

Incident Summary (#6212) II-662243-2018 (Final)

SUPPORTING INFORMATION	Incident Date	<i>March 11, 2018</i>	
	Location	<i>Northern Coast</i>	
	Regulated industry sector	<i>Passenger Ropeways – Surface Ropeway</i>	
	Impact	Qty injuries	<i>None</i>
		Injury description	<i>N/A</i>
		Injury rating	<i>N/A</i>
	Damage	Damage description	<i>Tension System Anchor decomposed – anchor was destroyed</i>
		Damage rating	<i>Moderate</i>
Incident rating	<i>Moderate</i>		
Incident overview	A wood timber was buried in ground and being utilized as an anchor as part of the tensioning system for a wire rope tow. The timber was beyond its serviceable life and failed due to decomposition. The failure caused the station stanchion to tilt forward and a complete loss of haul rope tension, which resulted in the hauling rope lying on the snow surface. The ropeway was not in operation when this occurred and no other ropeway components sustained damage due to the anchor failure.		
INVESTIGATION CONCLUSIONS	Site, system and components	The design of the wire rope tow incorporates buried wooden beams/logs to act as anchors. These anchors are a part of the stations structural tensioning system. The ropeway is tensioned by means of a tensioning device connected to these anchors. Proper ropeway tension is required to convey passengers up the ski slope. Failure of any structural component within the tensioning system results in the loss of adequate design tension on the hauling rope.	
	Failure scenario(s)	The buried wooden beam/log lost its structural integrity due to decomposition. The tension force applied to the cable affixed to the compromised anchor caused the anchor to fail.	
	Facts and evidence	<p>As reported by the duty holder :</p> <ul style="list-style-type: none"> • The station stanchion tilted forward due to the hauling rope load. • The wire tension cable exhibited a coating of mud on its exterior where it had been buried prior to the anchor failure. • The wire tension cable exhibited not signs of failure. <p>Attached Duty Holder submitted photos.</p>	
	Causes and contributing factors	<p><i>The loss of hauling rope tension is the direct result and outcome of the tension system anchor failure.</i></p> <p>It is highly likely that the organic anchor (log/timber) decomposed to a point where it could no longer maintain the forces applied to it. The inability of the Anchor to be visually inspected may have been a contributing factor.</p>	

Photos or diagrams (if necessary)



Station tilted forward due to anchor failure



Tension Cable submerging into snow/earth connecting to buried anchor.