


HYDRO INDUSTRIES – South East Nigeria Economic Summit 2018



Brigadier (Retired) Rick Libbey

December 2018



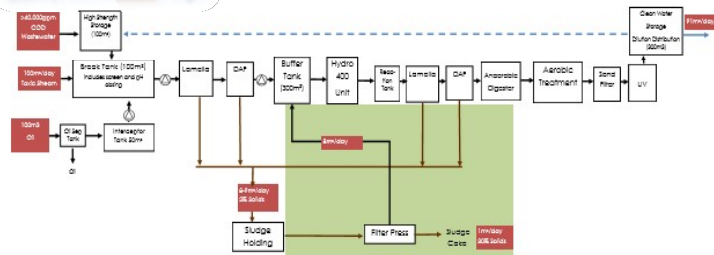
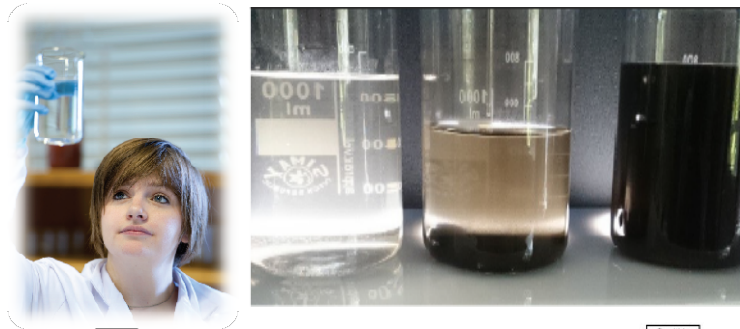
 Made in Britain

Hydro industries – Who we are?

- **Hydro Industries Limited (Hydro) is a young and hungry technology company developing, designing and operating effective solutions for water treatment.**
- **Hydro offers end-to-end treatment solutions based on a range of specific, complimentary and modular process steps.**
- **These solutions are custom designed for Individual clients across a unprecedented range of industrial and drinking water applications.**

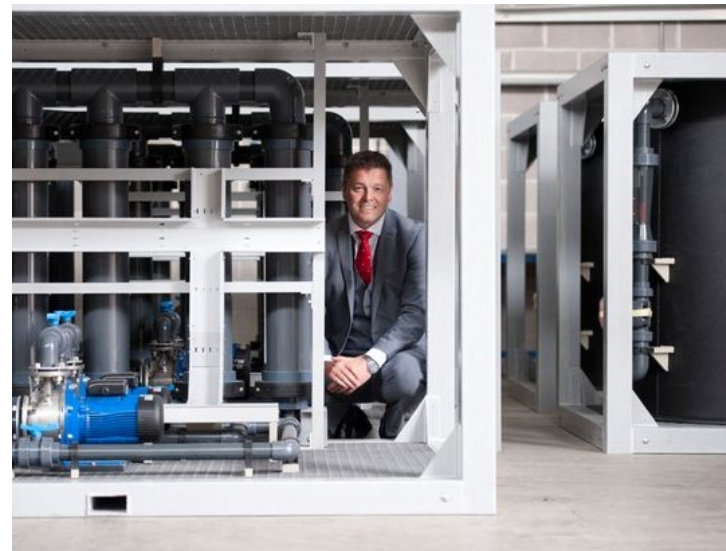
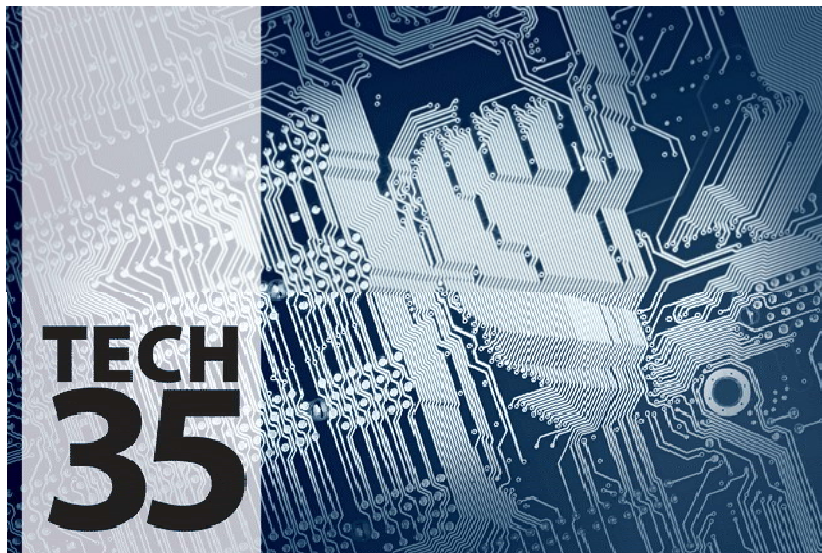


Hydro Industries – USPs



- **Design House**
- **Innovators**
- **Agile and responsive**
- **Bespoke**
- **Total solution provider**

**HYDRO INDUSTRIES – RECOGNISED NATIONALLY FOR OUR DEVELOPMENT
AND APPLICATION OF TECHNOLOGY**



**UK Tech list 2017: 35 Companies showing the best of innovation and technology in the
UK economy**



'PM takes
leading
Welsh
business on
tour of
Africa'



Secretary of State for International Development Visits Hydro

ACQUIRED HIGH CALIBRE PARTNERS

Knowledge sharing partners



Business partners



HARSCO



BRIGHTSTONE
MIDDLE EAST



RC:1306748

Advisory partners



COVINGTON
COVINGTON & BURLING LLP



ACQUIRED REFERENCE CUSTOMERS IN KEY TARGET MARKETS

Oil & Gas



أرامكو السعودية
saudi aramco



Metals & Mining

HARSCO



Manufacturing



DeLaRue

Advanced Materials



Waste



Marine



Civil Contractors





A CASE STUDY FOR ACID MINE WATER TREATMENT

LOCATION: RARE GROUP, SOUTH AFRICA

Hydro Industries, working alongside South African company Rare, has developed a solution to the metal problem within mine water. The solution provides a stark contrast to conventional, hazardous treatment methods. The solution, using the **HydroCurrent™** technology, allows for the correction of pH and the removal of metals using a small footprint treatment system with high throughput.



HYDRO'S SOLUTION



RESULTS	RAW	ECR
Uranium	0.02 mg/l	0.0003 mg/l
Aluminium	0.263 mg/l	0.038 mg/l
Cobalt	0.6779 mg/l	0.0208 mg/l
Iron	567 mg/l	0.55 mg/l
Manganese	45.9 mg/l	0.104 mg/l
Nickel	0.648 mg/l	<0.002 mg/l
Zinc	0.031 mg/l	0.005 mg/l



A CASE STUDY FOR OIL SEPARATION



LOCATION: ONSHORE EXPLORATION RIG

Hydro Industries was asked to investigate the possibility of treating waste water and other liquid waste from onshore exploration wells. The target was to materially reduce the volume of water required at each site by recycling water back into the well and to reduce the environmental impact of contaminated waste water pits at the completion of drilling.

HYDRO'S SOLUTION

Hydro rapidly developed a portable, containerised solution that allows for the recycling of water from exploration wells. The unit, which contains a combination of cutting edge water treatment technologies, removes all contaminants from well water and drilling muds used during the drilling process and allows for the removal of clean, treated water from the site after drilling is completed.



Our experience in the developing world

- India



or



Our experience in the developing world



- **Sudan** (video)
 - Al Gizeera Irrigation Scheme



or



Mineral Recovery



Environmental Hazard



Value to customer \$\$



Industrial Waste Water Treatment Plant – 300m³ / day



24/7 OPERATION



Embedded Industrial Plants



AGRICULTURE PROJECT - EGYPT

- 
- ***'Water was tested and the water leaving your kit was actually better quality than the nestle water bottles that we tested'*** Site Director



A FAMILY OF MODULAR CONTAINERISED SYSTEMS, DESIGNED, BUILT AND OPERATED BY HYDRO FOR THE OIL AND GAS INDUSTRY



T&T salvage – Japan 2017

FUNDING OPTIONS

- Nigerian regional or national Government funding
- Private sector (Nigeria) investment
- UK Government funding:
 - UKEF
 - Development Funding
 - UK Government Investment (CDC Group) – **PPP and in country partners!**
- NGO/Foundation funding

We will need to explore all options!

What would we like to offer

- Humanitarian projects – WASH
 - For instance the Holy Rosary Hospital
 - Rural water provision
- Environmental Projects:
 - Industrial waste water treatment
 - Clean up operations
- Value added projects:
 - Mineral recovery
 - Water recycling

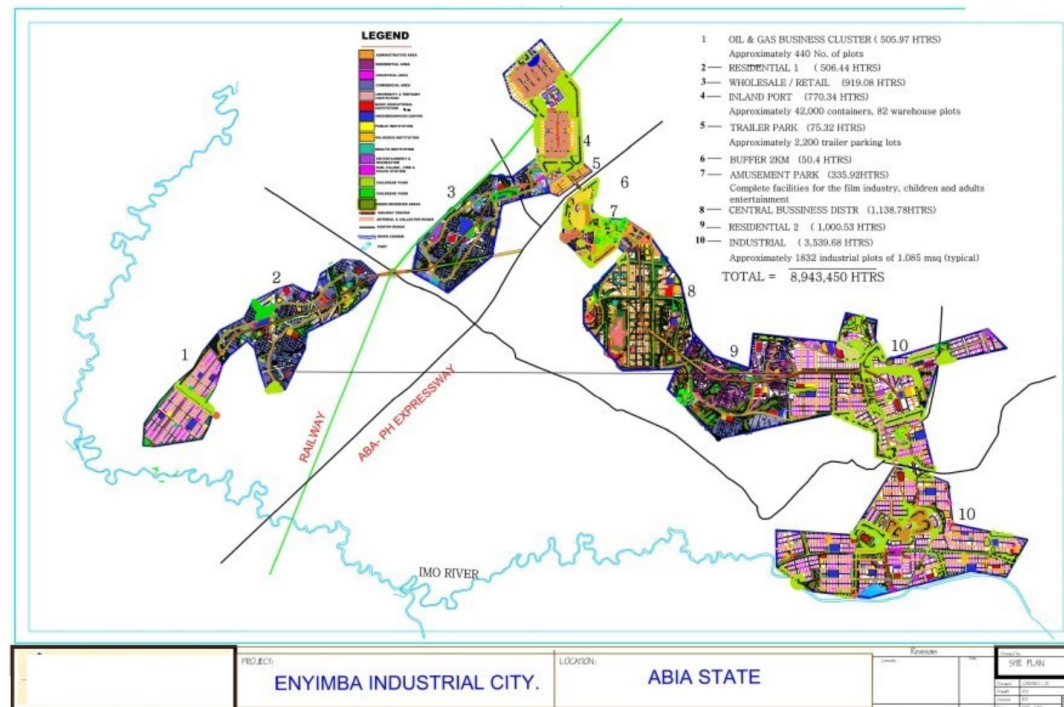
Enyimba Industrial City

Enyimba Industrial City is a Public Private Partnership (PPP) initiative under which it is proposed to develop a new Industrial Township in Aba, Nigeria.

The project area has been designated as Special Economic Zone by Federal Government of Nigeria.

Geometric Power has established a power generation facility in Aba, Nigeria, with the intention of providing high quality electric service to a limited number of large industrial and commercial clients.

Geometric Power has the franchise for power supply so offers Hydro a potential entry point as water treatment provider.



Catering for:
 Oil & Gas
 Wholesale / Retail
 Residential
 Amusement Park
 Inland Port

Nigeria has the ambition to emulate the Freezones which are at the heart of Dubai's success...

A Comprehensive Approach



Modular Water Treatment



Construction



Mineral recovery



Regional Water Innovation Centre



Drinking Water Treatment



Industrial Waste Water Treatment



Job Creation & Training:
Engineering
Chemistry
Health and wellbeing
Social Science
Communication
Accounts

Courses:
BSc
MSc
PhD
Vocational

What would we like to offer?

- Humanitarian projects – WASH
 - For instance the Holy Rosary Hospital
 - Rural water provision
- Environmental Projects:
 - Industrial waste water treatment
 - Clean up operations
- Value added projects:
 - Mineral recovery
 - Water recycling

