INSTITUTE OF AGRICULTURE, NATURAL RESOURCES & EXTENSION
University of Alaska Fairbanks

University of Alaska Fairbanks Institute of Agriculture, Naturale Resources, and Extension
1751 Tanana Loop
PO Box 756180
Fairbanks, AK 99775-6180

Invoice #: G00015439
Date: 8/13/2026

Bill to: **Southeast Conference for work on the BBB Mariculture Grant**
Project Name: Mariculture product development for agricultural uses

BUDGET CATEGORY	AMOUNT	MEMO
Personnel	50,306.03	[Complete Personnel Table Below]
Supplies		[Description of Supply Categories (details can be in receipts)]
Travel		[Travel Location and Event]
Contractual		
[Subcontractor #1]		
[Subcontractor #2]		
Other		
TOTAL		

EMPLOYEE NAME	EMPLOYEE TITLE	HOURLY RATE	HOURS	AMOUNT	TASK(S) WORKED ON
Jim Vinyard	Assistant Research Professor	53.24	592	37,107.31	Planning and execution of all tasks
TOTAL PERSONNEL COSTS					

Summary of Work Completed during Invoice Period

Break down summary by project task as defined in the contract:

Project Deliverable	% completed
In Vitro Digestibility and Comparison of Alaskan Kelp Species as Potential Feed Ingredients for Cattle This quarter, preparations for this project have progressed. We have successfully collected rumen fluid from the cattle on site to in test collections and all samples have been received. However, one of the chemicals necessary for the incubations has been on backorder throughout Q3. As Q4 begins, we have received the necessary chemical and this project's incubations will be completed in Q4.	**40%**
Investigating the Feasibility of the Utilization of Kelp Derived Byproducts as a Feed Ingredient for Cattle Using In Vitro Batch Culture This quarter, preparations for this project have progressed. We have successfully collected rumen fluid from the cattle on site to in test collections and all samples have been received. However, one of the chemicals necessary for the incubations has been on backorder throughout Q3. As Q4 begins, we have received the necessary chemical and this project's incubations will be completed in Q4.	**40%**
Determining the Feasibility of Alaskan Kelp as a Replacement for a Conventional Mineral Supplement in the Diets of Growing Beef Cattle This quarter, cattle have been trained on the Calan Gate System and now consistently eat out of their feeders. The kelp for this trial was received at the end of August and immediately sent for analysis. However, due to an error by USPS, it took the samples two weeks to reach the analytical lab in New York and another three for them to be analyzed, so this project was unable to be started in Q3. The analysis was received on 10/12 and this project will be completed in Q4 with the trial starting on 10/19. Due to the threat of cold inhibiting our cattle working facilities, the trial has been shortened to 52 days from the previous 80 days, but will still evaluate nutrient intake, ruminal fermentation, nutrient digestibility, and blood mineral parameters. Due to the high iodine content of kelp that prevented us from starting the study without previous iodine analysis, we will also be evaluating the concentrations of thyroid hormones, which are crucial for iodine metabolism.	**35%**
The Investigation of the Impact of Kelp Farm Location on the in Vitro Digestibility of Alaskan Sugar Kelp as a Potential Feed Ingredient for Cattle This quarter, preparations for this project have progressed. We have successfully collected rumen fluid from the cattle on site to in test collections and all samples have been received. However, one of the chemicals necessary for the incubations has been on backorder throughout Q3. As Q4 begins, we have received the necessary chemical and this project's incubations will be completed in Q4.	**40%**
The Investigation of the Impact of Harvest Year on the in Vitro Digestibility of Alaskan Split Kelp as a Potential Feed Ingredient for Cattle This quarter, preparations for this project have progressed. We have successfully collected rumen fluid from the cattle on site to in test collections and all samples have been received. However, one of the chemicals necessary for the incubations has been on backorder throughout Q3. As Q4 begins, we have received the necessary chemical and this project's incubations will be completed in Q4.	**45%**