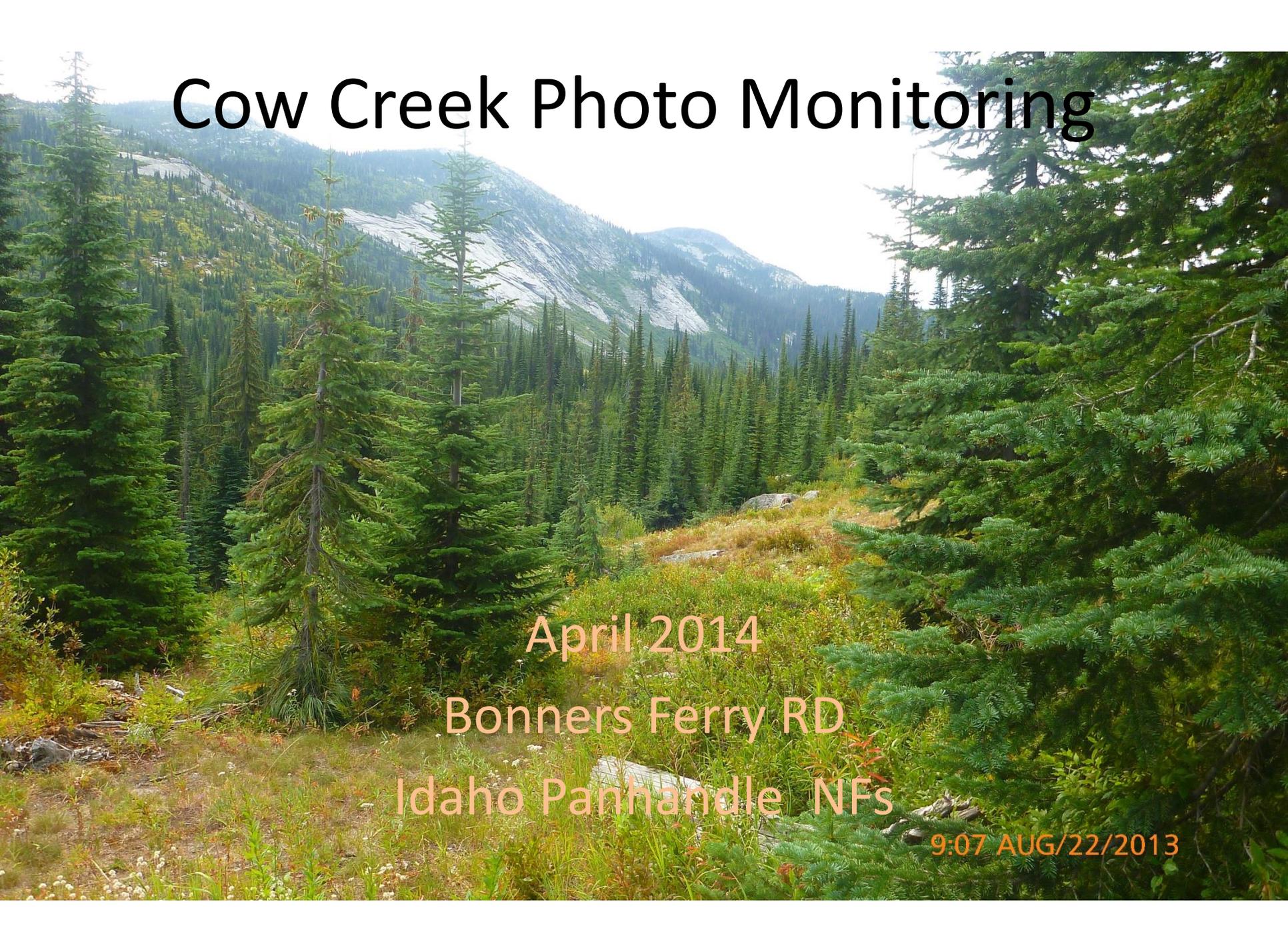


Cow Creek Photo Monitoring



April 2014

Bonnars Ferry RD

Idaho Panhandle NFs

9:07 AUG/22/2013

Objectives

- Qualitative look at how the landscape and creek changes over time based on past and current land management with effects from large-scale natural disturbances
- Understand how natural events affect watershed function and channel morphology
- Evaluate watershed recovery rates from large-scale natural disturbance
- Overview of riparian range management objectives

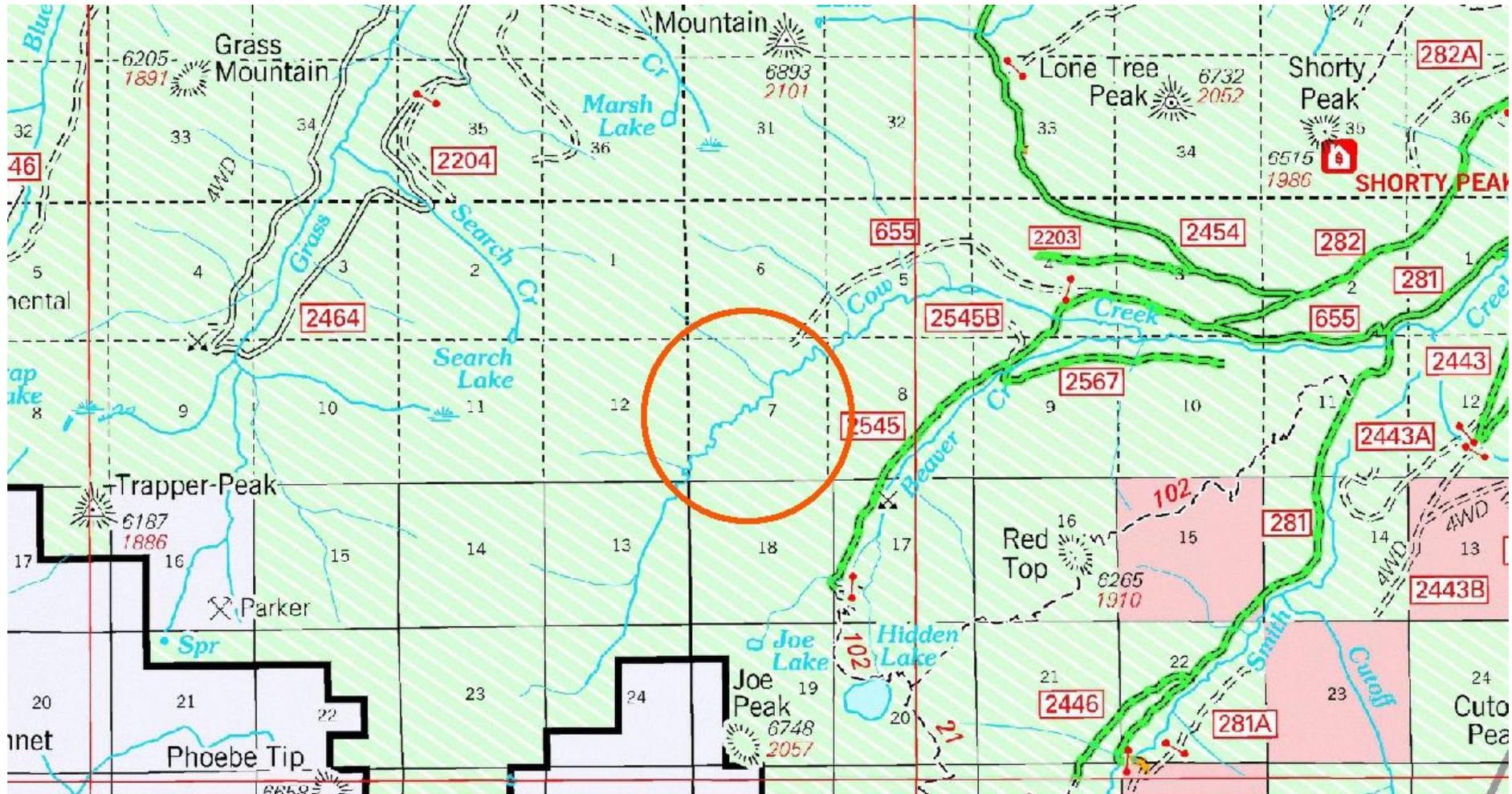
Data used for this presentation

- Why this area...we have the most data...
- USFS Aerial photos from 1935, 1967, 1968, 1983, and 2009
- Ground-level photos from a stream survey completed in 1998
- Ground-level photos re-done in 2013 (subset of original photos)

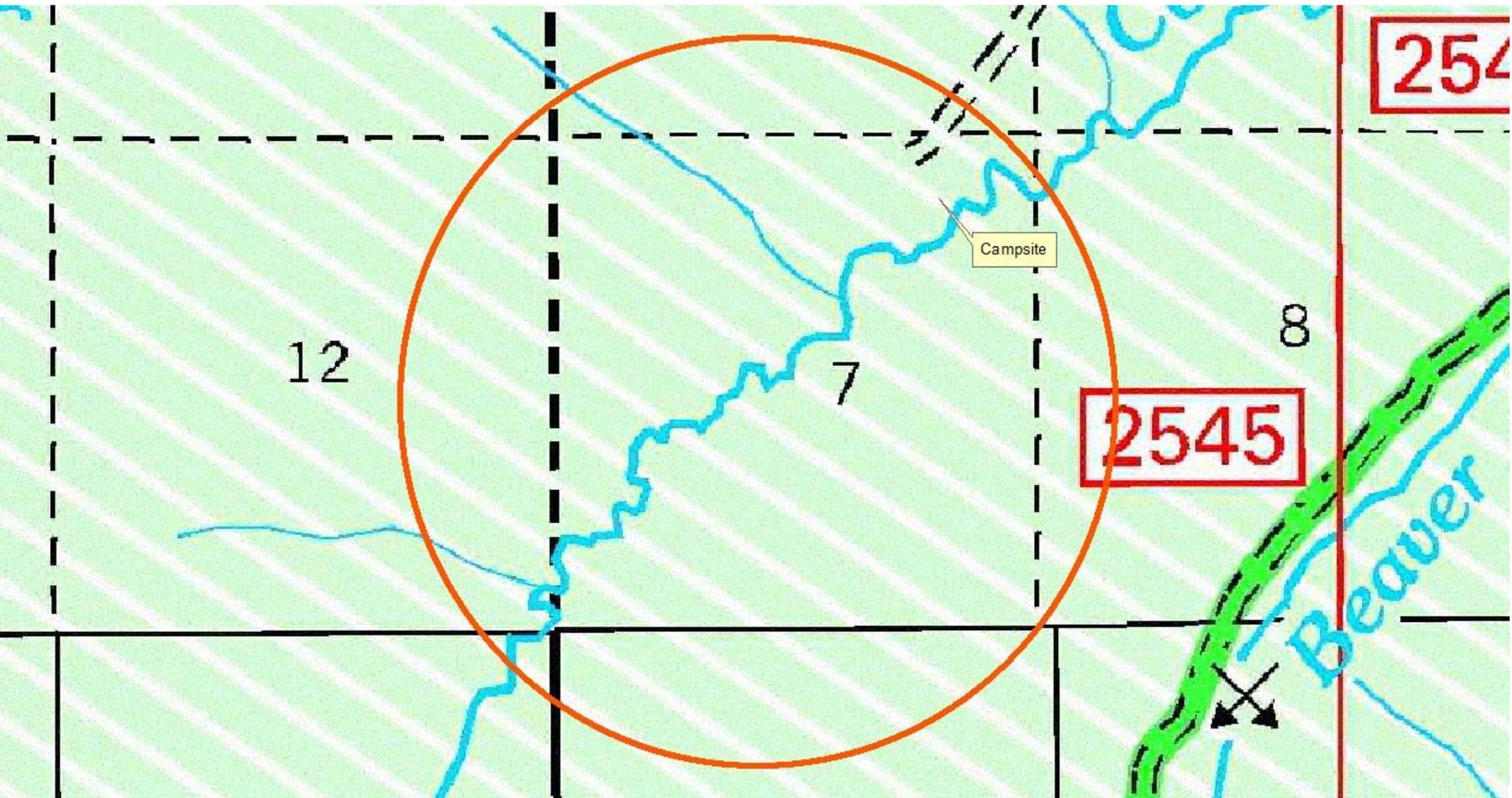
Significant Events in Cow Creek

- Glaciated Valley with decomposed granite
- Historical Fire Regime
- 1967 Trapper Peak Fire/Road Building
- 1968 Salvage Logging / More Road Building
- Grazing begins around 1935
- Road stored 1990s

Vicinity Map- Cow Creek Monitoring



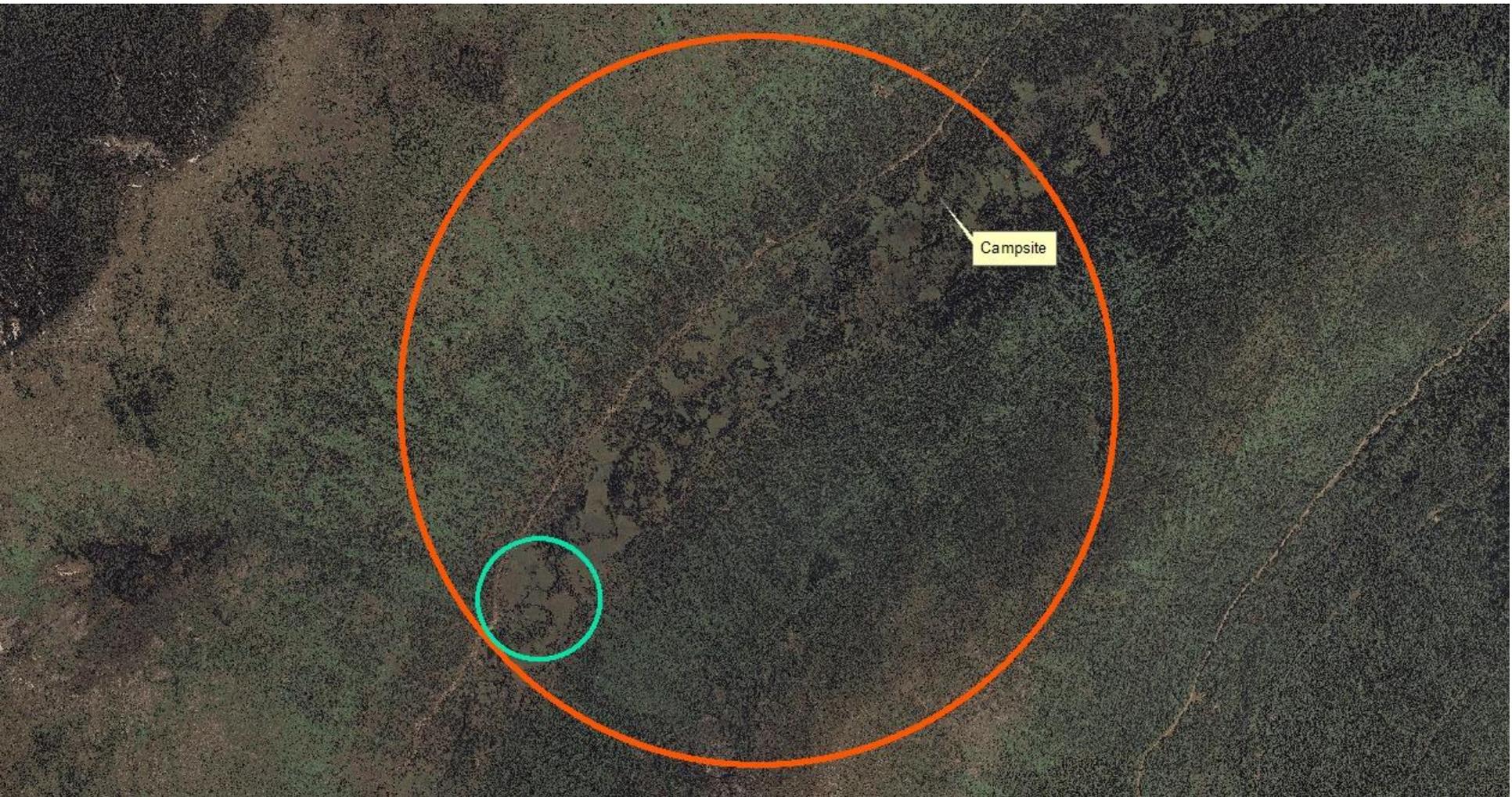
Cow Creek Monitoring



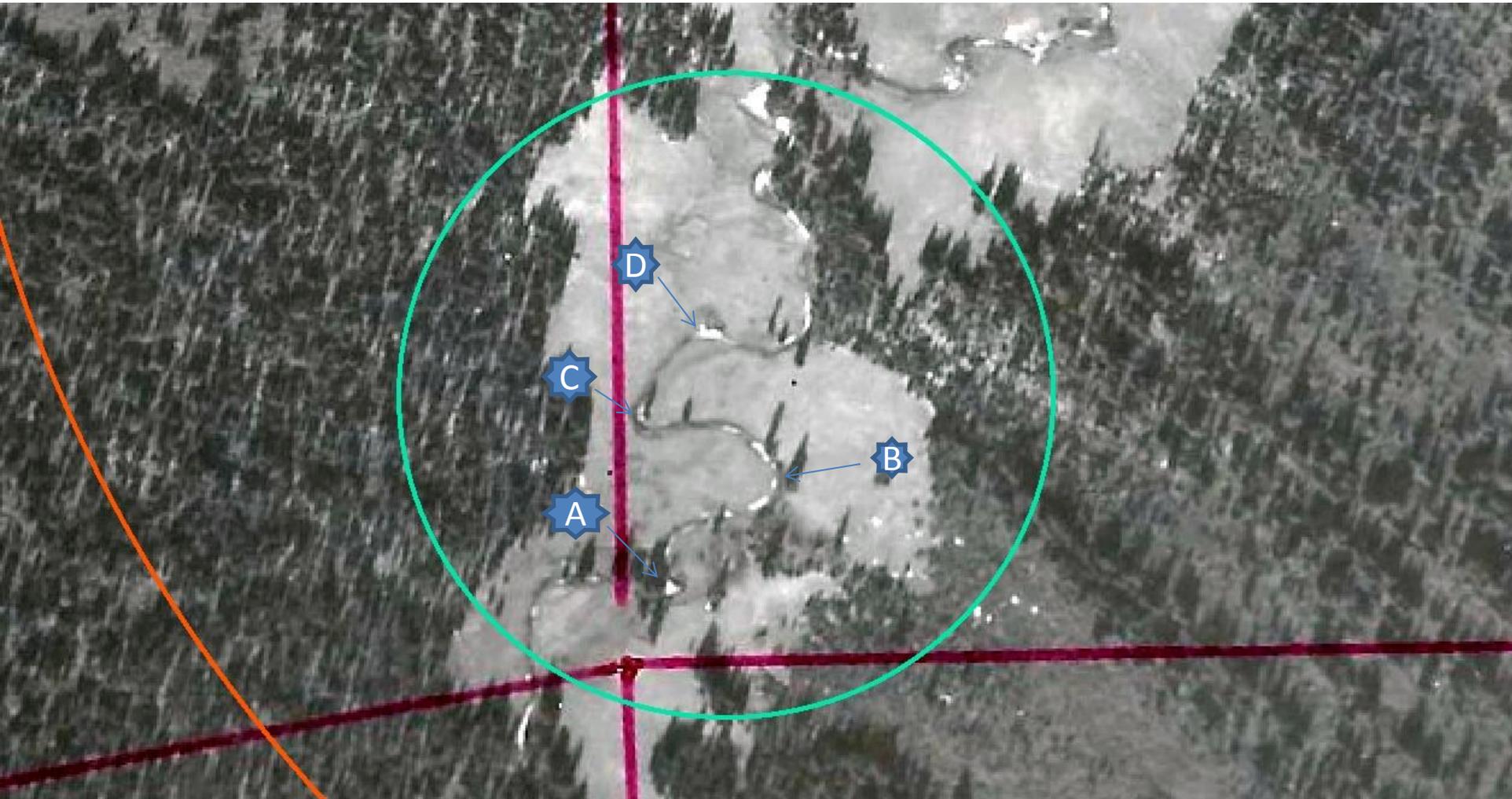
Recent Aerial Photo



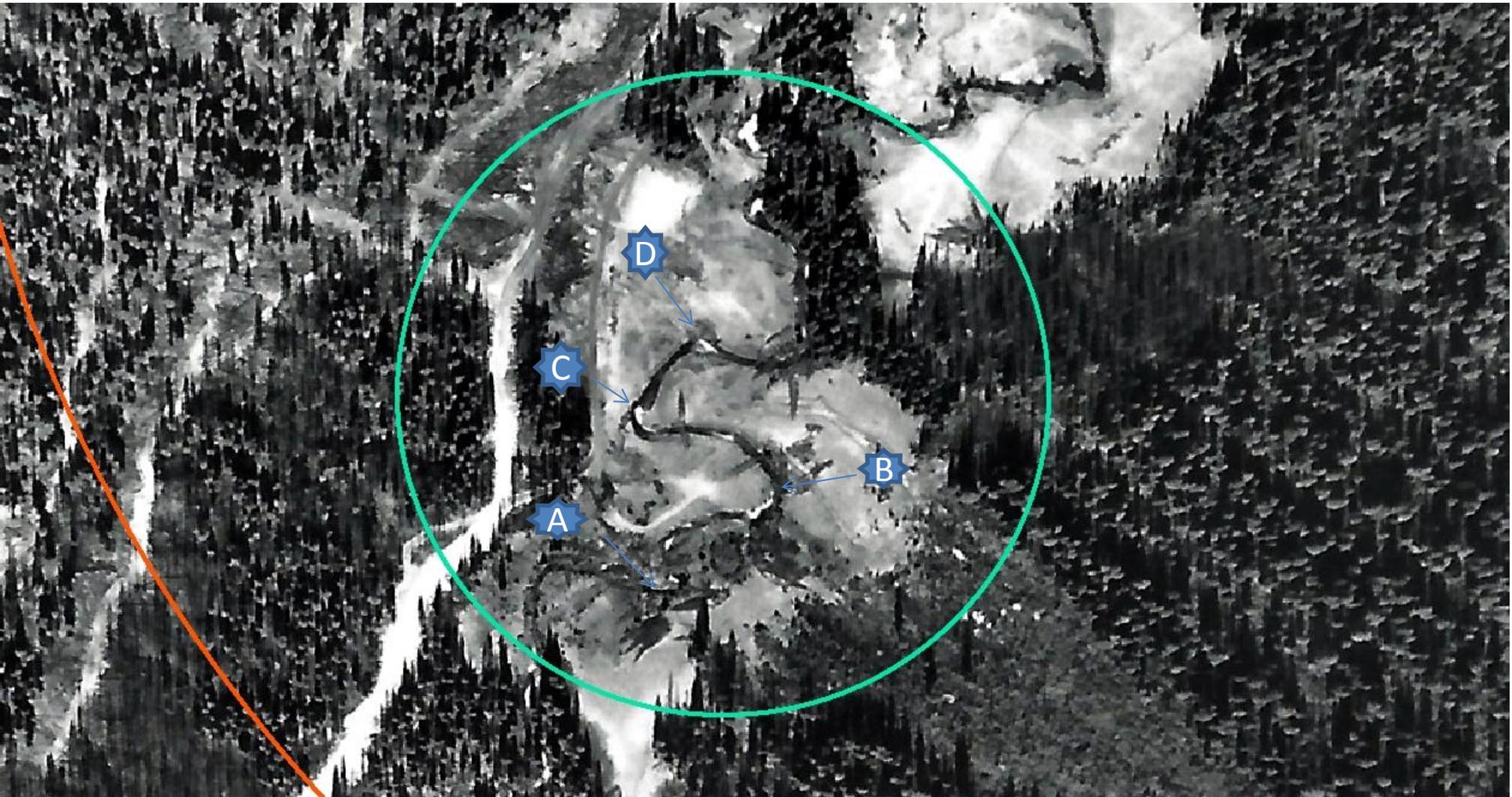
Zoom in to Area 1



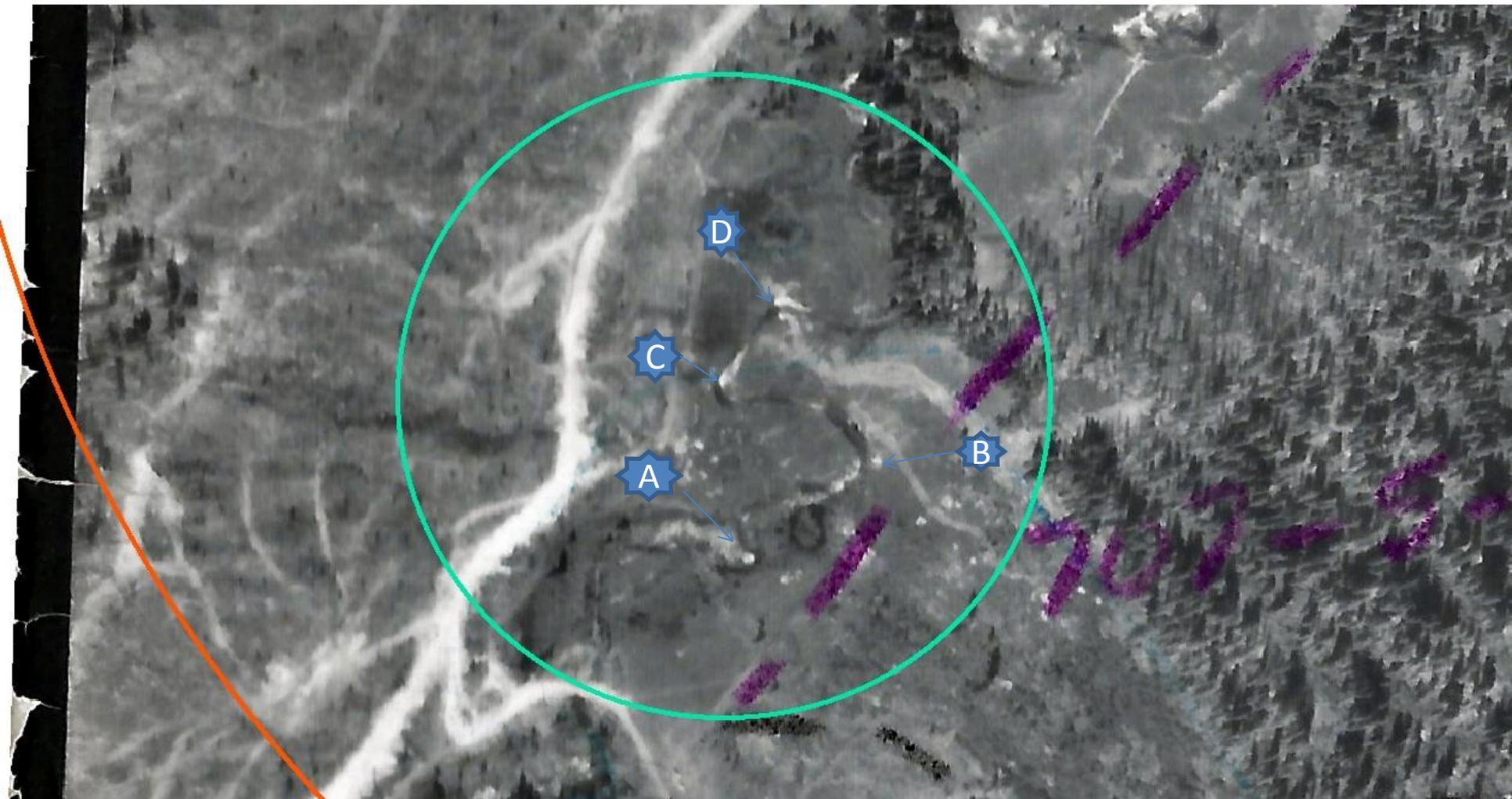
Area 1- 1935



Area 1- 1967



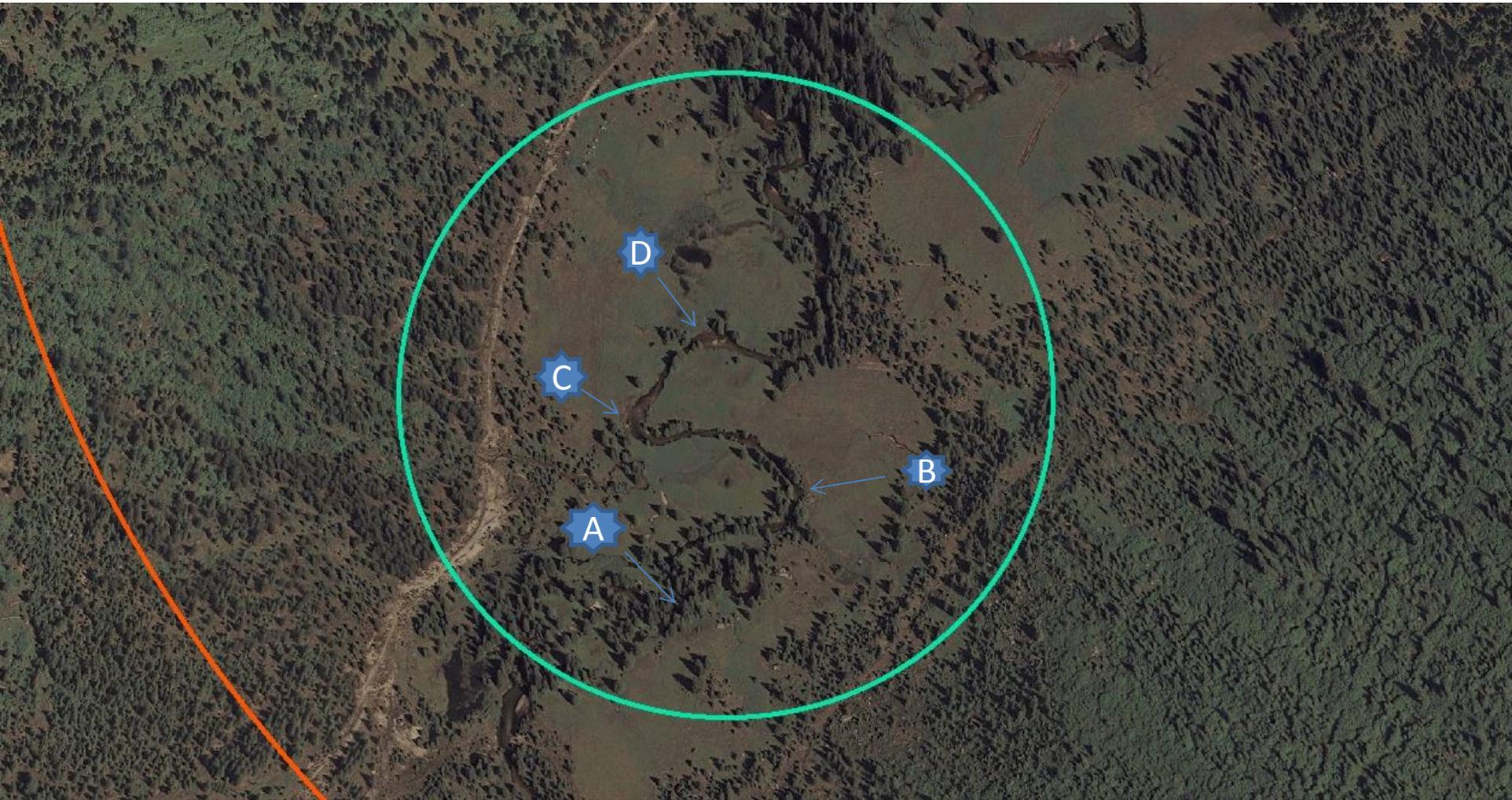
Area 1- 1968



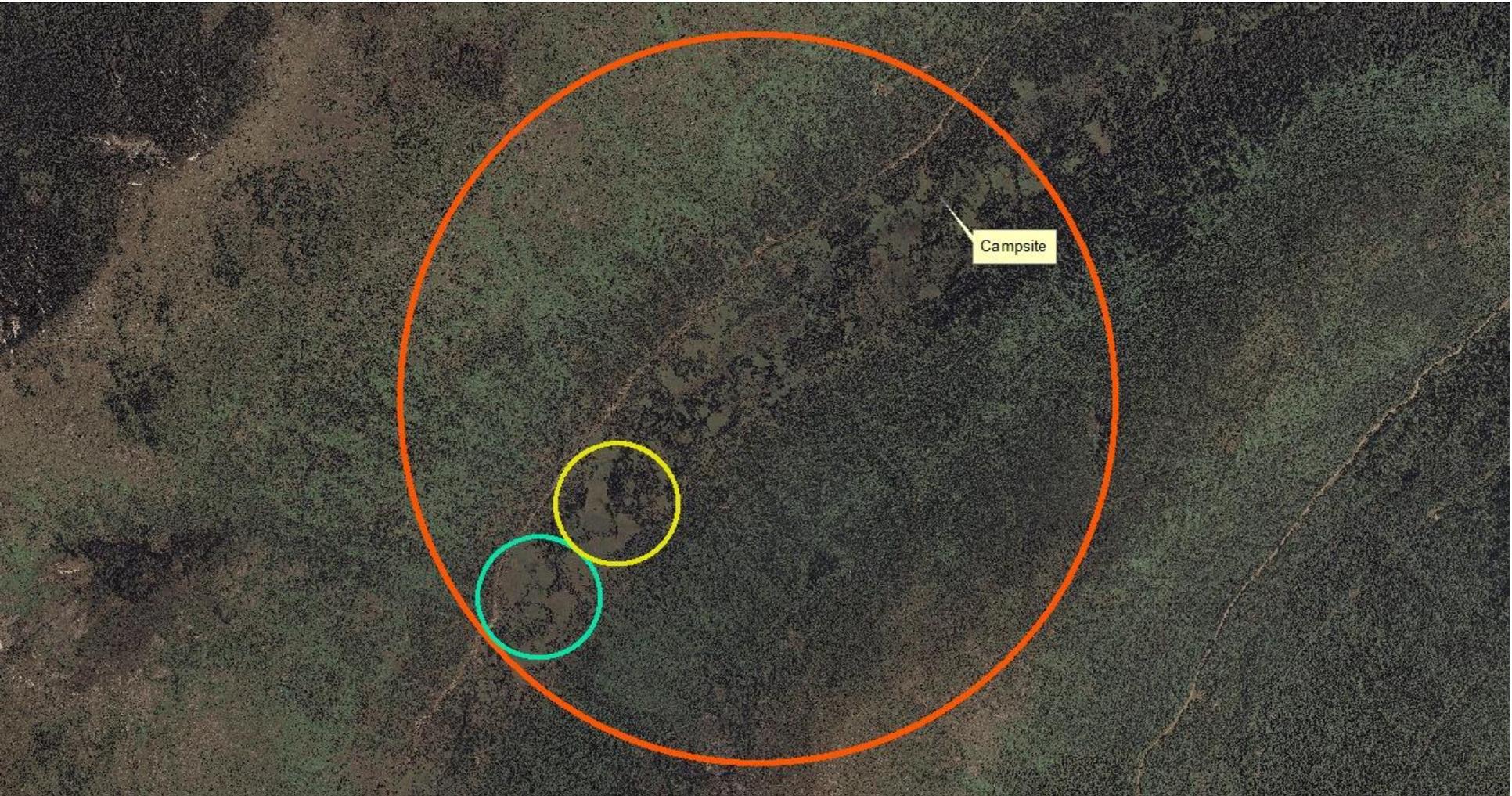
Area 1-1983



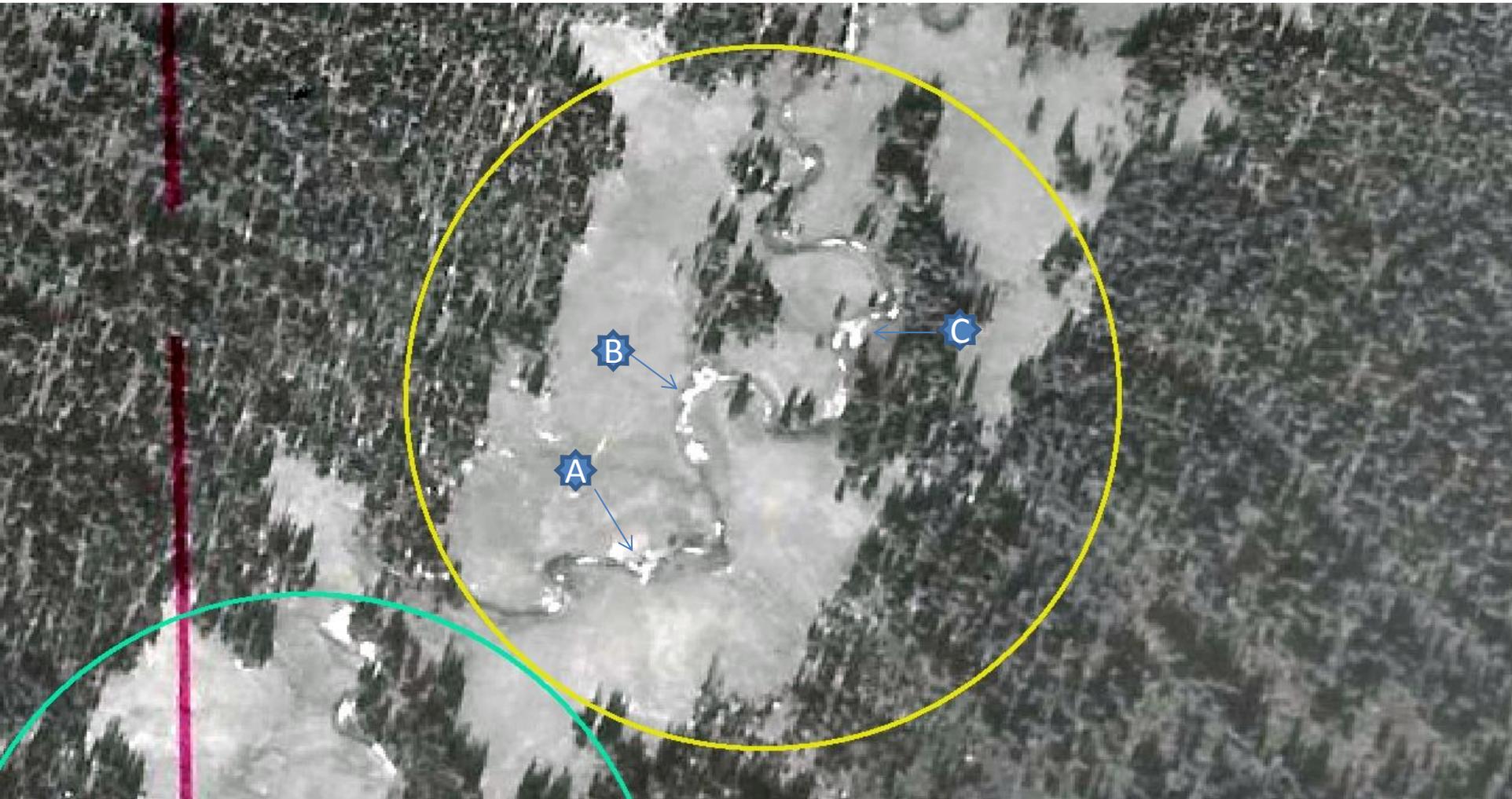
Area 1-2009



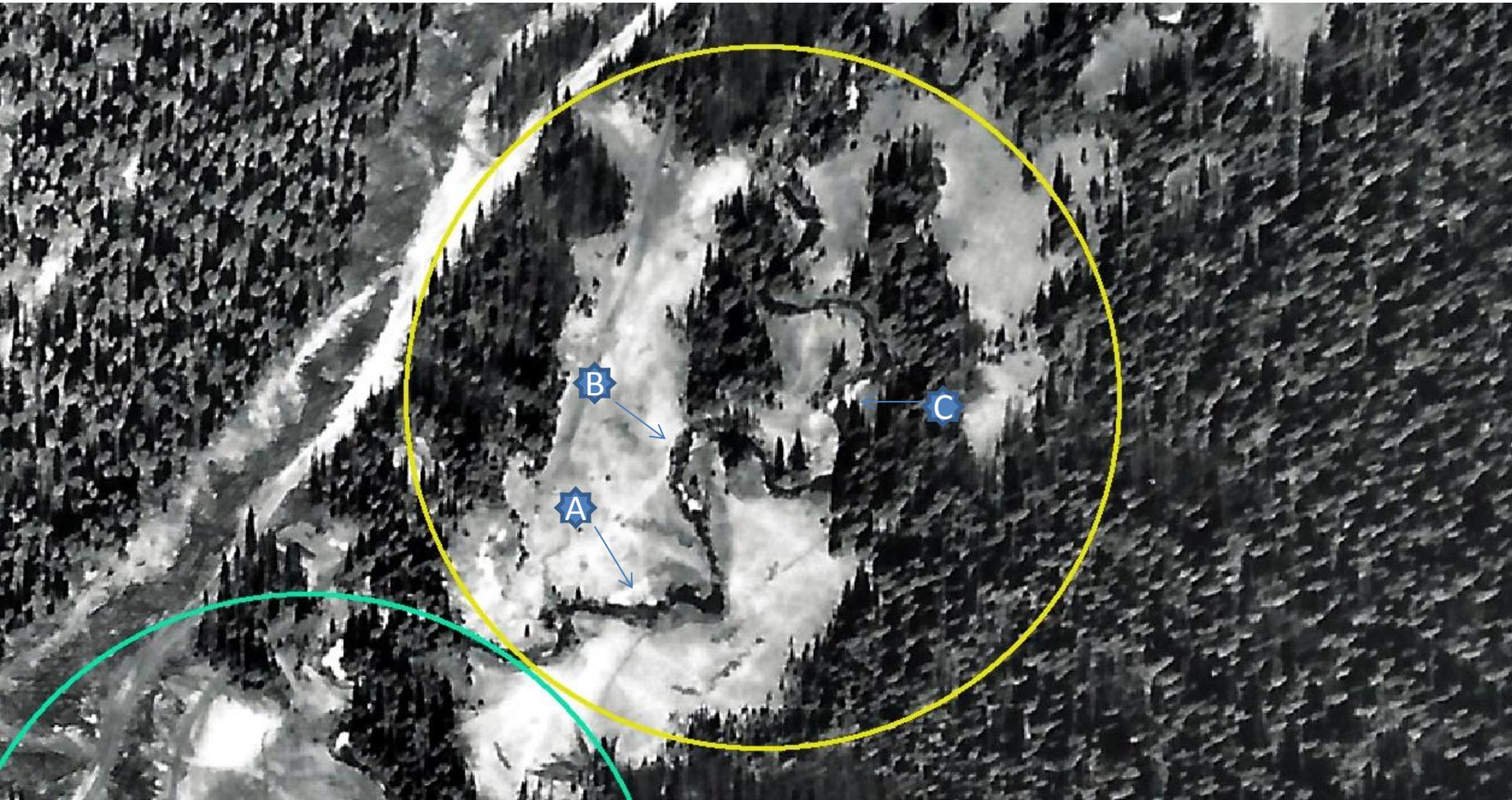
Zoom in to Area 2



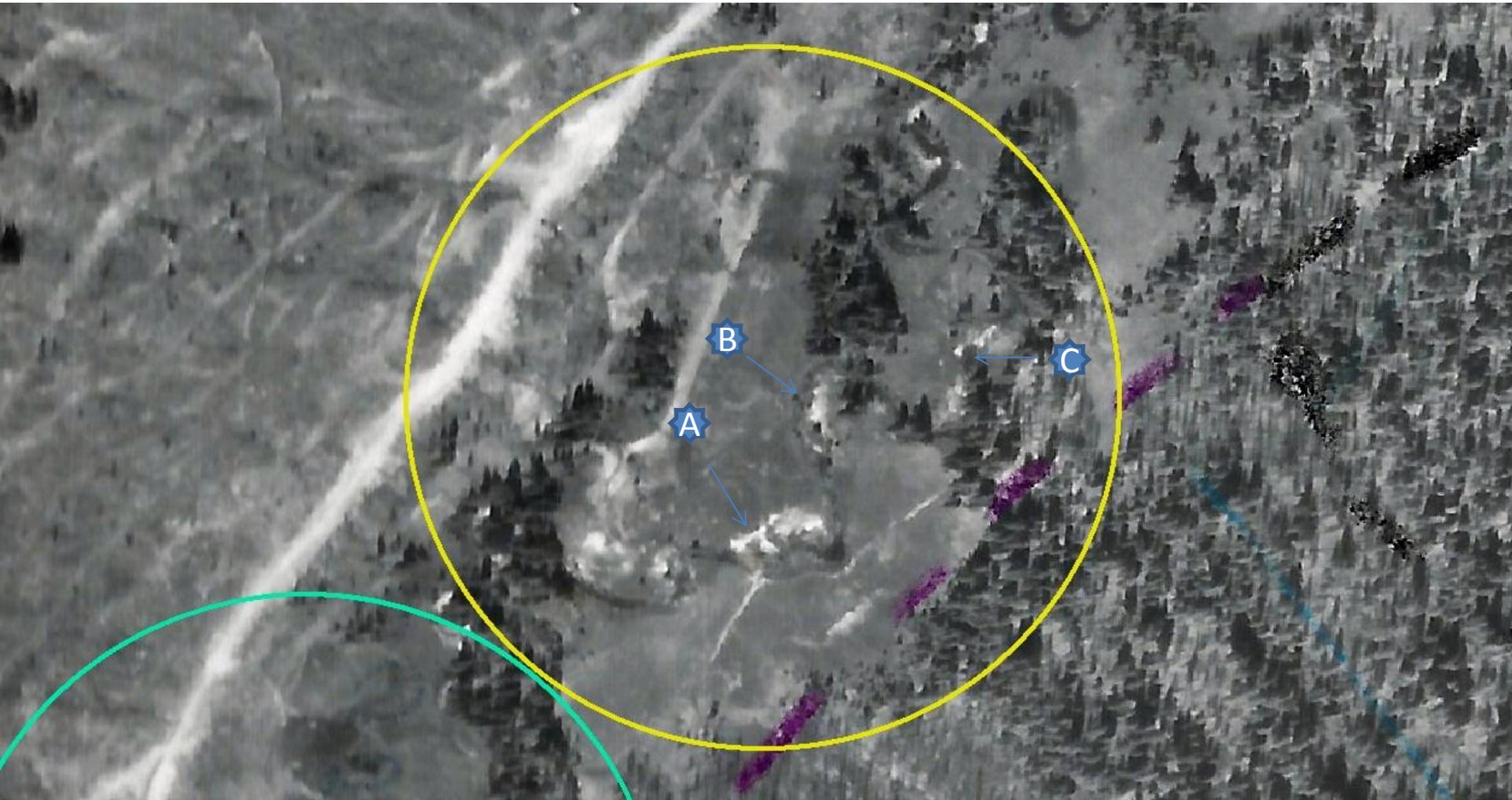
Area 2-1935



Area 2-1967



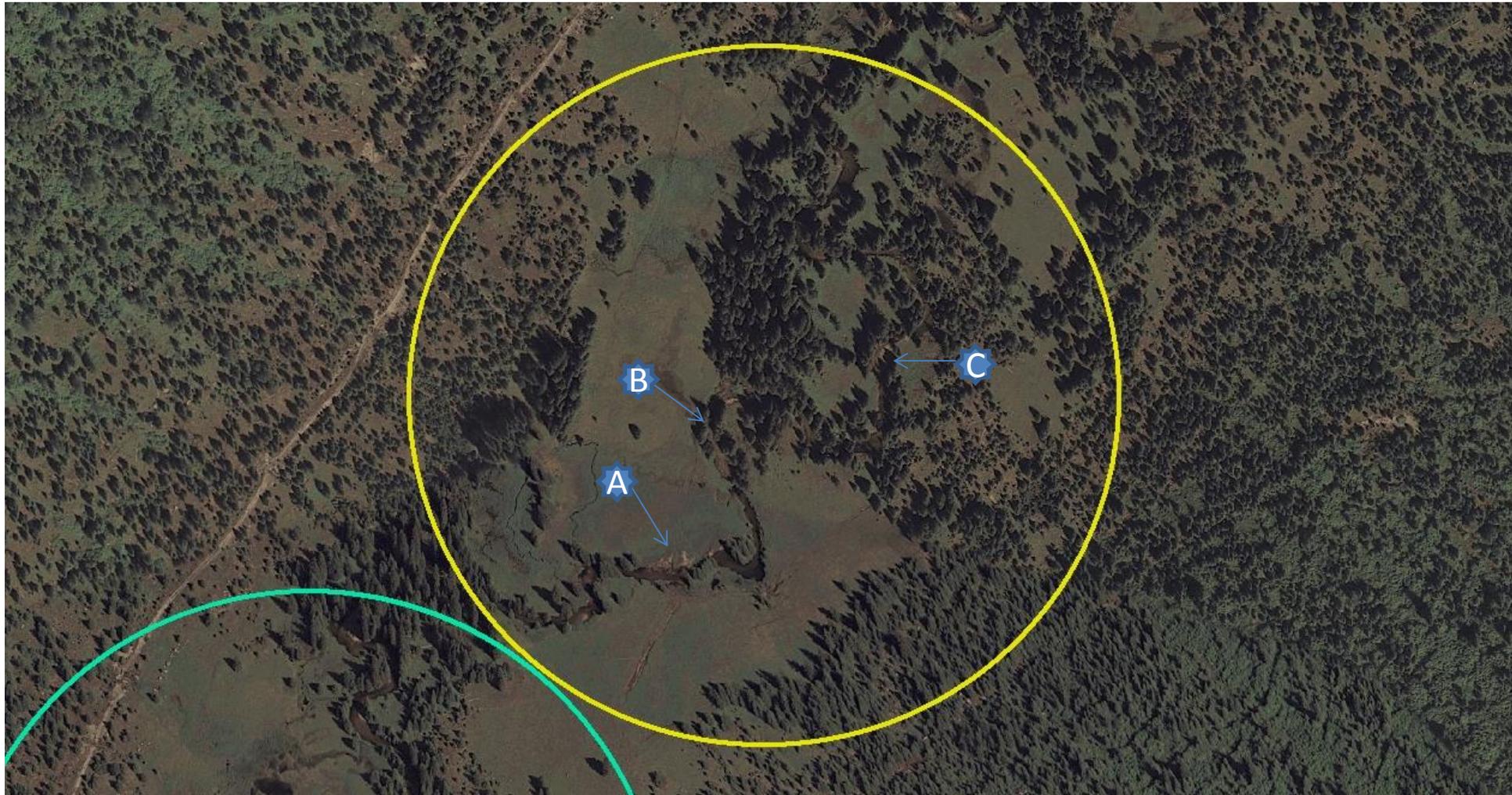
Area 2-1968



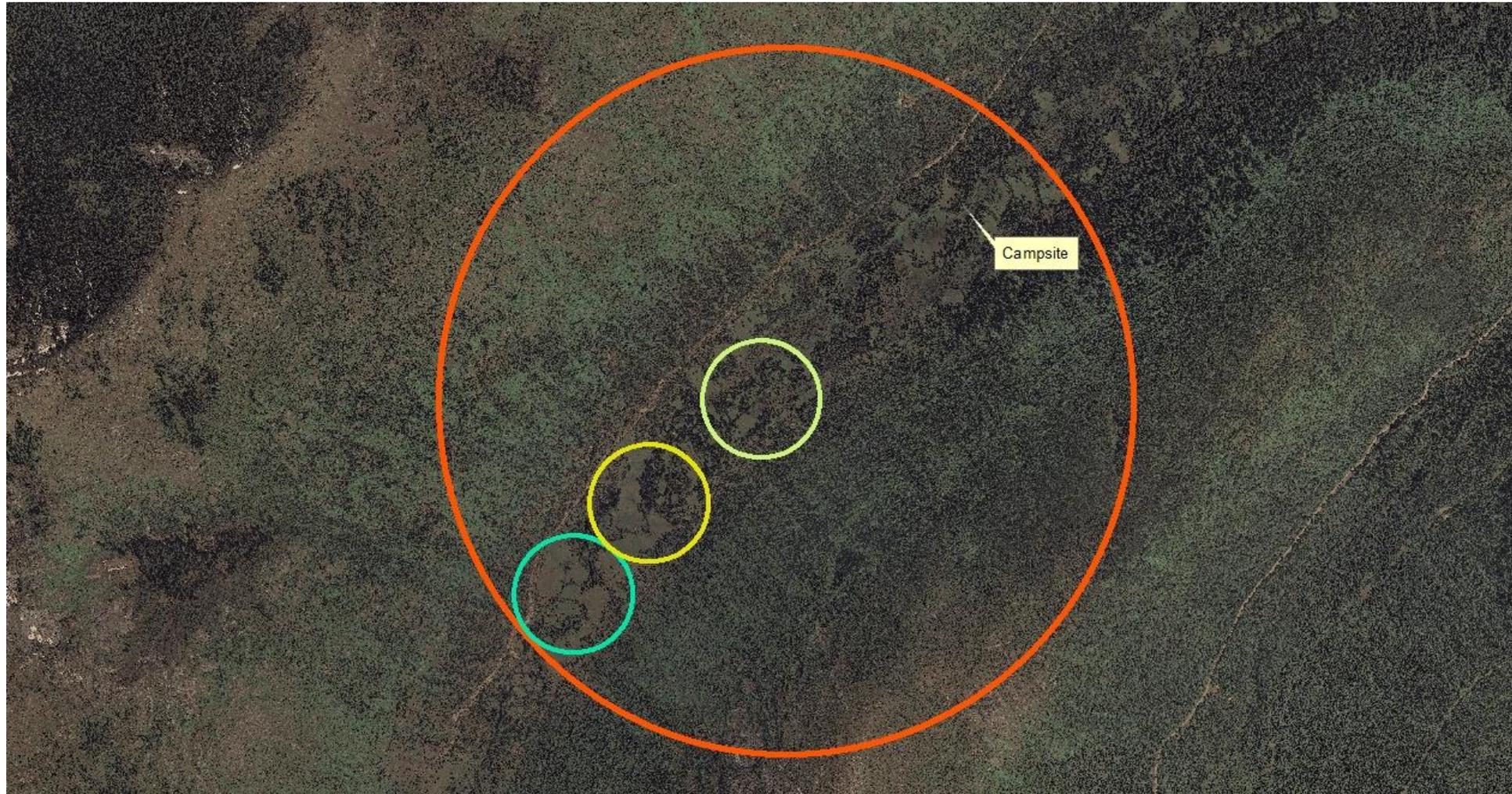
Area 2-1983



Area 2- 2009



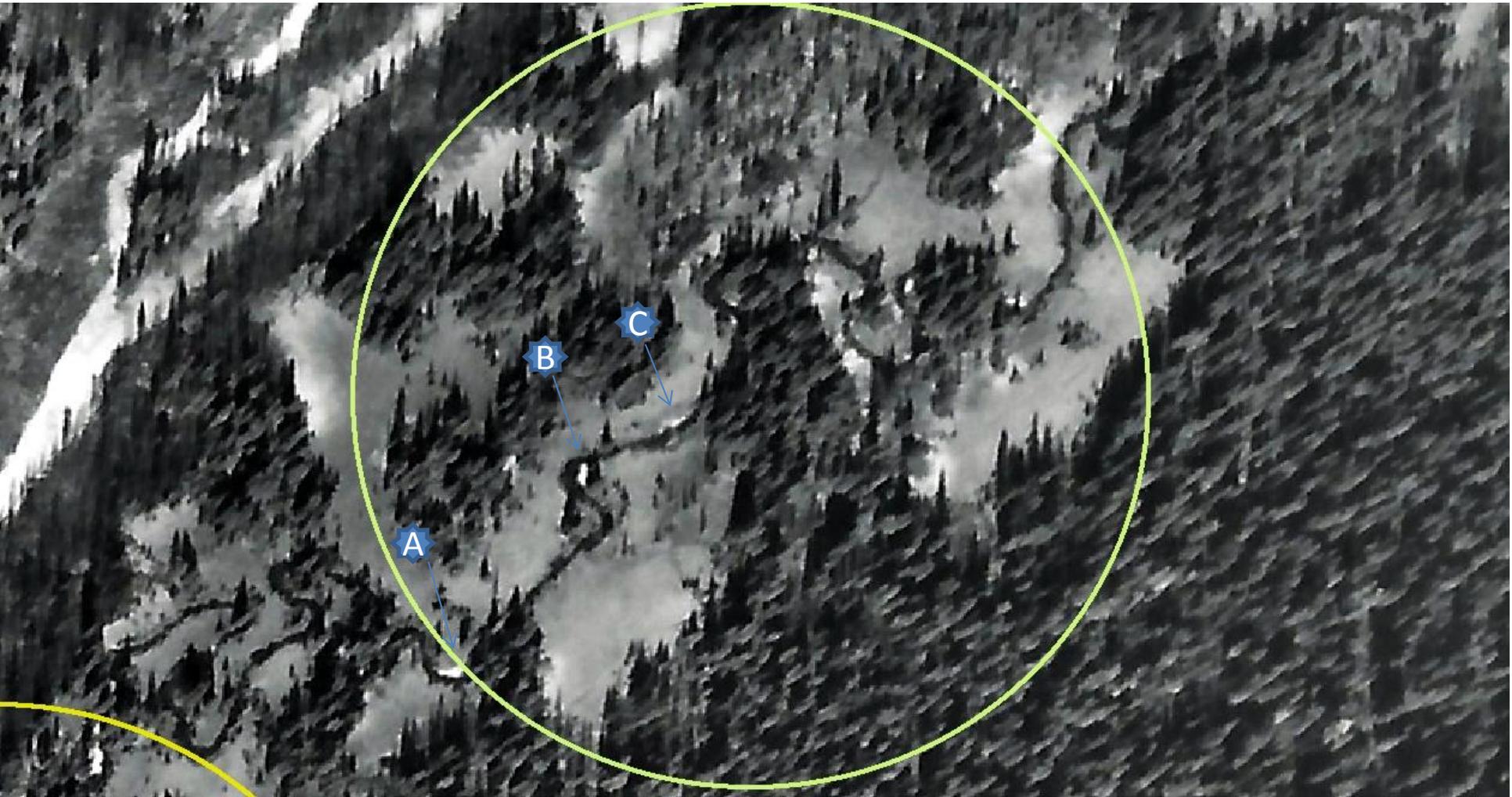
Zoom in to Area 3



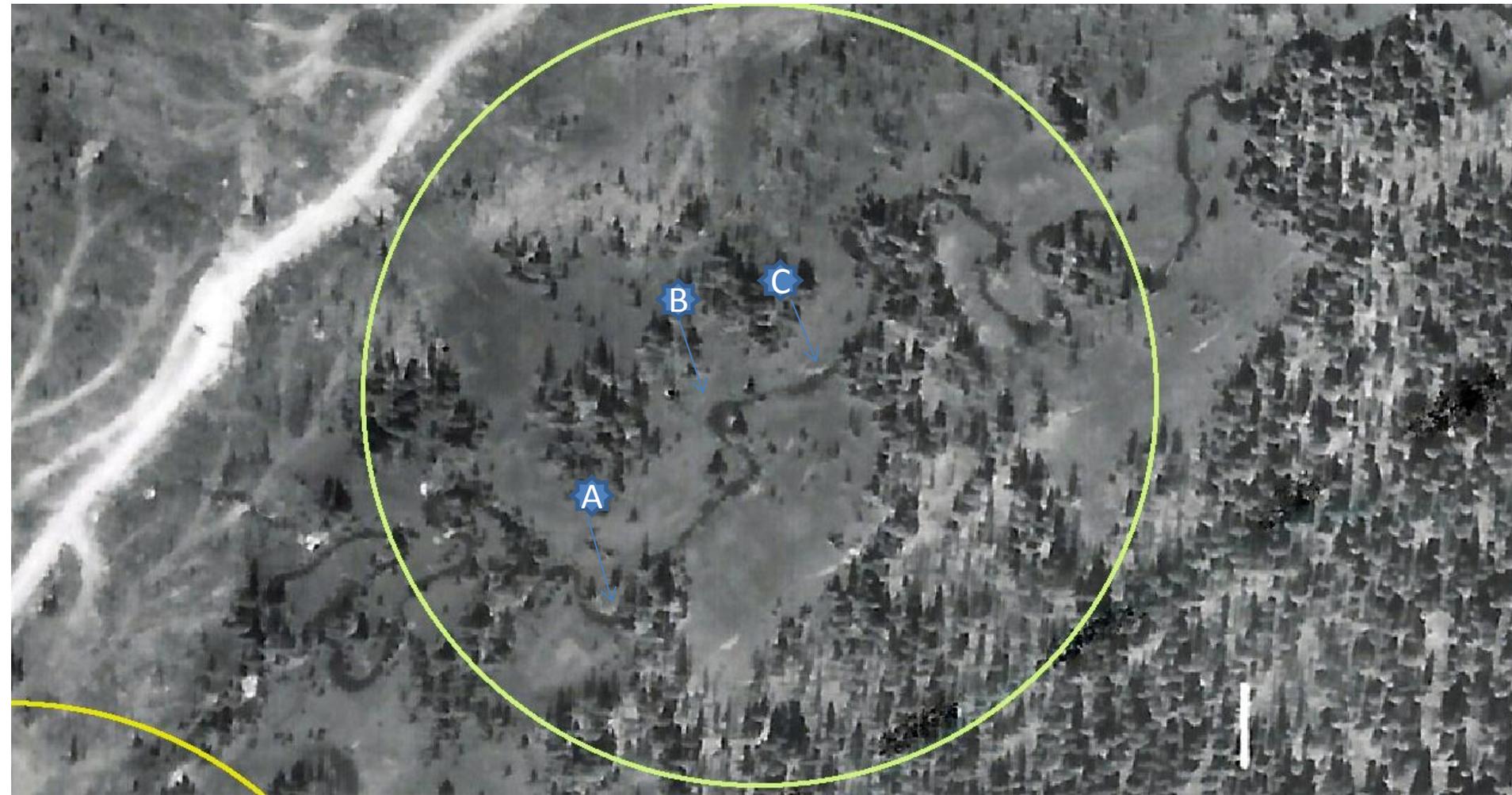
Area 3-1935



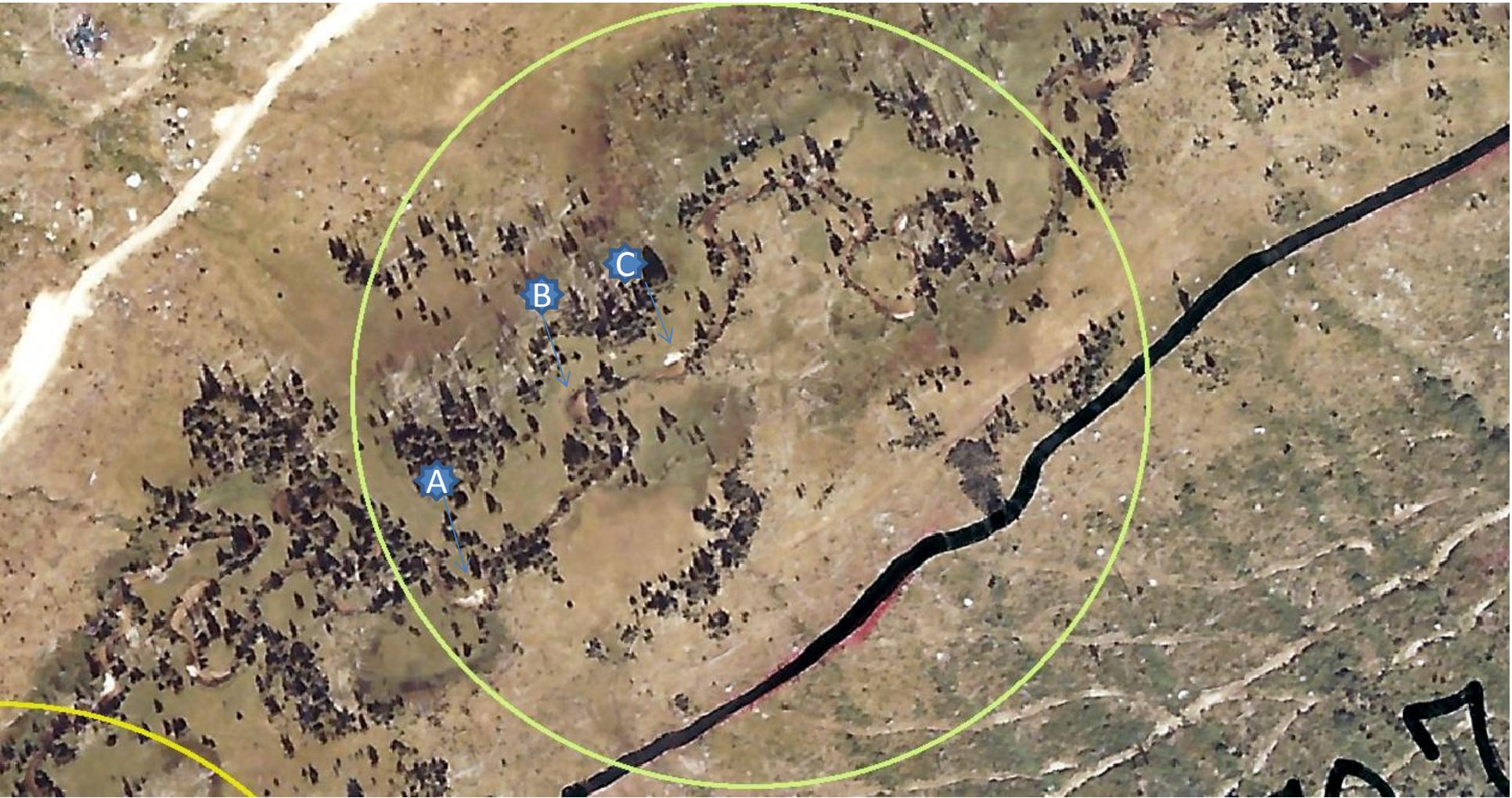
Area 3-1967



Area 3-1968



Area 3-1983



Area 3-2009



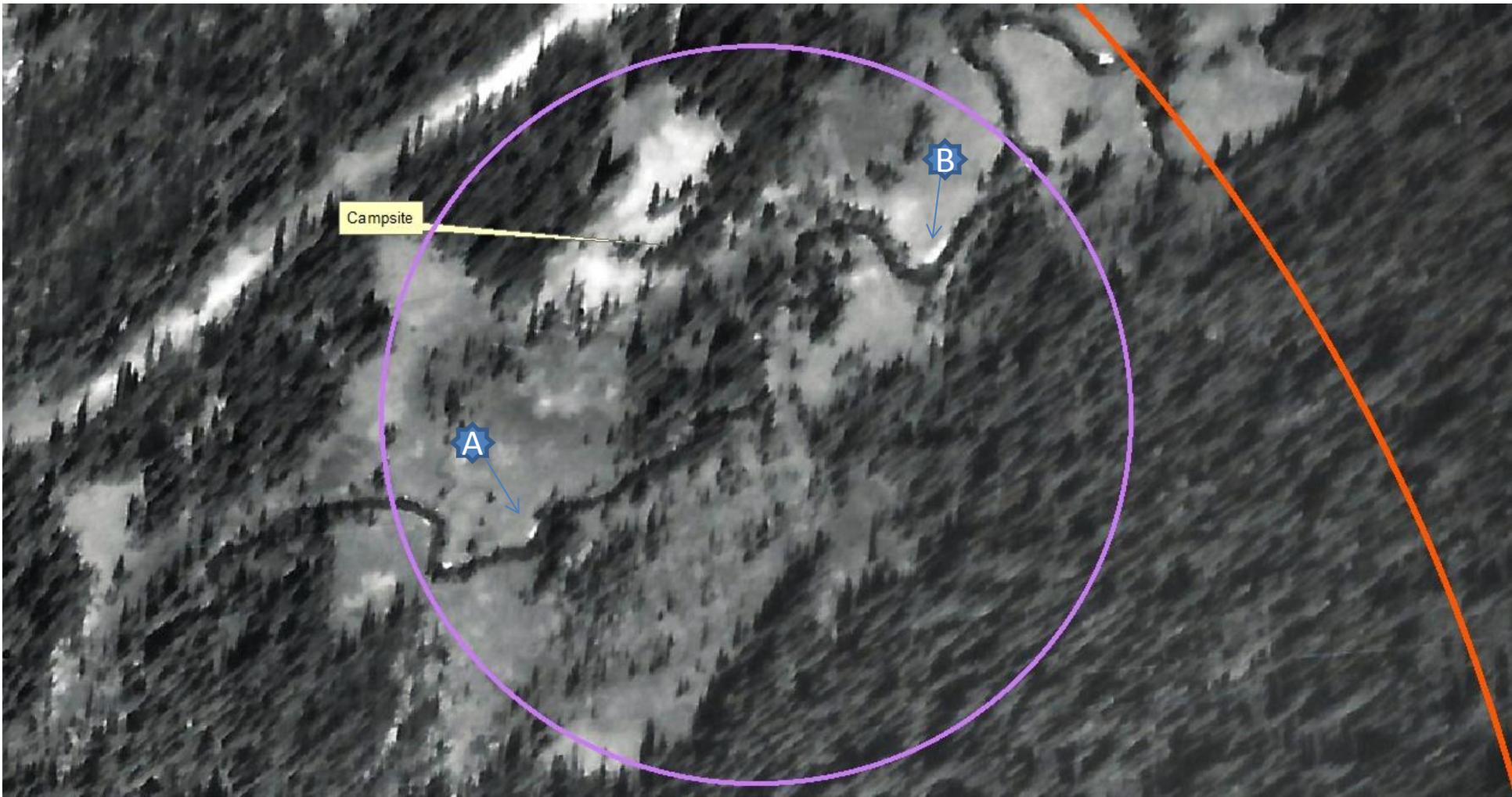
Zoom in to Area 4



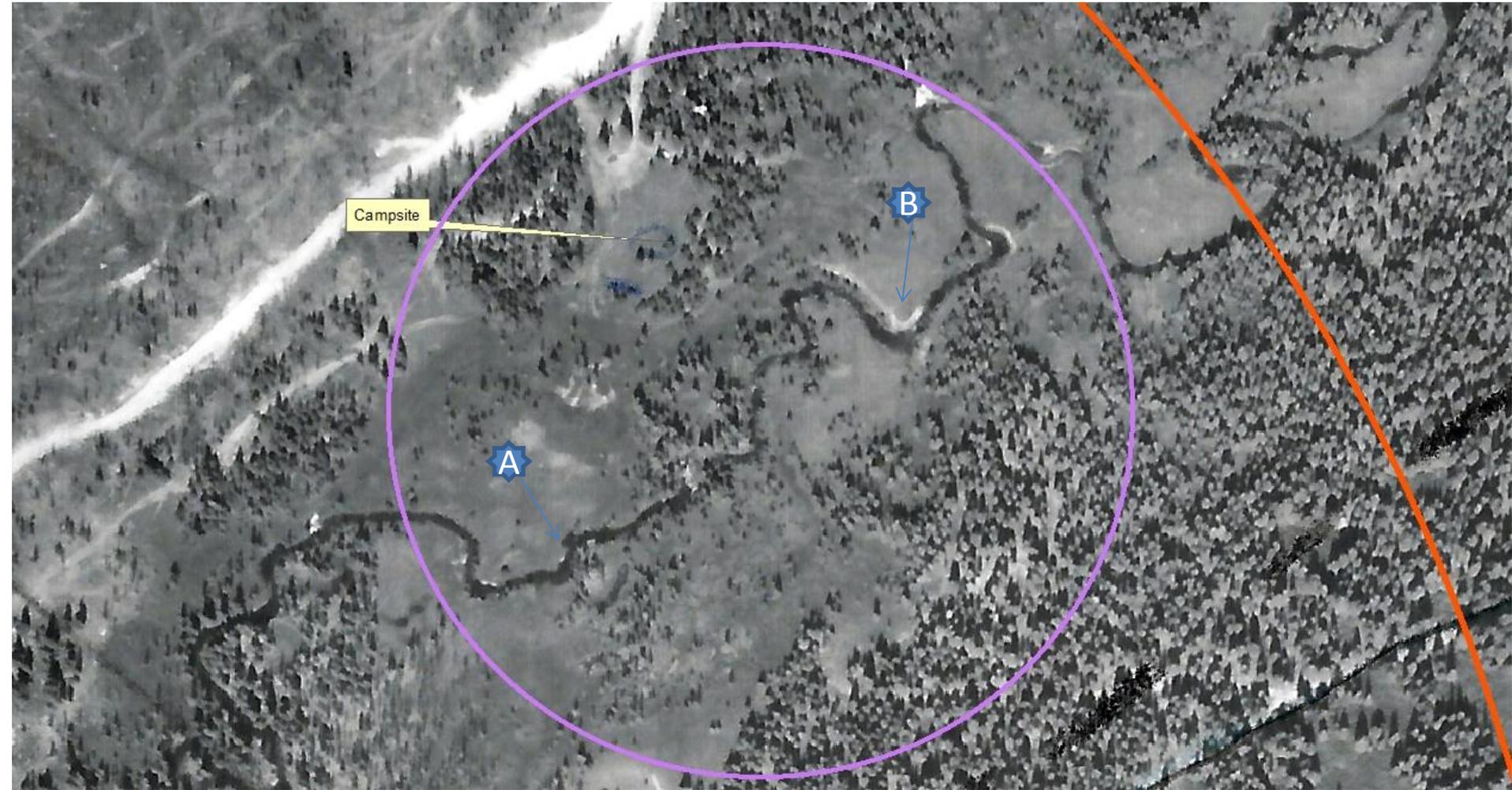
Area 4-1935



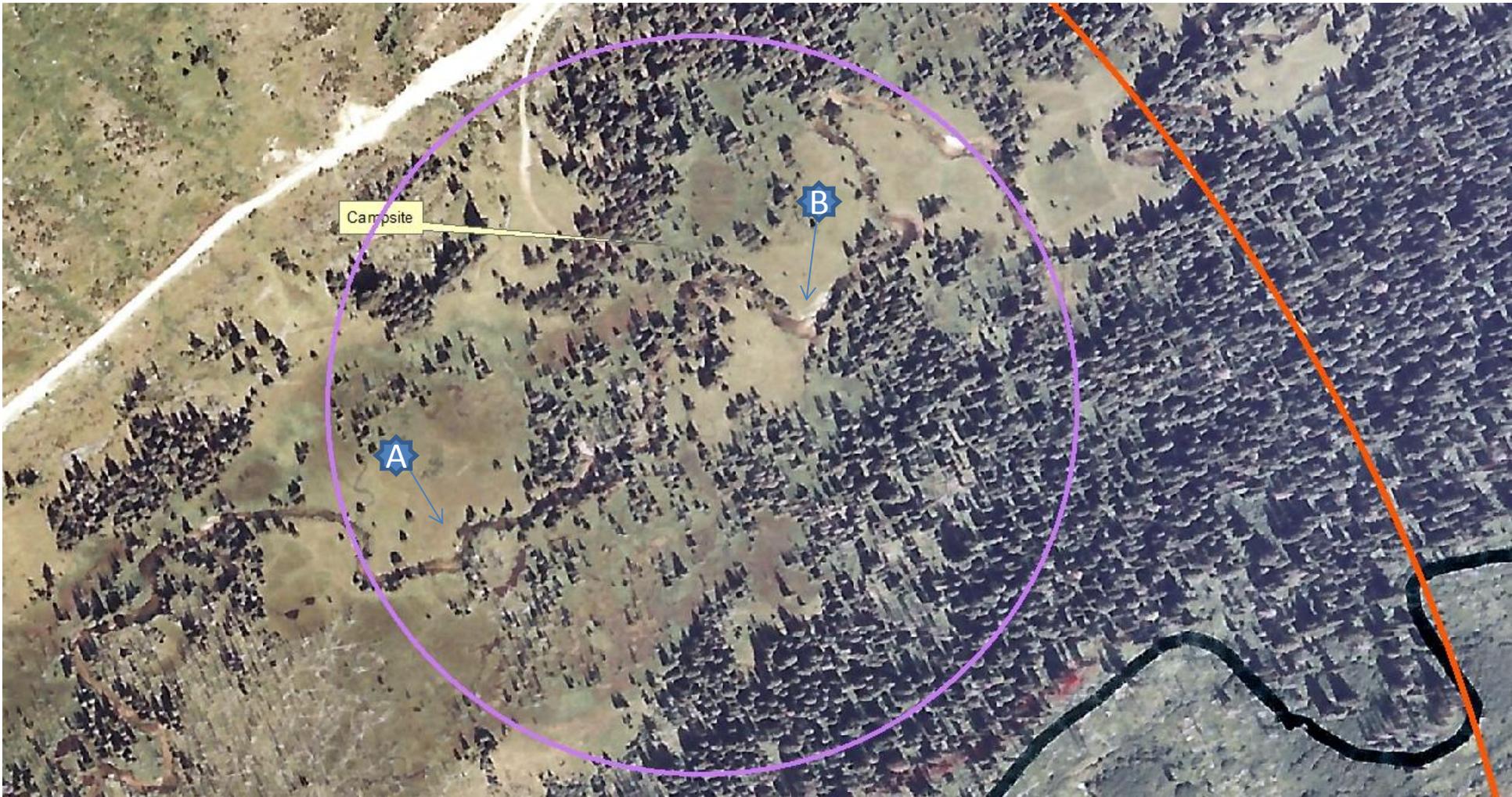
Area 4-1967



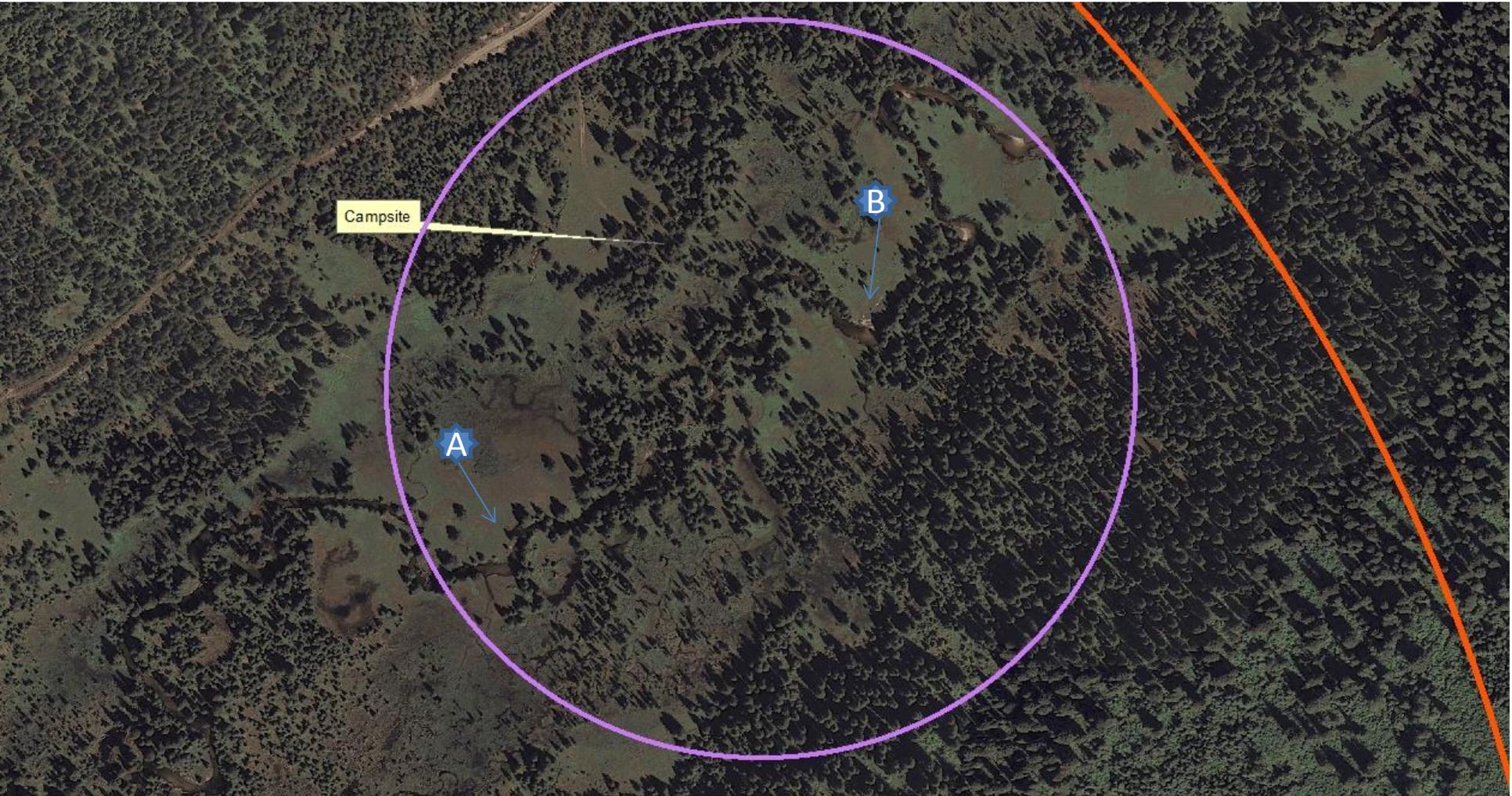
Area 4-1968



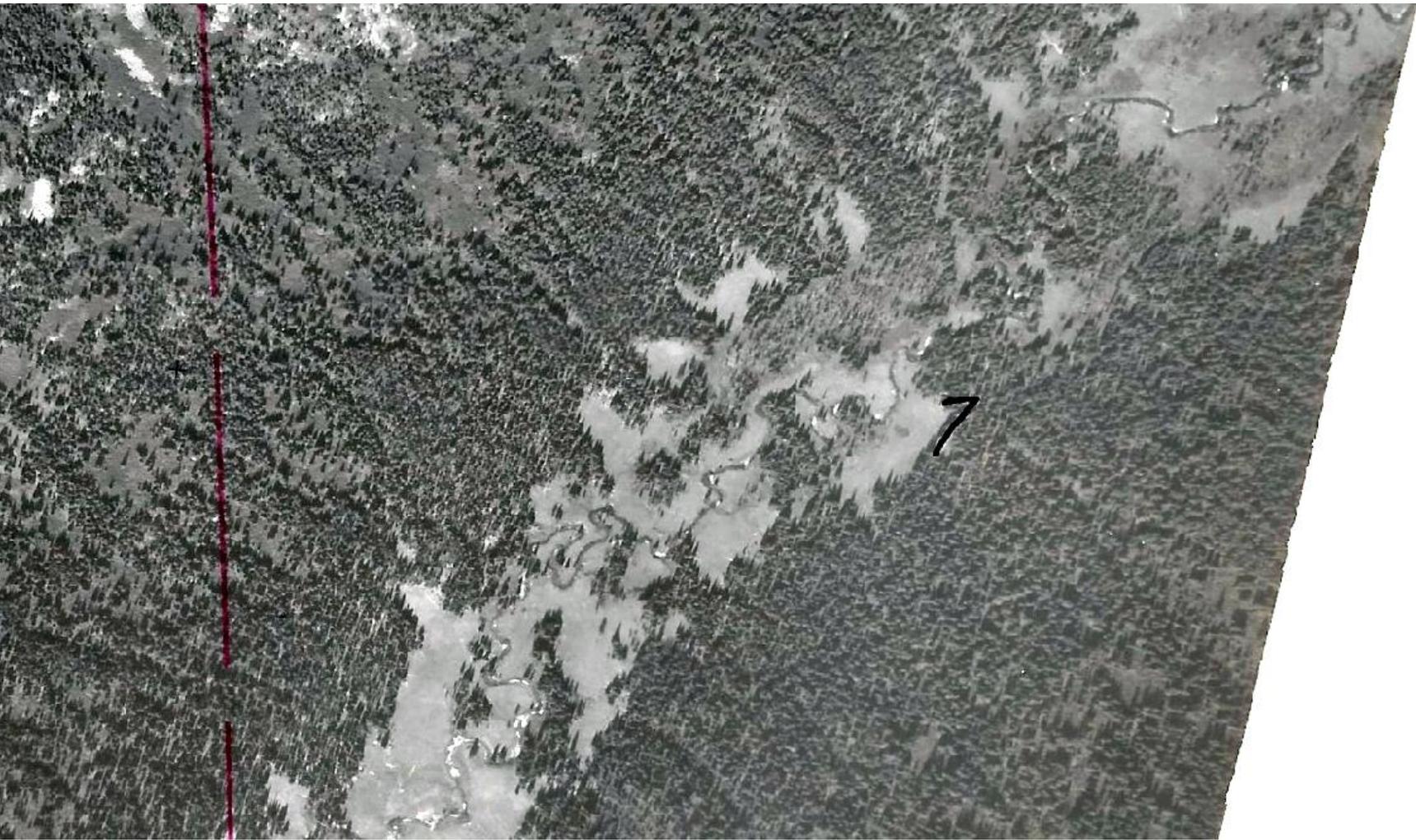
Area 4-1983



Area 4-2009



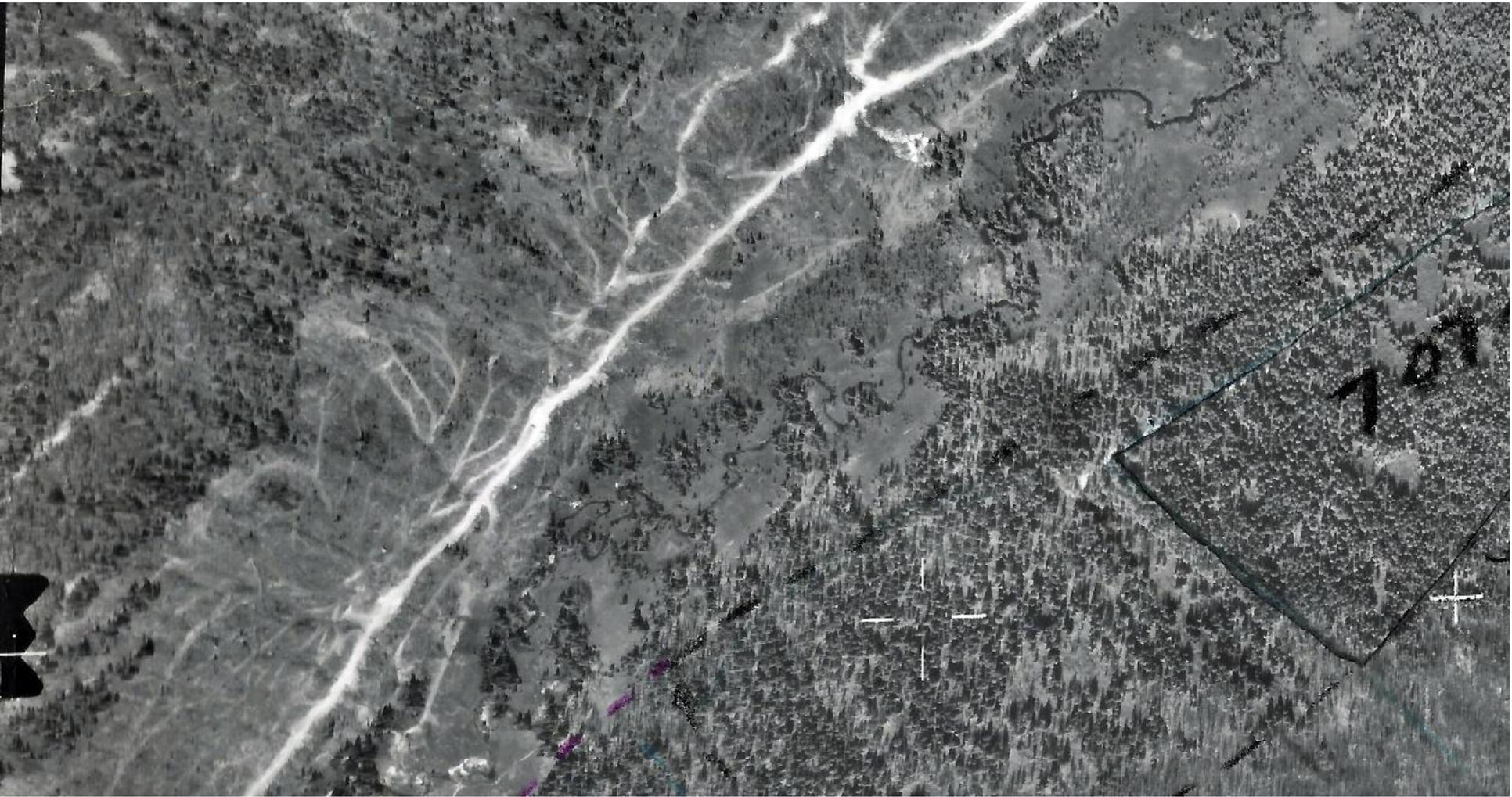
1935 Hillside zoomed-out



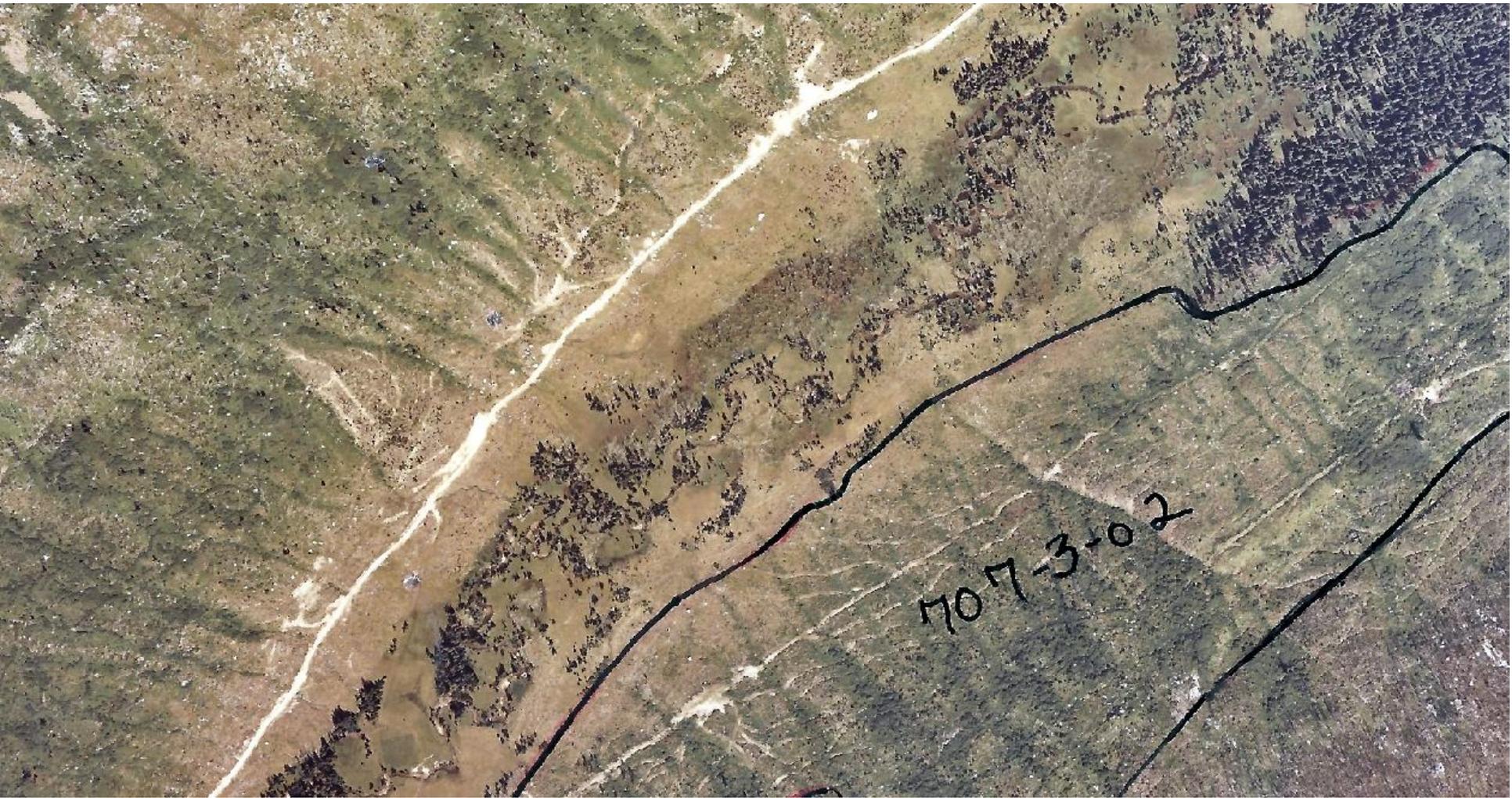
1967 Hillside



1968 Hillside



1983 Hillside



2009 Hillside



Ground-level Photo Points



Photo 61-1998



Photo 61-2013



UTM 515491 x 5416768

Photo 60-1998



Photo 60-2013



UTM 515541 x 5416856

Photo 59-1998



Photo 59-2013



UTM 515553 x 5416871

Photo 57-1998



Photo 57-2013



UTM 515614 x 5417030

Photo 56-1998



Photo 56-2013



UTM 515672 x 5417067

Photo 54-1998



Photo 54-2013



UTM 515878 x 5417241

Photo 53-1998



Photo 53-2013



UTM 515878 x 5417241

Photo 49-1998



Photo 49-2013



UTM 515986 x 5417367

Photo 43-1998



Photo 43-2013



UTM 515867 x 5417214

Oblique Aerial Photo-1969



Photo courtesy of Dave Rosgen

Oblique Aerial Photo- 2012



Oblique Aerial Photos



1969



2012

Summary Points

- Trees are growing but re-veg of grass and sedge in disturbed areas is slow
- Many sandbars predate the 1967 Fire and several areas of damaged banks seem to have been impacted by access during fire fighting and salvage logging
- No obvious vegetative changes from qualitative view
- Appears grazing in this area has not impeded veg productivity
- This method may provide another tool for monitoring

Questions?

Compiled by...

- Brandon Glaza, Hydrologist
- Jeremy Kleinsmith, Range Administrator

13:25 JUL/10/20