Company Name and Contact Details:

Aquaflow Bionomic Corporation Limited
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Aquaflow Bionomic Corporation Limited was founded in Oct 2005 to develop economic and sustainable production of clean water and biocrude oil from wild micro algae.

The company was founded by three partners, Nick Gerritson, Vicki Buck and Barrie Leay who also established a match funded Government Technology Assessment Grant with other private shareholders. In 2007 $3.5 M was raised by a public prospectus and Pure Power Asia became a 19 % cornerstone shareholder.

The wild micro algae are predominantly sourced from municipal waste water treatment sites and provide a continuous biomass feedstock from these existing municipal infrastructures at a low feedstock supply cost.

Algae feed on a combination of nitrogen, phosphorous and carbon during the process of photosynthesis while they are in suspension in the waste water environment. The physical removal of the algae bio mass is a process that removes these nutrients, with the resulting water cleaned of these contaminants with improved coliform counts and lower BOD levels in the water body.
Local water authority pollutant consent levels can often be achieved to allow water discharge compliance, by the managed use of ponds and the harvesting of wild algae.

The algae biomass provides several different options for use including agricultural fertilizer / livestock feed derivatives and gasification/ pyrolysis process for bio fuel development.

Achievements:

The first Aquaflow derived biodiesel was used in a vehicle that was driven around Parliamentary grounds in Dec 2006

A continuous harvesting process of 70 m^3/hr capability was initiated at the Blenheim city waste water facility in Feb 2008 to supply algae to the continuous green crude pilot plant processor which was commissioned in May 2008.

Following this, the first 8 liters of algae oil was supplied to UOP in Oct 2007 for refining trials and process development. Following the signing of an MOU between Aquaflow and UOP , Aquaflows first jet and diesel fuel samples were produced by UOP in Dec 2008.

Aquaflow continues to work with potential clients for water remediation and green crude development from algal biomass, subject to their site specific situation.

In many cases this involves an integrated solution approach to enable the resources to be best used subject to the situation environment. These solutions are advised by professionally engaged Aquaflow employees who hold a range of chemical and water engineering degrees with extensive collective experience.

Core Skill(s):

- Wild Algae harvesting technology
- Pond water quality remediation
- Processing plant design
- Green Crude processing technology
- High value chemicals

Biofuel Focus:

- 2nd generation focus
- biodiesel

Core Product/Activity:

- Remediated water
- Partnered Bio diesel from Algae Bio mass

Key Project Activities:

- Pilot Plant Blenheim: Continuous Algae harvesting and waste water remediation
- Pilot Plant Nelson: Continuous Green Crude process development.

Leading Edge:

Provide a low cost method of wild algae biomass extraction from existing waste water facilities. The algae extraction process improves the waste water quality by significantly reducing nitrogen and phosphorous loadings, BOD and coliform levels. The biomass can then be used in agricultural/ aquaculture applications, co-generation / methanol fuel, or biofuels feedstock production.

Investment Base:

- NZ Investors
- 19% Offshore cornerstone Investor

Employees:

- 5 : Skilled: - degree status
- 3 : Other skilled
- 1 : Unskilled

Production Capacity

- 2 tonnes biomass harvesting / day