



MINERAL PROCESSING



Customer:	Vale Newfoundland and Labrador Limited
Project:	Vale Long Harbour Processing Plant (LHPP). The LHPP and the Voisey's Bay mine and concentrator are an integrated operation. Nickel concentrate from Voisey's Bay is shipped to Long Harbour to be processed into finished nickel and associated copper and cobalt products
Location:	Long Harbour, Newfoundland, Canada
Products Provided:	Shop fabricated FRP piping Fittings — 22,200 Flanges — 22,500 Pipe — 176,000 ft. (53,600 meters) Shop butt and wrap and stub-in joints — 10,000 Shop Adhesive Joints — 33,500 Supports FRP wear pads and thrust collars — 8,000 Steel supports — 12,000 FRP Stacks — 7
Services Provided:	FRP piping design engineering, stress analysis support, drafting services, bonding procedure specifications, on-site bonder training, bonder certification examination, in-shop assembly, and tests shop hydrostatic tests
Date:	Phase 1 production, March 2011 through August 2013; 9,300 shop assembled spools; 7 stacks, and loose pipe; fittings and kits to support subcontractor assembly of 2,000 spools. Operational in 2014 Phase 2 production, December 2015 through May 2016: 2,400 shop assembled spools
RPS Location:	Mahone Bay, Nova Scotia, Canada Minto, New Brunswick, Canada

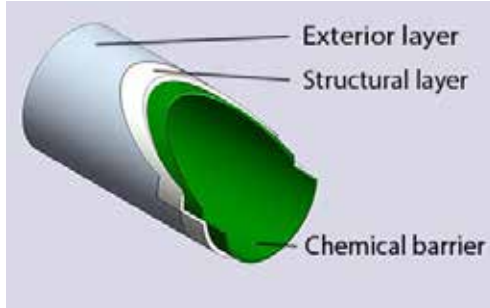
RPS Composites produced the majority of FRP pipe, fittings, flanges and related supports, as well as FRP stacks for this major mineral processing plant in Newfoundland. Our scope included shop fabrication of the piping into maximum shippable components to minimize the amount of field assembly. Project requirements included compliance to ASME B31.3, and fabrication of spools for registered piping systems in accordance with CSA B51. This included registration of fittings and flanges (CRN).



RPS makes it easier for our customers to realize the benefits of choosing composite piping and equipment. We provide our customers with smarter choices.



FRP pipe is resistant to a wide range of chemicals and temperatures used in mineral processing. Many types of corrosion attack that are harmful to steel pipe have no effect on FRP, including aerobic, galvanic, pitting, intergranular, and general corrosion.



RPS custom designs piping for specific applications with careful consideration given to raw materials costs, resin processability, conductivity, and resin properties such as chemical resistance, heat distortion temperature, tensile strength and modulus, and many others. Since the right corrosion liner is critical to the safety and reliability of any piping system, commodity pipe is rarely the right choice; it pays to customize your design to your needs. The wrong liner, at best, leads to cost overruns, at worse, it can mean premature failure and injury.

RPS Composites has been a trusted advisor to the mineral processing industry for decades. Typical services include:

Barium Hydroxide	Nitric Acid to 20%
Boric Acid	Organic Aqueous Solutions and Slurry
Chlorine Dioxide	Phosphoric Acid
Chlorine Gas	Plating Solutions
Chlorine Water	Salt Brine
De-ionized / Demineralized Water	Sodium Chlorate
Ferric Chloride	Sodium Hydroxide
Gypsum Slurry	Sodium Hypochlorite to 18%
Hydrochloric Acid to 37%	Solvent Extraction Solutions
Industrial Effluent	Spent Carbon Slurry
Limestone Slurry	Sulfuric Acid to 75%
Magnesium Chloride	

When the service conditions fall outside the acceptable criteria for FRP then our dual laminate piping solution may be considered. Dual laminate pipe systems incorporate a thermoplastic liner in an FRP structure combining the enhanced corrosion resistance of thermoplastics with the higher strength and load carrying capabilities of FRP. Dual laminate pipe systems extend the application of composites to more aggressive chemical environments and provide longer service life in many applications.

RPS carries a full line of vinyls, olefins, and fluoropolymers including polypropylene (PP), high density polyethylene (HDPE), polyvinyl chloride (PVC), chlorinated polyvinyl chloride (CPVC), polyvinylidene fluoride (PVDF), fluorinated ethylene propylene (FEP), perfluoroalkoxy (PFA), ethylene chlorotrifluoroethylene (ECTFE).

For the best advice on your next mineral processing project, speak with one of our trusted advisors at the number below.

On Site Services

When down time is measured in minutes.

When down time is measured in minutes, you can count on RPS On Site Services to do the job right, do it quickly, and do it safely.

- ◆ BROWZ verified
- ◆ MSHA certified

From emergency repairs 24/7, to quick turn arounds or longer scheduled shut downs, RPS can provide skilled and experienced technicians to extend the service life of your facility.

Inspection
Installation

Maintenance Contracts
Emergency Repair

Scheduled Turnarounds and Shutdowns

Last year, we delivered more than 117,000 field hours to industrial customers from nine locations in the USA and Canada. We also delivered peace of mind.

**Call one of our trusted advisors at
1-800-343-9355 to discuss
all your service needs.**

