

August 1st, 2022



North Dakota Industrial Commission
State Capitol – Fourteenth Floor
600 East Boulevard Avenue
Bismarck, ND 58505

Re: Project titled “Unlocking Lithium Extraction in Produced Water”

Renewable Energy Program,

Triple 8 LLC dba Wellspring Hydro (WH) is submitting this application for grant funds under Renewable Energy Program. Wellspring Hydro will utilize a unique feedstock from oilfield brines (a.k.a. produced water) that presently is treated and pumped into disposal wells. Wellspring Hydro’s project will produce three commercially essential products and lithium in a sustainable format that will diversify North Dakota’s economy, bolster existing industries with an improved cost position, and drive clean sustainable energy.

The focus of this project is on the renewable component of a sustainable lithium extraction process. Wellspring Hydro will complete this project with Prairie Lithium to complete bench scale and pilot scale testing for multiple approaches on extracting lithium from North Dakota’s produced water sources. The impact of this project includes;

- Utilized existing skills and infrastructure
- Localized supply chain from import dependency
- Reduced environmental impact through sustainable lithium mining
- Job creation to new production opportunities

We are requesting \$500,000 in support from the Renewable Energy Program. In return, Triple 8 LLC commits to matching \$500,000 in equity funds already raised.

If you have any questions or require additional information, please do not hesitate to contact Steve Kemp 701-770-8682 or stevek@wellspringhydro.com.

Steve Kemp, Founder

Wellspring Hydro

APPLICATION CHECKLIST

Use this checklist as a tool to ensure that you have all of the components of the application package. Please note, this checklist is for your use only and does not need to be included in the package.

<input checked="" type="checkbox"/>	Application
<input checked="" type="checkbox"/>	Transmittal Letter
<input checked="" type="checkbox"/>	\$100 Application Fee
<input checked="" type="checkbox"/>	Tax Liability Statement
<input type="checkbox"/>	Letters of Support (If Applicable)
<input checked="" type="checkbox"/>	Other Appendices (If Applicable)

When the package is completed, send an electronic version to Ms. Karlene Fine at kfine@nd.gov, and 2 hard copies by mail to:

Karlene Fine, Executive Director
North Dakota Industrial Commission
State Capitol – 14th Floor
600 East Boulevard Ave Dept 405
Bismarck, ND 58505-0840

For more information on the application process please visit:
<http://www.nd.gov/ndic/renew/info/submit-grant-app.pdf>

Questions can be addressed to Andrea Pfennig (701) 328-3786.



Renewable Energy Program

North Dakota Industrial Commission

Application

Project Title: Unlocking Lithium Extraction in Produced Water

Applicant: Triple 8, LLC Dba Wellspring Hydro

Principal Investigator: Mat Hirst

Date of Application: August 1, 2022

Amount of Request: \$500,000

Total Amount of Proposed Project: \$1,000,000

Duration of Project: 6 Months

Point of Contact (POC): Steve Kemp

POC Telephone: (701) 770-8662

POC Email: stevek@wellspringhydro.com

POC Address: 4828 Highway 85

Williston, ND 58801

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ABSTRACT

Objective:

Wellspring Hydro is partnered with Canadian company, Prairie Lithium, who has developed a patented technology platform capable of 99.7% lithium uptake from produced water streams. Wellspring Hydro and Prairie Lithium are now working together with the intent of licensing extraction technology for use with Wellspring Hydro's process. In addition to licensing, a Joint Venture is being discussed to scale quickly for a rapidly changing lithium landscape in North America. This project will progress the relationship on both front by focusing on two key workstreams;

1. Bench Scale Testing
2. Pilot Scale Testing

Expected Results:

The output of this grant study will result in proof of technological and economic feasibility of extracting lithium from a North Dakota produced water source, specifically the Bakken and Three Forks formations. Wellspring Hydro and Prairie Lithium will not be limited to only these formations and further development will support proving out additional horizons. In the near term this study will help lead to the full-scale development of over 10,000 BBL extraction in 2024/2025. The initial 10,000 bbls per day extraction will represent nearly a half a ton of lithium carbonate extraction per day totaling up to 180 tons per year.

Four factors determine the viability of successful lithium extraction with this technology;

1. Availability of water
2. Availability of Salt Water Disposal
3. Hydrochloric acid supply
4. Caustic Soda supply

Of these four factors Wellspring Hydro solves for all four during the initial plant build out. Expansion plans will require only more water supply and disposal. Current supply relationships and successful demonstration of a pilot plant will pave the way to extract up to 20,000 tons of lithium per year safely and in an environmentally sustainably format from current waste streams in North Dakota oilfields.

Duration:

This project will be focused over 6 months, with a focus on Bench and Pilot Scale Testing.

Total Project Cost:

Total of \$1,000,000 project cost. Wellspring Hydro is requesting \$500,00 from the Renewable Grant to support the scope to unlock lithium extraction from produced water.

Participants:

The project will be managed by Wellspring Hydro and Prairie Lithium's management teams. In addition, the initial lab process will be supported by Veolia and 3rd party validation supported by IsoBrine and Energy Labs.

PROJECT DESCRIPTION

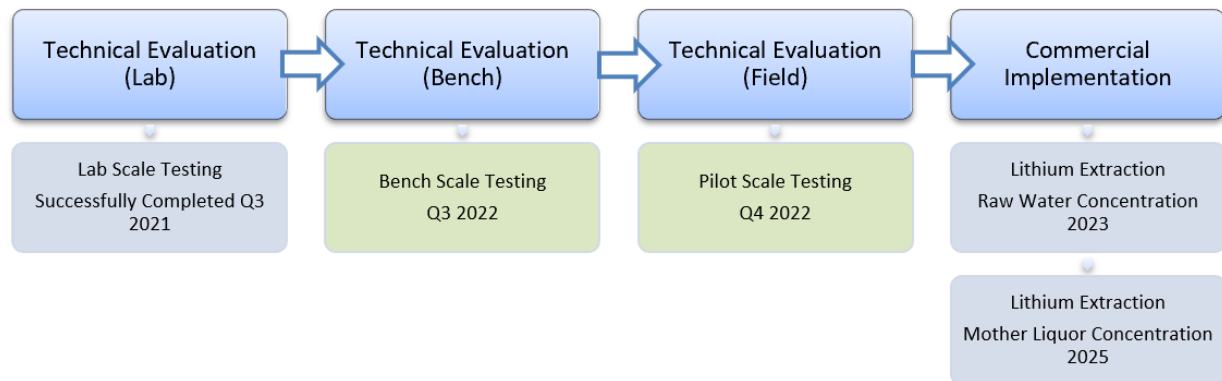
Objectives:

Wellspring Hydro is a locally founded North Dakota company with a mission to unlock the full potential of produced water into a feedstock for sustainable clean energy. Wellspring Hydro is requesting financial support for the final developmental step prior to commercializing an innovative solution that will diversify the state's economy through an environmental solution. The Wellspring Hydro process is new and emerging technology focused on developing products from various renewable components, including produced water waste stream as the key feedstock.

Based on the bench and pilot plant work, the overall lithium recovery across the CPF is expected to exceed 75%, meaning that more than 75% of the lithium entering the CPF will be captured and turned into saleable product. The processing concept is expected to be technically feasible but has not yet been proven on a commercial scale, nor has it been fully tested or optimized to identify bottlenecks and operating limits.

The ultimate objective of this project is to progress the technical and commercial development to align with a full-scale lithium extraction operation in North Dakota. The completion of this field trial and detailed engineering will reveal opportunities to optimize the design, reduce capital costs (CAPEX) and operating costs (OPEX), and improve reliability and ease of operation.

Bench & Pilot Scale Critical Path to Commercial Implementation



Methodology:

This project will progress the relationship by focusing on two key workstreams;

1. Bench Scale Testing
2. Pilot Scale Testing

Bench scale testing: The initial focus on demonstrating the effectiveness of lithium extraction using Plix according to Prairie Lithium specifications. The bench scale testing was completed in June of 2021, and will be re-completed to provide additional data prior to pilot scale testing.

The methodology for the bench scale testing are listed below:

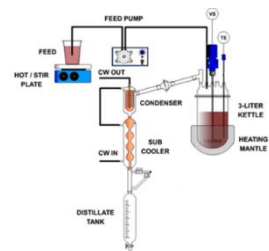
1. Wellspring Hydro Water Samples from Goliath SWD

Four 50L containers filled from the Hess Goliath Salt-Water-Disposal facility with supervision from Hess operations. Prior to samples collected, due diligence is completed with the local team to ensure normal operations and procedures in place. The water weight will be measured prior to sending to Veolia.



2. Veolia Bench Scale Crystallizer

Veolia's Standard Bench Scale Crystallizer was used to perform the sodium chloride crystallization. The equipment consisted of a feed tank, evaporator body, condenser, distillate cooler and distillate receiver. A schematic diagram is shown on the right. The crystallizer body is a three-liter cylindrical glass vessel with a hemispherical bottom and is heated with an external electrical heating mantle.



3. Prairie Lithium Plix Bench Scale

Bench testing provides a first pass check that the brine and Prairie Lithium PLIX solutions are compatible for Li extraction. Relatively small amounts of brine totaling 20L are first introduced to an activated PLIX solution and allowed to react at which point the Li extraction takes place. The brine/PLIX is then separated and washed leaving the PLIX and recovered lithium. The lithium laden PLIX is then pH adjusted to release the Li as LiCl at which point the PLIX is filtered, washed and reactivated to extract more lithium.

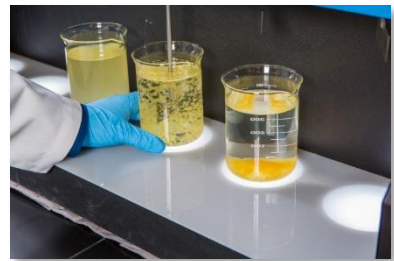


Pilot scale testing: The initial focus on demonstrating the effectiveness of lithium extraction using Plix in a field trial using modular equipment in Goliath, North Dakota. Grant support will primarily be utilized to support the Wellspring Hydro and Prairie Lithium team through a typical engineering challenge, scale up. To minimize the effects of scale up the focus will be to focus on Preparation from Bench Scale results to Pilot Trial in the field. This trial will be designed specifically to validate the efficacy of the Prairie Lithium process on raw untreated Hess brine. To validate and duplicate results in a constructive format the trial will be no less than two weeks in duration.

The methodology for the pilot scale testing are listed below:

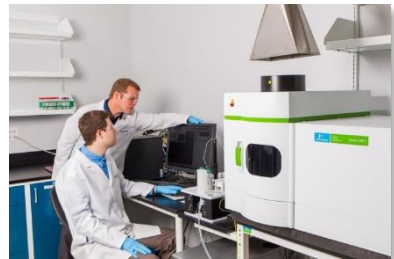
1. Preparation/Bench Testing Phase

During the preparation phase of bench to field pilot prior bench testing on the concentrated mother liquor brine will be repeated along with the introduction of a raw brine bench test to further confirm the process on fluid with lower concentrations of Li. The concentration of lithium is not generally a limiting factor with the proprietary Prairie Lithium process but will require planning for additional water processing.



2. Planning Phase

During the planning phase Wellspring Hydro and Prairie Lithium will travel to meet with strategic partners such as Hess Midstream, Hess Corp, Goodnight Midstream, general equipment providers and logistics companies. The purpose of these meeting will be to select; a location to complete the trial, equipment needed, and support setting the trial up.



3. Field Trial Phase

During the field trial the focus will be to safely demonstrate at up to a 5gpm scale the ability to replicate bench testing results on live brine over the course of two weeks. The operations will not be continuous over the period but rather daylight operations with the goal of multiple hour runs each day to provide replicable results.



Anticipated Results:

Bench scale testing: The initial focus on demonstrating the effectiveness of lithium extraction using Plix according to Prairie Lithium specifications. The results will lead to the development of concentrated mother liquor lithium extraction that can be significantly accretive as an additional process of the Wellspring Hydro Chlor-Alkali facility.

The quantitative anticipated results from the bench scale testing are listed below:

- Consistent results with June 2021 bench scale testing (see appendix 2) with 99.6% of selective lithium extraction from the brine in CF4.
- Plix to result in selective extraction of lithium from brine with a > 90.0% rejection for sodium (Na), magnesium (Mg), calcium (Ca) and potassium (K).
- Kinetics of the adsorption process result in > 90.0% of the feed lithium to be extracted from brine in 5 minutes; and Lithium to be stripped from Plix with a single pass recovery of >80%.

Pilot scale testing: The initial focus on demonstrating the effectiveness of lithium extraction using Plix in a field trial using modular equipment in Goliath, North Dakota. The results will lead to the development of raw water lithium extraction that can be scaled quickly and effectively with the support of the Wellspring Hydro Chlor-Alkali facility.

The quantitative anticipated results from the pilot scale testing are listed below:

- Results proving technical and economical feasibility to extract lithium from a raw water source.
- Plix to result in selective extraction of lithium from brine with a > 80.0% rejection for sodium (Na), magnesium (Mg), calcium (Ca) and potassium (K).
- Kinetics of the adsorption process result in > 80.0% of the feed lithium to be extracted from brine in 5 minutes; and Lithium to be stripped from Plix with a single pass recovery of >75%.

Facilities:

Subject matter experts will assist in research, development and pilot testing. The facilities required for this project include;

1. Hess Salt Water Disposal Facility, Goliath, ND
2. Veolia HPD– Evaporation/Crystallization Design, Plainfield, IL
3. Prairie Lithium – Lithium Extraction, Calgary, CA
4. Energy Labs – Water Analysis Laboratory - Billings, Montana
5. IsoBrine - Water Analysis Laboratory – Calgary, Alberta

Resources:

Resources include experts and facilitates from Wellspring Hydro, Prairie Lithium, Veolia and Hess. Along with these official management resources, this project will depend on insights and guidance from the NDIC, DEQ and other state support.

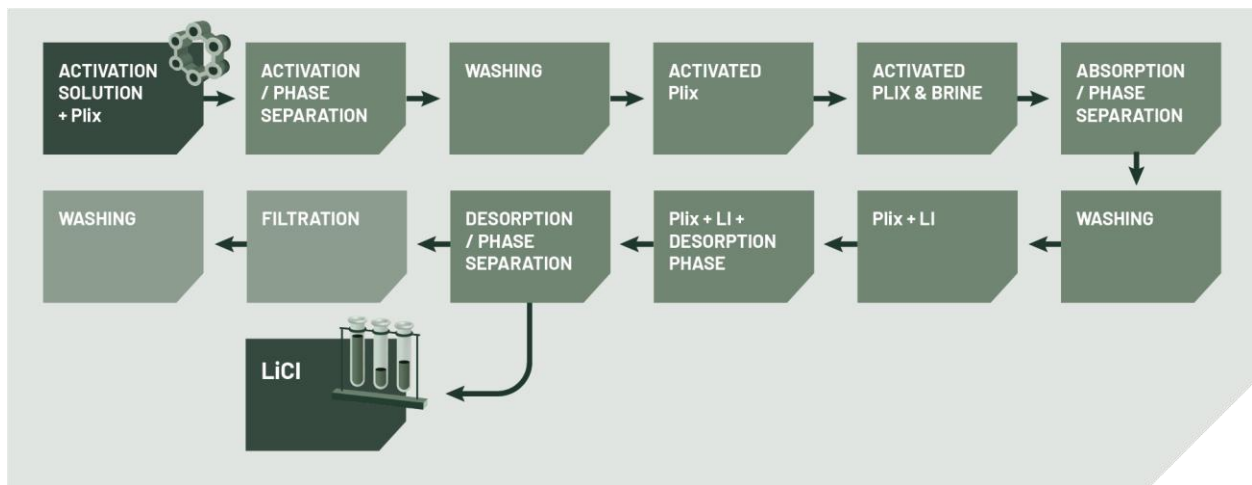
Techniques to Be Used, Their Availability and Capability:

In the initial step of the Bench Scale test, Veolia's Standard Bench Scale Crystallizer was used to perform the sodium chloride crystallization. The equipment consisted of a feed tank, evaporator body, condenser, distillate cooler and distillate receiver. The Salt Crystallization process is a proven technology to create high quality salt from brines.

Following the salt crystallization step and in the pilot scale test, Prairie Lithium has developed an ion exchange material called Plix that has been shown to extract an average of 99.7% of lithium from brine in five minutes. This claim is based on a 3rd party verification report prepared in April 2021 by Coanda Research and Development. Lithium can be stripped from Plix with a single pass recovery of 92%. Plix is manufactured by Prairie Lithium using proprietary raw materials and reaction conditions.

Bench scale test for lithium extraction was performed at the Prairie Lithium laboratory under the supervision of Coanda Research and Development. The bench scale testing procedure is comprised of the stages illustrated in Figure Error! No text of specified style in document..1.

Figure Error! No text of specified style in document..1: Illustration of the Lithium Extraction Testing Procedure



Plix can be used for selective extraction of lithium from brine with a 99.9% rejection for sodium, 98.5% for magnesium, 98.3% for calcium and 99.9% for potassium.

Based on the bench and pilot plant work, the overall lithium recovery across the CPF is expected to exceed 75%, meaning that more than 75% of the lithium entering the CPF will be captured and turned into saleable product.

The processing concept is expected to be technically feasible but has not yet been proven on a commercial scale, nor has it been fully tested or optimized to identify bottlenecks and operating limits. The individual unit operations used in the proposed flowsheet are common to, and proven in several industries, and equipment suppliers with the requisite design, construction and operations experience

are available. Detailed engineering will reveal opportunities to optimize the design, reduce capital costs (CAPEX) and operating costs (OPEX), and improve reliability and ease of operation.

Environmental and Economic Impacts while Project is Underway:

The project will include sampling, lab testing, and field testing. All testing will have very limited environmental and economic impact during the next six months with thorough safety and risk assessment work prior to implementation.

Ultimate Technological and Economic Impacts:

Prairie Lithium intends to develop its land base by applying its Direct Lithium Extraction (DLE) technology using their proprietary ion exchange technology (Plix). This technology eliminates the need for large solar evaporation ponds since lithium-rich brine is passed through a solid lithium selective ion exchange material that captures the lithium. The lithium is stripped (eluted) as a chloride solution that may be converted to lithium carbonate or hydroxide monohydrate or left as lithium chloride. Lithium carbonate and hydroxide are two key compounds used in lithium-ion batteries. The lithium can also be stripped as a sulphate solution.

Lithium extraction in North Dakota by Wellspring via Prairie Lithium is attractive for the Williston area and North Dakota for many reasons; it does not require the surface area needed when compared to traditional solution mining which demands large evaporation ponds. The water used in Wellspring hydro's process is water that is recycled from the influent stream that is a current oilfield waste stream not being utilized. The process does not need the 500,000 gallons of water traditionally required to extract a single ton of lithium, Lastly, the process requires hydrochloric acid and caustic soda which Wellspring Hydro produces at its plant. This synergistic effect further reduces the production cost of North Dakota lithium.

Ultimate Benefits;

- Utilizing existing skills and infrastructure
- Localized supply chain from import dependency
- Reduced environmental impact through sustainable lithium mining
- Job creation to new production opportunities

Why the Project is Needed:

Wellspring Hydro and Prairie Lithium are focused on bringing Lithium production to North America based on the market need;

- **Growing Lithium Demand** – Without the introduction of new mines or new technologies, it is expected that lithium demand will outpace supply this decade. The growth has been driven by lithium grade batteries and electronic vehicle production around the world.

- **Sustainable Future** – Responsible energy development will be crucial as global energy requirements continue to increase. This lithium extraction process has significant technological and environmental benefits compared to the current production processes.
- **Purity of Product** – Lithium chemicals for batteries are subject to very stringent purity requirements. In-depth knowledge of chemical processing is required to bring a quality product into production. With growing demand, the requirement for the right extraction processes will be key to success.

- **STANDARDS OF SUCCESS**

Measurable Deliverables

Bench scale testing: The quantitative anticipated results from the bench scale testing are listed below:

- Consistent results with June 2021 bench scale testing (see appendix 2) with 99.6% of selective lithium extraction from the brine in CF4.
- Plix to result in selective extraction of lithium from brine with a > 90.0% rejection for sodium (Na), magnesium (Mg), calcium (Ca) and potassium (K).
- Kinetics of the adsorption process result in > 90.0% of the feed lithium to be extracted from brine in 5 minutes; and Lithium to be stripped from Plix with a single pass recovery of >80%.

Pilot scale testing: The quantitative anticipated results from the pilot scale testing are listed below:

- Results proving technical and economical feasibility to extract lithium from a raw water source.
- Plix to result in selective extraction of lithium from brine with a > 80.0% rejection for sodium (Na), magnesium (Mg), calcium (Ca) and potassium (K).
- Kinetics of the adsorption process result in > 80.0% of the feed lithium to be extracted from brine in 5 minutes; and Lithium to be stripped from Plix with a single pass recovery of >75%.

Value to North Dakota

This project can lead to significant environmental, technological, and economic impacts to the state of North Dakota. Through the successful implementation of this project, Wellspring Hydro can help demonstrate the value of produced water from Oil & Gas operations. North Dakota Oil and Gas Research Program will be able to prove the technical process and validation of taking valuable resources out of produced water. The ultimate standard of success would provide North Dakota with a key piece in a future of lithium production.

The commercial value of the Bench Scale Test to North Dakota in both the private and public sectors include:

- Concentrated Lithium Extraction from the mother liquor stream on a salt crystallizer process, which will be submitted for a process patent and drive future technology developments in North Dakota.
- Improved economics of the Chlor-Alkali facility that will produce three commercially essential products and lithium in a sustainable format that will diversify North Dakota's economy, bolster existing industries with an improved cost position, and drive clean sustainable energy.

The commercial value of the Pilot Scale Test to North Dakota in both the private and public sectors include:

- Proven feasibility of lithium extraction from raw water produced streams. This could yield in expanding from 10,000 – 20,000 BBL per day scope to the Bakken total water production

rate of over 1,500,000 BBL per day disposal rates. This not only could impact the over pressurization impact of salt water disposals, but also provide a significant North America source of lithium.

Reduced Environmental Impacts & Increased Energy Efficiency

Oil and gas operations in the Williston Basin dispose of 1.5 - 1.8 million barrels (63-75 million gallons) of produced water per day. This is roughly 25% more than all of the industrial process water uses in North Dakota. Wellspring Hydro's scope focuses on 10,000 -20,000 barrels per day, but its vision is to create valuable commodity and rare earth metals extraction through alternate water utilization.

The value created by Wellspring Hydro lies not just in the lithium in Williston Basin produced water but in Wellspring Hydro's patented process of removing salt from waste oilfield produced water which in turn concentrates the feed brine into a "mother liquor" stream. This concentrated mother liquor creates ideal feedstock as it increases the lithium by a factor of up to 4x. This concentration allows for even more efficient extraction by Wellspring Hydro over the standard brine process.

Energy Sustainability

Lithium extraction in North Dakota by Wellspring via Prairie Lithium is attractive for the Williston area and North Dakota for many reasons; it does not require the surface area needed when compared to traditional solution mining which demands large evaporation ponds. The potential for carbon neutrality is feasible with further partnerships. The water used in Wellspring hydro's process is water that is recycled from the influent stream that is a current oilfield waste stream not being utilized. The process does not need the 500,000 gallons of water traditionally required to extract a single ton of lithium, Lastly, the process requires hydrochloric acid and caustic soda which Wellspring Hydro produces at its plant. This synergistic effect further reduces the production cost of North Dakota lithium.

The value created by Wellspring Hydro lies not just in the lithium in Williston Basin produced water but in Wellspring Hydro's patented process of removing salt from waste oilfield produced water which in turn concentrates the feed brine into a "mother liquor" stream. This concentrated mother liquor creates ideal feedstock as it increases the lithium by a factor of up to 4x. This concentration allows for even more efficient extraction by Wellspring and Prairie Lithium over the standard brine process. Due to this concentration upgrade, the potential for up to 3.5 tons of lithium extraction per week is achievable and will yield nearly 3.5M in new revenue and 91,000,000 gallons of water saved. Lithium production in North Dakota will provide sustainable energy and local supply chain to meet the growing lithium demand – specifically in electric vehicles.

How the project will enhance the research, development and technologies that reduce environmental impacts and increase sustainability of energy production and delivery of North Dakota's energy resources.

Wellspring Hydro will enhance the development and operations of technologies that reduce environmental impact by validating a new lithium mining process that is step change in efficiency and sustainability.

How it will preserve existing jobs and create new ones.

Wellspring Hydro will preserve existing jobs by supporting the oil and gas industry through lower costs, readily available commodities to ensure wells can be completed and produced a \$/barrel that is in line with that of competing states. The production plant will create up to 60 fulltime high paying jobs ranging from front office to production crews.

BACKGROUND/QUALIFICATIONS

Wellspring Hydro

Wellspring Hydro is a locally founded North Dakota company with a mission to unlock the full potential of produced water. The company was originally founded on Steve Kemp's vision of recovering Lithium from produced water. After preliminary research, Wellspring Hydro focused on executing a business plan to turn Bakken produced water into valuable resources by utilizing salt recovered from the brine to create caustic soda, hydrochloric acid, and other valuable products. Through FEL-2 and FEL-2.3 engineering studies and the partnership with Prairie Lithium, Wellspring Hydro has identified a practical path forward to extract lithium.

MARK WATSON, MBA CHIEF EXECUTIVE OFFICER

Mark has over 12 years-experience in acquisitions/mergers, project management, and entrepreneurial start-ups. Mark, MBA, specializes in developing business plans, financial modeling, marketing analysis, and valuation/capital funding. Mark's industry and operational experience include chemical and water treatment across the globe.

MAT HIRST CHIEF OPERATING OFFICER

Mat has over 15 years-experience in developing sales and operations teams in the oil and gas industry. Mat, based in Bismarck, ND, specializes in water technologies with expertise in executing sales strategies, people management, and driving operational efficiencies. Mat spent over 10 years focused on treating Bakken produced water and developed the ARROW (Applied Reuse Recycle of Oilfield Water) facility in Denver, CO.

NORM CHRISTENSEN TECHNICAL ADVISOR

Norm's career has spanned more than 40 years, including direct involvement in the chlor-alkali industry in both North and South America. A chemical engineer, Norm has held senior positions in both Fortune 100 and small companies in engineering, operations, sales and marketing and general management roles. Norm recently (2015) oversaw on the construction of a chlor-alkali facility in San Antonio, TX.

STEVE & CARLA KEMP FOUNDERS

Steve and Carla are local entrepreneurs that founded Wellspring Hydro in 2016 and are based in Williston, ND. Steve and Carla have started multiple ventures in IT, real estate, and financial markets

Prairie Lithium

Prairie Lithium has been developing its lithium extraction materials, and process since November 2019. Prairie Lithium operates its lithium extraction technology at its testing & laboratory facility in Emerald Park, Saskatchewan.

In September 2021, Prairie Lithium completed a drilling program for its discovery #1 lithium brine well (101/14-33-002-12W2M) located near the town of Torquay, Saskatchewan. Prairie Lithium is of the opinion this may be the first well drilled for lithium brine in Canada. A successful re-entry program on a wellbore in the area (104/01-02-001-12W2) has allowed Prairie Lithium to further delineate the extent of lithium in the Duperow Formation Aquifer which hosts lithium-rich brines. Prairie Lithium will continue to delineate lithium across its land base through additional drilling and re-entry opportunities.

ZACH MAURER, B.SC.

PRESIDENT & CHIEF EXECUTIVE OFFICER

Zach grew up farming in southeast Saskatchewan near Prairie Lithium's core project area. He entered the energy sector in 2009 and worked his way from a roughneck into consulting roles. During his consulting career, he managed environmental and hydrogeologic projects in Canada and the United States. In 2019, he incorporated Prairie Lithium. He has since lead multiple rounds of private equity funding and established Prairie Lithium as the first and largest active lithium brine developer in their project region. He holds a B.Sc. in Geology from the University of Regina and is currently conducting M.Sc. research on lithium hydrochemistry in the Williston Basin. He also holds a Diploma in Exploration Information Technology from the South Alberta Institute of Technology (SAIT).

JARED MILLS

CHIEF OPERATING OFFICER

Jared is active in agriculture, real estate and resource ventures. As the President of Cross Borders Drilling, he built and operated one of the largest drilling rig fleets in Western Canada. Cross Borders developed many drilling applications that are currently applied throughout oil sands, potash, uranium, coal and traditional oil & gas drilling. At peak times, he led a team of over 250 people managing \$100M in projects. He has a proven track record in operational management and project execution.

IAN IRELAND, PH.D.

CHIEF TECHNOLOGY OFFICER

Ian holds a Ph.D. in Chemistry from the University of Alberta. He has over 20 years of industrial experience in fields ranging from ultra high sensitivity analysis of biomolecules, large scale organic synthesis and GMP manufacture of cancer vaccines, bioremediation, environmental consulting, waste to energy systems and industrial wastewater treatment. He has particular expertise in analytical chemistry, as well as product, technology and process development. In his capacity as lead scientist and corporate officer, he has successfully developed technologies from lab scale to commercial deployment for industrial applications.

MANAGEMENT

The Wellspring Hydro and Prairie Lithium team plan to have a bi-weekly frequency to discuss project details, review action items and assign outstanding tasks. The meeting will consist of Mark Watson (CEO Wellspring Hydro), Mat Hirst (COO Wellspring Hydro), and Ian Ireland (CTO Prairie Lithium)

In addition, there will be alignment from the Veolia salt crystallizer bench scale driven by a weekly call from Wellspring Hydro COO Mat Hirst.

Management Process:

1. Bi-Weekly Wellspring Hydro and Prairie Lithium Call
2. Weekly Wellspring Hydro and Veolia Call
3. Weekly Wellspring Hydro and Hess Call
4. Monthly Project Call – Wellspring Hydro, Prairie Lithium, Veolia and Hess.
5. Detailed Schedule Review/Approval for Kickoff
6. Completion of bi-monthly status reports to Renewable Energy Program

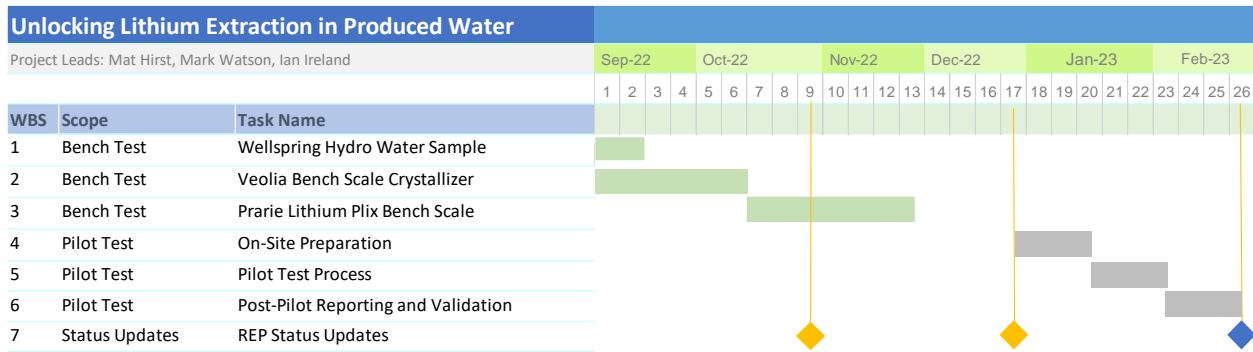
Significant Milestones:

These critical milestones will ensure the project meets the timeline expectations and anticipated results, with time to address any issues or challenges.

1. First Status Report
 - a. Tasks Completed - Veolia bench scale results complete and with expected mother liquor characteristics before being sent to Prairie Lithium's lab.
 - b. Tasks Upcoming – Prairie lithium bench scale study as the final step of the bench scale testing for lithium extraction.
2. Second Status Report
 - a. Tasks Completed - Completion of bench scale results with a detailed output on lithium extraction, along with added expectations of economic output.
 - b. Tasks Upcoming – Pilot scale process and coordination in Goliath, ND. This will require resources, manpower and equipment to complete the pilot testing on site.
3. Final Status Report
 - a. Tasks Completed - Completion of pilot scale results

TIMETABLE

Wellspring Hydro plans to begin the project immediately, with the bench test process lined out with Hess, Veolia, and Prairie Lithium. Given the holiday schedules in December, there is a gap between the bench test and pilot test. This would also give us a 4 week buffer for a delayed project start or additional time required for the bench test.



Key Timelines

Project Start – September 1st

First Status Report – October 26th

Bench Test Completion – November 30th

Second Status Report – December 30th

Pilot Test Completion – February 22nd

Project Completion – February 28th

BUDGET

Project Associated Expense	NDIC's Share	Applicant's Share (Cash)	Applicant's Share (In-Kind)	Other Project Sponsor's Share
Lithium Extraction Bench Scale	\$90,250	\$90,250		
Lithium Extraction Pilot Scale	\$409,750	\$409,750		
Total	\$500,000	\$500,000		

Please use the space below to justify project associated expenses, and discuss if less funding is available than that requested, whether the project's objectives will be unattainable or delayed.

Wellspring Hydro Cash Match

Wellspring Hydro has raised \$500,000 USD to match this grant request and prioritize the development of lithium extraction.

Lithium Extraction Bench Scale

In Appendix 3, Veolia has outlined their bench scale proposal at \$105,500 USD to be completed as the first step of the lithium extraction bench scale. Following this, Prairie Lithium has prepared an estimate of \$75,000 USD. The total cost of the Lithium Extraction Bench Scale results in \$180,500 USD.

Lithium Extraction Pilot Scale

Category	Description	Cost
Initial Lab Testing	Lab testing of water characteristics between Bench Scale and Pilot Scale	\$50,500 USD
Equipment Rental	Modular equipment from Prairie Lithium Canadian operation, including transportation and set-up.	\$650,000 USD
On-Site Trial	Paid time, expenses, and cost	\$50,000 USD
Report Results & Post Lab Testing	Turn-around of data and 3 rd party review for Prairie Lithium and Wellspring Hydro validation	\$69,000 USD
Total		\$819,500 USD

CONFIDENTIAL INFORMATION

Section: Techniques to Be Used, Their Availability and Capability – includes proprietary and patent pending information.

PATENTS/RIGHTS TO TECHNICAL DATA

Section: Techniques to Be Used, Their Availability and Capability – includes proprietary and patent pending information.

STATE PROGRAMS AND INCENTIVES

Wellspring Hydro has a long-standing partnership with North Dakota from the original concept stage supported by UND, NDIC and City of Williston. The support from the state has allowed Wellspring Hydro to fund the research and development into this novel process (patent pending).

Agreement	Company/Division	Investment	Commentary
Research Grant	NDIC	\$110,000	Concept support with UND partnership starting in 2016
Grant Match	City of Williston Star Fund	\$225,000	Investment into Concept Stage and FEL-2 Engineering with development in Trenton
Promissory Note	ND Dev Fund	\$250,000	Investment into successful FEL-2 engineering and design work in 2020
Promissory Note	ND Dev Fund	\$750,000	Investment into commercial and technical development, highlighted by Veolia Pilot Lab
Grant	CSEA	\$1,000,000	CSEA grant for FEL-3 engineering funds for chlor-alkali development
Total Investment		\$2,335,000 USD	

APPENDIX

1. Tax Liability Statement
2. Wellspring Hydro – Veolia Report 2021
3. Wellspring Hydro – Lithium Analysis 2021
4. Veolia Lab Proposal 2022