

Production of ^{100}Mo for Cyclotron Conversion to $^{99\text{m}}\text{Tc}$

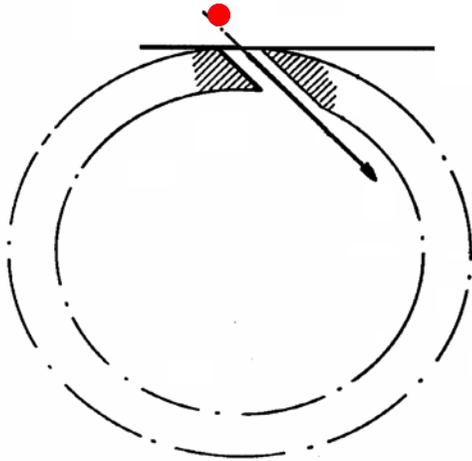


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Klydon (Pty) Ltd. – Pretoria - South Africa

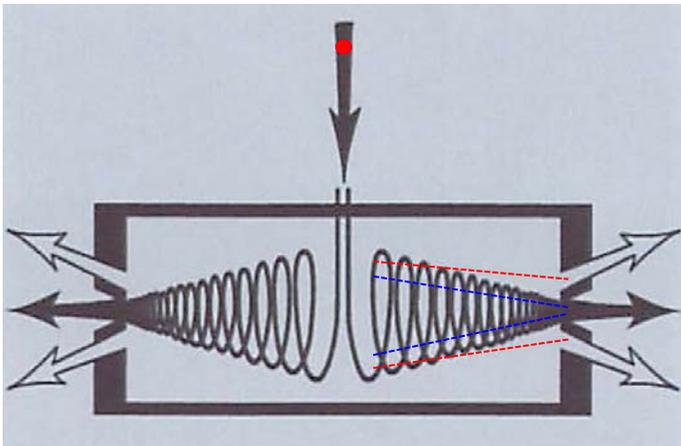
- Klydon is a private company registered in South Africa
 - Scientists who were previously part of the uranium enrichment operations at Atomic Energy Corporation / UCOR (now NECSA)
 - Partnered with the IDC (Industrial Development Corporation of South Africa)
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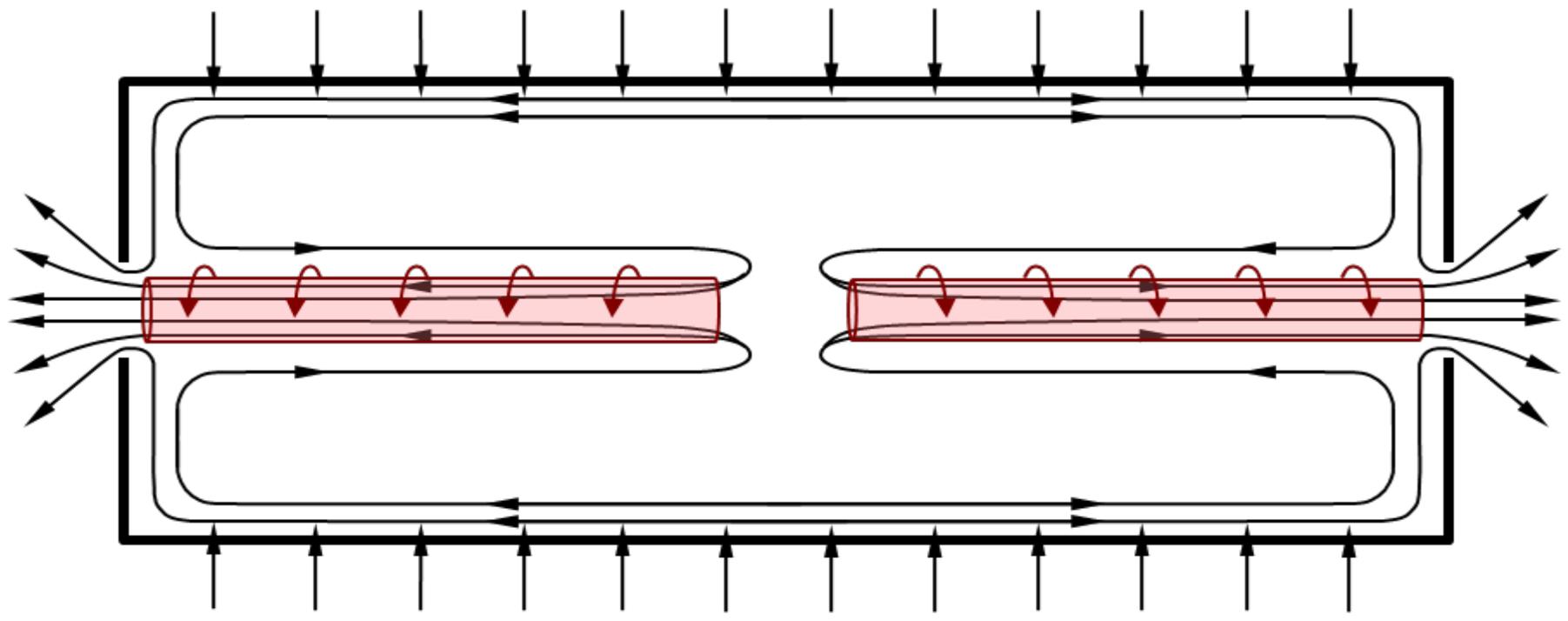
- Aerodynamic Separation Process (ASP) in development since 2002
- ASP is an innovative separation technology:
 - proven isotope separation technology;
 - low energy consumption and low capital requirements;
 - Substantial improvement over the genesis technology employed at other facilities.
- ASP is a versatile technology with application in several fields:
 - *Uranium* enrichment for fuel in nuclear energy;
 - Nuclear-related isotopes: *Boron, Zinc, Zirconium, Deuterium, etc.*
 - *Silicon* enrichment, for improved thermal management of microprocessor chips and for improved solar cell efficiency;
 - *O-18 & Mo-100* for healthcare; and
 - Gas Separation - *Methane* harvesting from natural gas wells, biogas, shale gas, etc.



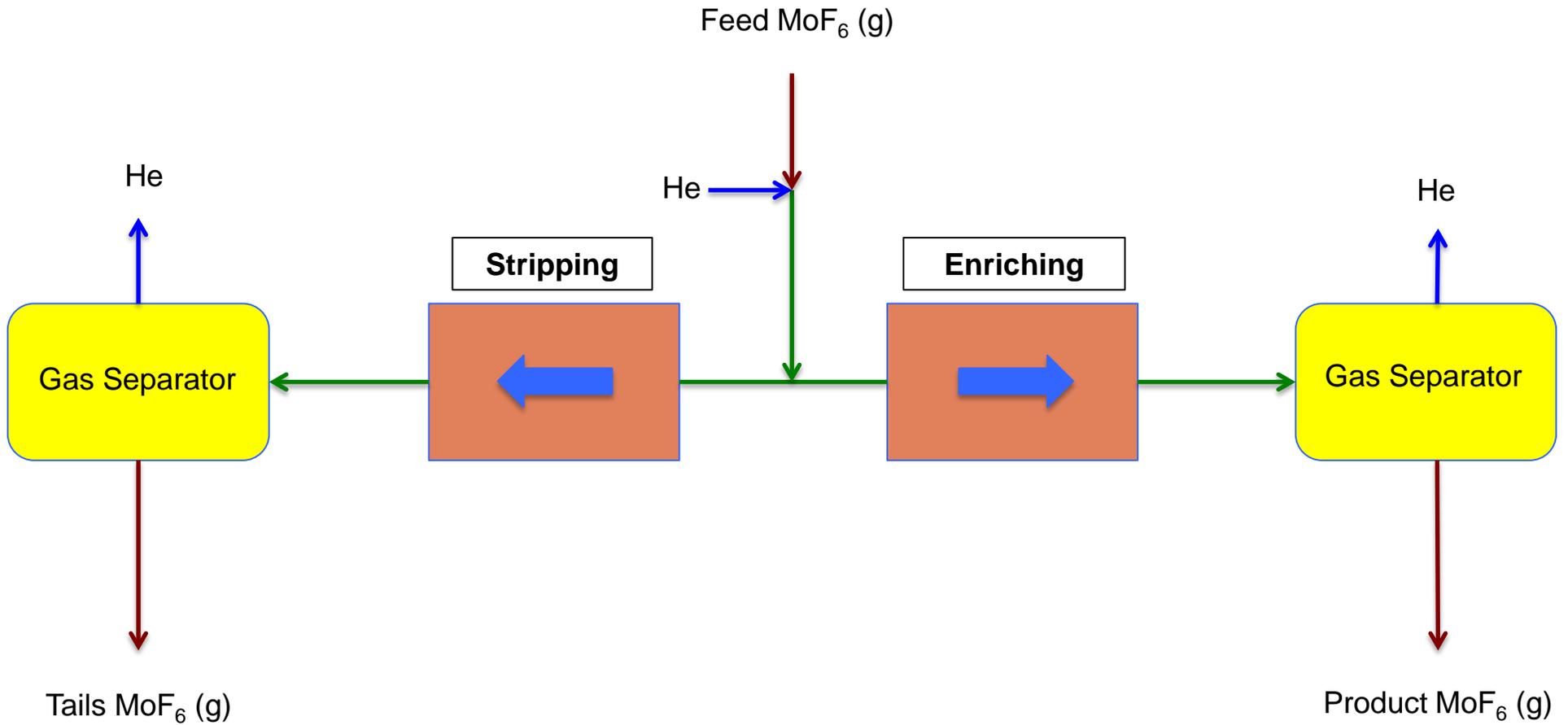
Stationary wall centrifuge:

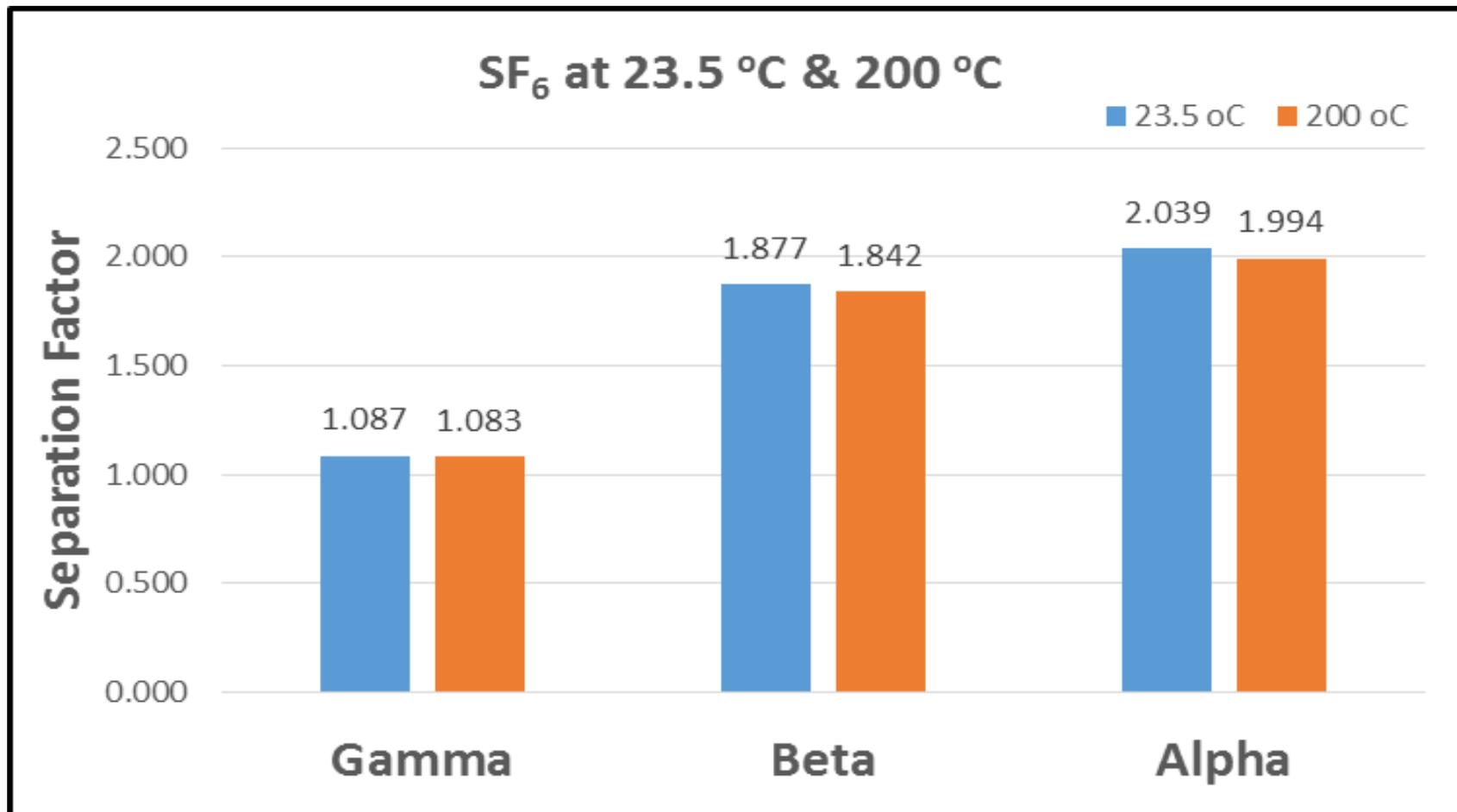
- No moving parts as in a conventional centrifuge
- Pressurised flow through cylindrical wall for centrifugal isotopic separation
- No special materials required
- Cost-efficient at small scale
- Small production modules → flexible capacity deployment
- Can be scaled up from lower initial capacity
- High separation efficiency → low energy cost
- Demonstrated cost efficiency for silicon, carbon, oxygen, zirconium, and molybdenum, and the separation of gases

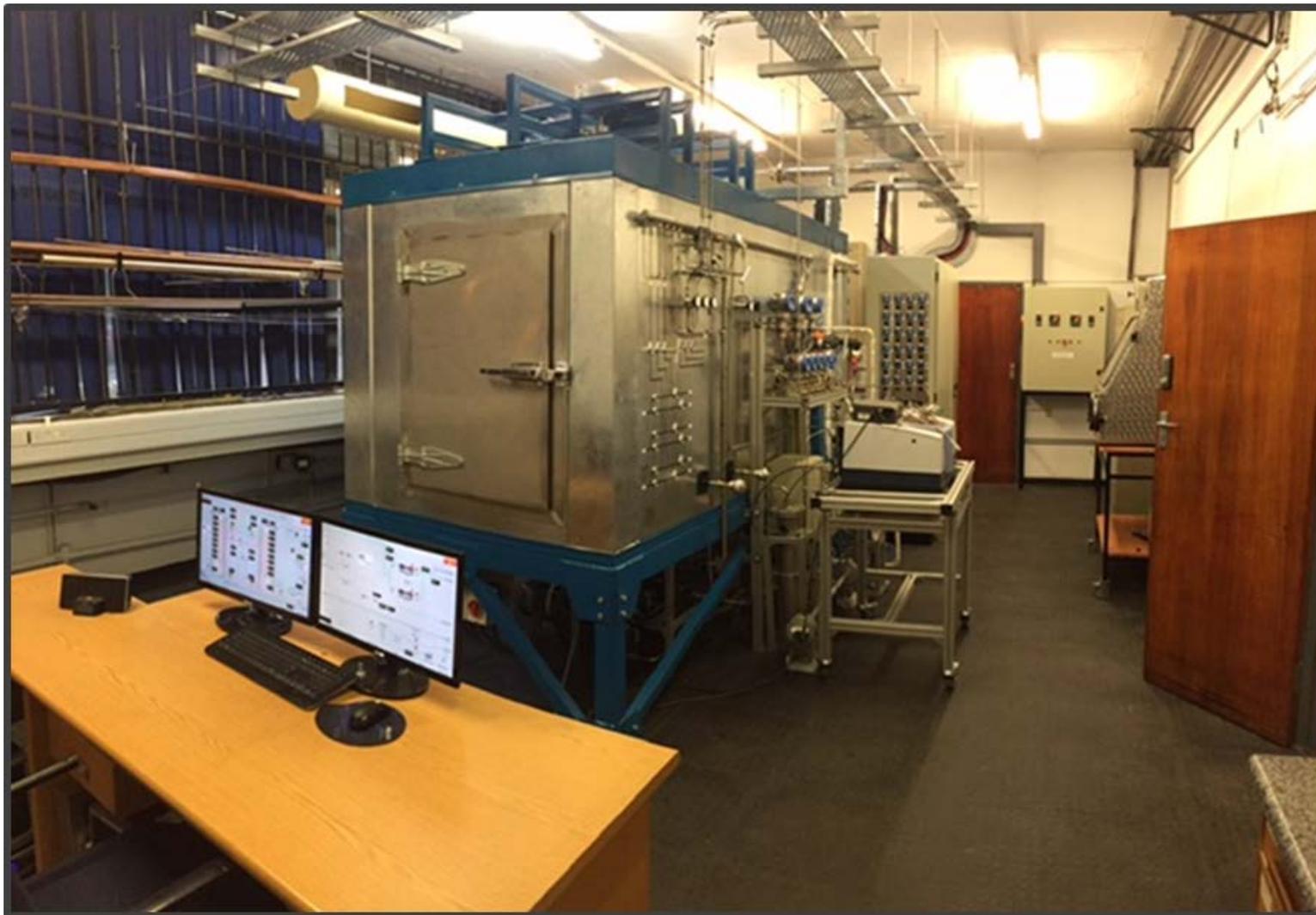




- ASP has cleaned-up natural gas
- Commercial viability is achieved at small plant level.
- The ASP process is easily scaled to industrial level.
- An ASP plant can be constructed in any country that adheres to the IAEA protocols for the protection of dual use technology.



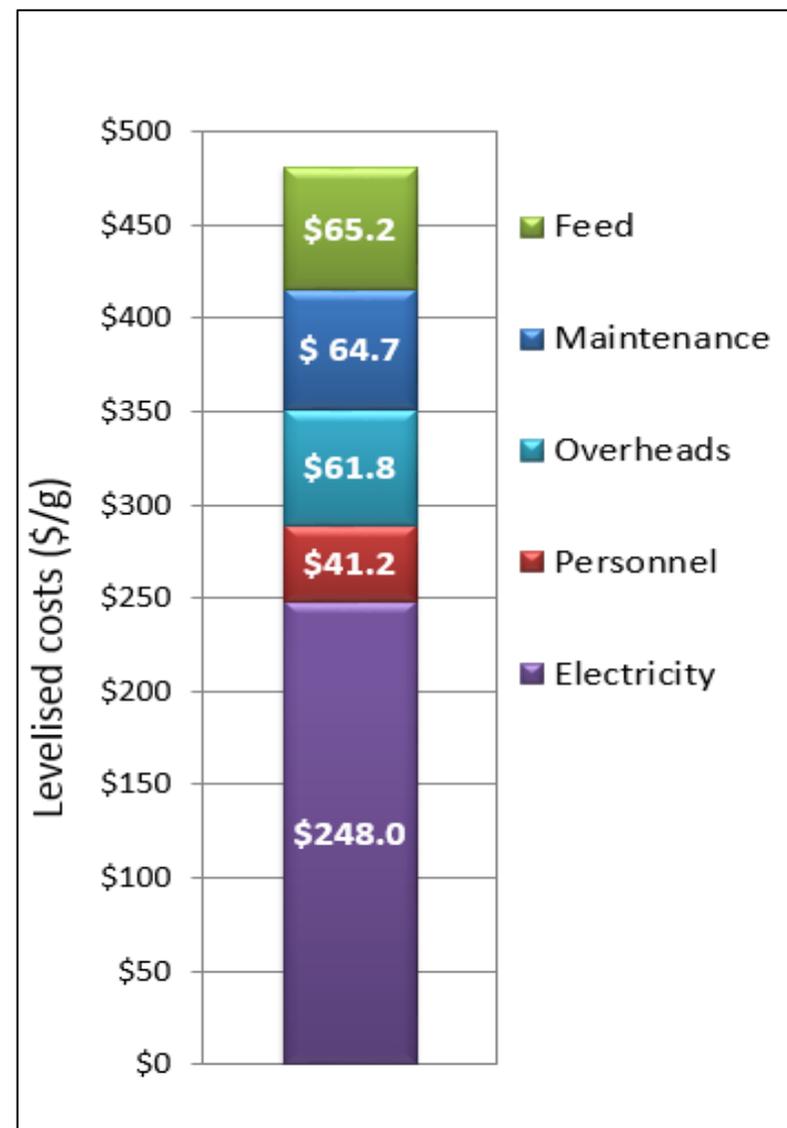
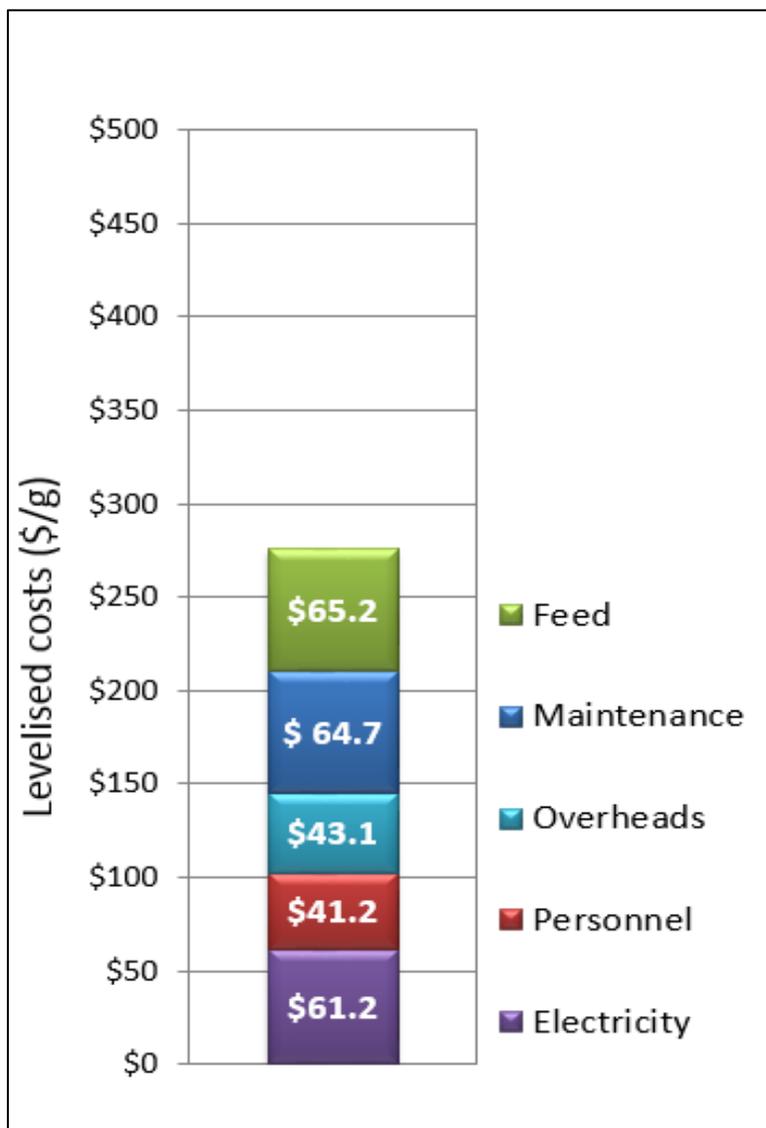














Industrial Development Corporation

Private Investor: Maono Pty Ltd