Crude Dil Plans for M'E Harbor

BEAWAY DPENING

ting salt from available sources to customers who needed it most."

Though most bulk salt is moved by semi-trailers on road and rail, Thiele opined to his Highway H₂O audience that marine is a viable transport option for salt. "We've found a valuable resource in The St. Lawrence Seaway Management Corporation. They have given us insight into the industry. As a result, we are bringing eight vessels into the Great Lakes in 2015. We've found high-quality inventory offshore in Africa, Europe and South America. To get this to market we've partnered with trucking companies, rail, ocean vessels and barges. We do a lot of barging up the river systems through New Orleans, it's proven to be very reliable, though a bit slow. We are in this for the long haul and looking to partner with vessel owners in the Great Lakes to put together a good logistics chain to move product on an annual basis. We're very interested in this mode."

Speaking for the oil and petroleum sector, Richard Sawall, Director of Development for <u>US Oil</u>, a <u>Midwest-based bulk liquid terminal owner/operator and marketer of refined products, including gasoline</u>, diesel, ethanol, and natural gas,

said the St. Lawrence Seaway system is crucial to his company's operations. "We are active on the Great Lakes with refined and renewable energy products. We own a 70,000 barrel barge used for shipping refined and renewable products. We also use third party vessels to ship and receive products. US Oil and others are investigating the use of the Great Lakes as a means to efficiently move crude oil out of the midcontinent to international markets." The first leg to move Canadian heavy bitumen would be by rail from Canadian origins to terminals on the Great Lakes. The second leg would be via Seaway vessel to deep water ports on the Canadian East Coast as needed.

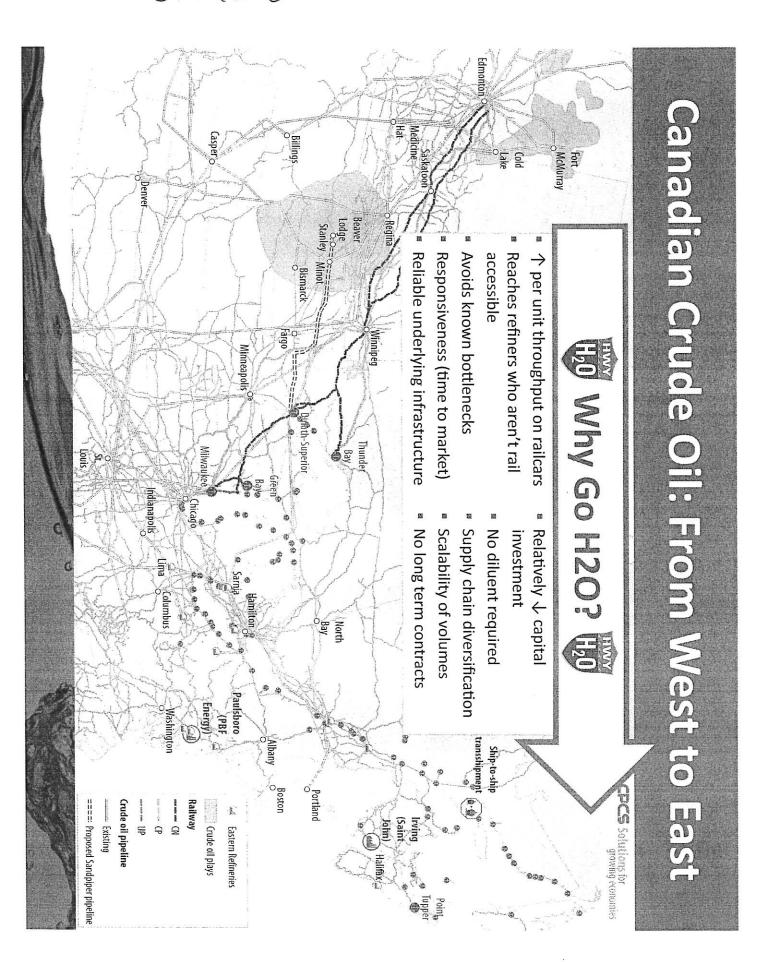
Sawall described his company's plans to move more product faster: US Oil is considering the use of its Jones Island terminal (Port of Milwaukee, WI) for this move. The Jones Island terminal has 310,000 barrels of storage (200,000+ barrels heated storage), with rail and steam. Jones Island would receive crude via rail in volumes ranging from 5,000 to 60,000 barrels per day. Crude volumes would aggregate in tanks until the product could be loaded to vessels (approx. 100,000 bar-

rels cargo per vessel). "Additional terminals assets could be activated for this trade if higher volumes are desired," he added.

From US Oil terminals, vessels would transit the Great Lakes and St. Lawrence Seaway en route to the Atlantic Ocean. The oil would be delivered via Seaway vessel to deepwater terminals on Atlantic Coast that could aggregate volumes. Multiple deep-water ports are available, such as NuStar Energy's Point Tupper, NS, and Port of Belledune, NB, both of which are being considered by US Oil. (See "Chaleur Terminals Inc., canadiansailings.ca/?p=9381). Once on deep water, crude can move anywhere in the world economically.

"I think there will come a critical mass of attention being paid on the Great Lakes/Seaway route," nodded Sawall. "There are a number of different parties, like the terminals, terminal operators, crude oil producers, and crude oil buyers, who are looking at this route. Up to this point, there have been no bottlenecks to Canadian crude. That may change. The next three to five years will be a sweet spot. We will see if we can make something happen."

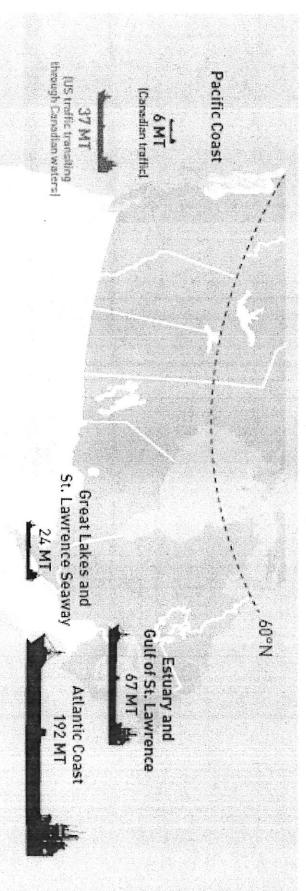




Oil Moving on the Great Lakes

Regional Breakdown for Oil Transported as Cargo in Canadian Waters

Approximate annual average over last ten years in million tonnes



Data Sources: Transport Canada and Nuka Research & Planning Group, LLC -- West Coast Spill Response Study, 2013



Seaway Routing Options — Load Ports



Гhunder Bay

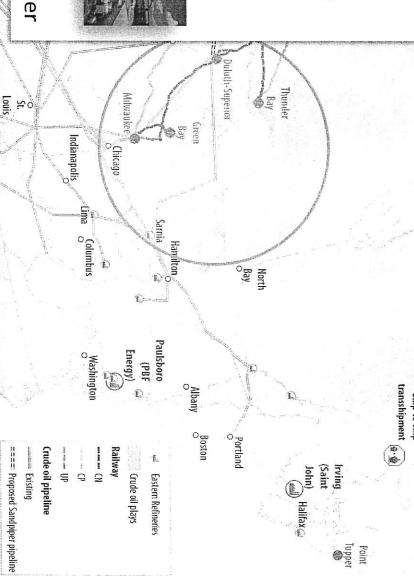
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- √ Valley Camp/MobilEx
- \checkmark Thunder Bay Terminals

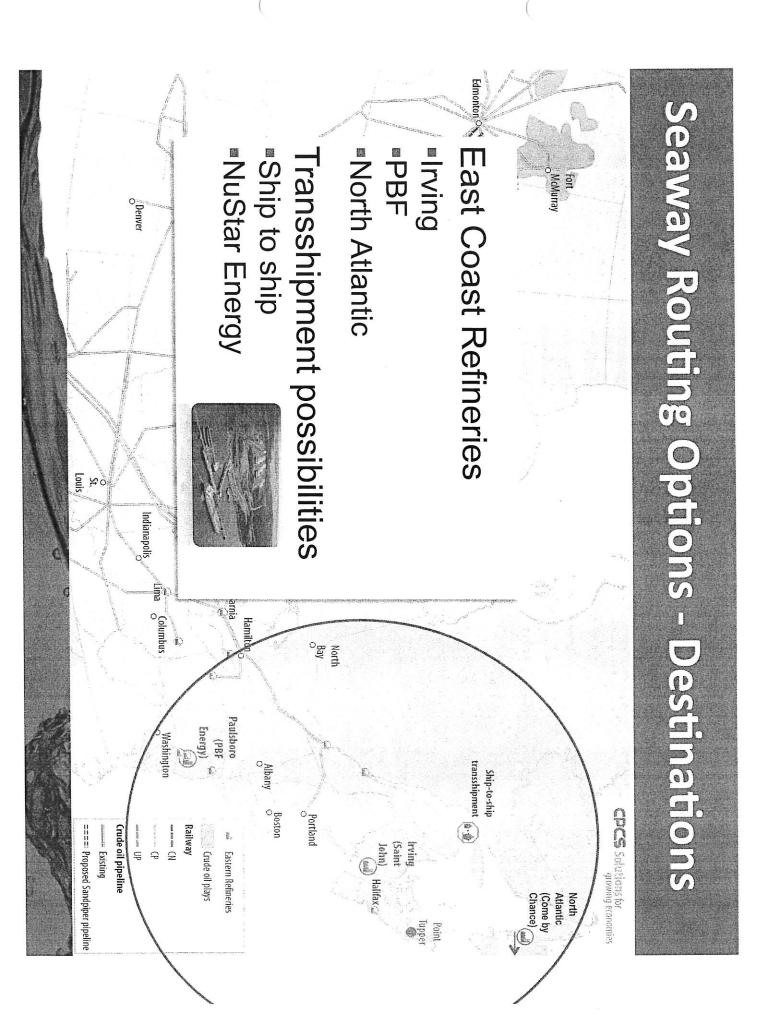
■Duluth Superior

✓ Calumet

- Green Bay
- ❖ CN Rail

 ✓ U.S. Oil
- Milwaukee
- CP Rail √U.S. Oil/Liquid Cargo Pier





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