



Appendix IR1-11-C

Supplemental Photos for the Bitter Creek Hydrotechnical Assessment Study Area

Red Mountain Underground Gold Project
IDM Mining Ltd. Responses to
Canadian Environmental Assessment Information Request #1

November 15, 2017

Ryan Weymark, P.Eng.
Project Director
DM Mining
Suite 1500, 409 Granville Street
Vancouver BC, V6C 1T2

Subject: Supplemental Photos for the Bitter Creek Hydrotechnical Assessment Study Area for the Red Mountain Mine Access Road.

Dear Mr. Weymark,

Attachment 1 contains a series of photos of the Bitter Creek hydrotechnical assessment study area. The photos were collected during several field shifts over the 2016 and 2017 field seasons by Onsite Engineering Ltd. (OEL) personnel. The photos have been organized by the field shift they were collected and ordered working upstream. The field shifts that photos of the study area were collected were;

- Figures 1 to 78 were collected from September 14 to September 20, 2016,
- Figures 79 to 91 were collected on April 13, 2017,
- Figures 92 to 148 were collected from June 13 to June 14, 2017,
- Figures 149 to 150 were collected on August 1, 2017,
- Figures 151 to 158 were collected on October 12, 2017, and
- Figures 159 to 162 were captured from aerial videos, the date the video was recorded was April 11, 2017.

Should there be any further questions or requests for additional photos or videos, please do not hesitate to contact Michael Foster at 250-720-6726 or mfoster@onsite-eng.ca.

Regards

Onsite Engineering Ltd.

<Original signed by>

Michael Foster, P.Eng.
Supervising Engineer, Principal

Attachments:

Figure 1 to 162. Supplemental photos for the Bitter Creek Hydrotechnical Assessment study area for the Red Mountain Mine access road.

Attachment 1. Supplemental photos for the Bitter Creek Hydrotechnical Assessment study area for the Red Mountain Mine access road.



Figure 1. View from the south bank of Bitter Creek, near road station 1+400, looking downstream.



Figure 2. View from a gravel bar on Bitter Creek, near road station 1+400, looking toward the north bank.



Figure 3. View from a gravel bar on Bitter Creek, near road station 1+400, looking downstream and towards the north Bank.



Figure 4. View from the top of the north bank on Bitter Creek, near road station 2+115, looking upstream.



Figure 5. View from the top of the north bank on Bitter Creek, near road station 2+115, looking upstream.



Figure 6. View from the top of the north bank on Bitter Creek, near road station 2+115, looking downstream.



Figure 7. View from the top of the north bank on Bitter Creek, near road station 2+190, looking downstream.



Figure 8. View from the top of the north bank on Bitter Creek, near road station 2+190, looking upstream.



Figure 9. View from the north bank on Bitter Creek, near road station 2+210, looking upstream.



Figure 10. View from the north bank on Bitter Creek, near road station 2+210, looking downstream.



Figure 11. View from the present water, on the north side of Bitter Creek, near road station 2+210, towards the north bank.



Figure 12. View from the north bank on Bitter Creek, near road station 2+315, looking downstream.



Figure 13. View from the north bank on Bitter Creek, near road station 2+315, looking downstream.



Figure 14. View from the north side of Bitter Creek, near road station 2+345, looking downstream and towards the north bank.



Figure 15. View from the north side of Bitter Creek, near road station 2+345, looking upstream and towards the north bank.



Figure 16. View from a gravel bar on the north side of Bitter Creek, near road station 2+450, looking towards the north bank.



Figure 17. View from the north bank on Bitter Creek, near road station 2+500, looking downstream.



Figure 18. View from a gravel bar on the north side of Bitter Creek, near road station 2+500, looking upstream and towards the north bank.



Figure 19. View from a gravel bar on the north side of Bitter Creek, near road station 2+500, looking upstream.



Figure 20. View from a gravel bar on the north side of Bitter Creek, near road station 2+500, looking downstream.



Figure 21. View from the north bank on Bitter Creek, near road station 2+615, looking upstream.



Figure 22. View from the north bank on Bitter Creek, near road station 2+615, looking upstream.



Figure 23. View from the north bank on Bitter Creek, near road station 2+615, looking downstream.



Figure 24. View of a gravel bar and the south bank of Bitter Creek near road station 2+745.



Figure 25. View from a gravel bar on the north side of Bitter Creek, near road station 2+850, looking downstream.



Figure 26. View from a gravel bar on the north side of Bitter Creek, near road station 2+850, looking downstream and towards the north bank.



Figure 27. View from the north bank on Bitter Creek, near road station 2+850, looking downstream.



Figure 28. View from the north bank on Bitter Creek, near road station 2+850, looking upstream.



Figure 29. View from the north bank on Bitter Creek, near road station 2+880, looking downstream.



Figure 30. View from a gravel bar on the north side of Bitter Creek, near road station 2+880, looking towards the north bank.



Figure 31. View of a washed away section of road near road station 2+880.



Figure 32. Gravel bar near road station 3+210.



Figure 33. View of Bitter Creek near road station 3+210.



Figure 34. View of Bitter Creek near road station 3+210.



Figure 35. View from gravel bar on Bitter Creek, near road station 3+210, looking downstream.



Figure 36. View from gravel bar on Bitter Creek, near road station 3+210, looking towards the north bank.



Figure 37. View from the north bank of Bitter Creek, near road station 3+320, looking upstream and toward the south bank.

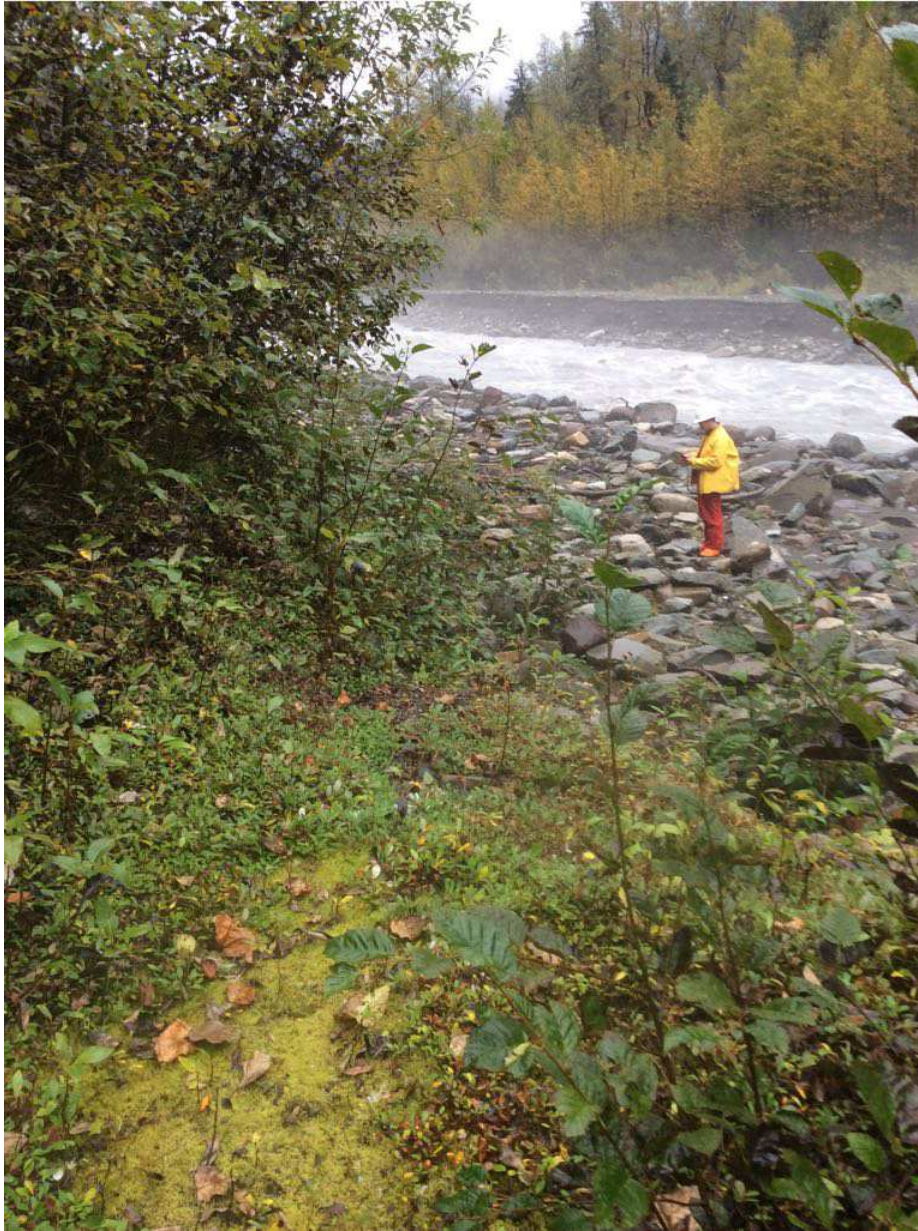


Figure 38. View from the north bank of Bitter Creek, near road station 3+320, looking upstream and toward the south bank.



Figure 39. View from the north bank of Bitter Creek, near road station 3+380, looking upstream.



Figure 40. View from the north bank of Bitter Creek, near road station 3+380, looking downstream.



Figure 41. View from the north bank of Bitter Creek, near road station 3+450, looking downstream.



Figure 42. View of the north bank of Bitter Creek, near road station 3+450.



Figure 43. View from the north bank of Bitter Creek, near road station 3+480, looking downstream.



Figure 44. Aerial view of the north bank of Bitter Creek near road station 3+480.



Figure 45. View from the north bank of Bitter Creek, near road station 3+525, looking downstream.



Figure 46. View from a side channel on Bitter Creek, near road station 3+655, looking upstream.



Figure 47. View from a side channel on Bitter Creek, near road station 3+655, looking downstream.



Figure 48. View from a side channel on Bitter Creek, near road station 3+700, looking downstream.



Figure 49. View from a side channel on Bitter Creek, near road station 3+700, looking upstream.



Figure 50. View of the north bank of Bitter Creek, near road station 3+990.



Figure 51. View of the north bank of Bitter Creek, near road station 4+000.



Figure 52. View from the north bank of Bitter Creek, near road station 4+015, looking upstream.



Figure 53. View from the north bank of Bitter Creek, near road station 4+015, looking upstream.



Figure 55. Aerial view of the north bank of Bitter Creek near road station 4+015.



Figure 56. Aerial view of the north bank of Bitter Creek near road station 4+065.



Figure 57. View from the north bank of Bitter Creek, near road station 4+065, looking upstream.



Figure 58. View from the north bank of Bitter Creek, near road station 4+100, looking downstream.



Figure 59. View from the north bank of Bitter Creek, near road station 4+250, looking upstream.



Figure 60. View of the north bank of Bitter Creek, near road station 4+250.



Figure 61. View from the north bank of Bitter Creek, near road station 4+265, looking upstream.



Figure 62. View from the north bank of Bitter Creek, near road station 4+450, looking upstream.



Figure 63. View from the north bank of Bitter Creek, near road station 4+500, looking downstream.



Figure 64. View from the north bank of Bitter Creek, near road station 4+630, looking upstream.



Figure 65. View of the north bank of Bitter Creek, near road station 4+630.



Figure 66. View from the north bank of Bitter Creek, near road station 4+630, looking upstream.



Figure 67. View from the north bank of Bitter Creek, near road station 4+630, looking upstream.



Figure 68. View from the north bank of Bitter Creek, near road station 4+630, looking upstream.



Figure 69. View of the north bank of Bitter Creek, near road station 4+630.



Figure 70. View from the north bank of Bitter Creek, near road station 4+700, looking downstream.



Figure 71. View from the north bank of Bitter Creek, near road station 4+710, looking downstream.



Figure 72. View from the north bank of Bitter Creek, near road station 4+710, looking upstream.



Figure 73. View from the north bank of Bitter Creek, near road station 4+765, looking downstream.



Figure 74. View from the north bank of Bitter Creek, near road station 4+765, looking downstream toward the south bank.



Figure 75. View from a gravel bar on the north side of Bitter Creek, near road station 5+050, looking downstream and towards the north bank.



Figure 76. View from a gravel bar on the north side of Bitter Creek, near road station 5+070, looking towards the north bank.



Figure 77. View from a gravel bar on the north side of Bitter Creek, near road station 5+070, looking upstream and towards the north bank.



Figure 78. View from a gravel bar on the north side of Bitter Creek, near road station 5+070, looking upstream.



Figure 79. View from the north bank of Bitter Creek, near road station 4+025, looking upstream.



Figure 80. View of the north bank of Bitter Creek, near road station 4+065.



Figure 81. View of the north bank of Bitter Creek, near road station 4+065.



Figure 82. View from the north bank of Bitter Creek, near road station 4+350, looking upstream.



Figure 83. View from the north bank of Bitter Creek, near road station 4+450, looking downstream.



Figure 84. View from the north bank of Bitter Creek, near road station 4+450, looking upstream.



Figure 85. View from the north bank of Bitter Creek, near road station 4+600, looking downstream and towards the north bank.



Figure 86. View from the north bank of Bitter Creek, near road station 4+600, looking upstream.

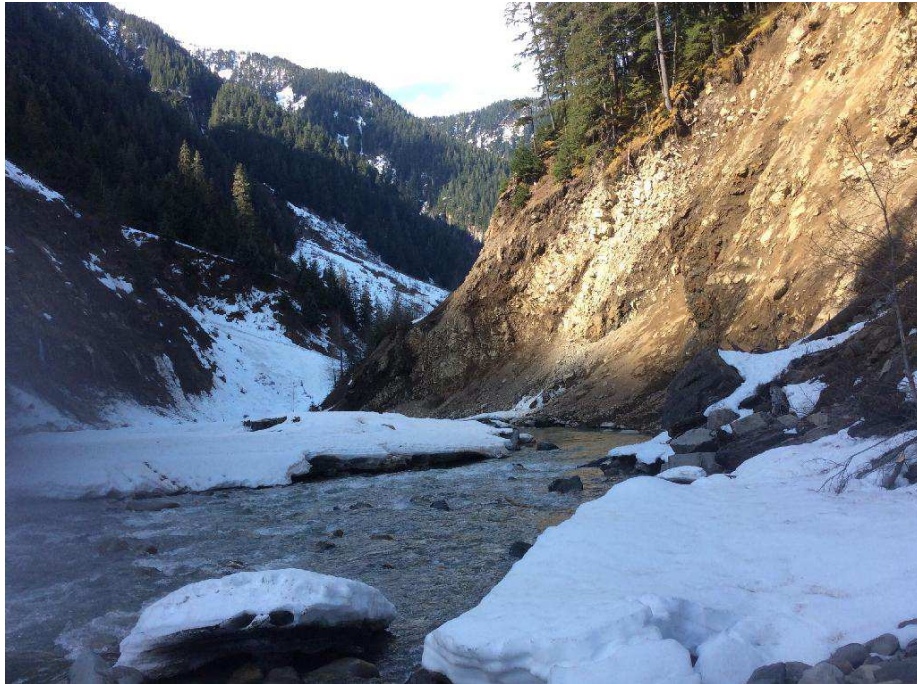


Figure 87. View from the north bank of Bitter Creek, near road station 4+750, looking downstream.



Figure 88. View from the north bank of Bitter Creek, near road station 4+750, looking towards the south bank.

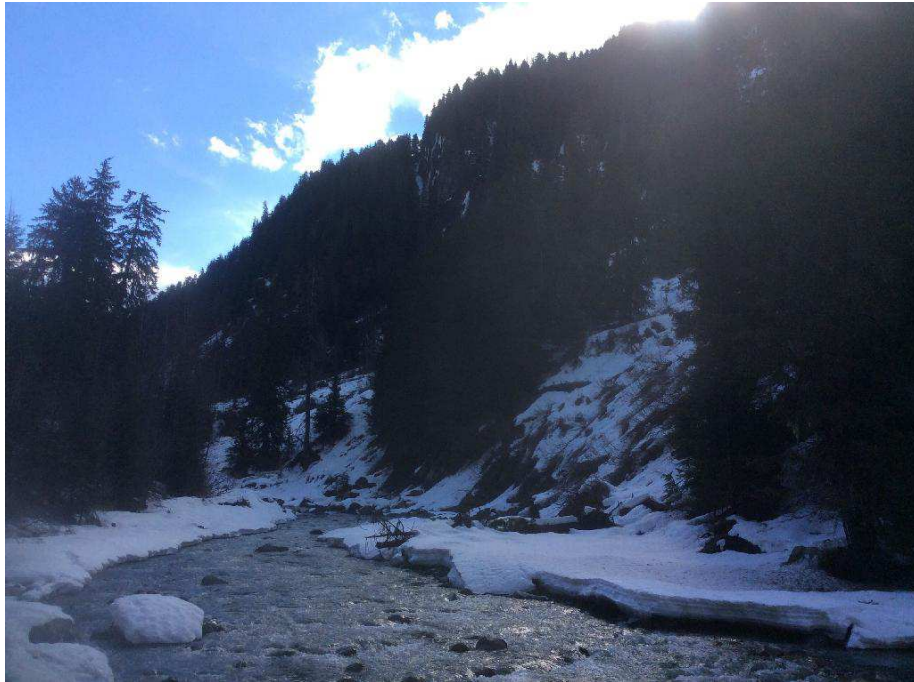


Figure 89. View from the north bank of Bitter Creek, near road station 4+750, looking upstream and towards the south bank.



Figure 90. View from a gravel bar on the north side of Bitter Creek, near road station 5+050, looking downstream and towards the north bank.



Figure 91. View from a gravel bar on the north side of Bitter Creek, near road station 5+070, looking upstream.



Figure 92. View of gravel bar on Bitter Creek near road station 3+220.



Figure 93. View from the north bank of Bitter Creek, near road station 3+220, looking upstream.



Figure 94. View from the north bank of Bitter Creek, near road station 3+220, looking downstream.



Figure 95. View from the north bank of Bitter Creek, near road station 3+320, looking upstream.



Figure 96. View from the north bank of Bitter Creek, near road station 3+320, looking downstream.



Figure 97. View from the north bank of Bitter Creek, near road station 3+335, looking upstream.



Figure 98. View from the north bank of Bitter Creek, near road station 3+415, looking downstream.



Figure 99. View from the north bank of Bitter Creek, near road station 3+415, looking upstream.



Figure 100. View from the north bank of Bitter Creek, near road station 3+460, looking upstream.



Figure 101. View from the north bank of Bitter Creek, near road station 3+490, looking downstream.



Figure 102. View from the north bank of Bitter Creek, near road station 3+490, looking upstream.



Figure 103. View from a side channel on the north side of Bitter Creek, near road station 3+565, looking downstream.



Figure 104. View from a side channel on the north side of Bitter Creek, near road station 3+565, looking upstream.



Figure 105. View from the south bank of Bitter Creek, near road station 3+980, looking upstream.



Figure 106. View from the south bank of Bitter Creek, near road station 3+980, looking downstream.



Figure 107. View from the southbank of Bitter Creek, near road station 3+980, looking towards the north bank.



Figure 108. View from the south bank of Bitter Creek, near road station 4+065, looking upstream.



Figure 109. View from the south bank of Bitter Creek, near road station 4+065, looking downstream and towards the north bank.



Figure 110. View from the south bank of Bitter Creek, near road station 4+065, looking upstream and toward the north bank.



Figure 111. View from the south bank of Bitter Creek, near road station 4+065, toward the slope failure on the north bank.



Figure 112. View of a small log jam from the south side of Bitter Creek, near road station 4+115.



Figure 113. View from the north bank of Bitter Creek, near road station 4+230, looking upstream.



Figure 114. View from the north bank of Bitter Creek, near road station 4+230, looking downstream.



Figure 115. View from a gravel bar on the south side of Bitter Creek, near road station 4+245, looking downstream.



Figure 116. View from a gravel bar on the south side of Bitter Creek, near road station 4+245, looking upstream.



Figure 117. View from a gravel bar on the south side of Bitter Creek, near road station 4+245, looking towards the north bank of Bitter Creek.



Figure 118. View from a gravel bar on the south side of Bitter Creek, near road station 4+245, looking downstream.



Figure 119. View from a gravel bar on the north bank of Bitter Creek, near road station 4+360, looking upstream.



Figure 120. View from a gravel bar on the north side of Bitter Creek, near road station 4+360, looking downstream.



Figure 121. View from a gravel bar on the south side of Bitter Creek, near road station 4+400, looking upstream.



Figure 122. View from a gravel bar on the south side of Bitter Creek, near road station 4+400, looking downstream.



Figure 123. View from a gravel bar on the south side of Bitter Creek, near road station 4+400, looking towards the north bank.



Figure 124. View from the south bank of Bitter Creek, near road station 4+550, looking towards Lim Creek.



Figure 125. View from the south bank of Bitter Creek, near road station 4+550, looking downstream.



Figure 126. View from the south bank of Bitter Creek, near road station 4+550, looking upstream.



Figure 127. View from the south bank of Bitter Creek, near road station 4+560, looking downstream.



Figure 128. View from the south bank of Bitter Creek, near road station 4+560, looking upstream.



Figure 129. View from the north bank of Bitter Creek, near road station 4+560, looking upstream.



Figure 130. View from the north bank of Bitter Creek, near road station 4+560, looking upstream.



Figure 131. View from the north bank of Bitter Creek, near road station 4+560, looking downstream.



Figure 132. View from the south bank of Bitter Creek, near road station 4+590, looking downstream.



Figure 133. View from the south bank of Bitter Creek, near road station 4+590, looking upstream.



Figure 134. View from the north bank of Bitter Creek, near road station 4+630, looking upstream.



Figure 135. View from a gravel bar in Bitter Creek, near road station 4+630, looking towards the north bank.



Figure 136. View from a gravel bar in Bitter Creek, near road station 4+630, looking upstream.



Figure 137. View from a gravel bar on Bitter Creek, near road station 4+630, looking towards the north bank.



Figure 138. View from the south bank of Bitter Creek, near road station 4+640, looking upstream.



Figure 139. View from the southbank of Bitter Creek, near road station 4+640, looking towards the north bank.



Figure 140. View from the south bank of Bitter Creek, near road station 4+640, looking downstream.



Figure 141. View from the south bank of Bitter Creek, near road station 4+640, looking upstream.



Figure 142. View from a gravel bar in Bitter Creek, near road station 4+750, looking upstream.



Figure 143. View from a gravel bar in Bitter Creek, near road station 4+750, looking downstream.



Figure 144. View from a gravel bar in Bitter Creek, near road station 4+750, looking towards the north bank.



Figure 145. View from a gravel bar in Bitter Creek, near road station 4+750, looking downstream and towards the south bank.



Figure 146. View from the south bank of Bitter creek, near road station 4+790, looking upstream.



Figure 147. View from the south bank of Bitter creek, near road station 4+790, looking downstream and towards the north bank.



Figure 148. View of the proposed road location, near road station 5+050, from the south bank of Bitter Creek.



Figure 149. View from a gravel bar on the north side of Bitter Creek, near road station 5+050, looking downstream and towards the north bank.



Figure 150. View from a gravel bar on the north side of Bitter Creek, near road station 5+070, looking towards the north bank.



Figure 151. View from a gravel bar on the south side of Bitter Creek, near road station 4+660, looking towards the north bank.



Figure 152. View from a gravel bar on the south side of Bitter Creek, near road station 4+660, looking towards the north bank.



Figure 153. View from a gravel bar on the south side of Bitter Creek, near road station 4+660, looking towards the north bank.



Figure 154. View from a gravel bar on the south side of Bitter Creek, near road station 4+660, looking downstream and towards the south bank.



Figure 155. View from a gravel bar on the south side of Bitter Creek, near road station 4+660, looking towards the south bank.



Figure 156. View from Bitter Creek, near road station 4+775, looking towards the south bank.

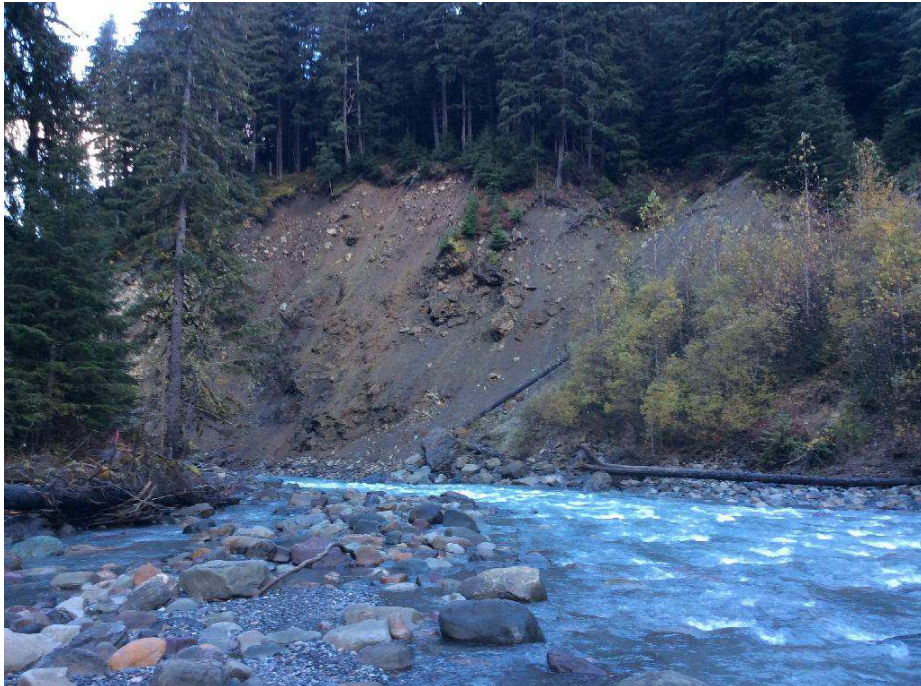


Figure 157. View from Bitter Creek, near road station 4+775, looking downstream.

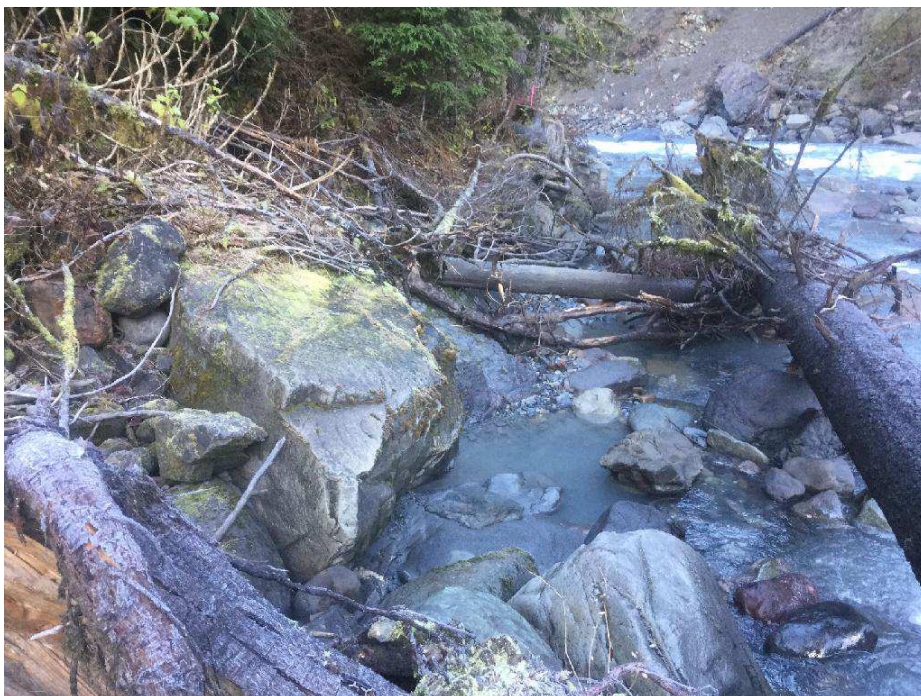


Figure 158. View from the south bank Bitter Creek, near road station 4+775 looking downstream.

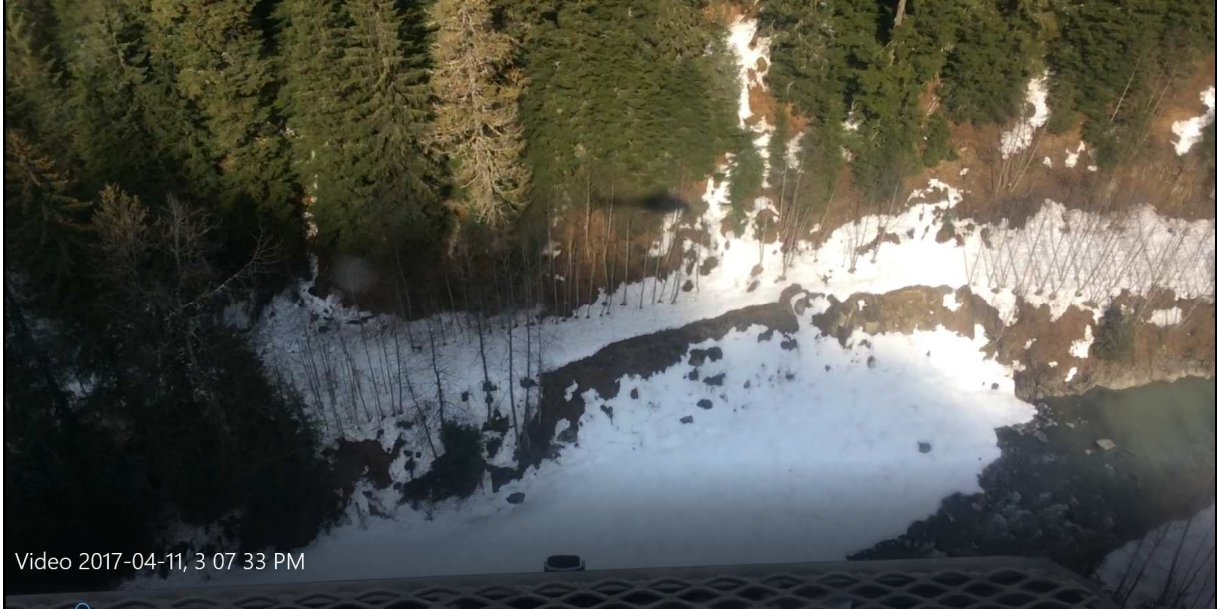


Figure 159. View of the north bank of Bitter Creek near road station 2+152.

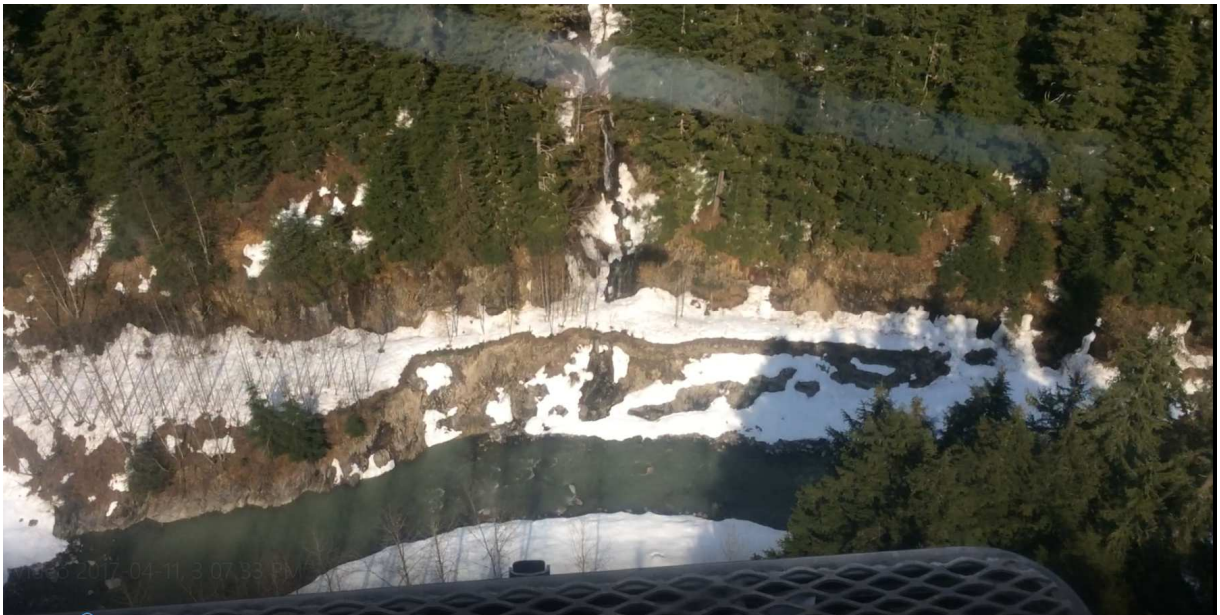


Figure 160. View of the north bank of Bitter Creek near road station 2+190.



Figure 161. View of the north bank of Bitter Creek near road station 2+265.



Figure 162. View of the north bank of Bitter Creek near road station 5+060.