

DECARBONIZING GLOBAL BITUMEN FOR LIFE

[A] - GLOBAL BITUMEN LANDSCAPE**HUMANKIND (END USER) GLOBAL BITUMEN NEED (DEMAND)**

- *Modern global transportation surface infrastructure cornerstone foundation is Bitumen (PMB).*
- *Demand is universal, sporadic, in sync with population hub growth.*

MARKET (CUSTOMER)

- *Global customer (end-user) proximity exceeds 20k km (t-km) from source(s).*
- *Natural bitumen feedstock genesis is solid and refined bitumen (PMB) in situ remains solid for life.*

FEEDSTOCK (SOURCE)

- *AB Oil Sands (AOS) is one of two (2) global sites of significant concentration of accessible highest yield & natural heavy bitumen.*

COST FACTOR(S)

- *The single largest factor is 'climate control cost' (24x7), directly affecting the second largest 'transport cost' (t-km).*
- *Most challenging, each of these major cost factor(s) is greater than bitumen base production cost.*

[B] - RBITTT 'PURE ZERO' OPTIMUM**ELIMINATE BITUMEN LIQUID TRANSPORT**

- Pre-Refinery Feedstock (diluent)
- Post-Refinery Product (PMB)

MAXIMIZE PAYLOAD (RETURN)

- Individual Container (MAX)
- Surface: Bulk Unit Train (UT)
- Marine: Bulk Carrier (VLBC)

MINIMIZE FOOTPRINT (SEF)

- Eliminate diluent t-km
- Eliminate PMB liquid storage
- Eliminate global waste poly (Wp)
- Minimize t-km
- Minimize Inventory Cost

MINIMUM SEF = MAXIMUM RETURN

- Target ECCR rate of >60% / yr of global transport sector CO₂e.

ELIMINATE

CO₂e > 900MM t/BOE/yr



Waste Poly (Wp) >200MM t/yr

BLUE SKIES

APPRECIATE

Inventory



Carbon Credit

GREEN EARTH

- Eliminate CO₂e at rate > than 60% of total global transportation sector CO₂e per year (see page #6)
- Eliminate CO₂e at rate > than taking all 286MM vehicles off USA roads per year
- **Heavy Bitumen** (API<10) feedstock to all Global Markets, @ Max. Cost Advantage & CO₂Øe

WHAT IS RBITTT™?

- ▲ RBITTT™ is an IP revolutionary technical solution which enables the Refinery Industry sector to eliminate the obsolete habit of liquid (Dilbit) diluent bitumen feedstock transport & eliminate the obsolete habit of liquid transport of refined bitumen/PMB, all while providing a CO₂Øe journey.

The RBITTT™ Transition will be applied in two independent applications:

- ▲ The RBITTT™ TRANSITION FEEDSTOCK (“RTF”) refers to a transition unit installed in vicinity of a surface or in-situ extraction facility to eliminate the diluent free transport of Heavy Bitumen (API<10) feedstock to all global markets, with maximum reductions of CO₂e and associated costs.
- ▲ Each individual RTF is a stand alone fully sustainable profit center from initial in-service date [ISD] onward.
- ▲ The RBITTT™ TRANSITION MODULE (“RTM”) refers to a transition unit installed at each Refinery. It eliminates the obsolete habit of liquid storage & transport of refined bitumen product. An RTM can be built at any refinery location worldwide.
- ▲ Each individual RTM is a stand alone fully sustainable profit center from initial in-service date [ISD] onward.

RBITTT™ is:

Pre-Refinery

- ▶ CO₂Øe & Diluent free <API 10 Bitumen Feedstock solid transport

Post-Refinery

- ▶ CO₂Øe Bitumen/PMB solid storage and transport

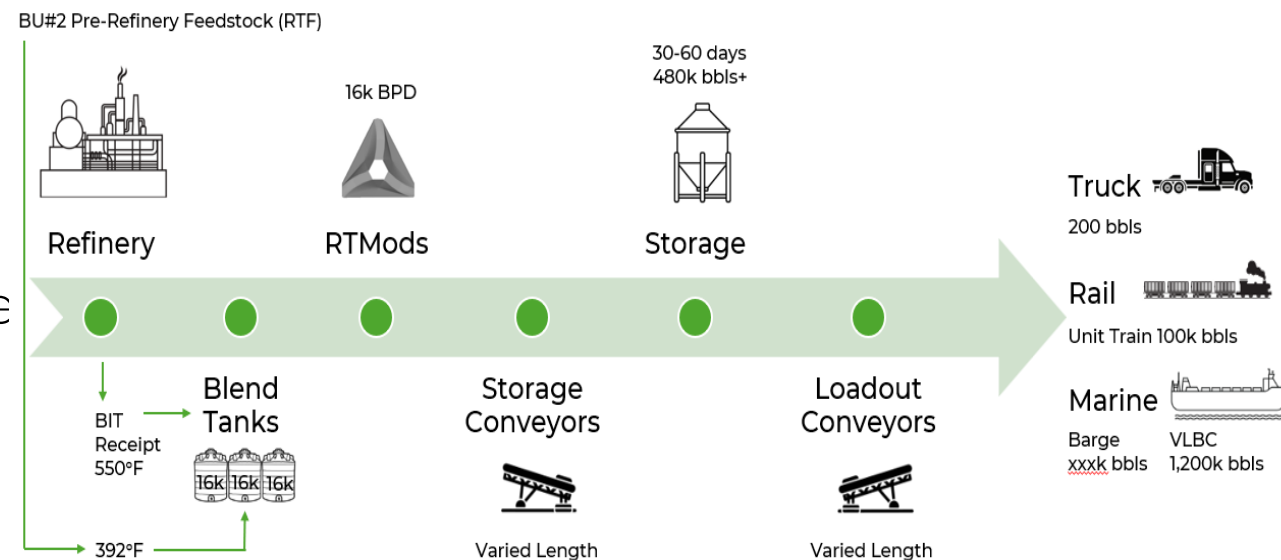
The Business:

Value Proposition

- Eliminate liquid bitumen transport.
- Diluent-free feedstock & CO₂Øe global waste plastic (Wp) elimination
- Each (#) RTM & RTF [16k BOE/day] is a stand alone fully sustainable profit-center from in service date [ISD] onward, (see page 13).

Execution Excellence

- ▶ > 80% of CAPEX modularized offsite, enabling accelerated completion of identical global RTM & RTF installations.



RBITTT™ DIFFERENTIATORS

'Solid in PolyGrid Friction'

Technical Data

Dilbit Bitumen

BOE

1# x 363 lb

Wt. 363 lb

Wt. 165 kg



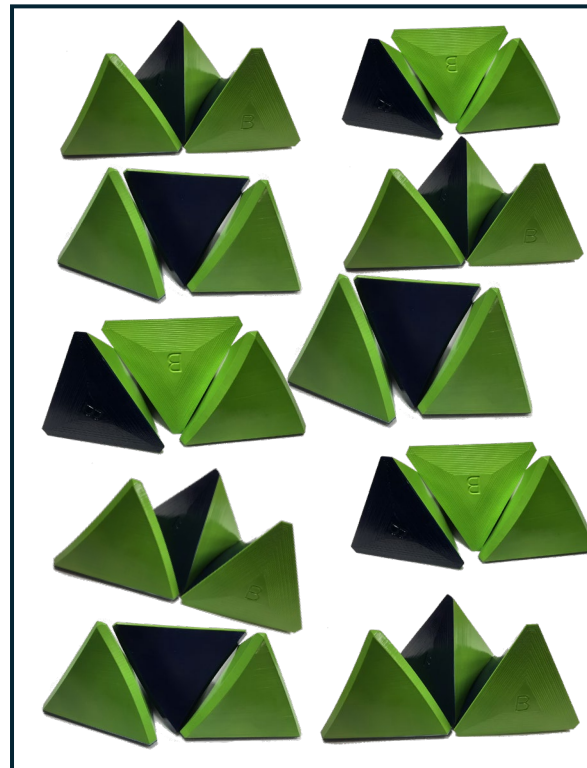
Solid Bitumen

BOE

30# x12 lb

Wt. 363 lb

Wt. 165 kg

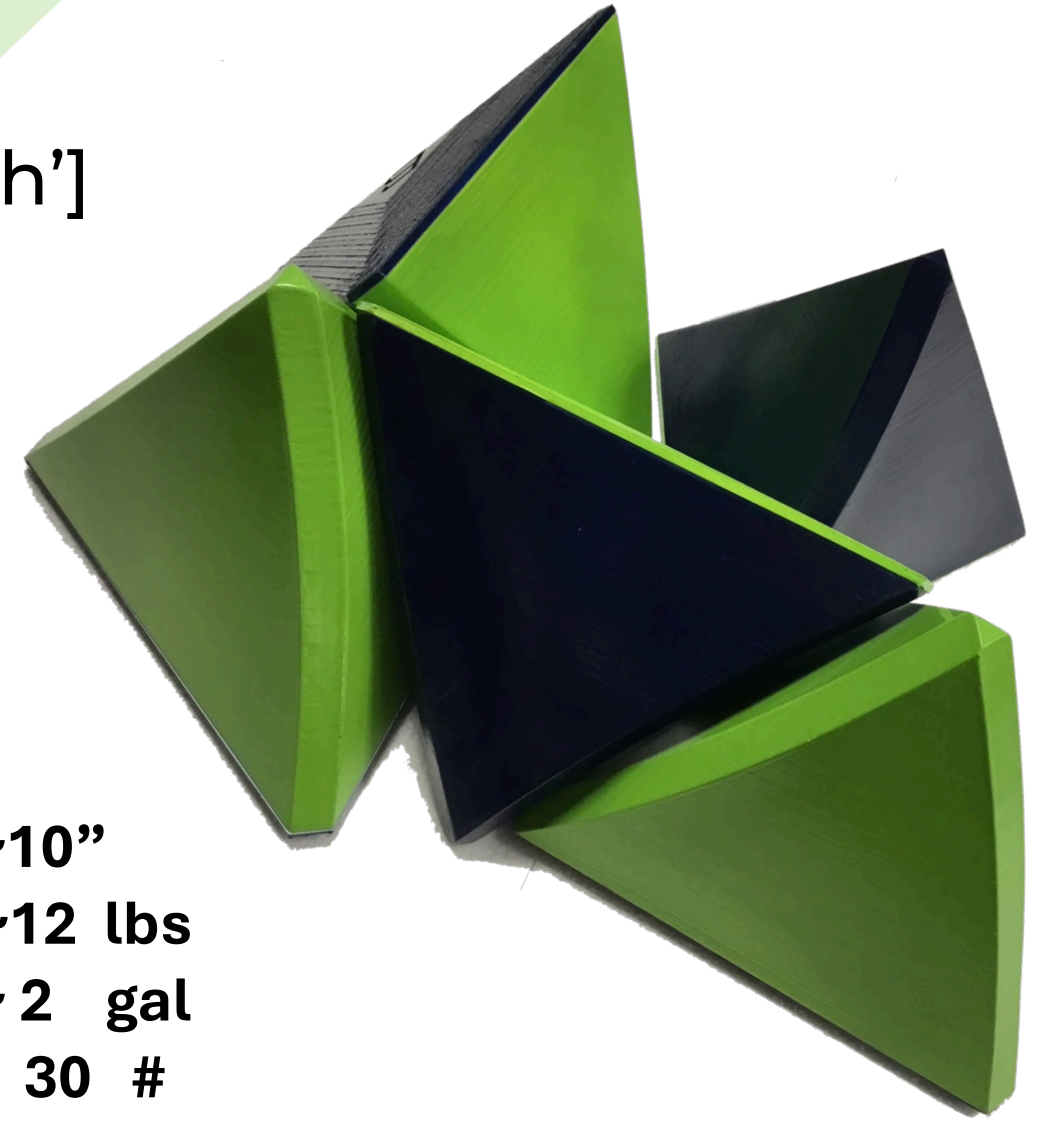
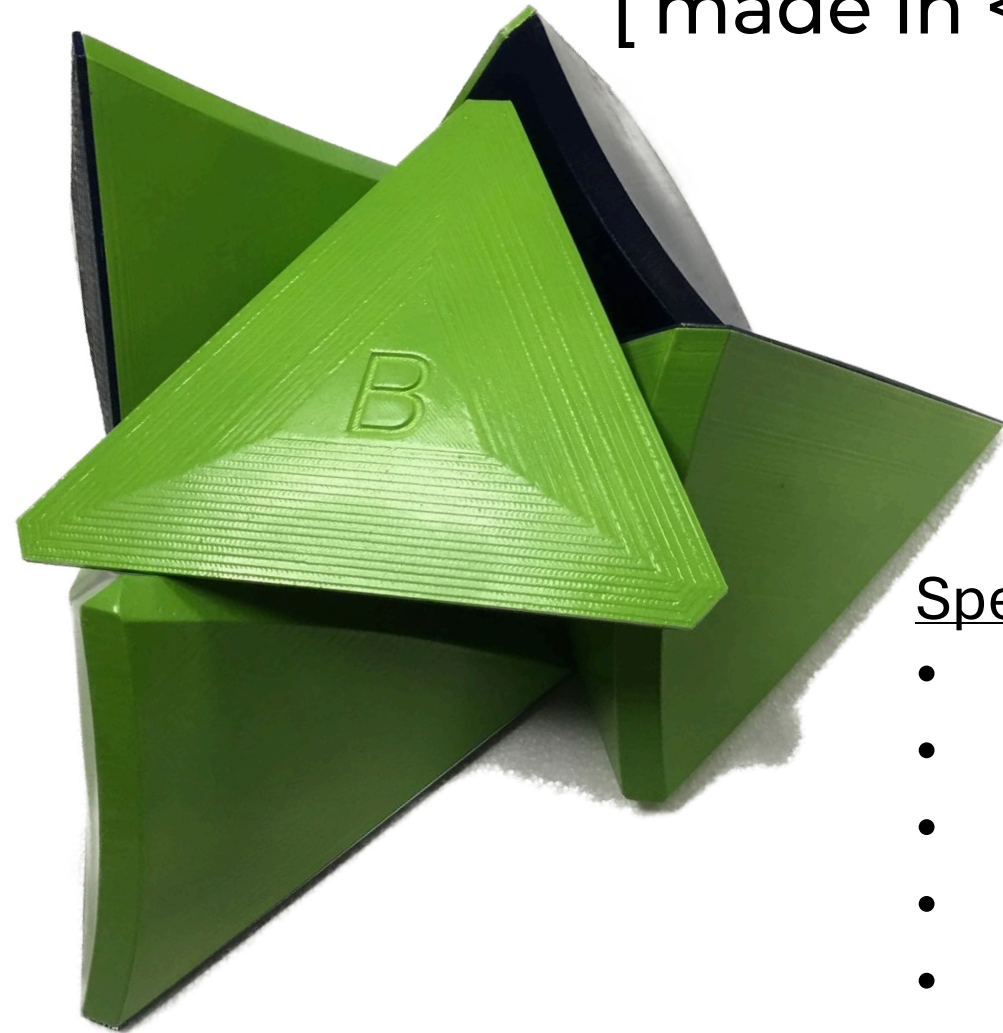


RBITTT Clean Journey Differentiators

- **Unsinkable & Buoyant, No Flame, No RISK**
- **Eliminate:**
 - **Marine Environment Impact**
 - **Terrestrial Impact**
 - **Diluent**
 - **Continuous Heating**
 - **Multi Billion CO₂e**
- **Non-Hazardous Cleanup**
- **Polymer Disposed For Life**
- **Transport Payload Increase 30%+**
- **Bitumen API<10 Best Delivered Cost**

- Optimum Payload

['made in < 2.1 sec. each']



Specs.

- length = ~10"
- wt. = ~12 lbs
- vol. = ~ 2 gal
- #/BOE = 30 #
- fill rate/# = < 2.1 sec

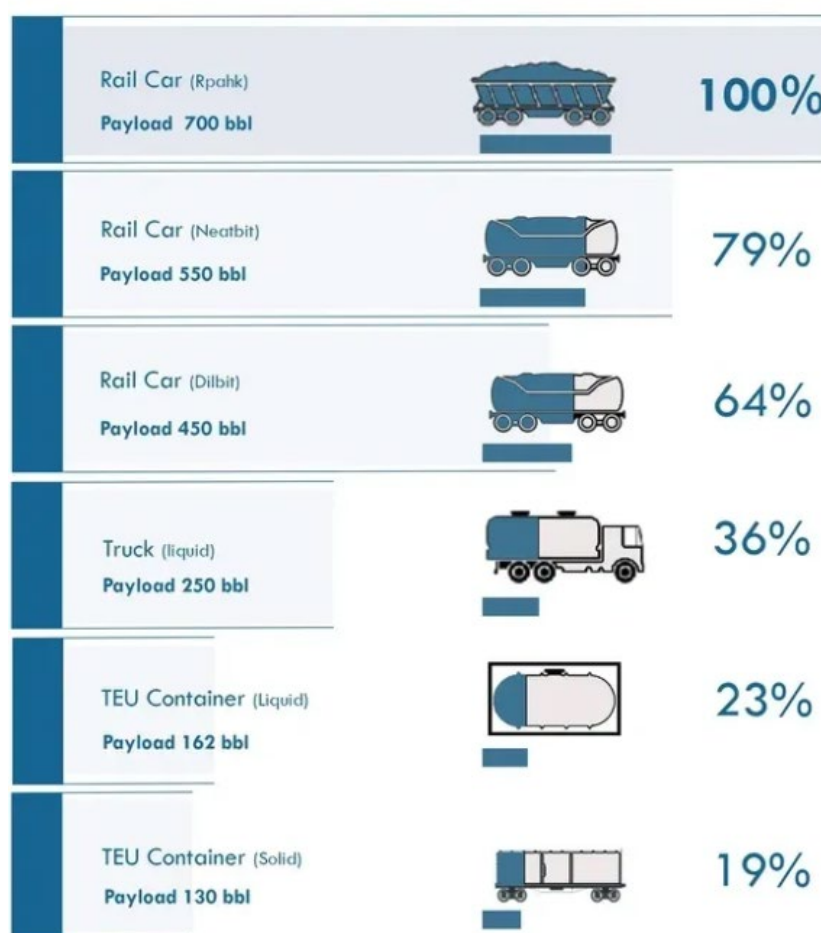
Buoyancy & design details are Confidential, IP Protected & Trade Secrets

- Efficiency = Maximize Payload &
- Eliminate Inventory Cost

Marine Transport



Surface Transport



Payload Impact

Comparatively, all other options for the transport of liquid and semi-solid bitumen involve factors that lower the payload, increasing the cost of transport. Major payload reduction factors include:

- ▲ Diluent volume reduces payload
- ▲ Container weight reduces payload
- ▲ Temp. ctrl. equip. reduces payload

Bulk vs. Container

Bulk Transport is always more efficient versus Container Transport, resulting in the lowest possible transport cost. The smaller the containment, the more costly the freight alternative. The unique nature of RPAHK™ bitumen allows RBITTT™ to use the largest optimum bulk carriers with 100% efficiency.

Deal Certainty:

- ▶ Global IP protection with issued family of patents
- ▶ Ø cost PMB inventory
- ▶ Transport & store is [CO₂Øe] & [Diluent free]
- ▶ Optimum cost reduction feedstock delivery
- ▶ Optimum cost reduction PMB/PMA delivery

WHY Invest [now]:

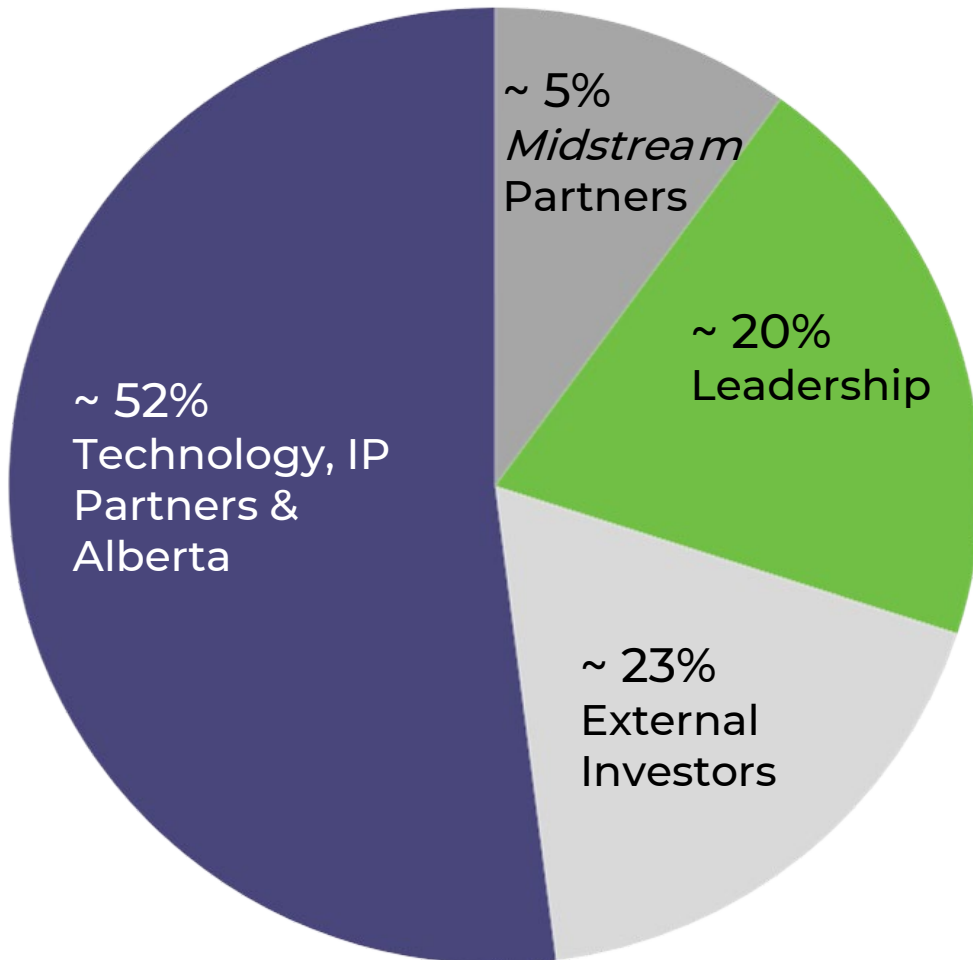
- ▶ Global IP exclusive bitumen market: Ø Market Risk
- ▶ Strong favourable and predictable returns: Ø Price Risk
- ▶ Early adopter discount &: Ø Completion Risk
- ▶ Enables global franchise RTM#1: Start

Use of Funds:

- ▶ Initial procurement commitments to start & accelerate manufacture of RTM #1 franchise components
- ▶ Acceleration of startup activities



The Stakeholders:



The Leadership:

- ▶ Veteran global transportation infrastructure experts drive execution.
- ▶ Best-in-class global EPCM midstream partners to lead on-site installations.
 - ▶ Americas
 - ▶ Africa & Middle East
 - ▶ Asia
 - ▶ China
 - ▶ EU
- ▶ Capital raise \$210MM
- ▶ Initial tranche \$15MM



USE OF START FUNDS

RBITT™ At A Glance

\$50.00
× 1,000

USE & EARNINGS FLOW

Funds	Use of Funds
SYSTEMWIDE: EQUITY	
\$15,000	[1] RTM#1 [ntp]: EPC WArea #1 thru #5 [2] - EPCM Contract Documentation [3] - Controls & Contract Documentation [4] - Procure Project Financing [5] - Accelerate Startup
\$15,000	Accelerate RTM#2 (optional)
\$15,000	Accelerate RTM#3 (optional)
\$15,000	Accelerate RTM#4 (optional)
\$150,000	Accelerate RTF Land (optional)
	\$210,000
RTM #1: LoA [License]	
\$15,000	
	\$15,000
RTM #1: DEBT	
\$150,000	CAPEX Direct Costs
\$59,000	CAPEX Indirect Costs
\$41,000	CAPEX Class 3 FEED +30% Risk
	\$250,000
RTM #1: INCOME	
\$270,000	EARNINGS /Year

The Performance Summary

Value Monitor		Shares O/S	18,518,750	×1
		Earnings/RTM/YR	\$270,000,000	×\$1
		Earnings/RTM/Q	\$67,500,000	×\$1
RTM	RTM	[A]	[B]	[A+B]
#	In Service [ISD]	Earnings [EPS]	Supplementary Eligible CCR [EPS]	Combined Earnings [EPS]
1	Q6-26	\$15	\$53	\$67
7	Q7-26	\$102	\$369	\$471
25	Q8-26	\$364	\$1,316	\$1,681
75	Q12-27	\$1,093	\$3,949	\$5,043
225	Q16-28	\$3,280	\$11,848	\$15,128
375	Q20-29	\$5,467	\$19,746	\$25,214

IMPACT CALCULATIONS

- Supplementary Revenues ‘What’s at Stake’
- Genesis of the Numbers

[A] - PRE-REFINERY, RTF [API<10] Feedstock			
Metric [2035]	375 ‡ #	RTM	
Capacity	80,000	BPD	RTF-Feedstock [~20% Yield]
Capacity	14,545	TPD	RTF-NBIT [~20% Yield]
Eliminate	28,000	bbls	Diluent S&I /day
Eliminate	3,150 ‡ ton		[CO ₂ e]/bbl Diluent S&I /day CCr.
Eliminate	1,455	ton	Waste Dispose (Wp)/day
Eliminate	4,364 ‡ ton		[CO ₂ e] /ton (Wp)/day CCr.
Metric	3.0	ton	Wp-[CO ₂ e] / ton (no-burn)
Eliminate	3,054 ‡ ton		[CO ₂ e] [3x2]unit train-/day CCr.
Eliminate	1,495 ‡ ton		[CO ₂ e] [19X2] marine/day CCr.
Eligible CCredits / Yr.	1,652,180,846 ‡ ton		[CO ₂ e] /ton x 365.25 x 375 RTMs
ECCr./RTM/ Yr.	4,405,816 ‡ ton		[CO ₂ e]
ECCr. / bbl. / Yr.	0.15 ‡ ton		[CO ₂ e]
ECCr. / share/ Yr.	89 ‡ ton		[CO ₂ e]

[B] - POST-REFINERY, RTM [PMB]			
Metric [2035]	375 ‡ #	RTM-[Global @ 2035 #]	
Capacity	16,000	BPD	RTM-[BPD]
Capacity	2,909	TPD	RTM-[TPD]
Eliminate	152.5	MMBTU	[htg]/ton PMA [25] day
Eliminate	8.9 ‡ ton		[CO ₂ e]/ton PMA [25]day CCr.
Metric	291	ton	Waste Dispose (Wp)/day
Eliminate	873 ‡ ton		[CO ₂ e] /ton (Wp)/day CCr.
Metric	3.0	ton	Wp-[CO ₂ e] /ton (no-burn)
Eligible CCredits / Yr.	3,556,206,818 ‡ ton		[CO ₂ e] /ton x 365.25 x 375 RTMs
ECCr./RTM/ Yr.	9,483,218 ‡ ton		[CO ₂ e]
ECCr. / bbl. / Yr.	1.62 ‡ ton		[CO ₂ e]
ECCr. / share/ Yr.	192 ‡ ton		[CO ₂ e]

- The Milestone-Based Triggers

TRL Level 9

‘Injection molding of plastic containers for liquid oil and bitumen is indeed a well-established and mature technology. It is widely used in the oil and gas industry due to its reliability, cost-effectiveness, and ability to produce high-quality, durable containers.

Given its extensive use and proven performance, it can be classified as **TRL 9 (Technology Readiness Level 9)**, which indicates that the technology is fully operational and has been successfully deployed in real-world conditions.’ ref. CoPilot

CLASS 3 COST ESTIMATE COMPLETED

‘A Class 3 Cost Estimate, as defined by the American Society of Civil Engineers (ASCE), is typically used during the Front-End Engineering Design (FEED) phase of a project. Here are some key details:

1. **Purpose:** Class 3 estimates are used to support **full project funding (FID) requests** and for initial project budget and schedule controls.
2. **Accuracy Range:** The expected accuracy range for a Class 3 estimate is generally between -10% to +30%.
ref. CoPilot
3. **Preparation Cost:** The cost to prepare a Class 3 estimate typically ranges from 0.1% to 0.5% of the total project cost. The actual RBITTT costs invested to date are (including successful global patent protection activities) less than **\$60MM** (~0.1% of CAPEX).
4. Procurement Ready: Predecessor activity of initial refinery RTM Franchise award.

Issued Patent(s) Cover



(12) **United States Patent**
Giannelia

(10) **Patent No.:** US 11,912,942 B2
(45) **Date of Patent:** Feb. 27, 2024

(54) **METHODS OF TRANSPORTING SOLID FORMATIONS OF NON-VOLATILE BITUMINOUS MATERIALS AND REDUCING CARBON DIOXIDE EMISSIONS**

(71) **Applicant:** PHILERGOS GROUP FOUNDATION, Cochrane (CA)

(72) **Inventor:** Paul Giannelia, Cochrane (CA)

(73) **Assignee:** PHILERGOS GROUP FOUNDATION, Cochrane (CA)

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 188 days.

(21) **Appl. No.:** 17/665,532

(22) **Filed:** Feb. 5, 2022

(65) **Prior Publication Data**
US 2022/0250832 A1 Aug. 11, 2022

Related U.S. Application Data

(60) **Provisional application No. 63/146,812, filed on Feb. 8, 2021.**

(51) **Int. Cl.**
C10C 3/14 (2006.01)
C10L 5/14 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC C10C 3/14 (2013.01); B65D 88/74 (2013.01); C08L 95/00 (2013.01); C10C 3/002 (2013.01);
(Continued)

(58) **Field of Classification Search**
CPC .. C08L 95/00; C08L 2201/08; C08L 2555/32; C08L 2201/56; C10C 3/14;
(Continued)

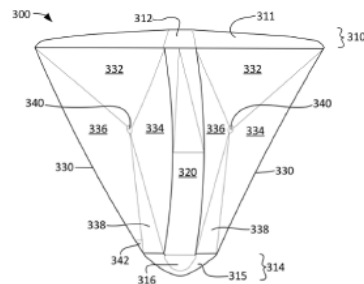
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(Continued)

Primary Examiner — Carib A. Oquendo
(74) **Attorney, Agent, or Firm** — Whitley Legal Group, PC; AnnMarie W. Whitley

(57) **ABSTRACT**
A method of transporting non-volatile bituminous materials from a first location to a second location involves carrying a plurality of irregular bricks formed by the bituminous material in transport chambers carried by vehicles. Bricks are defined by a plurality of non-planar surface, which create gaps between adjacent bricks, and can further include polymer skeletons and other features that help them float. The bricks can travel by land, sea, air, or rail and need not be heated while in transit. Transport chambers have active or preferably passive environmental control systems to circulate cooling air, water, or other substances through the transport chamber and the gaps between adjacent bricks. In a preferred embodiment, ambient air circulates among the bricks during travel by land and ambient water circulates among the bricks during marine travel. The vehicles carrying the transport chambers can be low-emissions or zero-emissions.
(Continued)



Steven Lumbala



Skills

- ▲ International Transactions
- ▲ JV / Shareholder Agreements
- ▲ Government Transactions
- ▲ Corporation Agreements

Competencies

- ▲ Attention to Detail
- ▲ Due Diligence
- ▲ Management
- ▲ Relationship Building
- ▲ Organization

Languages

- ▲ English
- ▲ French
- ▲ Spanish

Profile

A multilingual, international, legal counsel Steven that provides well rounded knowledge to this project team.

Steven has experience working for and with the oil & gas industry along with solid exposure to government while working through a large variety of legal transactions. Specifically working with joint ventures, corporation agreements and financing agreements. As a member of a professional athletic team, there is a strong sense of relationship and team building.

Key Experience

- ▲ **Senior Manager** – Group Legal, DP World FZE – Dubai, UAE – Responsible for the oversight of various types of international transactions and deals. Oversaw the completion of the Condition Precedent process on various projects, each valued over US\$100M.
- ▲ **Associate - Mergers & Acquisitions (Technology Group)** – Fasken Martineau DuMoulin LLP – Managed closing process for CAD\$450MM sale of a Vancouver based wealth management fund to a large American private equity company. Undertook drafting of ancillary documents and managed closing process of CAD\$30MM financing of Vancouver based health technology company
- ▲ **Articling Student** – Borden Ladner Gervais LLP – Drafted closing documents for \$300MM settlement transaction and closing between parties that included various oil and gas assets. Managed seven closing(s) books in the \$300M settlement transaction and acted as one of the main points of contacts for the Senior Associate, Vendors (domestic and foreign) and opposing counsel to ensure documents in closing folders were complete and accurate.
- ▲ **Summer Law Student 1L** – Borden Ladner Gervais LLP – Undertook due diligence and review of the Government of Canada's \$4.5Bn purchase of Kinder Morgan's Trans Mountain Pipeline Expansion project.
- ▲ **Summer Law Student 2L** – Pembina Pipeline Corporation – Conducted legal research and drafted memoranda for senior team members on the standard required for large energy infrastructure projects in the United States pursuant to the Department of Energy's standards.
- ▲ **Commercial Analyst (NGL Extraction Group)** – Inter Pipeline Ltd.. –
- ▲ **Professional Athlete – Running Back** – Canadian Football League – Drafted 1st round, 5th pick overall in the 2013 Canadian College Football Draft by the Montreal Alouettes

Education

Juris Doctor – **Université de Moncton** – April 2020
Exchange program – Faculté de droit et de sciences
politiques de Montpellier (France)
Bachelor of Commerce– **University of Calgary** – April 2013
Major in Petroleum Land Management

Profession Affiliations

Law Society of British Columbia – Bar Call Date: September 2021
Law Society of Alberta – Bar Call Date: July 2021
Young Professionals in Energy - Calgary Chapter
Canadian Association of Black Lawyers – Alberta Chapter
Francophone Representative
Fellow at the Black Wealth Club
Association des juristes d'expression francophone de l'Alberta (AJÉFA)
Dinos Football 5th Quarter Alumni Association

Paul Giannelia



Skills

- ▲ Project Delivery
- ▲ Execution Excellence
- ▲ Strategic Planning
- ▲ Budget and Schedule
- ▲ Risk Management
- ▲ Strategic Planning

Competencies

- ▲ Execution Excellence
- ▲ Decision Making
- ▲ Project Delivery
- ▲ Problem Solving
- ▲ Critical Thinking

Languages

- ▲ English

Profile

A leader of innovation and project delivery in infrastructure for over 30 years. His practical experience includes most aspects of infrastructure implementation in roles ranging from laborer and project director/leader to company founder and president.

Paul's full working knowledge and proven experience in the complete development and implementation of infrastructure projects was gained in a global environment and often on complex mega projects. The experiences gained in infrastructure project development and delivery were realized over a geographic reach from coast to coast across Canada, along the eastern seaboard, south to Georgia, the Pacific northwest and Pacific of the USA, Mexico, Argentina, Brazil, the Caribbean and briefly eastern Europe. Largest project in excess of \$25B.

Key Experience

- ▲ **Executive Advisor to CEO**, Honolulu Authority for Rail Transport ('HART') - Engaged to establish earliest completion execution plan, of (\$9B+) long extended new elevated transit project. Developed a 2023 solution and HART selected an extended 2028+ completion strategy.
- ▲ **Technical Advisor to Owner**, City of Calgary - Engaged to establish project execution plan ("Managing Director") of (\$5B+) new transit line expansion, including significant underground alignments. Determined underfunding of CAPEX and Owner is now addressing affordability.
- ▲ **Executive Advisor**, Trans Canada Corp. - Engaged to advise and provide recommendations of changes required by Major Projects' structure, leadership, processes, systems and culture. Also, to advise and assist COO with implementing a performance culture into Major Projects Group. Specific assignments included establishing the execution plan in detail for three (3) pending LNG (\$10B+) mega gas pipelines in western Canada and chair of owner's committee on nuclear plant multibillion refurbishment.
- ▲ **Execution Director**, Northern Gateway Project, Enbridge Inc. - Led the technical execution of the FEED, construction delivery strategy, engineering, project management and construction planning for the Northern Gateway pipeline project in Western Canada (focused on offshore works, terminal facilities, tunnels and general mountain construction). This multi-year, multi-billion-dollar (\$20B+) mega project plans to deliver land-based Alberta oil to the Pacific coast crossing the Rocky and Coastal mountain ranges for export to Asian markets. In addition, was responsible for the execution planning for two (2) of the pending LNG mega gas pipelines in western Canada.
- ▲ **Project Director, Co-Founder & Co-Owner**, Confederation Bridge - Led Canada's first major public-private partnership and selected as one of the top 5 Canadian engineering achievements of the 20th Century. Project leader fully responsible for (multi-B\$) complete project delivery from concept development, social license success, government negotiations, regulatory, environmental, community approvals, engineering, overall project execution and commissioning on original scheduled RSD.

Education

Project Management - CCA Gold Seal Designation
Economics - Wilfrid Laurier University
University of Prince Edward Island - PhD.H Laws - 2007
University of Calgary - PhD.H Laws - 2001
Wilfrid Laurier University - PhD.H Laws - 1999
University of New Brunswick - PhD.H Science - 1997

Industry Recognition

Canada CIAU Lester B. Pearson National Award, for distinction and accomplishment
Engineering Institute of Canada, Honorary Life Member
Pinnacle Award, Alberta, Fraser Milner Casgrain LLP, for entrepreneurship
Ted Walden Award, Alberta, Calgary Construction Association, for contribution to construction
Montgomery Awards, Canadian Construction Association, for innovation in engineering and construction (First 3x winner)

Lewis Cardinal – INDIGENOUS ADVISOR & iPGFund TRUSTEE

- ▲ Lewis Cardinal is a communicator, educator, and story holder. Lewis has dedicated his life's work to creating and maintaining connections and relationships that cross-cultural divides. His long track record of public service currently includes; Co-Chair of Initiatives of Change-Canada, Chair of the Global Indigenous Dialogue of Initiatives of Change, and Trustee and Chair of the Indigenous Taskforce for the Council for a Parliament of World Religions.
- ▲ <https://www.linkedin.com/in/lewis-cardinal-531243121/>



The RBITTT™ Vision

Revolutionary Technology: RBITTT™ transforms the bitumen industry with its sustainable, cost-effective solution, reducing environmental impact and enhancing operational efficiency.

Proven Market Readiness: Backed by a LOI from a global refinery distributor and validated by existing solid bitumen storage & transport, RBITTT™ is set to redefine the market.



Investment Opportunity

Funding Requirement: We are seeking an investment of \$210 million to scale up our operations and implement RBITTT™ technology across multiple refineries worldwide.

Use of Funds: Investment will go towards installing transition modules, scaling operations, and expanding our global footprint to meet enormous demand.



Why Now?

Strategic Timing: With increasing global focus on sustainability and environmental regulations, the market for green technologies like RBITTT™ is expanding rapidly.

Financial Incentives: Early investments will benefit from substantial cost savings, carbon credits, and a strong competitive edge in the burgeoning green infrastructure market.



Your Role

Join as a Strategic Partner: Collaborate with us to lead the transition to sustainable bitumen production, shaping a greener future for global infrastructure.

Impact Investment: Your investment not only offers attractive returns but also contributes to significant environmental and social impact.

Thank you.

