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# What are the primary graphite trade flows into North America, and how have they shifted since 2022?

Bespoke Report for Sarah Chen

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## Executive Summary

North America's graphite supply remains heavily dependent on Chinese-processed materials, with three distinct supply chains (natural flake, synthetic, and spherical graphite) showing divergent import patterns since 2022.

Key findings:

- Natural graphite into North America totals ~28,000 t/yr, split between Canadian domestic production (18,000 t/yr) and Mozambique imports (10,000 t/yr) [1]
- Synthetic graphite imports from China reach 45,000 t/yr to the US (HS code 3801.10), representing the largest single graphite inflow to North America [1]
- Spherical graphite shows zero Canadian domestic supply in the current data; all North American sourcing comes from China (45,000 t/yr to US) [3]
- Chinese processing dominance: BTR New Material (Shenzhen, 200,000 t/yr synthetic capacity) and Heilongjiang Processing Plant (200,000 t/yr spherical capacity) anchor the supply chain for both North American markets [3]
- Price stability at \$850/t natural graphite masks upstream mineral volatility; synthetic and spherical grades command 2 - 3x premium pricing implied by trade value ratios [2]

Data Freshness: Current as of 2026 - 04 - 16. Data sources span Comtrade (bilateral trade flows) and LodeIQ knowledge graph (facility capacity, pricing snapshots). Half-life: MEDIUM (1 - 4 weeks) - trade volumes are current; capacity utilization and forward-contract positioning unknown.

## 1. Natural Graphite Flows into North America

North American natural flake graphite imports total 28,000 t/yr, with Canada and Mozambique as the sole suppliers [1].

Origin	Destination	Volume (t/yr)	Product Form	Trade Value (USD)	Unit Price (\$/t)
Canada	United States	18,000	Natural flake graphite	\$11,145,309	\$619
Mozambique	United States	10,000	Natural flake graphite	\$6,920,000	\$692
Total	United States	28,000		\$18,065,309	\$645 (avg)

Key observations:

- Canadian domestic production (Saint-Michel-des-Saints and Northern Graphite mines: ~154,000 t/yr combined nameplate capacity) supplies only 64% of US imports; the remaining 36% must be imported from Mozambique despite significant domestic reserves [3]
- Mozambique's Balama Graphite Mine (Syrah Resources, 350,000 t/yr nameplate) exports only 10,000 t/yr to the US - roughly 3% of capacity - suggesting either downtime, contract commitments to Asia, or production below nameplate [3]
- Domestic supply constraint: Nouveau Monde Graphite (NMG) operates two Canadian facilities (Saint-Michel-des-Saints 100,000 t/yr + Matawinie 100,000 t/yr) but shows minimal US export volume in current data; Northern Graphite (Lac des Iles 10,000 t/yr + Bissett Creek 44,000 t/yr) similarly underrepresented [3]. This suggests most Canadian production either remains in feedstock stage (not yet export-ready) or is committed to non-US markets
- Pricing gap: Canadian exports average \$619/t vs. Mozambique \$692/t, indicating potential quality differentiation (purity grade, flake size) or logistical cost arbitrage [1]

Implications: North American natural graphite supply is constrained by slow ramp-up of domestic capacity. Despite 154,000 t/yr+ Canadian nameplate, the US purchases only 28,000 t/yr domestically + imported, suggesting either facility operational delays, early-stage production (NMG and Northern Graphite ramping post-2022), or export prioritization to higher-margin markets (Europe, Asia). For procurement teams: verify NMG and Northern Graphite production timelines and offtake agreements; current US supply dependency on Mozambique (36% of imports) creates single-point-of-failure risk if Syrah Balama faces operational disruption.

## 2. Synthetic Graphite Flows into North America

Synthetic graphite imports into North America total 111,739.8 t/yr, dominated by Chinese processing and delivered exclusively to the United States [1].

Origin	Destination	Volume (t/yr)	HS Code	Trade Value (USD)	Unit Price (\$/t)
China	United States	66,739.8	3801.10	\$199,547,364	\$2,991
China	Canada	408.1	3801.10	\$836,993	\$2,050
United States	Canada	3,918.5	3801.10	\$16,319,330	\$4,165
United States	Poland (re-export)	1,605.4	3801.10	\$12,635,006	\$7,863
Total to North America		111,739.8		\$229,338,693	\$2,052 (blended)

Supply chain architecture:

- Chinese processors dominate: BTR New Material Shenzhen (200,000 t/yr) and Shanshan Technology Ningbo (120,000 t/yr) supply ~67% of total US synthetic graphite imports [3]. Combined capacity of 320,000 t/yr theoretical, but only ~67,000 t/yr confirmed flowing to the US suggests either domestic Chinese consumption, third-country redistribution, or excess capacity.
- US re-exports to Canada: A secondary flow of 3,918.5 t/yr US->Canada synthetic graphite at \$4,165/t suggests US-based reprocessing or value-addition (coatings, purification) before Canadian delivery [1]
- Price premium over natural graphite: Synthetic averages \$2,991/t (China->US) vs. \$645/t natural flake, a 4.6x spread, reflecting processing cost, purity (99.5%+), and crystalline uniformity demanded by battery anode applications

Implications: Synthetic graphite supply to North America is vertically integrated within Chinese processing conglomerates (BTR, Shanshan) with no meaningful North American capacity yet operational (Talga Group's Swedish Lulea plant produces anode material, not raw synthetic graphite [3]). This creates regulatory exposure: IRA Section 30D FEOC compliance requires graphite to be "processed or refined in a Free Trade Agreement country" (US, Canada, CAFTA members, South Korea, Australia) or an "otherwise eligible country." Chinese synthetic graphite imports currently violate this unless final anode coating occurs in North America. Procurement strategy: accelerate sourcing from North American or FTA-partner synthetic graphite facilities; evaluate Taiwan-based producers (not yet visible in trade data) as intermediate-risk alternatives.

## 3. Spherical Graphite Flows into North America

Spherical graphite (SPG) inflow to North America totals 45,000 t/yr, all from Chinese refineries [3].

Origin	Destination	Volume (t/yr)	Facility (Operator)	Product Form
China	United States	45,000	Heilongjiang Processing (BTR New Material)	Spherical graphite
Canada	United States	0	Nouveau Monde Becancour (NMG)	Spherical graphite
Canada	Canada	0	(no intra-Canada reported)	(no data)

Key findings:

- Chinese supply dominance: BTR New Material's Heilongjiang plant (200,000 t/yr nameplate SPG capacity) supplies the entirety of confirmed US spherical graphite imports at 45,000 t/yr (22.5% utilization) [3]
- Canadian capacity offline or underdeveloped: Nouveau Monde Graphite's Becancour processing plant (Quebec, 42,000 t/yr nameplate) shows zero confirmed exports to the US in current data [3]. This facility is likely in early-stage commissioning (post-2023 announcement) or production is allocated to internal NMG battery material manufacturing rather than merchant sales
- No pricing data available: Unlike synthetic graphite (HS 3801.10, USD value known), spherical graphite lacks separate HS classification or trade value reporting, preventing cost-basis comparison

Implications: North American SPG supply faces a critical bottleneck: Chinese import dependency (100% of identified flows) combined with zero Canadian domestic output (Becancour facility status unknown) means any supply disruption triggers immediate shortage risk. For battery cell makers: verify Becancour plant commissioning timeline with NMG; assume Chinese sourcing as primary supply route through 2026 H2. The absence of pricing data prevents margin analysis - request bilateral contracts from BTR/Heilongjiang to establish delivered cost benchmarks.

## 4. Competitive Position & Supply Chain Concentration

Facility-level capacity by region:

Region	Operator	Facility	Country	Product Form	Capacity (t/yr)	Status
Mining						
Africa	Syrah Resources	Balama Graphite Mine	Mozambique	Natural flake	350,000	Operational
N. America	Nouveau Monde	Saint-Michel-des-Saints	Canada	Natural flake	100,000	Ramping
N. America	Nouveau Monde	Matawinie	Canada	Natural flake	100,000	Development
N. America	Northern Graphite	Lac des Iles	Canada	Natural flake	10,000	Operational
N. America	Northern Graphite	Bissett Creek	Canada	Natural flake	44,000	Development
Europe	Talga Group	Vittangi	Sweden	Natural flake	100,000	Development
Processing						
Asia	BTR New Material	Shenzhen Plant	China	Synthetic graphite	200,000	Operational
Asia	Shanshan Technology	Ningbo Plant	China	Synthetic graphite	120,000	Operational
Asia	BTR New Material	Heilongjiang Plant	China	Spherical graphite	200,000	Operational
N. America	Nouveau Monde	Becancour	Canada	Spherical graphite	42,000	Commissioning
N. America	Syrah Resources	Vidalia	USA	Spherical graphite	11,500	Operational
N. America	Syrah Resources	Vidalia AAM Plant	USA	Anode material	11,250	Operational
Europe	Talga Group	Lulea Anode Plant	Sweden	Anode material	19,500	Operational

Supply chain concentration (HHI analysis):

For North American natural flake graphite supply (mining only, excluding imports):

- Nouveau Monde Graphite: 200,000 t/yr / 354,000 t/yr total = 56.5%
- Northern Graphite: 54,000 t/yr / 354,000 t/yr = 15.3%
- All other (Talga Sweden, Syrah Mozambique): 100,000 t/yr / 354,000 t/yr = 28.2%

HHI =  $(56.5)^2 + (15.3)^2 + (28.2)^2 = 3,192 + 234 + 796 = 4,222$ . Interpretation: HIGH concentration ( $4,222 > 2,500$ ) within North America, with Nouveau Monde Graphite as single dominant supplier when facilities come online.

For synthetic graphite supply to North America (processing, import-dependent):

- BTR New Material (Shenzhen): 200,000 t/yr nameplate = 62.5% of Chinese capacity

- Shanshan Technology: 120,000 t/yr nameplate = 37.5%

$HHI = (62.5)^2 + (37.5)^2 = 3,906 + 1,406 = 5,312$ . Interpretation: VERY HIGH concentration (>5,000); Chinese oligopoly with BTR as dominant player creates upstream geopolitical risk.

Implications: North American graphite supply chains exhibit two-tiered risk: (1) Mining/primary supply: Canadian capacity is highly concentrated in Nouveau Monde (56.5% when ramped), and most NMG capacity is in pre-commercial or early-stage (Matawinie, Saint-Michel-des-Saints announce commercial production 2024 - 2025). Delays by 12+ months would leave North America dependent on Mozambique (Syrah Balama) for 64%+ of natural graphite, creating single-source risk. (2) Processing/synthetic supply: 100% dependency on two Chinese processors (BTR and Shanshan) for synthetic graphite violates IRA 30D FEOC intent; no North American synthetic graphite capacity exists. Mitigation: accelerate NMG and Northern Graphite production ramp-ups; evaluate Taiwan-based synthetic producers (not in graph) as FEOC-compliant alternative; develop offtake agreements with Talga (Sweden) to absorb European surplus and reduce China dependency.

## What to Watch

30-day alerts:

1. Nouveau Monde Graphite (NMG) production announcement - Monitor for Saint-Michel-des-Saints commissioning updates. Current data shows zero US exports from NMG despite 100,000 t/yr nameplate at Saint-Michel; any production ramp will reduce Mozambique import dependency but may not reach commercial scale until Q3 2026. Action: Request production timeline and offtake allocations from NMG IR.
2. Syrah Balama utilization reset - Syrah's Balama mine ships only 10,000 t/yr to the US (3% of 350,000 t/yr capacity) despite nameplate; recent restarts after 2022 shutdown may indicate higher Asia-directed export contracts. Monitor quarterly production reports for US allocation trend shifts. Action: Track Syrah shareholder letters for US vs. Asia split; flagged if Balama capacity allocated >75% to non-NA markets.
3. BTR New Material capex signals - Chinese synthetic graphite (HS 3801.10) dominates US imports at \$2,991/t retail equivalent. Any capacity expansion or new facility announcement by BTR/Shanshan will telegraph market share shifts. Action: Monitor LME graphite settlements for synthetic grade premiums; signals elevated Chinese export intent if spreads tighten.

90-day alerts:

4. IRA Section 30D FEOC enforcement timeline - Synthetic graphite imports from China (45,000 t/yr to US) are non-compliant with FEOC as drafted; enforcement timing unclear but critical for battery anode supply chain. Action: Engage trade counsel on safe harbor provisions; pre-position alternative sourcing (Taiwan, South Korea) if enforcement triggers tariffs on Chinese synthetic graphite.
5. Talga Vittangi (Sweden) mine + Lulea anode plant ramp - Talga's Swedish natural flake (100,000 t/yr nameplate) and anode plant (19,500 t/yr) capacity may shift European supply dynamics and reduce reliance on distant suppliers. Monitor for offtake agreements with North American battery OEMs. Action: Track Talga project timelines; evaluate whether Swedish/EU production can substitute for Mozambique + China supply via transatlantic shipments (regulatory advantage under CBAM and EU Battery Regulation alignment).

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## Sources and Citations

- [1] UN Comtrade. Bilateral trade flow data (HS codes 2504.10 natural graphite, 3801.10 synthetic graphite). Retrieved 2026 - 04 - 16 (2504)
- [2] LME. Natural Graphite settlement prices, \$850/t. Data period: Apr 2026. Retrieved 2026 - 04 - 16 (2026)
- [3] LodeIQ Knowledge Graph. Supply chain facility data (mining, processing, refining capacity; trade routes; operator information). Retrieved 2026 - 04 - 16 (2026)

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