



Region: ARC

USGS Quad(s): De Long Mts A-2

Nomination proposes the following revisions:  
*(check all that apply)*

Addition

Correction

Deletion

Supporting Information

AWC Number of Water Body: 331-00-10060-2120-3280(4021) (-5011)  
*(if known)*

Name of Water Body: Red Dog Creek, \*North Fork Red Dog Creek, \*Upper North Fork Red Dog Creek  
*(if known)*

Official USGS Name

\*Local or Unofficial Name

**For Official Use Only**

Nomination # : 25-013

Revision Year : 2026

Revision(s) to: Atlas  Both  Catalog

Revision Code(s) : C-9, C-2, A-1, A-2

*[Signatures and Dates]*  
\_\_\_\_\_  
Fisheries Scientist Date 9/24/2021  
\_\_\_\_\_  
Habitat F&G Coordinator Date 9/24/25  
\_\_\_\_\_  
AWC Project Biologist Date 17 Sept 2025  
\_\_\_\_\_  
GIS Analyst Date 10/21/2025

*For fish observations, please provide the upper most point (Lat/Long) where any two individuals of observed species & life stage were documented. Please use Decimal Degree's with a minimum of 5 decimal places. Please see Supplemental Information Form if you need more room for species observation data and comments.*

Species	Date Observed	Latitude	Longitude	Life Stage			
				Anadromous	Adult Presence	Spawning	Rearing
Dolly Varden	5-Aug-2025	68.112406	-162.731620	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dolly Varden	5-Aug-2025	68.089345	-162.731309	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**IMPORTANT:** Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish species, including, number of fish observed, photographs of each species & life stage observed or captured, sampling methods, duration and location(s) sampled, copies of data sheets and/or field notes, etc. Please attach a copy of a map showing location of lower and upper observed extents of each species & life stage, as well as other pertinent information such as specific locations of stream reaches where spawning or rearing individuals were observed or captured, and the location, type and heights of any barriers to fish passage, etc.

**Comments:**

Nominating to extend the anadromous lines of DVr in the Upper North Fork Red Dog drainage. ADF&G Habitat has two established sites on a north and south tributary of the North Fork Red Dog. In August 2025, using baited minnow traps, we captured 2 juvenile DV in the north tributary, and 10 in the south tributary.

These dolly's are presumed anadromous due to proximity of the established anadromous population in Ikalukrok Creek.

For naming those two tribs to be documented, there aren't any locally accepted names, just our unofficial site references.

- ~UPDATE/ADJUST upper hydrography segment of existing AWC Stream #331-00-10060-2120-3280 "Red Dog Creek".
- ~UPDATE/ADJUST hydrography of existing AWC Stream #331-00-10060-2120-3280-4021 "North Fork Red Dog Creek".
- ~CHANGE name of existing AWC Stream #331-00-10060-2120-3280-4021 to local name ""North Fork Red Dog Creek".
- ~EXTEND existing AWC Stream #331-00-10060-2120-3280-4021 \*North Fork Red Dog Creek" with Dolly Varden REARING and PRESENT.
- ~ADD new AWC Stream #331-00-10060-2120-3280-4021-5011 ""Upper North Fork Red Dog Creek" with Dolly Varden REARING and PRESENT.

Observers Signature Lauren Yancy

9/13/25  
Date

**For Official Use Only**

Observer Name: Lauren Yancy  
*(Please Print)*

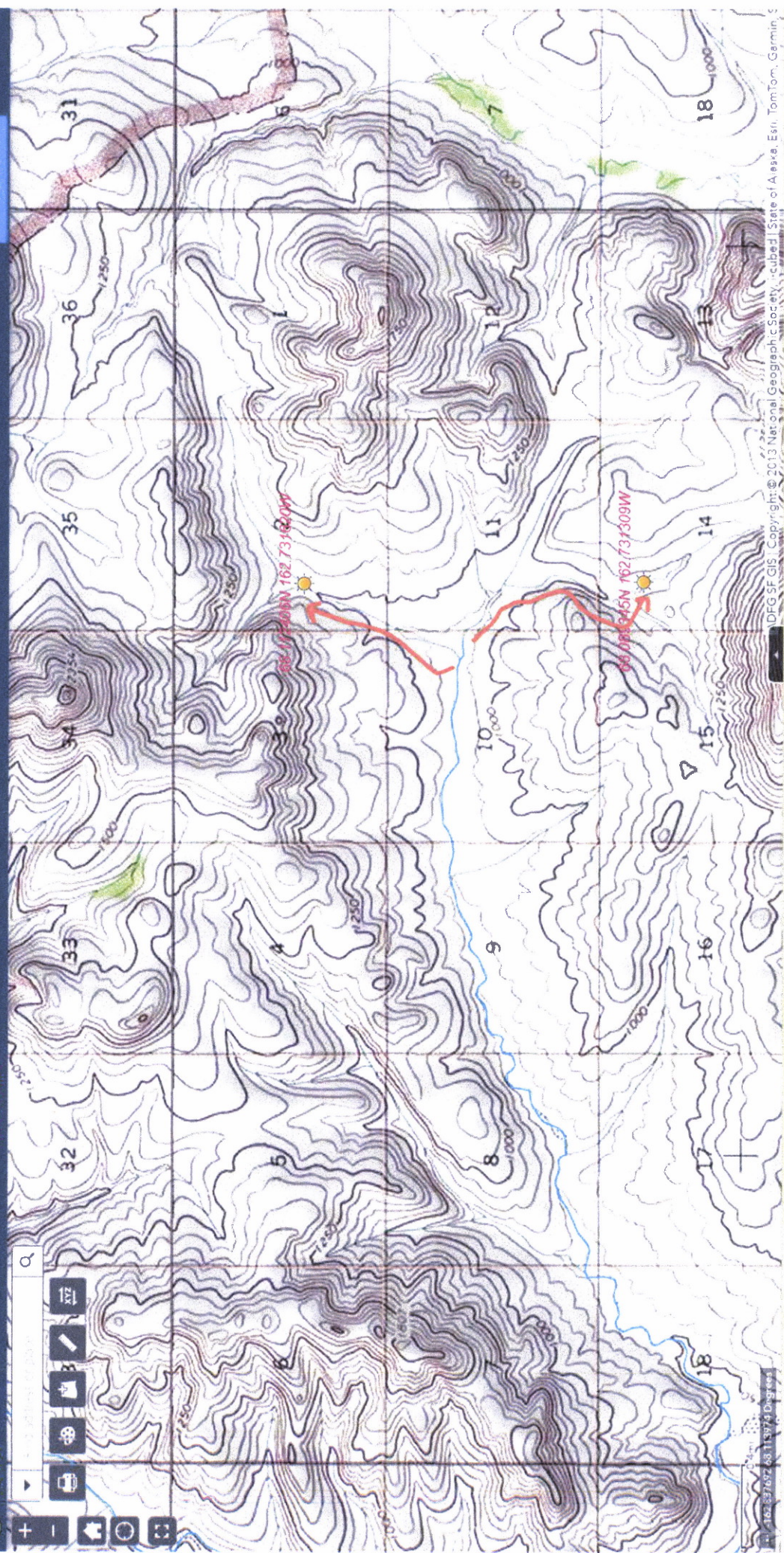
Agency or Organization: ADF&G - Habitat

\_\_\_\_\_  
Signature of Area Biologist Date

Address: 1300 College Rd  
Fairbanks, AK 99701

\_\_\_\_\_  
Name of Area Biologist (Please Print):

Map navigation controls including zoom in (+), zoom out (-), home, and other navigation icons.



# TRIP REPORT

*State of Alaska  
Department of Fish and Game*

*Field Dates:* July 29 – August 5, 2025

*Locations:* Drainages in the vicinity of the Red Dog Mine and Aktigiruaq Anarraaq Extension Project (AAEP) deposits

*Objectives:* To sample juvenile fish in the area and collect juvenile Dolly Varden for whole body element analysis, and other aquatic biomonitoring tasks

*Participants:* Audra Brase and Lauren Yancy (ADF&G Habitat)

*Weather:* Mostly clear, with one day of low dense fog

*Access:* Pickup truck and helicopter

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On July 29, 2025, Audra Brase and Lauren Yancy of the Region III ADF&G Habitat Section flew to the Red Dog Mine site approximately fifty miles east of Kivalina. The main goal of this trip was to sample juvenile fish populations using minnow traps. We set minnow traps and collected in-situ water quality data at 23 total sites surrounding the mine and the AAEP deposits (Figure 1). We collected juvenile Dolly Varden from Buddy Creek, Anxiety Ridge Creek, and Red Dog Creek for whole body element analysis. We also collected comprehensive water chemistry samples from 5 sites, fish for histopathology analyses from 3 sites, and a sediment sample that was missed in July was collected from Ferric Creek.

The weather was pleasant with clear skies throughout the week, except for one day that brought very dense fog and low-lying clouds to the area. All flights were cancelled that day and no helicopters flew. Water levels at all sites were low to moderate and conducive for minnow trapping. These conditions were a sharp contrast to 2024 when water levels were exceedingly high, and no minnow trapping could be conducted in the drainages surrounding the mine site.

Ten minnow traps baited with cured salmon roe were set at each of the sample sites and retrieved the following day if possible. Catches were at or below average at most sites, apart from Grayling Junior and North Fork Red Dog creeks where we caught 15 and 32 Dolly Varden respectively (5-year averages are 3 fish from each of those sites, Table 1). Another site with unexpectedly high catches of fish was Ferric Creek, a tributary of the Wulik River with orange staining on the rocks and sediment (Figure 2). Ferric Creek was last sampled for fish in late July 2002, when 24 fish were caught, whereas this year we caught 61 Dolly Varden. The total catch of 24 fish at Anxiety Ridge Creek was the lowest observed in the past 5 years (Table 1), which may be due to a large beaver dam that has been built in the upper portion of the drainage and may have changed the available habitat (Figure 3).

Comprehensive water chemistry samples were collected from Grayling Junior (Sta 209), Upper Grayling Junior North and Upper Grayling Junior East (Figure 4). At the upper Grayling Junior East site samples were collected from above the seep, within the seep, and below the seep. These samples were shipped to Dr. Brett Poulin (University of California, Davis - Department of Environmental Toxicology) where they will be analyzed and added to a growing dataset from Alaska's rusting rivers.

Histopathology samples were collected from 27 Dolly Varden captured in the mainstem Ikalukrok Creek upstream of Red Dog Creek (Sta 9), North Fork Red Dog Creek (Sta 12), and Red Dog Creek (Sta 151). Fish were primarily selected for histopathology sampling based on unusual pigmentation, abnormalities of the gills and/or deformities of the operculum (Figures 5 and 6). The selected fish were measured, photographed, then placed in a lethal dose of MS-222. After death, the fish were weighed, and the gills and liver removed and fixed in formalin. The stomach of each fish was also removed and preserved in ethanol for possible future analysis. The histopathology analyses will be performed by Dr. Morag Clinton (University of Alaska Fairbanks) and results will be included in Lauren Yancy's Master's thesis.

During this site visit we had several notable wildlife encounters. We saw 5 different brown bears from the helicopter, 2 of which were near our sample sites, so we postponed those samples. We were also able to observe firsthand when a caribou had to be hazed out of the active mine pit (Figure 7). This was a smooth operation, and the helicopter was an effective tool to encourage the caribou to leave the unsafe area. Finally, the last significant wildlife encounter was a muskox in Grayling Junior Creek (Figure 7). He was located just upstream of where we were setting minnow traps and appeared to be more interested in cooling off in the creek, rather than us.

We observed repairs of the North Fork Red Dog Bridge authorized under FH18-III-0236-A1 (Figure 8). The contractors planned to complete the work on August 4, and they expected that heavy equipment would start using the bridge within a few days.

While at Evaingiknuk Creek, we noted that the 2 main culverts under the material site access road may be deforming and/or settling, but they do not appear to have changed much since 2010 (Figures 9 and 10). The culverts still allow for fish passage both up and downstream at moderate flows.

We left the mine site on August 5 and returned to Fairbanks that evening.

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*Note: Data presented in this trip report are preliminary. Final results will be presented in the ADF&G Technical Reports which will summarize all 2025 aquatic sampling events at the Red Dog Mine and AAEP.*

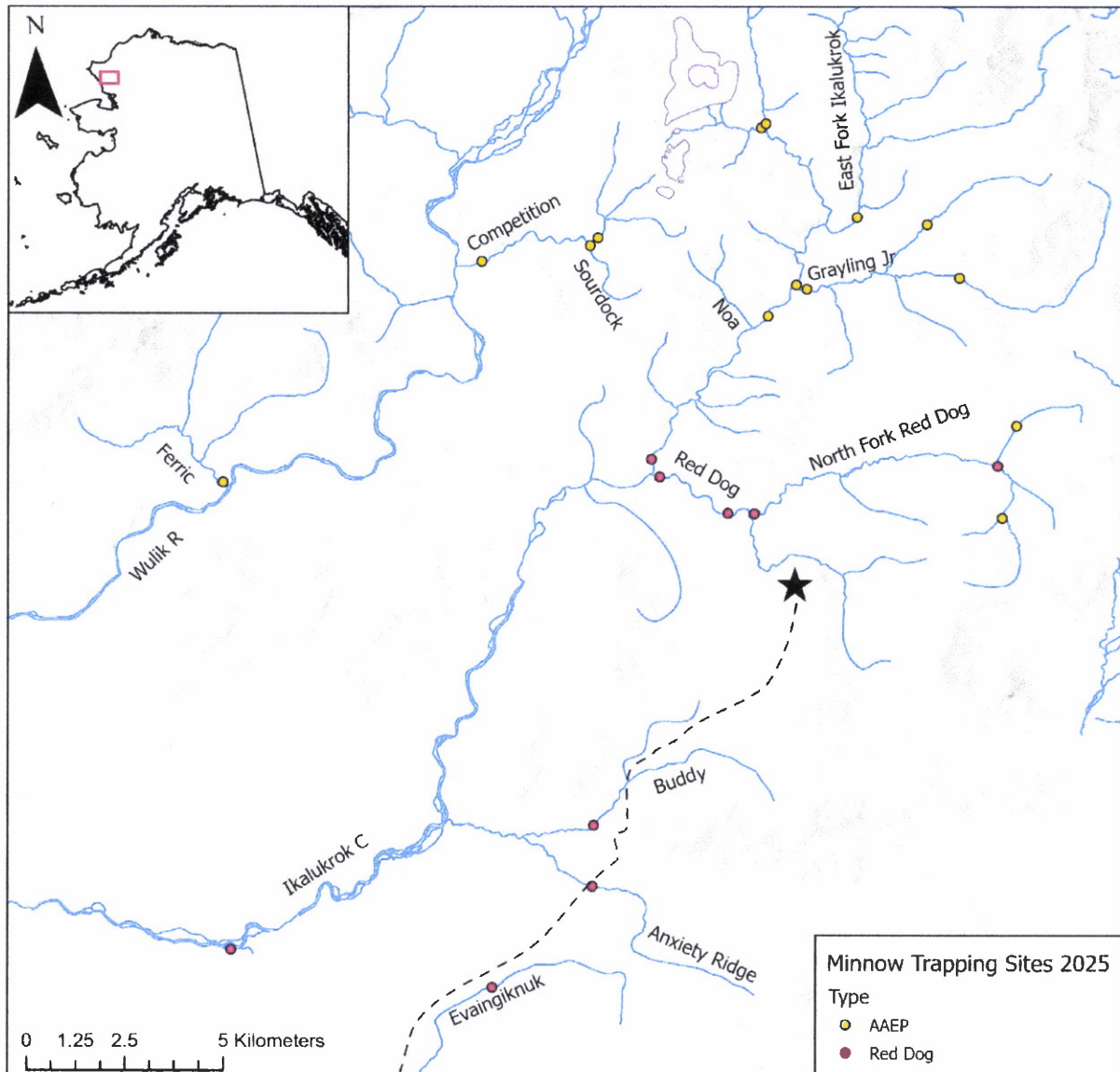


Figure 1. Minnow trap sample sites surrounding Red Dog Mine and AAEP, August 2025. Pink polygons are the location of the AAEP deposits and the star is the Red Dog mine site.

Table 1. List of minnow trap sample locations and catches of juvenile Dolly Varden from streams in the vicinity of Red Dog Mine and AAEP, 2019-2025.

	2019	2020	2021	2022	2023	2024 <sup>a</sup>	Average (2019-23)	2025
Evaingiknuk (Noatak Tributary)	30	7	16	21	20	-	19	11
Anxiety Ridge Creek	28	50	90	114	68	-	70	24
Buddy Creek	57	15	25	202	88	-	78	27
Upper Red Dog Creek (Sta 151)	1	0	6	67	10	-	17	11
Lower Red Dog Creek (Sta 10)	3	0	1	27	41	-	14	5
Upper Ikalukrok Creek (Sta 9)	2	4	1	25	3	-	7	4
Ikalukrok Creek upstream of Grayling Junior	-	-	-	-	-	-	N/A	3
Ikalukrok Creek upstream of Noa (AAEP - 02)	-	-	-	-	-	-	N/A	10
Ikalukrok upstream of West Fork Ikalukrok (Sta 206)	0	0	0	0	0	-	0	0
West Fork Ikalukrok (Sta 205)	0	0	0	0	0	-	0	0
East Fork Ikalukrok (Sta 208)	4	0	0	0	0	-	1	2
Lower Ikalukrok Creek (Sta 7/160)	22	9	12	60	20	-	33	19
Upper Volcano	-	-	-	0	0	-	N/A	-
Lower Volcano	0	1	0	13	1	-	3	-
Sourdock (Sta 204)	0	-	0	0	0	-	N/A	0
Upper Competition (Sta 203)	0	-	0	0	0	-	N/A	0
Lower Competition (Sta 202)	21	-	0	0	0	-	N/A	0
Grayling Jr (Sta 209)	5	6	1	1	3	-	3	15
Upper Grayling Jr East Trib	-	-	1	0	1	-	N/A	2
Upper Grayling Jr North Trib	-	-	7	18	-	-	N/A	2
North Fork Red Dog Creek (Sta 12)	0	0	2	4	9	-	3	32
Upper North Fork Red Dog Creek	7	0	3	1	1	-	2	4
Upper North Fork Red Dog Creek - trib	-	-	1	0	-	-	N/A	-
Upper North Fork Red Dog - North	-	-	2	0	4	-	N/A	2
Upper North Fork Red Dog - South	-	-	0	0	-	-	N/A	10
Ferric Creek (Sta 213)	-	-	-	-	-	-	N/A	61

<sup>a</sup> Due to high water, no juvenile fish sampling occurred in 2024.

**North Fork Red Dog Creek south tributary, we only sampled below the dam**



# North Fork Red Dog Creek north tributary



Upper North Fork Red Dog South

set traps 12:35pm

filled traps 11:30

Saw fish while setting traps

below beaver dam

8/3

→ 8/5

Trap #1: DV165

DV152

DV134

Trap #2: DV156

Trap #3: DV142

Trap #4: DV150

Trap #5: DV160 Mort, got stuck in trap when

Trap #6: DV146

Trap #7: DV165 x too high when

Trap #8: ♀

Trap #9: ♀

Trap #10: DV155

10 DV

Upper North Fork Red Dog North

set traps: 13:15

pulled traps: 12:00

Saw fish while setting traps

8/3

→ 8/5

Trap #1: ♂

Trap #2: ♀

Trap #3: ♀

Trap #4: ♀

Trap #5: DV160 ~ large fish when

Trap #6: DV170 ~

Trap #7: ♂

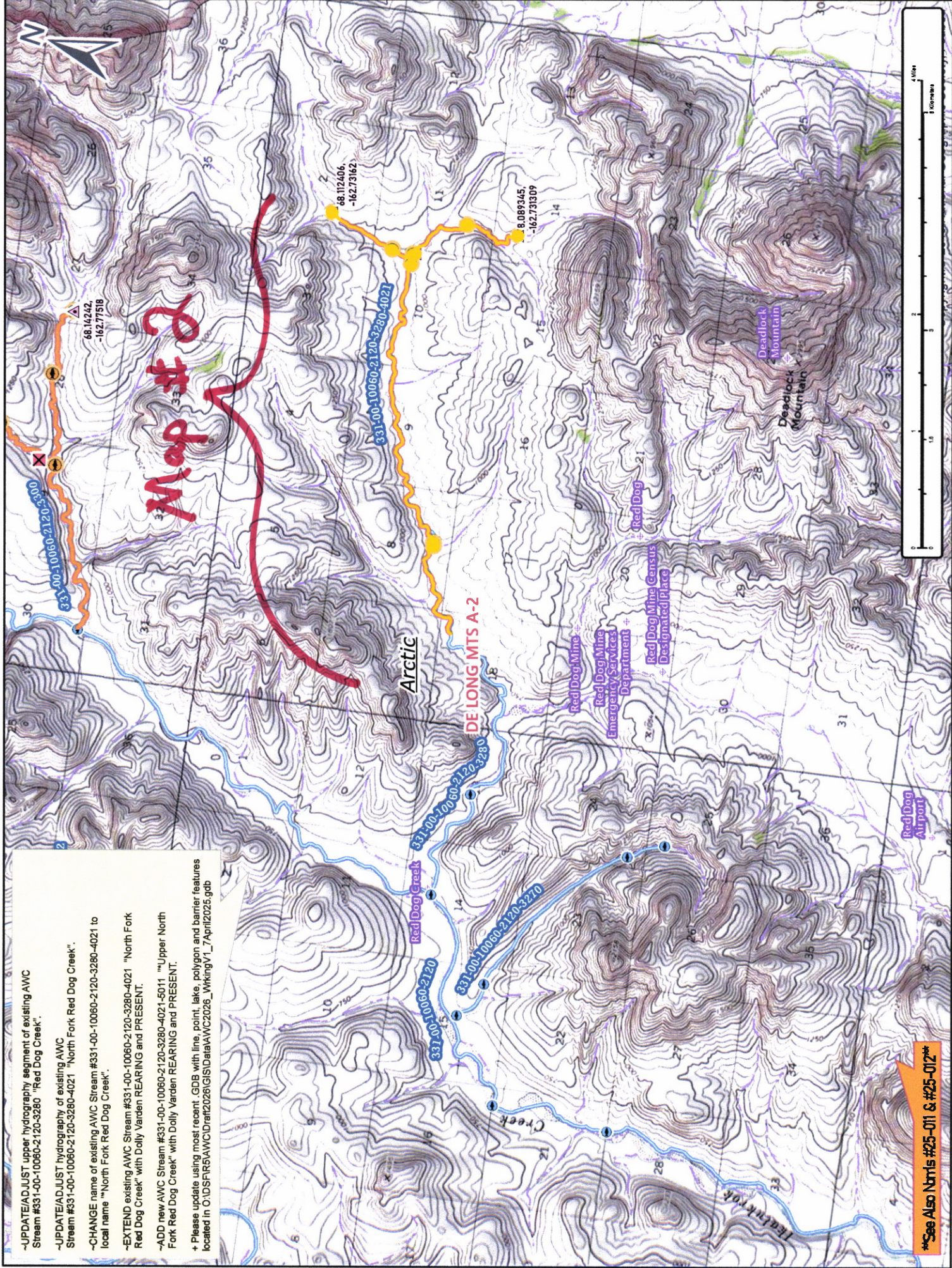
Trap #8: ♀

Trap #9: ♀

Trap #10: ♀

10 DV

Return to main



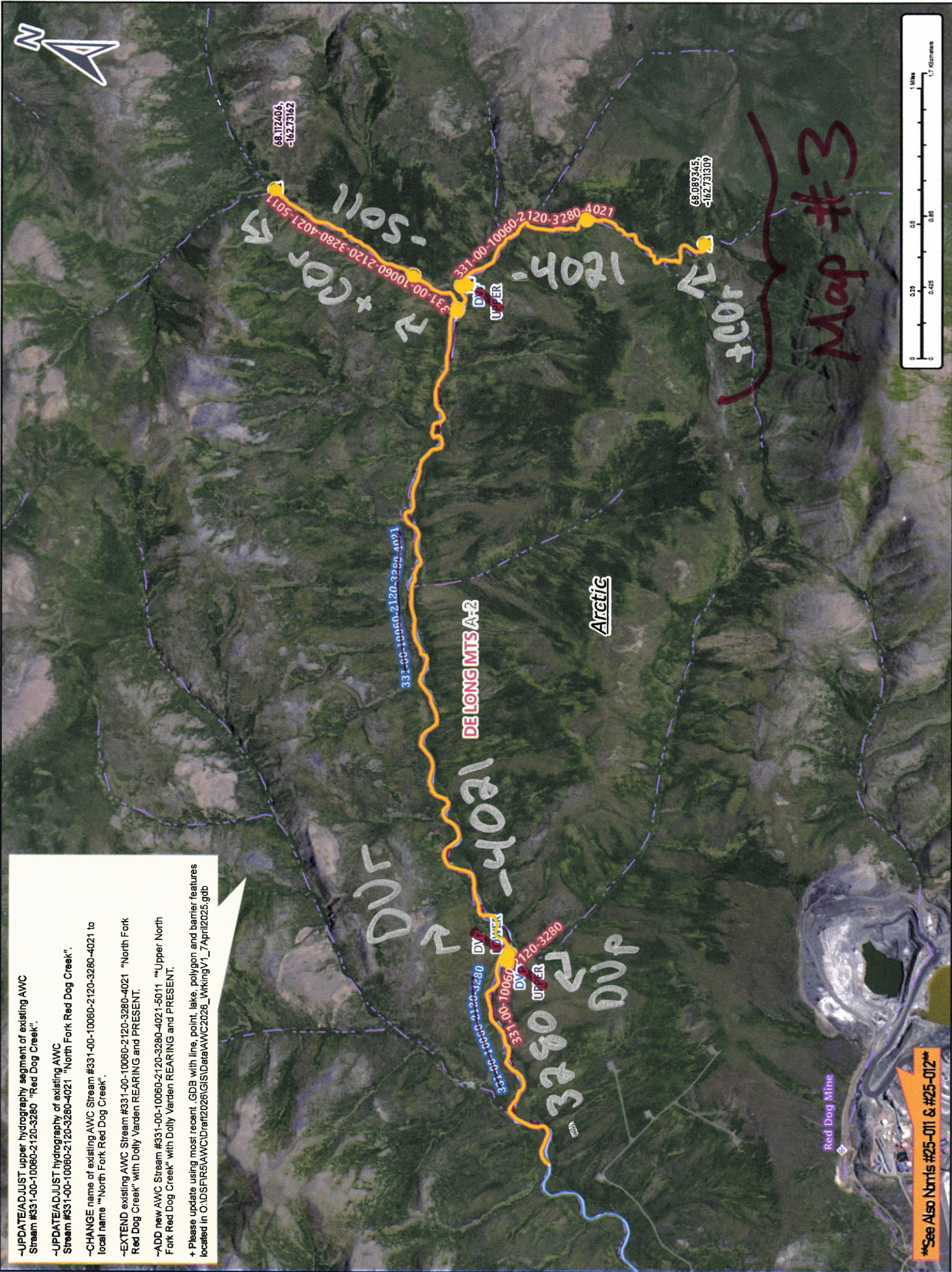
Map #2

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 + Please update using most recent GDB with line, point, lake, polygon and barrier features located in O:\DSPR5\AWC\Drat2026\GIS\Data\AWC2026\_WikingV1\_7April2025.gdb

\*See Also Nmt's #25-011 & #25-012\*\*

Dom #25-013

Map #1



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\*See Also Nmnts #25-011 & #25-012\*\*

Map #2  
Map #3  
Nom # 25-013

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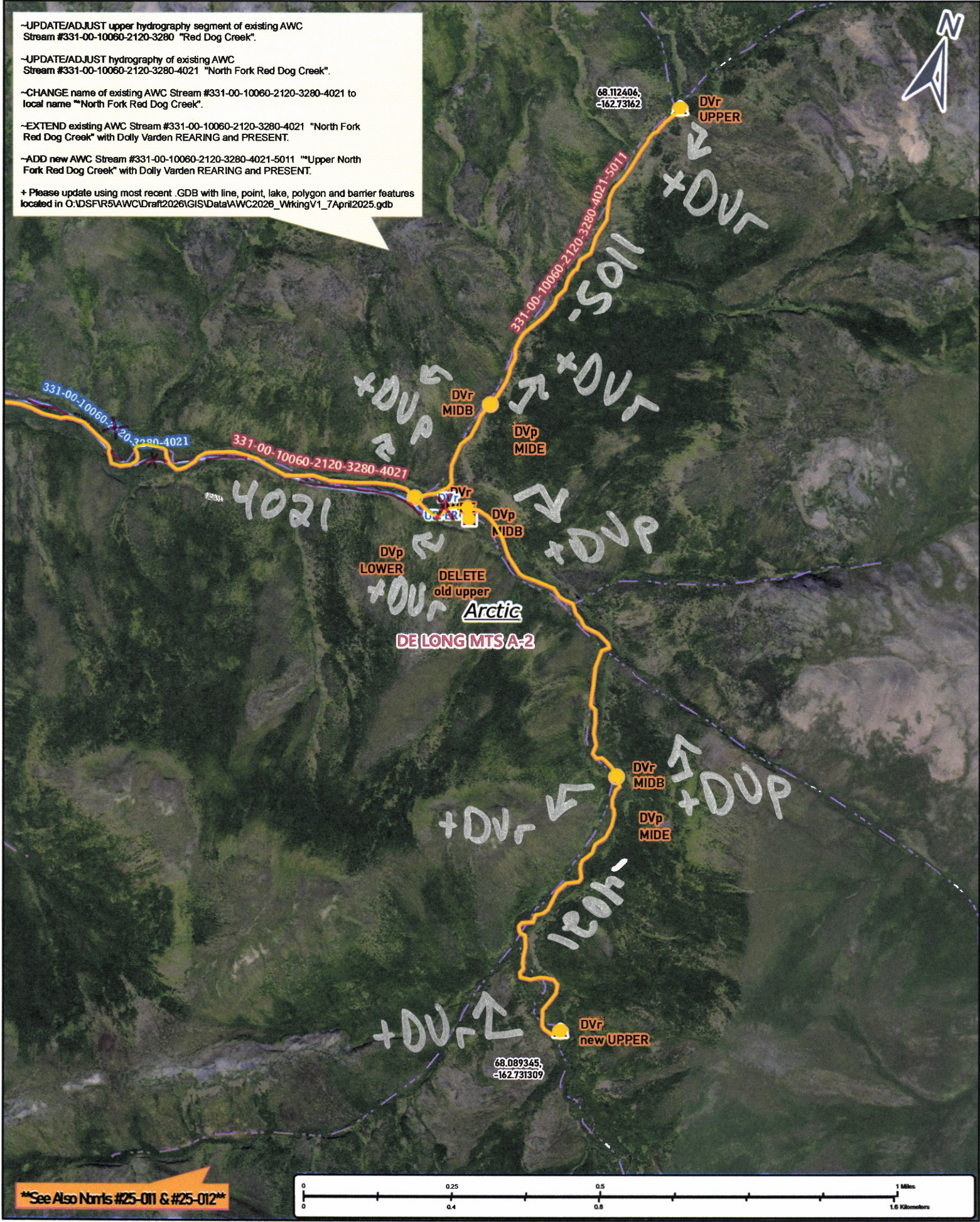
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\*\*See Also Nbrts #25-011 & #25-012\*\*

Nom # 25-013

Map #3