waterStrider

TREATMENT

Breakthrough Technology to Revolutionize Mine Water Treatment

Corporate Presentation

Website: www.waterStridertmt.com

Introducing waterStrider

- Cleantech company – privately owned, Vancouver, B.C.
- Patented water treatment technologies: game-changing for mining industry
- Major cost savings and operating benefits over other systems
- Recent partnership with RESPEC, a leading engineering and geoscience firm with deep expertise in mine water management, to jointly pursue mine water treatment projects across North America
- Strategically located and fully equipped pilot facility in Vancouver, BC
- Experienced and diverse team

Today's water treatment technologies are stuck in the past: mining water treatment needs a 21st century upgrade

- Tighter regulations and ESG standards challenge social license for mines to operate
- Increasing requirements to remove contaminants that legacy technologies cannot effectively meet
- Many mines are using multiple water treatment systems – very costly and inefficient
- Penalties for non-compliance can be substantial (up to US$ 100m+)(1,2)
- Annual mine water treatment costs are forecast to exceed US$12 Billion by 2031(3)

Giant Mine, NWT, Canada

Arsenic remediation costs at Giant Mine estimated at $4.4 billion

1 https://www.justice.gov/archives/opa/pr/duke-energy-subsidiaries-plead-guilty-and-sentenced-pay-102-million-clean-water-act-crimes

2 https://www.canada.ca/en/environment-climate-change/news/2021/03/teck-coal-limited-to-pay-60-million-under-the-fisheries-act-and-must-comply-

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Our patented solutions are commercially-ready and poised to completely disrupt mine water treatment

Amprey™

- Uses proven electro-chemical technology
- Removes significantly more toxic metals and other contaminants than any incumbent solution
- Reduces reaction times from hours/days to minutes - enabling major throughput improvements

Misty™

- Captures CO_2 gas on-site, producing a safe and inexpensive acid to reduce pH of treated water.
- Removes need for costly and high-risk acids to be brought to site
- Uses air to remove iron and ammonia, and ozone to destroy cyanide – rapidly

waterStrider's solutions are modular, scalable, and highly configurable to a site's specific requirements ensuring maximum value for our customers

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waterStrider is a complete step change for the industry - the results speak for themselves

- **Powerful:** uses proven science to remove **up to 99.9%** of metals and contaminants
- **Fast:** patented process of applying electricity exponentially **decreases critical reaction times** – ***lower op costs***
- **Cost-Effective:** removes metals and difficult contaminants **in one enclosed system** and **at lower pH levels – *lower op costs***
- **Safe:** our by-product **does not leach** and is **90% less in volume – *lower costs and risks for managing waste by-product***

Quality Comparison	Mine Water Treatment System			
	waterStrider	Lime	Active Biological	Ion Exchange
Removes:				
Selenium	✓	x	✓	✓
Sulphate	✓	✓	x	x
Nitrate	✓	x	✓	x
Metal Contaminants	✓	✓	x	x
Waste By-Product:				
Does not Leach	✓	x	x	✓
Small in Volume	✓	x	x	✓
Dewaters Easily	✓	x	x	✓
Cost:				
Low Capex	✓	x	x	x
Low Opex	✓	✓	x	x
System Properties:				
Small Footprint	✓	x	x	✓
Quick to Install	✓	x	x	x
Works when Freezing	✓	x	x	✓
Occupational Safety	✓	✓	✓	✓

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Partnership with RESPEC to jointly pursue mine water treatment projects across North America

- Partnering with RESPEC expands waterStrider's ability to deploy our innovative technologies where they have the greatest impact
- About RESPEC:
  - RESPEC is a leading engineering and geoscience firm with deep expertise in mine water management across North America
  - Proven history of delivering complex projects in challenging environments
  - Their engineering leadership throughout testing, design, and implementation complements our scalable systems, creating integrated solutions for even the most difficult sites
- With this collaboration, clients can move more quickly from pilot to full-scale operations, backed by confidence in both performance and compliance

RESPEC Company, LLC – visit their website: https://www.respec.com/

Annual spend on mine water treatment is US$7.8B, growing to US$12.2B by 2031[1]

- Clean energy economy drives nearly 40x increase in demand for key minerals (lithium, copper, nickel, cobalt)[2]
- Canadian Federal government has a collective liability of C$10.1B for contaminated mine sites[3]
- North American market includes 50,000+ active and abandoned mines
- waterStrider's patented technology is directly transferable to oil & gas industry

Water treatment is a critical challenge for mining, and our technology is poised to disrupt it

[1]https://www.verifiedmarketresearch.com/product/water-and-wastewater-management-for-the-mining-market/
[2]https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/mineral-requirements-for-clean-energy-transitions
[3]https://www.oag-bvg.gc.ca/internet/English/parl_cesd_202404_01_e_44468.html

Proven team with history of execution and success

waterStrider - Operations and Executive

Andriyko Herchak
CPA, CA
CEO

25+ years in executive and financial leadership roles with public and private companies, including raising capital, public listings, operations, M&A, and directorships. Helped companies raise $150+ million and sell for $700+ million.

Dr. Rob Stephenson
PhD, P.Eng
CTO, Director and Founder

30+ years experience, PhD Chemical Engineering, develops patented and patent-pending physical, chemical and electrochemical technologies including treating water, wastewater, soil, and sludge.

RESPEC - Operations and Executive

Dr Mario Bianchin
PhD, P.Geo.
Director Mine Water Management & Advisor to waterStrider

As Director, Dr. Bianchin brings 30+ years of environmental engineering experience, driving execution of advanced water treatment solutions and building high-performing teams focused on innovation in tailings and mine water management.

Dr Niko Finke
PhD, P.Geo.
Senior Biogeochemist

Dr. Niko Finke, a geochemistry expert with 20+ years' experience evaluating geochemical aspects of natural and industrial systems, will support Amprey and Misty's technology maturation with Dr. Rob Stephenson, advancing water and waste innovation.

waterStrider - Board and Advisors

Jim Paterson
Director

A Principal of Discovery Group, with 27 years mining industry experience, including executive and board leadership at companies which raised in aggregate $300M+ in equity and participated in $1B+ in M&A transactions.

Robert J. Scott
CPA, CA, CFA
Director

25+ years professional experience in the areas of corporate finance, accounting and merchant and commercial banking. Rob helped raise over $200 million in equity and extensive experience in IPOs, RTOs, corporate restructuring, M&A and operations.

Sarah Weber
P.GEO, MBA
Advisor

CEO of C3 Alliance, she offers strategic guidance in community engagement, permitting, and communications. 20+ years of industry experience, including exploration and engineering geology, and mine water and mine waste management.

Rob Campbell
P.Eng., MBA, ICD.D
Advisor

20+ years experience in cleantech, including global experience with innovation and pioneering technologies to accelerate decarbonization, reduce pollution, and enable energy security. He is the former CEO of Energy at First Hydrogen Corp and former Chief Commercial Officer at Ballard Power Systems Ltd.

Additional Accomplishments

waterStrider named to Foresight Canada's 2024 #Foresight50 List (November 2024)

- Recognized as one of Canada's Top 50 most investible cleantech ventures
- waterStrider is only one of two companies involved in mine water treatment
- And the only one with proven commercially-ready technology

waterStrider awarded $1.26 million grant from the Mining Innovation and Commercialization Accelerator

- Awarded funds represent one-third of actual expenditures towards approved technology development, commencing 2022
- MICA Network was created through an investment from the Government of Canada's Strategic Innovation Fund

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For more information contact:

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Appendices &
Key Test Results

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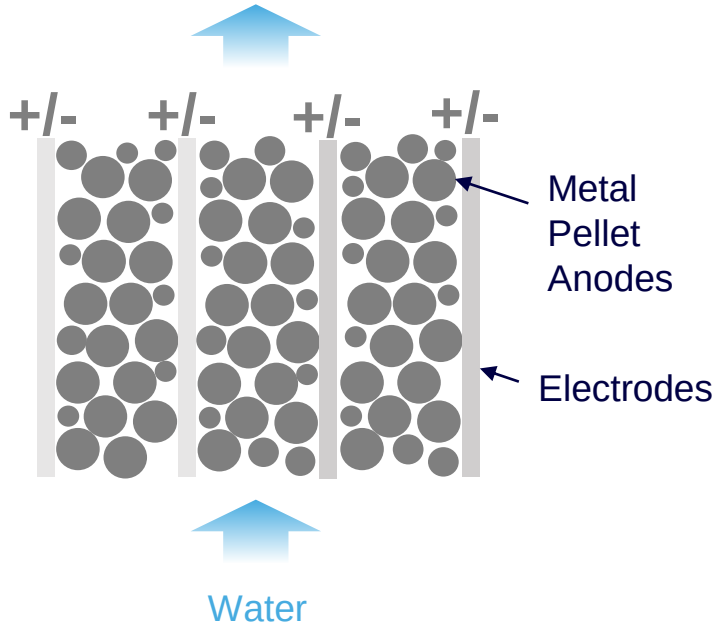
Amprey™ – electrochemical cell to remove metals and other contaminants quickly



What it does

- Adjusts pH and ORP (Oxidation reduction potential)
- Adds reactive dissolved metal cations
- Creates conditions to remove metals and contaminants very quickly

How it works

Amprey cell:

- Upflow bed of consumable metal (Fe, Mg, Al) pellets
- Electric current flows between titanium rod electrodes
- Metal pellets act as stepping-stones between electrodes to complete electric circuit and dissolve pellets

Electric current:

- Significantly accelerates rate that metal pellets are dissolved

Why this is useful

- Dissolved metal ions oxidize to consume oxygen and create reducing conditions to remove wide range of metals and other contaminants (selenium, sulphate, nitrate)
- Remove (occlude / co-precipitate / coagulate) dissolved contaminants irrespective of pH – removes need to raise pH with chemicals ***– saves time and money***
- Treatment in one enclosed system ***– saves time and money***

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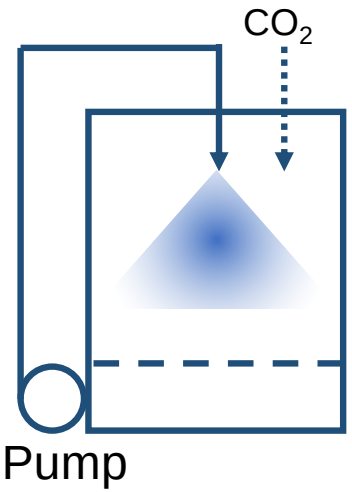
Misty CO_2™ – converts diesel exhaust into acid on-site to reduce pH of treated water

Replaces the need to ship, handle and store expensive and hazardous concentrated acid at mine sites

Misty CO_2



What it does

- Converts diesel exhaust to carbonic acid (non-hazardous)
- Lowers pH quickly for treated water
- Permanently sequesters CO_2 (no venting)

Why this is useful

- Much less energy and cost to put water into gas (vs. gas into water)
- Generates effective and safe acid on-site (CO_2) from electrical power generators
- Replaces need for expensive & hazardous acid on-site
- Captures carbon
- ***Saves money, improves worker safety & environment***

How it works

- Pumped recirculation of water through fine mist spray nozzles into a tank filled with CO_2 gas (no vacuum, no pressure)

Gas-Water Contact	Gas:Water
Misty droplets in gas	1,000:1
Bubbles in water	1:10
Misty's ratio increase	10,000x

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Spectacular Results

Toxic Water from Various Mines in Canada and U.S.

waterStrider can remove up to 99.9% of toxic metals

Contaminant	Project Type	Period (Q-Yr)	Untreated Water (parts per billion)	Permit Maximum (1) (parts per billion)	Best Treated (2, 3) (parts per billion)	Removal %
Aluminum	Uranium	Q1-23	779,719	62	**25**	**>99.9**
Arsenic	Manufactured	Q1-25	281	50	**<0.5**	**>99.9**
Cadmium	Manufactured	Q1-25	93	0.02	**<0.02**	**>99.9**
Cobalt	Gold	Q3-23	4,489	4.4	**1.82**	**>99.9**
Copper	Uranium	Q1-23	19,148	18	**<2**	**>99.9**
Iron	Manufactured	Q1-25	318,000	350	**<20**	**>99.9**
Lead	Manufactured	Q1-25	580	12	**<0.25**	**>99.9**
Lithium	Lithium	Q4-21	33,900	-	**29.6**	**99.9**
Molybdenum	Uranium	Q1-23	9,590	7,600	**313**	**96.7**
Nickel	Manufactured	Q1-25	4,380	60	**<0.4**	**>99.9**
Selenium	Manufactured	Q1-25	207	2	**<0.5**	**>99.8**
Uranium	Uranium	Q1-23	5,529	5300	**207**	**96.3**
Zinc	Uranium	Q1-23	549,000	30	**<20**	**>99.9**
Sulphate	Copper	Q2-23	1,486,000	1,600,000	**364,000**	**75.5**
Nitrate	Copper	Q2-24	5,930	10,000	**1,260**	**78.8**

(1) Per BC Water Quality Guidelines for Fresh Water Aquatic Life or individual mine permit

(2) Testing performed at 3rd party independent labs

(3) Results shown above are the best results achieved for the water tested and may not be replicated with other samples

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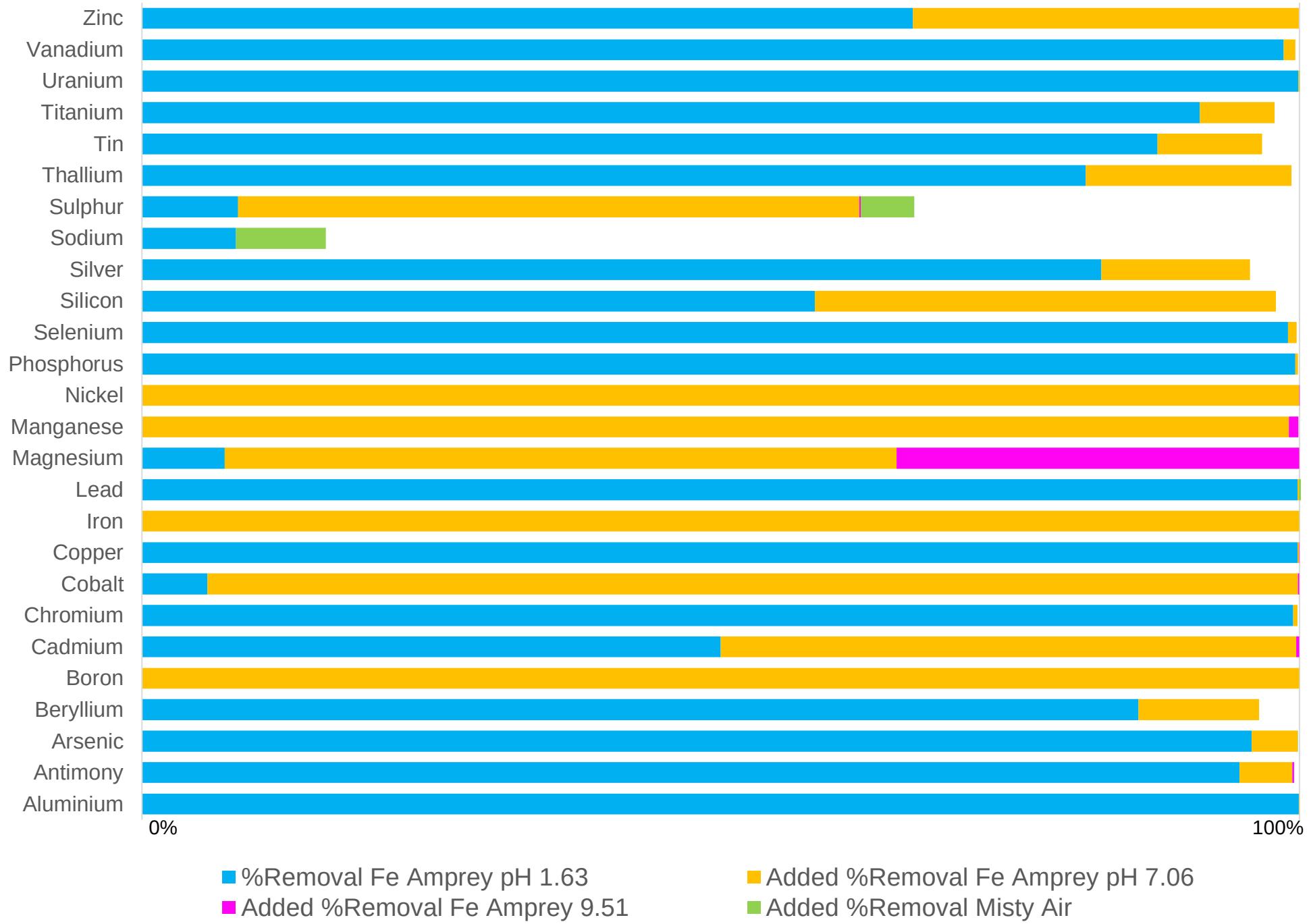
Fe Amprey removes dissolved metals under acidic and neutral pH

Percent removal by stage (formulated uranium mine water)



Waste By-Product is Stable and Non-Leachable

Major Benefits over Other Water Treatment Methods

waterStrider Solids (Waste By-Product)

- 90% less solids for disposal vs. lime
- Easily dewatered and chemically stable
- Increases potential for metals recovery
- Major CO_2 reduction

Metal	Filter Cake Content (mg/kg dry)	Leachate (mg/L) [2]	BC Limits [1] (mg/L)	Below Limit %
Arsenic	2.5	**<0.010**	2.5	**>99.6%**
Barium	100	**<1.0**	100	**>99.9%**
Boron	500	**<0.50**	500	**>99.9%**
Cadmium	0.5	**<0.001**	0.5	**>99.8%**
Chromium	5	**<0.050**	5	**>98.7%**
Copper	100	**<0.10**	100	**>99.9%**
Lead	5	**<0.010**	5	**>99.8%**
Mercury	0.1	**<0.002**	0.1	**>98.0%**
Nickel	500	**<0.10**	500	**>99.9%**
Selenium	1	**<0.020**	1	**>98.0%**
Silver	5	**<0.002**	5	**>99.9%**
Uranium	10	**<0.020**	10	**>99.8%**
Zinc	500	**<0.50**	500	**>99.9%**

(1) BC Hazardous Waste Legislation & Regulations Leachate Quality Standards Concentration in Waste
(2) Results from standard regulated TCLP tests performed at 3rd party independent lab