

Pacific States/British Columbia Oil Spill Task Force

**Volumes of Crude Oil Transported in 2018
via Rail, Pipeline, Barge and Vessel
in the Task Force Jurisdictions**



June 2019

ALASKA • BRITISH COLUMBIA • CALIFORNIA • HAWAII • OREGON • WASHINGTON

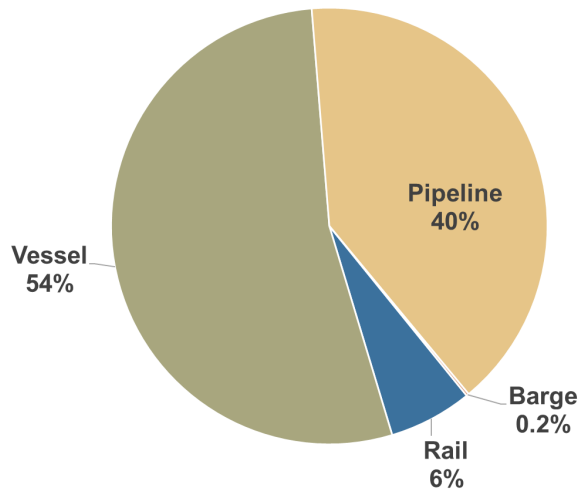
2018	Rail	Vessel	Pipeline	Barge	Exported Crude	Notes and Sources
Alaska	N/A	178,100,000 bbls* (loaded to tankers from the VMT) (approximate volume loaded to tankers from the VMT) Note: This volume is included in the Pipeline total. The oil in this category is transferred from the pipeline to tanker vessels at the marine terminal.	185,900,077 bbls **	N/A	0	<i>Data source:</i> APSC PIO* http://www.alyeska-pipe.com/TAPS/PipelineOperations/Throughput ** (All of the oil transported in vessels was first transported in the pipeline. The vessel transportation amount reflects the amount of oil transported via pipeline less oil offloaded at two locations along the pipeline route. It is not from a second production source.)
British Columbia	4,380,000 bbls	21,699,592 bbls** Marine Movement of Crude Oil from BC	109,500,000 bbls Trans-mountain capacity (Edmonton-Burnaby)	Unknown	0	*Source: "Future Supply, Demand and Transportation of Oil through British Columbia", EnSys Energy, 1/19/2019 NOTE: EnSys represents a combination of capacity and trends, rather than volume per period. EnSys describes the information as "present-day", which appears to smooth the variability of flows over time. ** Source: Fraser Port Authority
California	5,300,000 bbls (3.0 million bbls from Canada;	364,000,000 bbls (135 million bbls from Saudi Arabia;	185,000,000 bbls (all produced in Calif)	397,443 bbls (1 barge from WA)	0	<i>Data Sources:</i> http://www.energy.ca.gov/almanac/petroleum_data/

2018	Rail	Vessel	Pipeline	Barge	Exported Crude	Notes and Sources
	1,4 million bbls from New Mexico; 0.9 million bbls from Wyoming)	73 million bbls from Alaska; 52 million bbls from Ecuador; 45 million bbls from Colombia)				http://www.energy.ca.gov/almanac/petroleum_data/statistics/2016_crude_by_rail.html http://www.conservation.ca.gov/dog/pubs_stats/annual_reports/Pages/annual_reports.aspx https://www.eia.gov/petroleum/supply/monthly/ State Lands Commission staff.
Hawaii	N/A	48,932,000 bbls	N/A	N/A	0	Obtained from IES Downstream LLC and Par Pacific
Oregon	13,058,826 bbls	2,304,157 bbls	N/A	N/A	2,304,157 bbls	Rail data from railroad line submittals to ODOT. BNSF transported ~2,836 cars to PDX for loading to barges, ~5670 cars from WA to CA through Central Oregon. UPRR ~7,400 cars along Columbia River, with ~7,00 cars to PDX then WA, ~400 cars through PDX to CA via Willamette Valley, Cascades Crossing, Klamath Basin. Finally, the 2,304,157 bbls of oil exported to Asia from the Zenith facility in Portland arrived to the facility via BNSF rail line and is also included in the rail numbers.
Washington	59,448,635 bbls crude	95,014,321 bbls crude	55,491,674 bbls crude	2,097,447 bbls crude	0	Vessel and barge volume based on data from Ecology's Advanced Notice of Transfer System. Barge data includes Articulated Tug and Barge (ATB). Pipeline volume reported by pipelines.

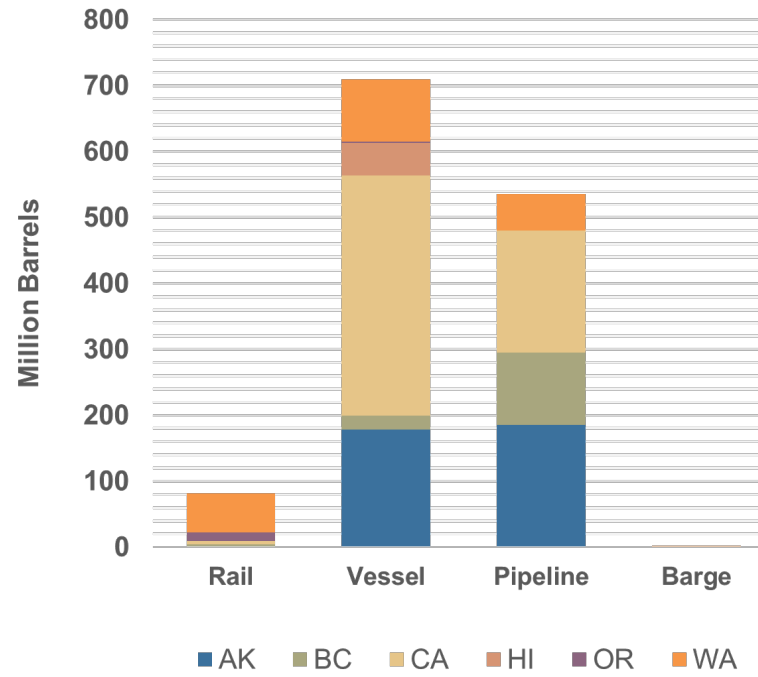
2018	Rail	Vessel	Pipeline	Barge	Exported Crude	Notes and Sources
						Rail volume is based on data from Ecology's Advance Notice of Transfer System.

Assumptions:

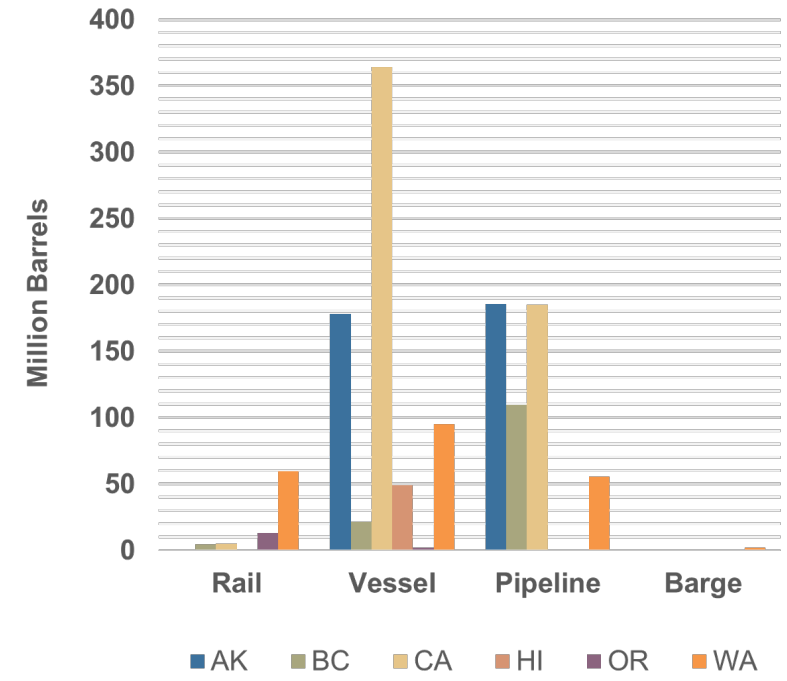
- All volumes reported in barrels (bbl)
- Definition of Crude Oil: All crude oils including Bakken, Alaska North Slope, oil sands products, black waxy and other crudes
- N/A: No transport of crude currently taking place
- Unknown: Transported volumes not currently tracked or measured.



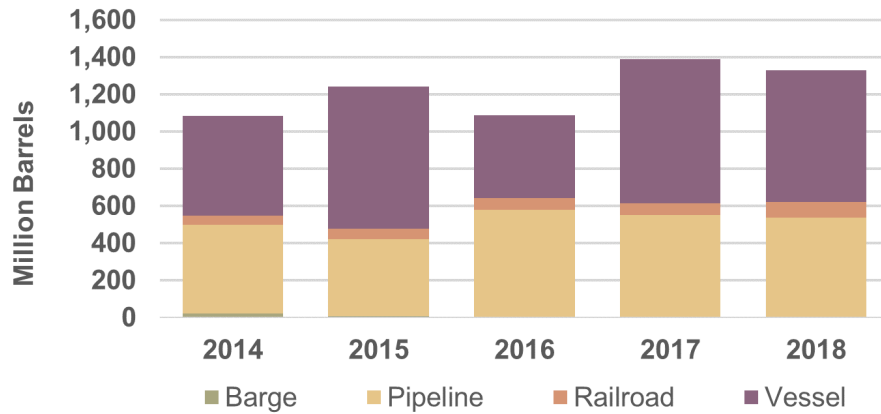
Graph 1: Percent total annual volume by transportation mode (2018)



Graph 2: Annual volume by transportation mode and jurisdiction (2018)



Graph 3: Annual volume by transportation mode and jurisdiction (2018)



Graph 4: Total annual volume by transportation mode (2014-2018)