

# PALOS

## CONTENTS

## Weekly Commentary

Issue No. 21 | MAY 23, 2022

NanoXplore Inc. – Leaders in the Global Graphene Industry	1
Palos Funds vs. Benchmarks (Total Returns)	3
Disclaimer & Contacts	4

*By Charles Marleau CIM<sup>®</sup> and William Mitchell CIM<sup>®</sup>*

## NanoXplore Inc. – Leaders in the Global Graphene Industry

**NanoXplore Inc. (TSX: GRA)** is a Canadian based manufacturer of graphene powder, a derivative of graphite. The company offers an array of commercial graphene-based solutions for the automotive, plastics, commercial membranes, consumer packaging, polymers, concrete and lithium-ion (Li-ion) battery industries. Established in 2005, NanoXplore is the largest global supplier of graphene with a market share of approximately 40 percent. The company's Montreal-based manufacturing facility currently has an annual production capacity of 4,000 metric tonnes of graphene powder or pellets.

The signature proprietary product is **GrapheneBlack™**, a versatile and sustainable material with applications as an additive designed to improve the properties and performance of plastics and polymers. In 2020, NanoXplore capitalized on more than five years of research and development to develop graphene-based chemistries designed to enhance the performance of conventional Li-ion batteries. The results have been impressive. By adding a GrapheneBlack™ paste to a battery's anodes, significant improvements were achieved in the reduction of charging times, increased density (i.e., improved range), lower temperatures (safety) and lower cost.

**VoltaXplore** (private) is a 50/50 joint venture between NanoXplore and automotive component manufacturer **Martinrea International (TSX: MRE)**. Martinrea also owns roughly 22% of the outstanding shares of GRA. On April 5, we had the opportunity to tour the new VoltaXplore battery demonstration facility in Montreal. The facility is currently producing graphene-enhanced Li-ion batteries that are designed to supply specific segments of the electric vehicle and battery storage markets. It is expected that given the realization and proven technological improvements of the graphene-enhanced batteries, VoltaXplore is likely to move ahead on a final investment decision to construct a 2-gigawatt (GW) Li-ion battery plant. A 10 GW plant was originally considered; however, beginning with a 2 GW plant would require significantly less capital (about USD \$350 million vs. USD \$1.5 billion) and less time to complete the plant and begin production. If successful, a second 8 GW extension could be added later.

*By Charles Marleau CIM<sup>®</sup> and William Mitchell CIM<sup>®</sup>*

NanoXplore released its Q3/2022 results on May 17. Following the release, the company also held its first ever Earnings Call for analysts. Compared with Q3/2021, revenue increased by 58% to \$28 million. While adjusted EBITDA showed a loss of \$2.2 million; this was a \$200,000 improvement from 2021. As of Mar 31, 2022, NanoXplore had \$56 million in cash following proceeds of \$30 million from a capital raise in February 2022. The proceeds are intended for acquisitions, partnerships and general corporate purposes.

Two important purchase orders were announced this month. On May 10, NanoXplore confirmed an order to supply **Solamax Inc.** with GrapheneBlack™. Solamax is a Montreal-based leader in manufacturing geosynthetic membranes for use in the agricultural, mining and construction industries. GrapheneBlack™ is viewed as a higher performing, more environmentally friendly option over carbon black, which is currently being used. In a second announcement on May 12, the company announced a long-term supply agreement with **Molding Partners LLC** to produce and sell graphene-enhanced Sheet Molding Compound (SMC) containing GrapheneBlack™ and designed for use in creating light weight exteriors (hoods, fenders, bumpers) and battery containers for electric vehicles (EVs). Light weighting is important in EVs. Body components containing graphene offer superior properties related to durability, paint ability, crack resistance and finish.

NanoXplore is led by founder Dr. Soroush Nazarpour (Ph.D., Nanotechnology) who is widely regarded as among the world's preeminent experts in the field of graphene technology. Graphene was identified in 2004 as a "revolutionary" wonder material with remarkable properties that include heat and electric conductivity, strength superior to steel, and essentially transparent as a single layer of graphene is "one million times thinner than a human hair" (grapheneleaderscanada.com). Obviously, given such incredible properties, the applications across a wide swath of industrial, commercial and consumer uses are massive.

Palos were early investors in NanoXplore, and we have followed the company's prospects closely. We regularly meet with company management and analysts and our work leads us to hold a high level of conviction that the future for the company is very promising. The adoption and wider commercialization of graphene are destined to grow exponentially in coming years. NanoXplore is the world's largest and lowest cost manufacturer of Graphene, a material that also offers greater sustainability and a cleaner footprint compared to other carbon-based materials that are derived from hydrocarbons.

Although it will take time, we believe patient investors are likely to be well rewarded. The **Palos Income Fund L.P.**, the **Palos Equity Income Fund**, the **Palos WP Growth Fund**, and the **Palos-Mitchell Alpha Fund** are currently hold shares of NanoXplore.

Follow us on LinkedIn:



Chart 1: Palos Domestic Funds versus Benchmarks (Total Returns) <sup>1</sup>	FundServ	NAVPS	YTD Returns
Palos Income Fund L.P.	PAL100	\$9.09	-5.73%
Palos Equity Income Fund - RRSP	PAL101	\$6.81	-5.72%
Palos Merchant Fund L.P. (Dec 31, 2021) <sup>2</sup>	PAL500	\$1.16	24.67%
Palos WP Growth Fund - RRSP	PAL213	\$14.84	-21.58%
Palos-Mitchell Alpha Fund <sup>3</sup>	PAL300	\$9.29	-9.63%
S&P TSX Composite (Total Return with dividends reinvested)			-3.89%
S&P 500 (Total Return with dividends reinvested)			-17.67%
S&P TSX Venture (Total Return with dividends reinvested)			-25.23%
Chart 2: Market Data <sup>1</sup>			Value
US Government 10-Year			2.78%
Canadian Government 10-Year			2.84%
Crude Oil Spot			US \$113.23
Gold Spot			US \$1,842.10
US Gov't10-Year/Moody BAA Corp. Spread			237 bps
USD/CAD Exchange Rate Spot			US \$0.7788

<sup>1</sup> Period ending May 20th, 2022. Data extracted from Bloomberg

<sup>2</sup> Fund is priced annually

<sup>3</sup> Fund is priced weekly on Tuesdays

# Weekly Commentary

Issue No. 21 | MAY 23, 2022

## Disclaimer:

This publication is proprietary to Palos Management Inc. (along with its affiliate Palos Wealth Management Inc., “Palos”). This publication may be copied, downloaded, stored in a retrieval system, further transmitted, reproduced, disseminated, and/or transferred, in any form or by any means, but only as long as it is unaltered and attributed to Palos. This publication and its contents may not be sold or licensed without Palos’ written permission. The information and opinions contained herein have been compiled or arrived at from sources believed reliable but no representation or warranty, express or implied, is made or implied regarding accuracy or completeness. The information provided does not constitute investment advice and it should not be relied upon on as such. If you have received this communication in error, please notify us immediately by electronic mail or telephone. This document may contain certain forward-looking statements that are not guarantees of future performance and future results could be materially different. Past performance is not a guarantee of future performance. “S&P” is a registered trademark of Standard and Poor’s Financial Services LLC. “TSX” is a registered trademark of TSX Inc. The Bloomberg USD High Yield Corporate Bond Index is a rules-based, market value weighted index engineered to measure publicly issued noninvestment grade USD fixed rate, taxable, corporate bonds. To be included in the index a security must have a minimum par amount of 250MM.

# PALOS

1 Place Ville Marie, Suite 1670  
Montreal (QC) H3B 2B6, Canada

T. +1 (514) 397-0188

F. +1 (514) 397-0199

1 St. Clair Avenue East Suite 504  
Toronto, Ontario M4T 2V7

T. +1 (647) 276-0110

F. +1 (647) 343-7772

[www.palos.ca](http://www.palos.ca)