

SHIP TO: MILLER FOR SHEETS
 INSTITUTE NORTHERN ENGINEERING
 ELIF 240
 PO BOX 755910
 1764 TANANA LOOP
 FAIRBANKS AK 99775-5910

UNIVERSITY OF ALASKA FAIRBANKS

PROCUREMENT & CONTRACT SVCS
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 FAIRBANKS AK 99775-7940
 Tele: (907) 474-7315 Fax: (907) 474-7720

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 ACCOUNTS PAYABLE
 PO BOX 757920
 FAIRBANKS AK 99775-7920
 Tele: (907) 474-7031 Fax: (907) 474-7046

PURCHASE ORDER	
NO. P0557843	DATE: 04/22/22
THIS NUMBER MUST BE SHOWN ON ALL INVOICES, PACKAGES, CORRESPONDENCE, ETC.	

Vendor ID NO: 31286564

TO: INTERNATIONAL RESERVOIR TECHNOLOGIES IN
 300 UNION BLVD STE 400
 LAKEWOOD CO 80228

DocuSigned by:

Michael Houlihan

August 25, 2023

Procurement Officer

Date

PURCHASE AUTHORIZED ONLY WHEN SIGNED ABOVE BY THE AUTHORIZED AGENT.

"Unless otherwise superseded, vendor shall comply with University of Alaska Terms and Conditions of Purchase Order, located at alaska.edu/procurement/vendors"

SHIP VIA		F.O.B. TERMS		TERMS	
		Not Applicable		Net 30	
DELIVERY DATE		BUYER NAME		TIN #92-6000147	
09/30/24		Mike Grahek		Tax Exempt No A-125217	
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED PRICE
1	<p>**CHANGE ORDER NO. 2** This change order is issued to extend the Period of Performance through September 30, 2024 and increase the Purchase Order total by \$24,631.25 for the attached Scope of Work changes</p> <p>THIS ORDER WAS PLACED WITH International Reservoir Technologies, Inc. by Mike Grahek on 4/22/22 by Email to: tcwells@irt-inc.com</p> <p>SUBMIT ALL INVOICES TO THE ACCOUNTS PAYABLE ADDRESS OR FAX NUMBER ABOVE, OR VIA EMAIL TO uaf-ofa-ap@alaska.edu.</p> <p>Brent Sheets (907-750-0650) Email: bjsheets@alaska.edu</p> <p>Derek Miller (907-474-6644) Email: derek.miller@alaska.edu</p> <p>Alexis Bystedt (907-474-7728) Email: aabystedt@alaska.edu</p> <p>PROFESSIONAL SERVICES: Consulting services, per the attached Scope of Work, with the addition of the following:</p> <ol style="list-style-type: none"> Lead the newly formed Alaska state CCUS workgroup on behalf of the University; Complete a case study on CCUS applicabilty for a potential new power plant in Alaska to meet growing demand and as an alternative to dwindling Cook Inlet region natural gas supply; Design Screening work on various Alaska basins to estimate CO2 storage capacity. <p>PERIOD OF PERFORMANCE: October 1, 2021 - September 30, 2023</p>		SVC		200,000.00
				TOTAL	CONTINUED

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Vendor ID NO: 31286564

TO: INTERNATIONAL RESERVOIR TECHNOLOGIES IN
 300 UNION BLVD STE 400
 LAKEWOOD CO 80228

DocuSigned by:

Michael Houlikan

August 25, 2023

03A3276879554E7
 Procurement Officer

Date

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	Not Applicable	Net 30			
DELIVERY DATE 09/30/24	BUYER NAME Mike Grahek	TIN #92-6000147 Tax Exempt No A-125217			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED PRICE
2	RATE: 10/01/21 - 09/30/22: \$100 per hour (\$60,000) 10/01/22 - 09/30/23: \$175 per hour (\$140,000) Estimated Travel, including airfare, hotel, ground transportation, per diem and incidentals for travel as pre-authorized by UAF INE. ***** UND Contract PCOR Partnership Initiative CFDA: 81.089 Award: G-050-96 / FY20-XCL-226 *PASAA ***** This Purchase Order is funded by an external agency grant or contract containing restrictive billing provisions. Therefore, invoice(s) for supplies, equipment, or services must be submitted within forty-five (45) days AFTER the delivery date listed on this purchase order to be considered for payment. Failure to submit invoice(s) in a timely manner may result in non-payment due to the funding agency's billing restrictions, in which case UAF shall not be liable for payment.		SVC		25,000.00
3	Additional funding per Change Order #2		SVC		24,631.25
TOTAL					249,631.25

2025 Yukon Drive, Suite 001
PO Box 757940, Fairbanks, AK
99775-7940

Telephone: (907) 474-7315
Fax: (907) 474-7720



UNIVERSITY
of ALASKA
Many Traditions One Alaska

**UNIVERSITY OF ALASKA FAIRBANKS
MODIFICATION TO CONTRACT P0557843
INTERNATIONAL RESERVOIR TECHNOLOGIES INC**

CONTRACT NO.: P0557843
DATED: APRIL 22, 2022

MODIFICATION NO. 1
EFFECTIVE DATE: AUGUST 25, 2023

ISSUED TO:

ISSUED BY:

INTERNATIONAL RESERVOIR TECHNOLOGIES INC
300 UNION BLVD SUITE 400
LAKEWOOD CO 80228

UNIVERSITY OF ALASKA FAIRBANKS
PROCUREMENT & CONTRACT SVCS
PO BOX 757940
FAIRBANKS, AK 99775-7940

- 1. THIS MODIFICATION IS ISSUED TO INCREASE THE CONTRACT BY \$24,631.25 FROM \$225,000.00 TO \$249,631.25 TO AD THE TASKS OUTLINED IN THE ATTACHED SCOPE OF WORK.**
- 2. THE PERIOD OF PERFORMANCE OF THIS CONTRACT IS EXTENDED THROUGH SEPTEMBER 30, 2024. THE CONTRACT PERIOD OF PERFORMANCE IS OCTOBER 1, 2021 THROUGH SEPTEMBER 30, 2024.**
- 3. ALL OTHER TERMS, CONDITIONS AND SPECIFICATIONS OF P0557843 REMAIN UNCHANGED.**

INTERNATIONAL RESERVOIR TECHNOLOGIES INC

DocuSigned by:

Joseph Dozzo

Signature

Joseph Dozzo President, IRT Inc.

Type/Print Name & Title

August 25, 2023

Date

UNIVERSITY OF ALASKA

DocuSigned by:

Michael Houlihan

Michael Houlihan
UA Contracting Officer

August 25, 2023

Date

* SOW: Participate with the team writing a proposal in response to Funding Opportunity Notice Funding Opportunity Announcement (FOA) Number: DE-FOA-0002711, "Bipartisan Infrastructure Law (BIL): Storage Validation and Testing (Section 40305): Carbon Storage Assurance Facility Enterprise (CarbonSAFE): Phases II, III, III.5, and IV"

* Deliverable: Technical content for the proposal, developed jointly with the proposal writing team. The proposal writing team is composed of faculty from the University of Alaska Fairbanks, University of North Dakota, Advanced Resources International, and several vendors. IRT (Frank Paskvan) is a Reservoir Engineer whose role is to contribute to the Technical Volume of the proposal, participate in proposal writing meetings, and generally support UAF's Petroleum Development Lab by creating new content, reviewing and editing content by others, and enlisting the support of Chugach Electric and Hilcorp, lease holders and operators of the reservoir that is the primary target of the analysis proposed to DOE.

* Budget: 140.75 hours @ \$175/hour = \$24,631.25

UA PROCUREMENT & CONTRACT SERVICES

REQUEST FOR MODIFICATION – SUBAWARD/SUBCONTRACT/CONTRACT

- 1.** No Cost Extension (NCE) – no money to be added:

I hereby request a NCE to No. UA

funded by

PO No.:

through the date of

Reason for NCE: "prime award extended " or "additional time needed" is not an acceptable response

- 2.** Increase – Period of Performance (POP) may or may not be extended, please specify:

I hereby request an increase to No.

funded by PO No.

through the date of

in the amount of

Reason for Increase – Funding year

OR Additional funds needed for:

Change in scope MUST have updated SOW attached.

- 3.** Decrease-If decrease is related to early termination of an agreement, state so in your response.

I hereby request a decrease to No. UA

funded by

PO No.

in the amount of

Reason for decrease: Must include revised deliverables and updated SOW.

- 4.** Is modification for a **SUBAWARD** under a Prime Award subject to 2 CFR Part

200 (UG)?

Yes

No

Fund

Org

Acct

Act Code

Amount

Accounting Line:

*The original fund/org/acct will be used unless otherwise specified.

Submission:

All modifications to subawards shall be emailed to Maren Savage (mosavage@alaska.edu) and cc Michelle Littell (mlittell2@alaska.edu).

All other modifications to subcontracts or contracts shall be emailed to the Issuing Contract Officer.

Include Request for Mod and both the UAF No. and PO No. in the subject line of the email.

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Simple Search

Search Editor

Any Words [i](#)

- All Words (i)
- Exact Phrase (i)

e.g. 123456789, Smith Corp

"INTERNATIONAL RESERVOIR TECHNOLOGIES INC" x

Entity v

Location v

Status ^

- Active
- Inactive

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PURCHASE ORDER

NO. P0557843 DATE: 04/22/22

THIS NUMBER MUST BE SHOWN ON ALL INVOICES, PACKAGES, CORRESPONDENCE, ETC.

Vendor ID NO: 31286564

TO: INTERNATIONAL RESERVOIR TECHNOLOGIES IN
 300 UNION BLVD STE 400
 LAKEWOOD CO 80228

DocuSigned by:

 79C76F8EFA46467... September 23, 2022

Procurement Officer Date

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Not Applicable		Not Applicable		Net 30	
DELIVERY DATE		BUYER NAME		TIN #92-6000147 Tax Exempt No A-125217	
09/30/23		Mike Grahek			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED PRICE
	<p style="text-align: center;">**CHANGE ORDER NO. 1**</p> <p>THIS CHANGE ORDER IS ISSUED TO INCREASE THE AMOUNT OF THE PURCHASE ORDER BY \$150,000, FROM \$75,000 TO \$225,000, TO EXTEND THE PERIOD OF PERFORMANCE TO SEPTEMBER 30, 2023, AND TO ADD THE TASKS OUTLINED BELOW TO THE SCOPE OF WORK.</p> <p>Contact: Tami Wells</p> <p>THIS ORDER WAS PLACED WITH International Reservoir Technologies, Inc. by Mike Grahek on 4/22/22 by Email to: tcwells@irt-inc.com</p> <p>SUBMIT ALL INVOICES TO THE ACCOUNTS PAYABLE ADDRESS OR FAX NUMBER ABOVE, OR VIA EMAIL TO uaf-ofa-ap@alaska.edu.</p> <p>Brent Sheets (907-750-0650) Email: bjsheets@alaska.edu</p> <p>Derek Miller (907-474-6644) Email: derek.miller@alaska.edu</p> <p>Alexis Bystedt (907-474-7728) Email: aabystedt@alaska.edu</p>				
1	<p>PROFESSIONAL SERVICES: Consulting services, per the attached Scope of Work, with the addition of the following:</p> <ol style="list-style-type: none"> 1. Lead the newly formed Alaska state CCUS workgroup on behalf of the University; 2. Complete a case study on CCUS applicabilty for a potential new power plant in Alaska to meet growing demand and as an alternative to dwindling Cook Inlet region natural gas supply; 3. Design Screening work on various Alaska 		SVC		200,000.00
				TOTAL	CONTINUED

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Vendor ID NO: 31286564
TO: INTERNATIONAL RESERVOIR TECHNOLOGIES IN
 300 UNION BLVD STE 400
 LAKEWOOD CO 80228

DocuSigned by:
Michael Grahek
 79C76F8EFA46467...
 September 23, 2022

Procurement Officer Date

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DELIVERY DATE 09/30/23		BUYER NAME Mike Grahek		TIN #92-6000147 Tax Exempt No A-125217	
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED PRICE
	basins to estimate CO2 storage capacity. PERIOD OF PERFORMANCE: October 1, 2021 - September 30, 2023 RATE: 10/01/21 - 09/30/22: \$100 per hour (\$60,000) 10/01/22 - 09/30/23: \$175 per hour (\$140,000)				
2	Estimated Travel, including airfare, hotel, ground transportation, per diem and incidentals for travel as pre-authorized by UAF INE. ***** UND Contract PCOR Partnership Initiative CFDA: 81.089 Award: G-050-96 / FY20-XCL-226 *PASAA ***** This Purchase Order is funded by an external agency grant or contract containing restrictive billing provisions. Therefore, invoice(s) for supplies, equipment, or services must be submitted within forty-five (45) days AFTER the delivery date listed on this purchase order to be considered for payment. Failure to submit invoice(s) in a timely manner may result in non-payment due to the funding agency's billing restrictions, in which case UAF shall not be liable for payment.		SVC		25,000.00
TOTAL					225,000.00

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Procurement Officer _____ Date _____

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DELIVERY DATE 09/30/23	BUYER NAME Mike Grahek	TIN #92-6000147 Tax Exempt No A-125217

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TOTAL					225,000.00

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Vendor ID NO: 31286564

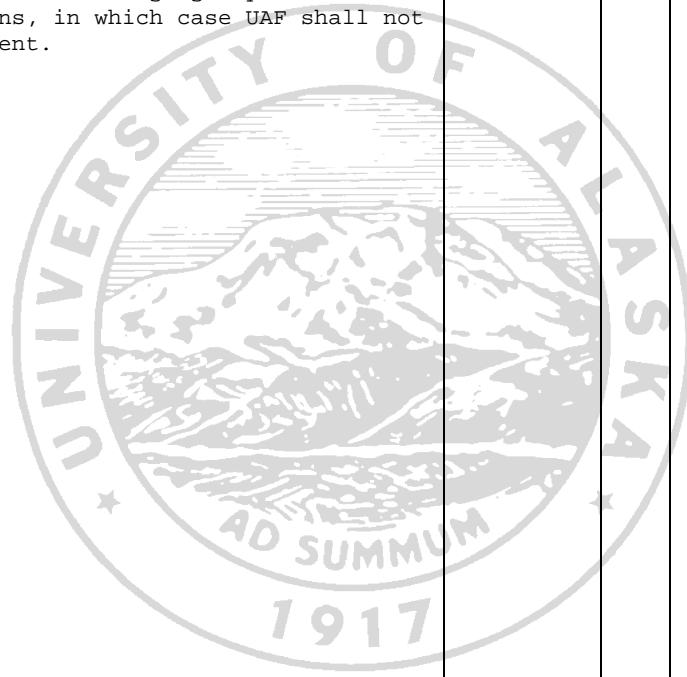
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DELIVERY DATE <u>09/30/22</u>		Not Applicable		Net 30	
		BUYER NAME		TIN #92-6000147	
		Mike Grahek		Tax Exempt No A-125217	
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED PRICE
	billing provisions. Therefore, invoice(s) for supplies, equipment, or services must be submitted within forty-five (45) days AFTER the delivery date listed on this purchase order to be considered for payment. Failure to submit invoice(s) in a timely manner may result in non-payment due to the funding agency's billing restrictions, in which case UAF shall not be liable for payment.				
				TOTAL	75,000.00



Frank Paskvan, International Reservoir Technologies Inc.
Scope of Work, Period of Performance: Oct 1, 2021, through Sept 30, 2022

Introduction

The PCOR Partnership—funded by the U.S. Department of Energy (DOE) National Energy Technology Laboratory (NETL) through its Regional Carbon Sequestration Partnerships Initiative, the North Dakota Industrial Commission (NDIC), and partner organizations—is accelerating the commercial deployment of CCUS. The Energy & Environmental Research Center (EERC) leads the Plains CO₂ Reduction (PCOR) Partnership with support from the University of Wyoming and the University of Alaska Fairbanks.

The PCOR Partnership is addressing regional capture, transport, use, and storage challenges facing commercial CCUS deployment by focusing on:

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The PCOR Partnership currently includes over two hundred businesses and institutions. Further information can be found at <https://undeerc.org/pcor/Partnership.aspx>

Project contact information:

EERC / PCOR:

Kevin Connors
Principal Policy & Regulatory Strategist, EERC
kconnors@undeerc.org

UAF:

Brent Sheets
Director, Petroleum Development Lab
Institute of Northern Engineering
Brent.Sheets@alaska.edu

Frank Paskvan
UAF Associate Researcher
International Reservoir Technologies, Inc.
Frank.Paskvan@gmail.com

Tasks and Deliverables (which may evolve as the project progresses):

- A. In consultation with the PI, Kevin Connors, prepare a report identifying key policy issues that must be addressed to bring clarity to Alaska’s oil and gas industry with respect to CCUS. This effort will require engaging Alaska’s oil and gas industry, State agencies (esp. AOGCC, DNR, ADEC, the Administration, and possibly legislators), Native Corporations and other NGOs, and federal agencies such as BOEM in the case of offshore fields outside of Alaska state waters. In addition to addressing regulatory aspects, the report will identify techno-economic elements required for the oil and gas industry to create a business model that includes tax policy, incentive programs, and addresses long-term liability issues. This report will serve as a “roadmap” for deploying commercial CCUS in Alaska.

Deliverable: topical report: “A roadmap for deploying commercial CCUS in Alaska.”

- B. Identify and rank the top potential CCUS projects within Alaska including data from the WESTCARB study¹ and *Geosciences* CO2 EOR in Alaska article². Generate business cases illustrating how existing tax policies and incentive programs affect the economics of prospective CCUS projects (e.g. 45Q, EOR investment tax credits, etc.); or, if illustrating a contemplated change in the regulatory or tax environment, frame alternative business case(s) to evaluate how those changes may accelerate commercial CCUS deployment in Alaska. Challenges expected in Alaska may include mitigating damage to permafrost during CCUS operations, mitigating CO2-related corrosion in existing infrastructure, avoiding CO2 hydrate (clathrate) formation in wells, flow lines, and facilities, CO2 phase transitions in wells, flow lines, and facilities, as well as MRV planning with the scale and complexity of the Prudhoe Bay infrastructure. Regarding the *Geosciences* article, provide feedback to authors and facilitate its republication as a PCOR product.

Deliverables: Case study report focused on CCUS opportunities in Alaska, and republication of *Geosciences* article via PCOR.

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9 February 2022

Frank Paskvan, International Reservoir Technologies Inc. (IRT)
18935 Scenic Hill Circle
Anchorage, Alaska 99516
(907) 440-8317, Frank.Paskvan@gmail.com

Brent Sheets
Institute of Northern Engineering
University of Alaska Fairbanks
PO Box 755910 Fairbanks, Alaska 99755-5910

Subject: Cost Share Commitment Letter, Frank Paskvan

This letter confirms the participation of Frank Paskvan, a consultant of International Reservoir Technologies, Inc. (IRT), to perform the services described in the **UAF / PCOR 2021—2022 CCUS Project Scope of Work Document**.

Frank Paskvan confirms participation as identified below:

Fully burdened rate per hour: \$100.

Total number of hours (estimated): 750 hours, including **600 hours of Compensated time and 150 hours of Cost Sharing time**.

Labor cost: \$75,000: \$60,000 in requested funds plus Cost Share commitment of \$15,000,

Travel costs: \$15,000: airfare, hotel, and ground transport expenses, plus per-diem and incidentals as per GSA rate, for travel as pre-authorized by UAF INE staff, e.g. Brent Sheets.


Total Cost: \$90,000, estimated.

Period of performance: 1 year from Oct. 2021 through Sept. 2022.

To meet the cost share requirements, Frank Paskvan commits a minimum of 20% of total project costs, e.g. 150 hours of 750 total hours worked, on the project.

For questions, please feel free to contact me.

Sincerely,


Frank Paskvan

SHIP TO: MILLER FOR SHEETS
 INSTITUTE NORTHERN ENGINEERING
 ELIF 240
 PO BOX 755910
 1764 TANANA LOOP
 FAIRBANKS AK 99775-5910

UNIVERSITY OF ALASKA FAIRBANKS

PROCUREMENT & CONTRACT SVCS
 PO BOX 757940
 FAIRBANKS AK 99775-7940
 Tele: (907) 474-7315 Fax: (907) 474-7720

SEND ORIGINAL AND ONE (1) COPY OF INVOICE

UNIVERSITY OF ALASKA FAIRBANKS
 ACCOUNTS PAYABLE
 PO BOX 757920
 FAIRBANKS AK 99775-7920
 Tele: (907) 474-7031 Fax: (907) 474-7046

PURCHASE ORDER	
NO. P0557843	DATE: 04/22/22
THIS NUMBER MUST BE SHOWN ON ALL INVOICES, PACKAGES, CORRESPONDENCE, ETC.	

Vendor ID NO: 31286564

TO: INTERNATIONAL RESERVOIR TECHNOLOGIES IN
 300 UNION BLVD STE 400
 LAKEWOOD CO 80228

Procurement Officer _____ Date _____

PURCHASE AUTHORIZED ONLY WHEN SIGNED ABOVE BY THE AUTHORIZED AGENT.

"Unless otherwise superseded, vendor shall comply with University of Alaska Terms and Conditions of Purchase Order, located at www.alaska.edu/swproc/downloads/terms.pdf"

SHIP VIA		F.O.B. TERMS		TERMS	
DELIVERY DATE 09/30/22		Not Applicable		Net 30	
		BUYER NAME		TIN #92-6000147	
		Mike Grahek		Tax Exempt No A-125217	
ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED PRICE
1	Contact: Tami Wells THIS ORDER WAS PLACED WITH International Reservoir Technologies, Inc. by Mike Grahek on 4/22/22 by Email to: tcwells@irt-inc.com SUBMIT ALL INVOICES TO THE ACCOUNTS PAYABLE ADDRESS OR FAX NUMBER ABOVE, OR VIA EMAIL TO uaf-ofa-ap@alaska.edu. Brent Sheets (907-750-0650) Email: bjsheets@alaska.edu Derek Miller (907-474-6644) Email: derek.miller@alaska.edu Alexis Bystedt (907-474-7728) Email: aabystedt@alaska.edu PROFESSIONAL SERVICES: Consulting services, per the attached Scope of Work. PERIOD OF PERFORMANCE: October 1, 2021 - September 30, 2022 RATE: \$100 per hour		SVC		60,000.00
2	Estimated Travel, including airfare, hotel, ground transportation, per diem and incidentals for travel as pre-authorized by UAF INE. ***** UND Contract PCOR Partnership Initiative CFDA: 81.089 Award: G-050-96 / FY20-XCL-226 *PASAA ***** This Purchase Order is funded by an external agency grant or contract containing restrictive		SVC		15,000.00
				TOTAL	CONTINUED

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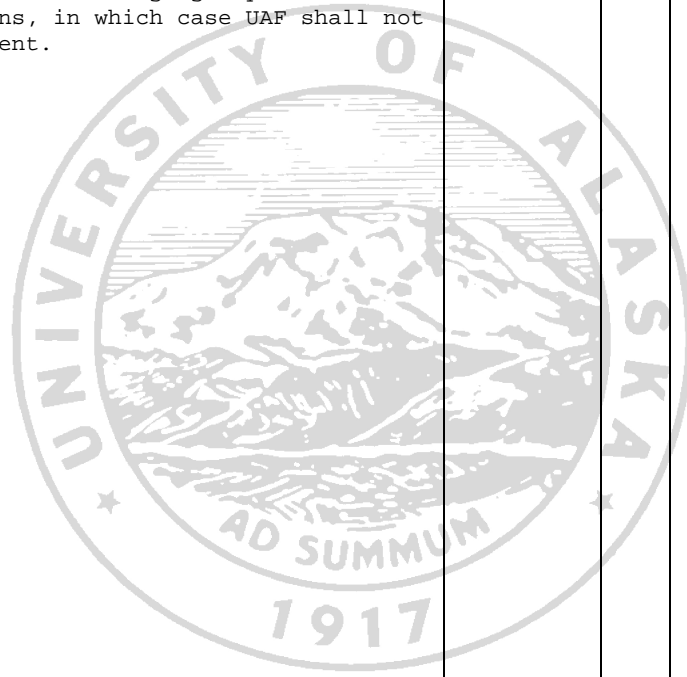
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SHIP VIA	F.O.B. TERMS Not Applicable	TERMS Net 30
DELIVERY DATE 09/30/22	BUYER NAME Mike Grahek	TIN #92-6000147 Tax Exempt No A-125217

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED PRICE
	billing provisions. Therefore, invoice(s) for supplies, equipment, or services must be submitted within forty-five (45) days AFTER the delivery date listed on this purchase order to be considered for payment. Failure to submit invoice(s) in a timely manner may result in non-payment due to the funding agency's billing restrictions, in which case UAF shall not be liable for payment.				
TOTAL					75,000.00



Frank Paskvan, International Reservoir Technologies Inc.
Scope of Work, Period of Performance: Oct 1, 2021, through Sept 30, 2022

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Frank Paskvan

Fwd: Request for Mod: P0557843 IRT (Paskvan)

Alexis Bystedt <aabystedt@alaska.edu>
To: Michael Grahek <meagrahekii@alaska.edu>

Mon, Sep 19, 2022 at 10:15 AM

Hi Mike,

I used the RSF that was submitted in February, and included the additional 150K. Brent approved the additional funds and signed again below the original signatures. Let me know if a new RSF is preferred.

Thank you,

Lexi

On Sat, Sep 17, 2022 at 1:27 PM Michael Grahek <meagrahekii@alaska.edu> wrote:

Hi Lexi,

Because this extension pushes the total amount of the contract well over the \$100K threshold for professional services, we will need some additional documentation. If you can please have the PI complete the attached certification form, I should be able to process a change order fairly quickly. If you have any questions, please let me know.

Thanks!

Mike

On Tue, Sep 13, 2022 at 3:05 PM Alexis Bystedt <aabystedt@alaska.edu> wrote:

Hello Mike,

Please see attached request for mod for IRT.

Thank you,

Lex

----- Forwarded message -----

From: **Crystal Mailloux** <cmmailloux@alaska.edu>

Date: Tue, Aug 30, 2022 at 9:03 AM

Subject: Request for Mod: P0557843 IRT (Paskvan)

To: Lexi Bystedt <aabystedt@alaska.edu>

Good Morning Lexi,

Please submit the attached request to extend and increase our PO with IRT/Frank Paskvan.

Thanks!

Crystal

--

Crystal Mailloux, CRA

Grant Manager

UAF Institute of Northern Engineering

907-474-1929

--

Alexis Bystedt

Procurement Coordinator
Institute of Northern Engineering
College of Engineering & Mines
University of Alaska Fairbanks
907.474.7728
she/her/hers

--
Michael Grahek, C.P.M.
Sr. Contracting Officer
University of Alaska
PO Box 757940
Fairbanks, AK 99775-7940
Tel.: (907) 474-6018
Fax: (907) 474-7720

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P0557843 - IRT - Sheets - RSF - Signed.pdf
213K