



2022 APGA Annual Convention and Exhibition

Simberi Island Deep Sea Tailings Pipeline Replacement Project



Disclaimer



All the information included in this presentation is true and accurate to the best of the authors' knowledge.

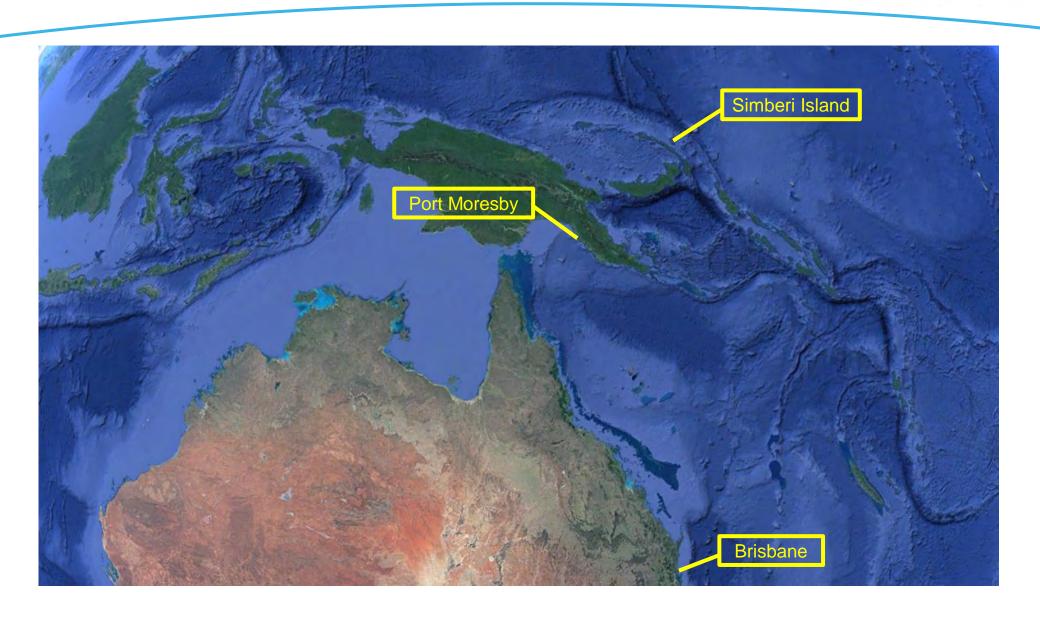
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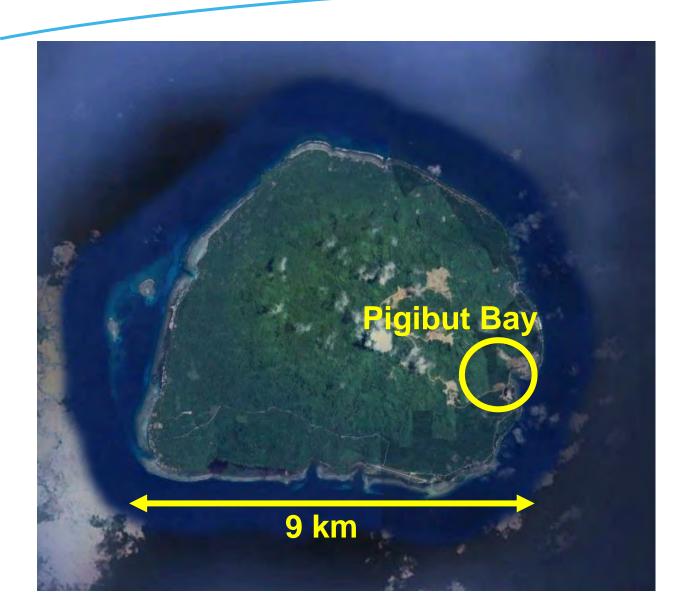
Simberi Island, PNG





Scope



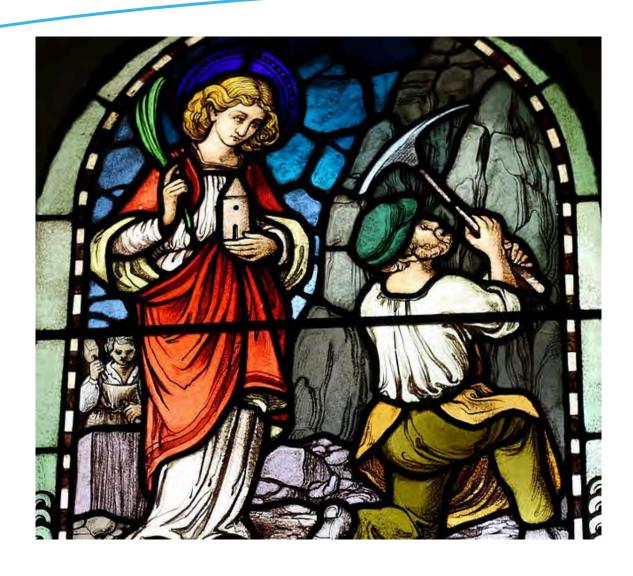


Simberi Gold Project

- Gold mine, owned by St Barbara Ltd.
- Deep Sea Tailings Outfall Pipeline (DSTP):
 - 542m x 1000mm HDPE
 - Pulled out and sunk onto seafloor@ 126m deep
- Seawater Intake Pipeline:
 - 265m x 800mm HDPE
 - Onshore

St Barbara – Armourers, Military Engineers & Miners







Schedule



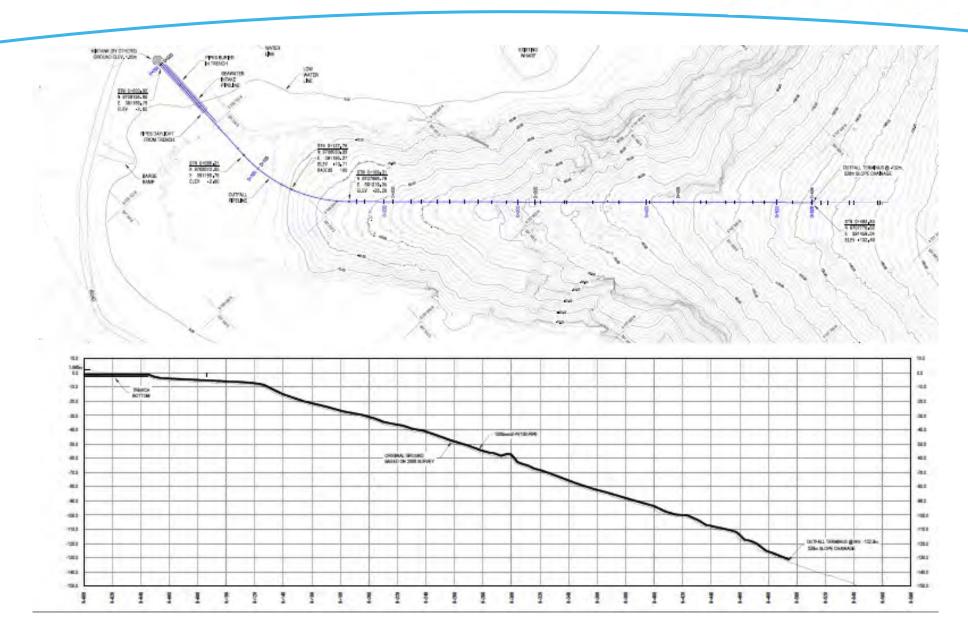


DSTP & Seawater Pipelines

- Contract award Aug 2021
- Arrive Simberi Sept 2021
- Completion <u>Dec 2021(!)</u>

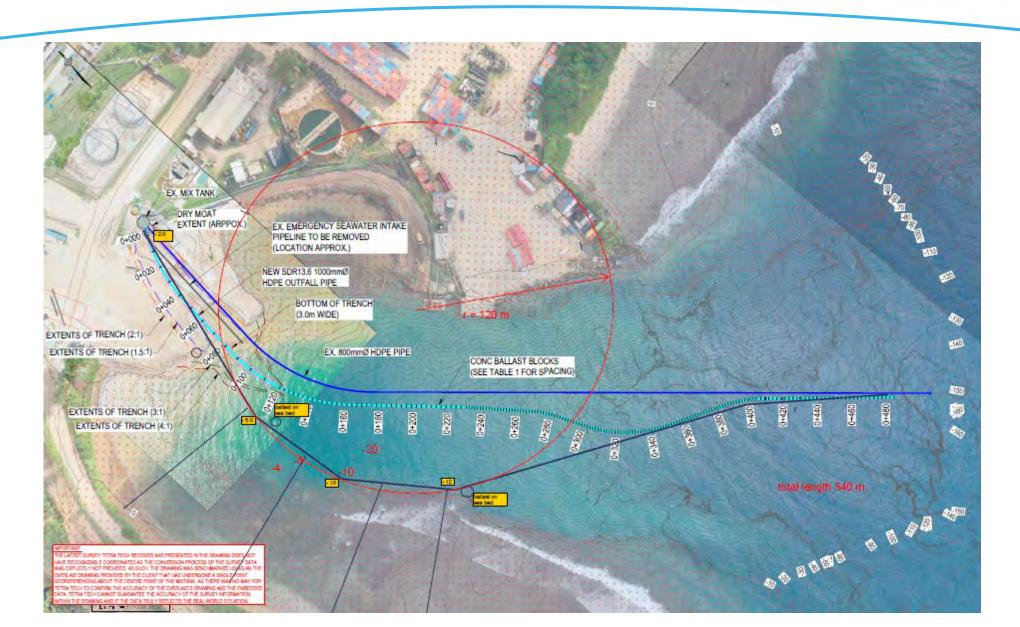
Plan and Profile





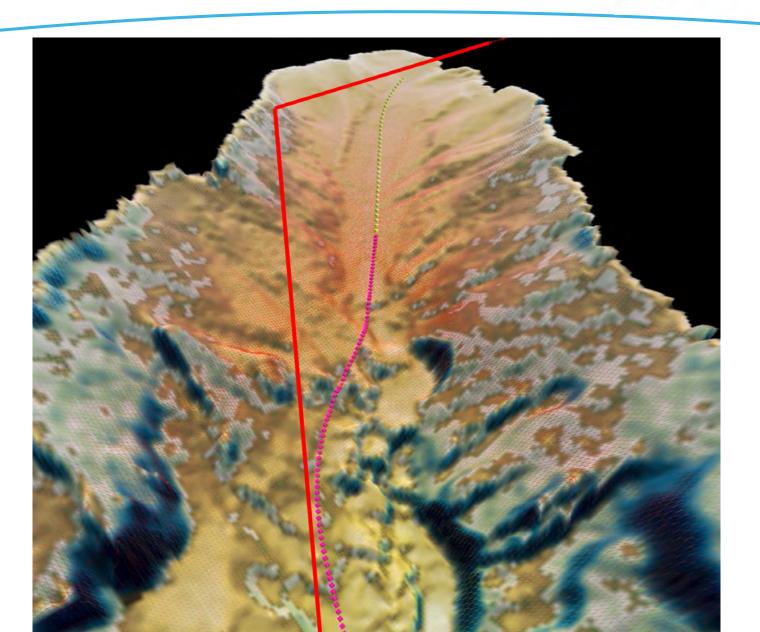
Design Development





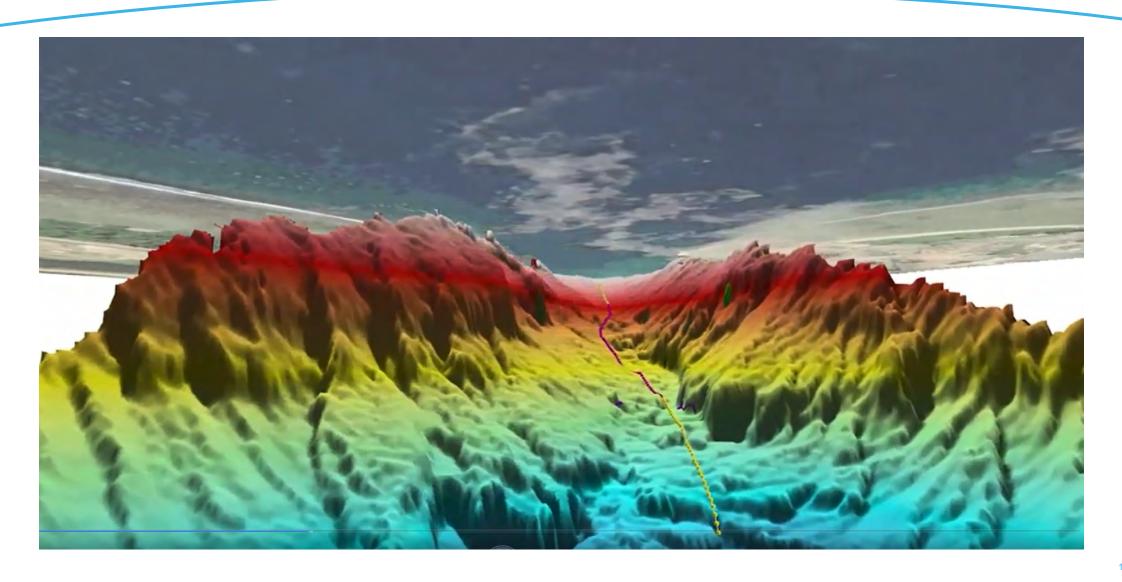
Bathymetry Challenges





Bathymetry Challenges





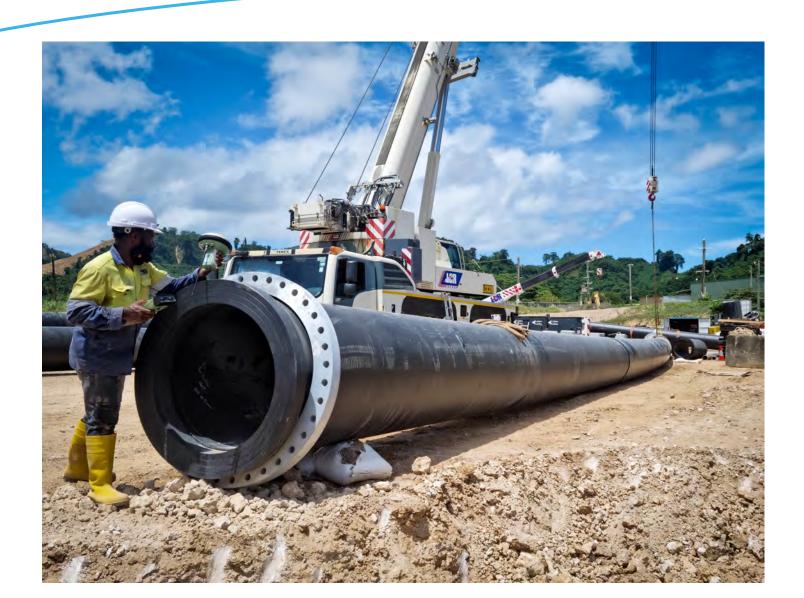
Thinking outside the box





Pipeline Specification





DSTP Pipeline

- 12m lengths of High Density Poly Ethylene (HDPE) pipe
- Butt-fusion welded together to form 4 x130m "strings"
- Each pipe is 73mm WT and weighs approx. 2.6 ton

Execution Support





DSTP Pipeline

- Suppliers in:
 - Australia
 - Papua New Guinea
 - Singapore
- 12 ex-pats on site
- Up to 30 PNG nationals
- Off-site support in Australia and Canada

Vessels

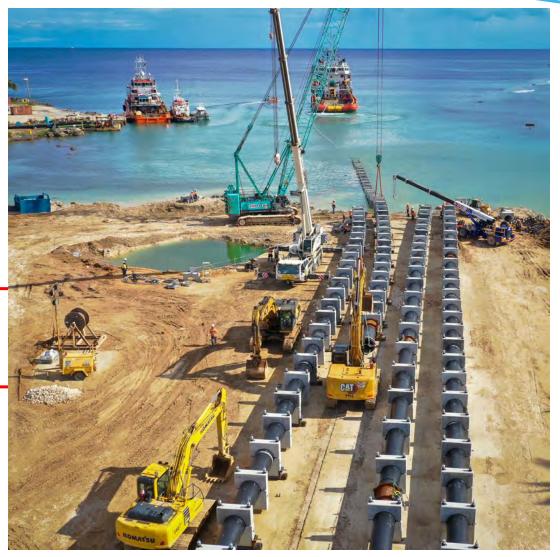




Tow-out

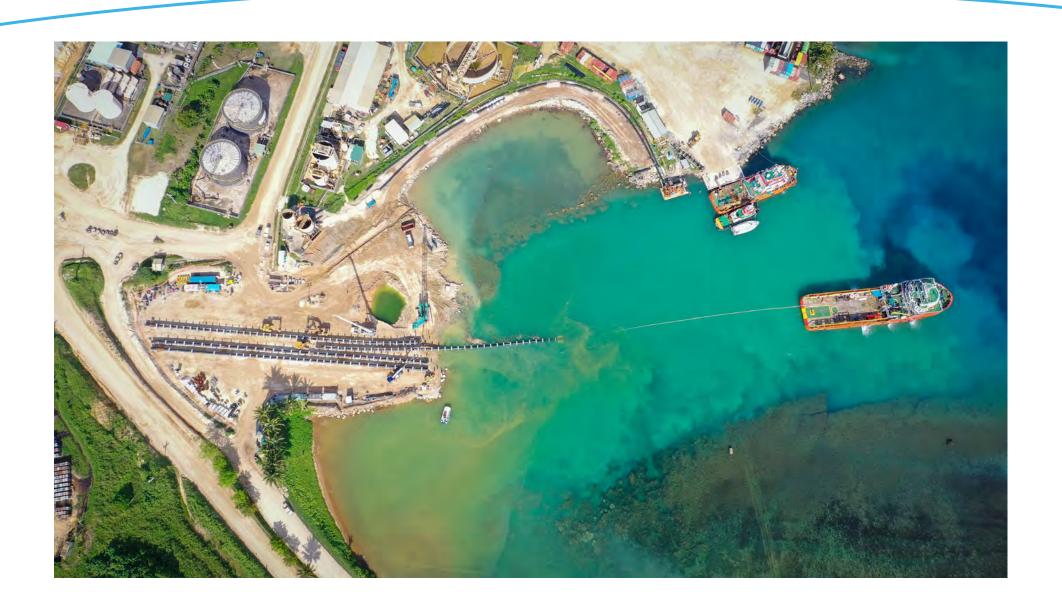






Staged pull





Staged Pull





Effected curve and sinking





Execution Success



In Conclusion



- Technically difficult project made more challenging by COVID impacts
- Many challenges faced with highly experienced and competent personnel in the right positions allowed planning for these
 - Unplanned events
 - Pipeline refloat
 - Air entrapment
 - Incident free execution
- A strong relationship with St Barbara, Beca & Tetra Tech throughout working off trust and transparency