applicable copyright laws. To the extent that such works are not deemed “works for hire”, whether by operation of law or otherwise, then Company shall and hereby does assign to Velocys, all right, title and interest in and to such work and the copyrights therein, including without limitation the right to apply for and receive copyright registrations and other similar protections which may then be available in the name of Velocys.

Company shall and hereby does assign to Velocys all right, title and interest to any inventions, whether or not patentable, contained in, developed from or suggested by the Intellectual Property or Company’s work under this Agreement. Velocys shall have the right to file patent applications in its own name as assignee or applicant for patents, copyrights, trademarks and other intellectual property protections which may then be available in the United States and foreign countries. Where necessary, Company shall, at the request and expense of Velocys, make such applications, execute such assignments and other documents, and do all other things reasonably necessary to assign and protect the rights of Velocys or its affiliates, transferees or designees in and to all Intellectual Property.

1. Indemnification: Company shall hereby release, defend, indemnify and hold harmless Velocys and its owner’s, directors, officers, employees shareholders, and agents(the "Indemnified Parties") from and against any and all liabilities, losses, costs, claims, causes of action, damages and expenses arising out of (including, without limitation, reasonable attorneys’ fees) or relating to (a) any errors, omission, misrepresentations; (b) any negligence or willful acts or omissions; (c) any breach of this Contract; (d) infringement; and (e) any bodily injury (including death) or damage to property caused, or alleged to be caused by Company’s Services provided under this Agreement.
2. Consequential Damages: Company shall be liable for special, incidental, or consequential damages arising out or relating to breaches of any obligations under section No. **8** entitled “Confidentiality”, and section No. **9** entitled “Return of Property”, section No. **10** entitled “Intellectual Property”, and any misrepresentations under in section No. **18**, entitled, “Representations”. Except as otherwise expressly provided in this Agreement, in no event shall either party be liable for any special, incidental, or consequential damages of any type or nature.
3. Rights and Remedies:  The rights and remedies of Velocys set forth in this Agreement are cumulative and are in addition to any other rights or remedies that Velocys may have at law and/or in equity.
4. Governing Law; Jurisdiction: This Agreement shall be governed by and construed in accordance with the laws of the State of Ohio. ANY ACTION TO ENFORCE THIS AGREEMENT, OR ANY RIGHTS OR OBLIGATIONS CONTAINED HEREIN, SHALL BE BROUGHT, IF AT ALL, IN THE UNITED STATES DISTRICT COURT FOR SOUTHERN OHIO (EASTERN DIVISION) OR ANY COURT OF GENERAL JURISDICTION SITTING IN FRANKLIN COUNTY, OHIO. This choice of jurisdiction is by express agreement of the parties.
5. Compliance: Company hereby acknowledges and shall comply with the United States Foreign Corrupt Practices Act (“FCPA”), the U.K. Bribery Act (2010), and all United States laws regarding boycotts.  In the event that Velocys should believe, in good faith, that Company has violated the FCPA, the U.K. Bribery Act, or US boycotts, this Agreement shall be terminated immediately and Company shall release, defend, indemnify and hold Velocys from any liability arising or resulting from such violation.
6. Disputes**:** All disputes under this Agreement which are not resolved by mutual agreement may be decided by recourse to an action at law or in equity. Any such dispute must be raised within one (1) year of its accrual.
7. Warranty: Company warrants that it shall perform the services under this Agreement with the degree of high professional skill and sound practices and judgment which is normally exercised by recognized professional firms with respect to services of a similar nature in performing the Work, shall comply with all federal, provincial, municipal, local and other laws, all applicable standards, codes, laws and ordinances, which are in force at the time the subject Work are performed, as well as the rules and regulation of any regulatory body having jurisdiction over the Work. The aforementioned requirements are referred to as “Company’s Standard of Care.”
8. Representations:
9. **Intellectual Property:** Company acknowledges and represents that Company is authorized to assign to Velocys all right, title and interest to any inventions, whether or not patentable, contained in, developed from or suggested by the Intellectual Property or Company’s work under this Agreement. Company agrees to, and hereby does, without any additional consideration, irrevocably and unconditionally assign and transfer outright all their respective right, title and interest in and to (a) any and all materials and work product created or developed by Company in the course of performing services under this Agreement (“Work Product”); (b) any and all Inventions, improvements, modifications (whether or not the same be reduced to written or computer-readable form) derived from inventions, the Services performed or Work Product created by Company hereunder, including but not limited to designs, drawings, specifications and standards, improvements and modifications and pictorial or graphic representations of images, prototypes models and test versions; and (c) any and all copyrights, trademarks, patents and patent rights, and applications therefore, if any, and any and all other intellectual property and/or industrial property rights therein. Company shall promptly report to the Contracts Specialist any Intellectual Property conflicts that may arise during the performance of this Agreement.
10. Audit:For three (3) years following the completion or termination of this Agreement, Velocys and/or, if applicable, any cognizant government audit agency, shall have access to Company’s records and documentation for audit purposes during normal business hours and upon ten (10) calendar days’ notice. Company shall promptly reimburse Velocys for any amounts for which Company cannot provide adequate documentation or substantiation or are otherwise unallowable or not properly chargeable.
11. Force Majeure:Neither Company, nor Velocys,shall be liable in any way for failure to perform any

provision of this Agreement (except payment of monetary obligations) if such failure is caused by any

law, rule, or regulation, or any cause beyond the control of the Party in default. Should such acts or events occur, the Parties shall use commercially reasonable efforts to overcome all difficulties and to resume work as soon as reasonably possible.

1. Miscellaneous:
2. This Agreement may not be assigned in whole or in part without the prior written approval of both Parties. In any event, however, this Agreement shall be binding upon, inure to the benefit of, and be enforceable by and against the successors, assigns and transferees of the Parties.
3. Time is of the essence related to any dates or schedules related to Company’s performance.
4. If any part of this Agreement shall be held invalid or unenforceable, such invalidity and unenforceability shall not affect any other part of this Agreement. Captions used as headings in this Agreement are for convenience only and shall not be deemed to limit or otherwise affect the construction of any provision hereof.
5. This Agreement may be executed in one or more counterparts, each of which when so executed shall be deemed an original, but all of which taken together shall constitute one and the same document. The parties agree that an electronic signature is as legally binding as an original manual signature in accepting the terms, conditions, and obligations of this Agreement.
6. No waiver of any term or provision by either party in any one instance shall be deemed a continuing waiver unless reduced to a writing signed by the waiving party. This Agreement may not be amended or modified in any way except by a writing signed by both parties.
7. Notices: Any notice or other communication (“Notice”) required or permitted under this Agreement shall be in writing and either delivered personally or sent by email followed by post mail, facsimile, overnight delivery, express mail, or certified or registered mail, postage prepaid, return receipt requested.
8. Addressee: A Notice shall be addressed as follows:
9. In the case of Company, notices shall be sent to the attention of       at       or      .

ii. In the case of Velocys, Inc., all notices shall be sent to the attention of the Contracts Specialist at 7950 Corporate Blvd., Plain City, OH, 43064 or [contracts@velocys.com](mailto:contracts@velocys.com).

1. Export Control: Company agrees that it shall comply with all U.S. export laws and regulations. Company agrees not to export or re-export any products, materials, items and/or technical data, or the products(s) thereof, received from Velocys unless Company has obtained in advance all required licenses, agreements or other authorizations form the U.S. Government. Exports of technical data include, without limitation, the sending or taking of any technical data out of the United States in any manner; disclosing or transferring technical data to a Foreign Person (i.e. any person who is not a lawful permanent resident of the United States or is not a protected individual as defined by §8 U.S.C. sections 1101 and 1324) whether in the United States or abroad; performing services for a foreign client, whether in the United States or abroad.
2. Survivability:If this Agreement expires, is completed, or is terminated, Company shall not be relieved of those respective obligations contained in the following provisions, which shall in all events survive expiration or termination.

* Insurance (as applicable)
* Warranty
* Governing Law; Jurisdiction
* Export Control
* Independent Contractor
* Intellectual Property Rights
* Confidentiality
* Return of Property
* Indemnification
* Corruption
* Audit (as applicable)
* Representations
* Consequential Damages
* Survivability