



## TITANIUM PRODUCTION PILOT PLANT

Project Name	Titanium Production Pilot Plant
Customer	Undisclosed Overseas Mining and Metallurgical Multinational Firm
Location	PyroGenesis Technology Demonstration Facility, Montreal
Delivery	February 2013
Products/Services	Development Services, APT, Reactors
Capacity	Torches: 3 x 120 kW (360 kW) ; Feed Rate: Undisclosed
Feed	Titanium fluoride
Energy	n/a
PyroGenesis Role	Contract Research, including design, fabrication, installation, commissioning, testing and reporting activities
Other stakeholders	None

PyroGenesis designed, fabricated, and installed a pilot plant used to demonstrate a plasma processing technology which belonged to the customer. Specifically, the process involves the production of titanium metal from titanium fluoride (TiF<sub>3</sub>) through the disproportionation reaction. The customer used our team and its development services specifically to prove out the viability of the technology.

PyroGenesis was responsible for the whole development process of the plasma plant, from the initial concepts to design and fabrication. Working closely with its client, PyroGenesis fabricated, assembled, delivered and commissioned the pilot plant on time and within budget and obtain positive results in just a few weeks of testing.

The system used three 120 kW argon plasma torches (APT type) and graphite lined that allowed to easily reach very high processing temperatures, in excess of 1500 °C.

