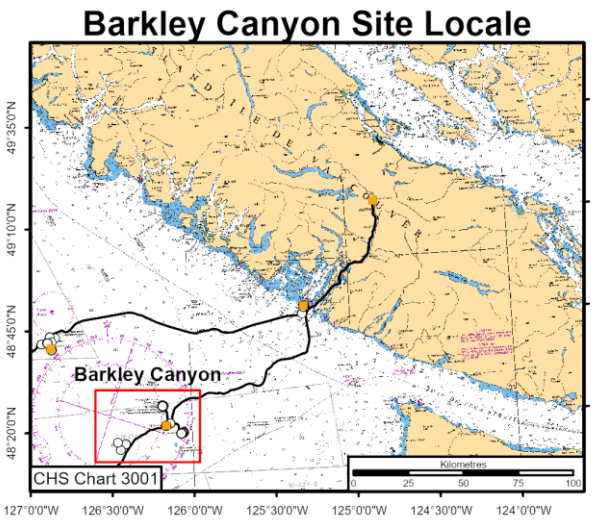
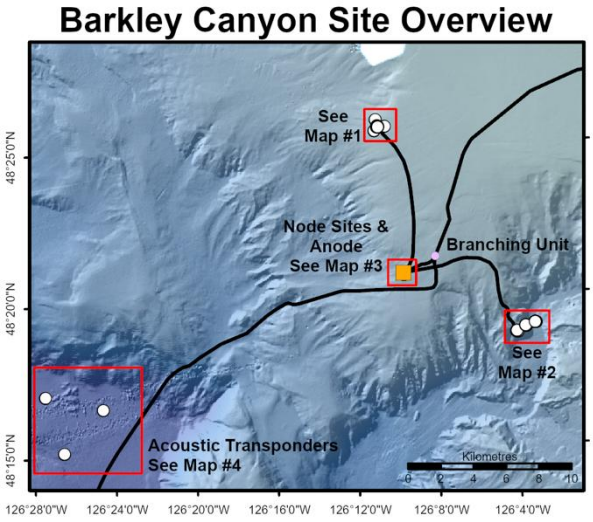
Information for Mariners – October 2026
NEPTUNE Observatory: Barkley Canyon

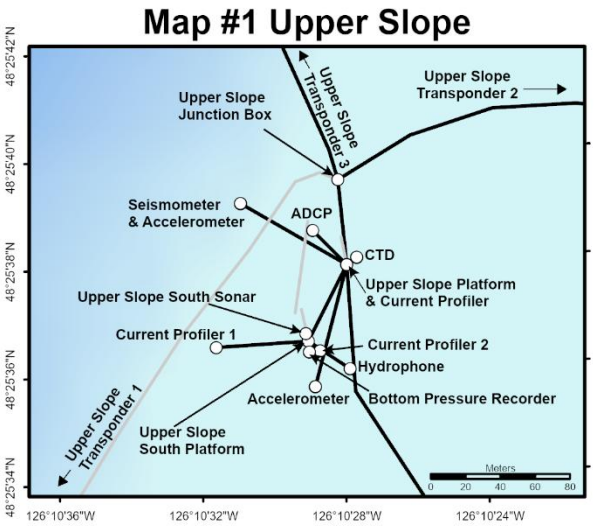
Project: The North-East Pacific Undersea Networked Experiments (NEPTUNE) is an oceanographic project managed by Ocean Networks Canada (ONC), an initiative of the University of Victoria. It consists of a cabled observatory off the west coast of Vancouver Island, beginning in Port Alberni and extending 300 km offshore along an 813 km loop. From a shore landing, an armoured marine cable extends along the ocean bottom to large observatory "Nodes", into which oceanographic instrument systems connect. High voltage power is supplied down the cable, and Ethernet communications along fibre optics bring data and images back to the University in real time. Project status, system information, and data are available from the Ocean Networks Canada website: **www.oceannetworks.ca**

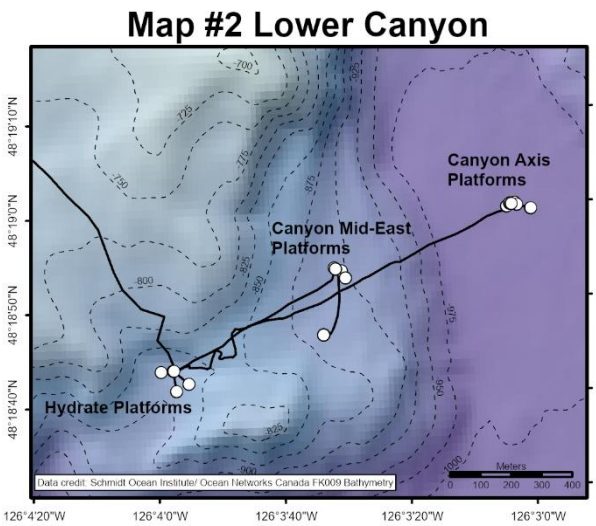
What: High voltage marine fibre optic cables and observatory systems (see web site for system details).
When: Latest system and instrument deployments in Barkley Canyon: **31 Aug, 2026**
Where: Barkley Canyon and Upper Slope, West Coast Vancouver Island. See ENC CA271034 for cable route and obstructions.

Note: Cables are exposed at the surface. Please use caution when operating in this area. Cable position files are available at the link below. Other formats are available upon request.

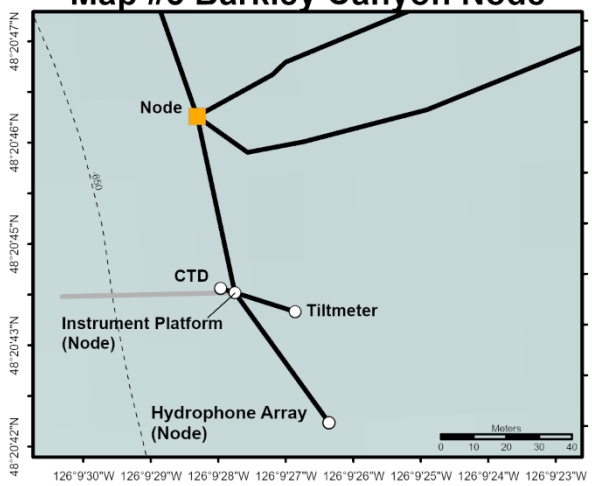




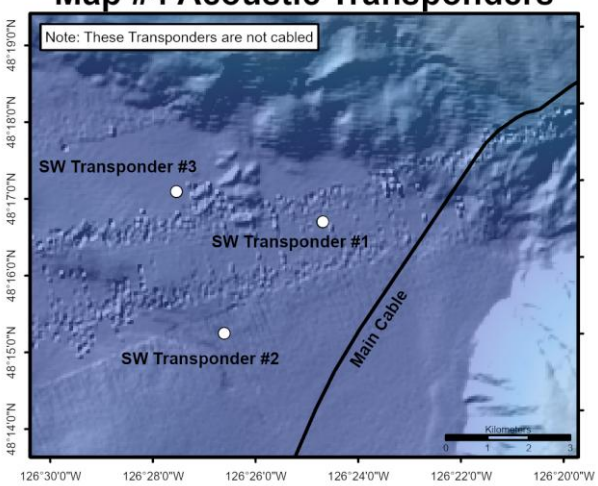




Map #3 Barkley Canyon Node



Map #4 Acoustic Transponders



This figure has been produced by the University of Victoria based on Canadian Hydrographic Service (CHS) charts, pursuant to CHS Direct User License No. 2024-0822-1260-ON. The incorporation of data sourced from CHS in this product shall not be construed as constituting an endorsement by CHS of this product. This product does not meet the requirements of the Charts and Nautical Publications Regulations, 1995 under the Canada Shipping Act, 2001. Official charts and publications; corrected and up-to-date, must be used to meet the requirements of those regulations.

Full cable routes and waypoints are available for use with Electronic Navigation Systems from the ONC website: https://www.oceannetworks.ca/notice-for-mariners

Installations:

Name	Latitude	Longitude	Depth (m)	Description
Transponder 2	48.25270	-126.44210	2070	An orange GPS Acoustics device extending 2 m off seafloor.
Transponder 1	48.27619	-126.40889	2070	An orange GPS Acoustics device extending 2 m off seafloor.
Transponder 3	48.28383	-126.45612	2068	An orange GPS Acoustics device extending 2 m off seafloor.
Multi-beam Sonar	48.31147	-126.06574	870	1 m metal and plastic tripod
Kongsberg Sonar East (Hydrate)	48.31168	-126.06518	871	3 m grey steel tripod
Kongsberg Sonar West (Hydrate)	48.31205	-126.06639	869	3 m grey steel tripod
CTD (Hydrate)	48.31207	-126.06583	871	3 m white tripod
Instrument Platform (Hydrate)	48.31208	-126.06586	871	Large (3 m) grey steel frame
Benthic Crawler (Canyon Mid East)	48.31297	-126.05916	881	1.5 m yellow and black vehicle on a 300 m tether
Accelerometer (Canyon Mid East)	48.31463	-126.05811	897	Buried 1 m circular green caisson with cable at surface
CTD (Canyon Mid East)	48.31484	-126.05828	894	3 m grey steel tripod monument
Instrument Platform (Canyon Mid East)	48.31490	-126.05853	895	Large (3 m) grey steel frame.

ADCP (Canyon Mid East)	48.31494	-126.05859	893	1 m green rectangular fiberglass platform
ADCP (Canyon Axis)	48.31649	-126.04983	986	Acoustic instrument on the seabed
Sonar (Canyon Axis)	48.31656	-126.05088	987	3 m grey steel tripod
Instrument Platform (Canyon Axis)	48.31661	-126.05044	984	Large (3 m) grey steel frame
CTD (Canyon Axis)	48.31664	-126.05067	983	3 m grey steel tripod
Camera (Canyon Axis)	48.31665	-126.05074	985	3m grey steel tripod
ADCP (Canyon Axis)	48.31667	-126.05053	983	1 m green rectangular fiberglass platform
Hydrophone Array (Node)	48.34517	-126.15732	641	Yellow metal pole rising 3 m from seafloor
Tilt Meter (Node)	48.34548	-126.15744	644	1 m cylindrical titanium can, with white cap
Instrument Platform (Node)	48.34554	-126.15768	644	Large (3 m) grey steel frame
CTD Monument (Node)	48.34555	-126.15774	646	3 m white tripod
Node (Node)	48.34603	-126.15781	644	Large 7 m yellow trawl resistant frame, 13 tons
Branching Unit	48.35475	-126.13102	460	3 m cylindrical steel can
Autonomous Fetch (Upper Slope)	48.42478	-126.17765	408	An orange GPS Acoustics device extending 2 m off seafloor
Accelerometer (Upper Slope South)	48.42657	-126.17465	394	0.5 m Cylindrical frame with glass sphere
Hydrophone Instrument Platform (Upper Slope South)	48.42666	-126.17438	393	1.5m steel tripod
BPR (Upper Slope South)	48.42675	-126.17469	393	1 m triangular steel platform
AquaDopp (Upper Slope South)	48.42676	-126.17461	392	1 m yellow frame with green caisson
ADCP (Upper Slope South)	48.42679	-126.17541	397	Acoustic instrument on the seabed
Instrument Platform (Upper Slope South)	48.42681	-126.17469	394	Large (3 m) grey steel frame
Sonar (Upper Slope South)	48.42685	-126.17471	394	3m grey steel tripod
DQ Fetch (Upper Slope East)	48.42714	-126.16895	397	An orange GPS Acoustics device extending 2 m off seafloor
Instrument Platform (Upper Slope)	48.42720	-126.17437	395	Large (3 m) grey steel frame
CTD (Upper Slope)	48.42723	-126.17430	396	3 m white tripod
ADCP (Upper Slope)	48.42738	-126.17463	396	Acoustic instrument on the seabed

BBS-Instrument Platform (Upper Slope)	48.42753	-126.17518	396	1 m spherical grey titanium platform. Notice: P-0748(2012).
Mini Junction Box (Upper Slope)	48.42764	-126.17442	397	1.5 x 0.5 m metal frame box on the seafloor
DQ Fetch (Upper Slope North)	48.43093	-126.17644	407	An orange GPS acoustics device extending 2 m off seafloor

Contacts: If you have any concerns, or would like further information, please contact Ben Biffard, Ocean Networks Canada's Director of Observatory Digital Operations at bbiffard@uvic.ca, or Ocean Networks Canada's GIS Specialists at GIS@oceannetworks.ca.