

MAR 14 1977

N. C. Dist. Hdqtrs.
RHINELANDER, WIS.

Woodruff

March 8, 1977

3610-2

TO: > A. R. Ensign

FROM: Randolph Steuck

SUBJECT: Trout Inventory and Classification of Military Creek, Vilas
County, Wisconsin River Watershed

Military Creek is located in northeast Vilas County, near the Village of Phelps. This stream has its origin in a wetland area of approximately 85 acres. It is tributary to North Twin Lake. Military Creek is a medium hard water stream having slightly acid, clear water. The flow at Station 1 was estimated at 3.0 c.f.s. on October 14, 1976.

The Military Creek watershed has an abundance of tributary water. Field data has been collected from 14 spring ponds. Field investigation is planned on an additional 9 more spring ponds. Narratives for the 14 spring ponds and four unnamed streams are included in this report.

Four survey stations were established on Military Creek. The T & J generator producing 300 volts D.C. and 1 ampere was used at all stations. A total of 3,700 feet or 18 percent of the stream was electrofished. Both native and stocked brook trout were recovered. Of 514 native brook trout collected, 297 or 58 percent were fingerling. Fifteen percent were legal size, 6 inches or larger. The largest brook trout was 12.3 inches.

On August 17, 1976, there were 1,000 brook trout fingerling having a left ventral fin removed stocked in Military Creek. The stream was surveyed 58 days later. Nine percent of the stocked brook trout were recovered. The stocked brook trout fingerling comprised 15 percent of the sample. The length frequency of stocked and native brook trout is provided in Figure 1.

Nontrout fish species collected from Military Creek included yellow perch, rock bass and 17 forage minnow types. The common shiner was most abundant, followed by brook stickleback. No uncommon or endangered fish species were found.

Military Creek from its confluence with North Twin Lake upstream to the outlet from Lake 36-6, 1.4 miles and 4.1 acres, is Class IA brook trout water. The remaining 2.4 miles and 7.4 acres is Class IIA brook trout water.

Approximately 94 percent of the Military Creek watershed area is wooded and wild. The upper half of the watershed is public land, being the Nicolet National Forest. The lower 400 feet of stream, including the mouth, flows through the Phelps Pallet Mill, a wood products company.

Public access to Military Creek is limited. One public road crosses the stream. A snowmobile trail crosses the stream in the center of Section 25. The stream flows across 1.9 miles (3.6 miles of frontage) of public land on the Nicolet National Forest. Access to the stream across these public lands is very difficult and of the wilderness type only. Several well used woods roads approach the stream on private land.

The stocking record for Military Creek finds that brook trout fingerling have been stocked annually since 1971. Older correspondence in the file indicates that this stream may have been stocked with brook trout for many years.

Military Creek supports a good native brook trout population. With over half of the population being fingerling (58 percent), additional hatchery fingerling are not needed. It is suggested that the stocking of fingerling brook trout and/or holdovers be discontinued.

Local trout fishermen state that brook trout over 20 inches are caught on occasion from some of the spring ponds. Well used foot trails to some of the spring ponds indicate moderate fishing pressure. Considerable fishing on the lower half of the stream is done from canoe or small watercraft.

Military Creek has a sluggish flow throughout most of its length. The only riffle area noted was the 150 feet of stream above the confluence with North Twin Lake. Upstream from the snowmobile bridge in Section 25, the stream flows through a vast wetland with acres of emergent vegetation. Hundreds of ducks (fall migration) were observed here.

The waters of Military Creek can produce trophy brook trout. Dredging of selected spring ponds will improve brook trout habitat and provide additional living space for larger trout. All of the 14 spring ponds investigated to date are on private land. Purchase or perpetual conservation easement is recommended for all these ponds.

RS:jn

cc: James Addis, Madison
Richard Wendt, Woodruff

APPROVED:

John G. Brasch

Date

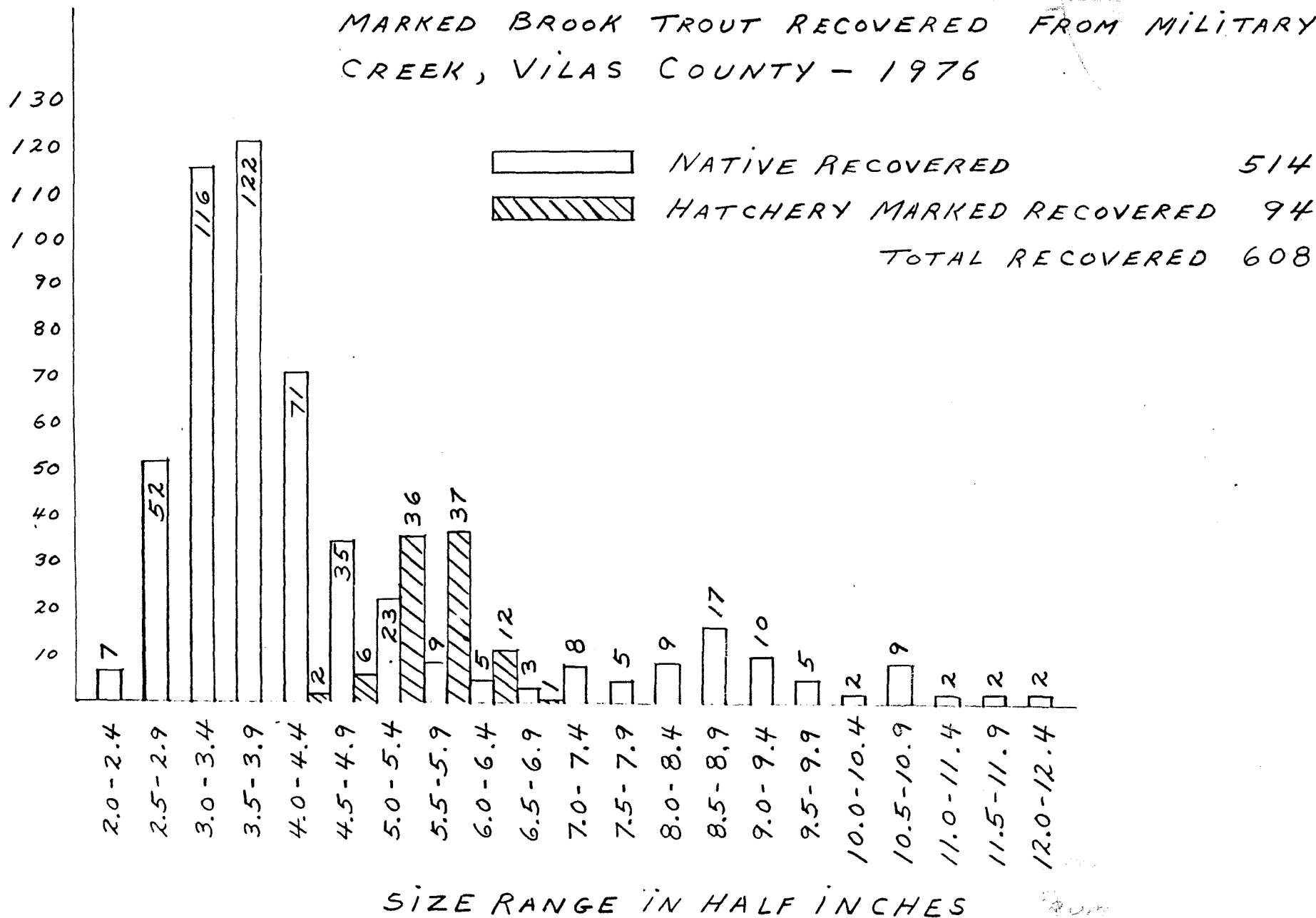
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Date

FIGURE 1.

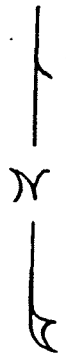
LENGTH FREQUENCY OF NATIVE AND HATCHERY MARKED BROOK TROUT RECOVERED FROM MILITARY CREEK, VILAS COUNTY - 1976

NUMBERS OF BROOK TROUT



(23) (24)

MILITARY CREEK - VILAS COUNTY
SURVEY STATION (3)
SURVEY STATION TRIB. (A)
SPAWNING AREA HHHHH



SNOWMOBILE BRIDGE

(26) (25)

T-42 N

SPRING COMPLEX

B

MILITARY CREEK
CREEK 25-14A

(A)

(4)

CREEK 25-14B

SPRING COMPLEX

LAKE 36-6

(36)

(35)

A

CREEK 35-14A

(3)

CREEK 35-14C

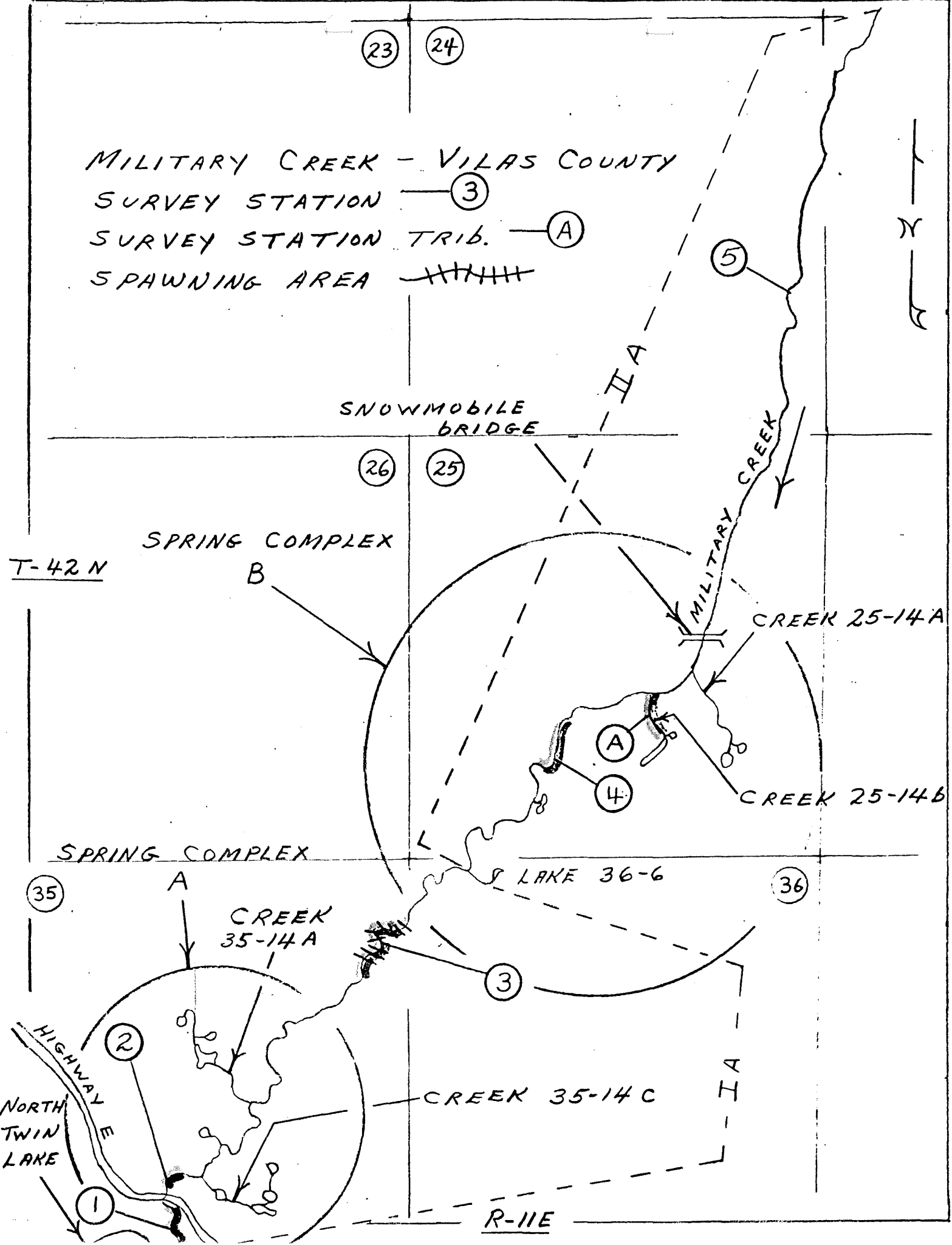
I A

HIGHWAY E
NORTH TWIN LAKE

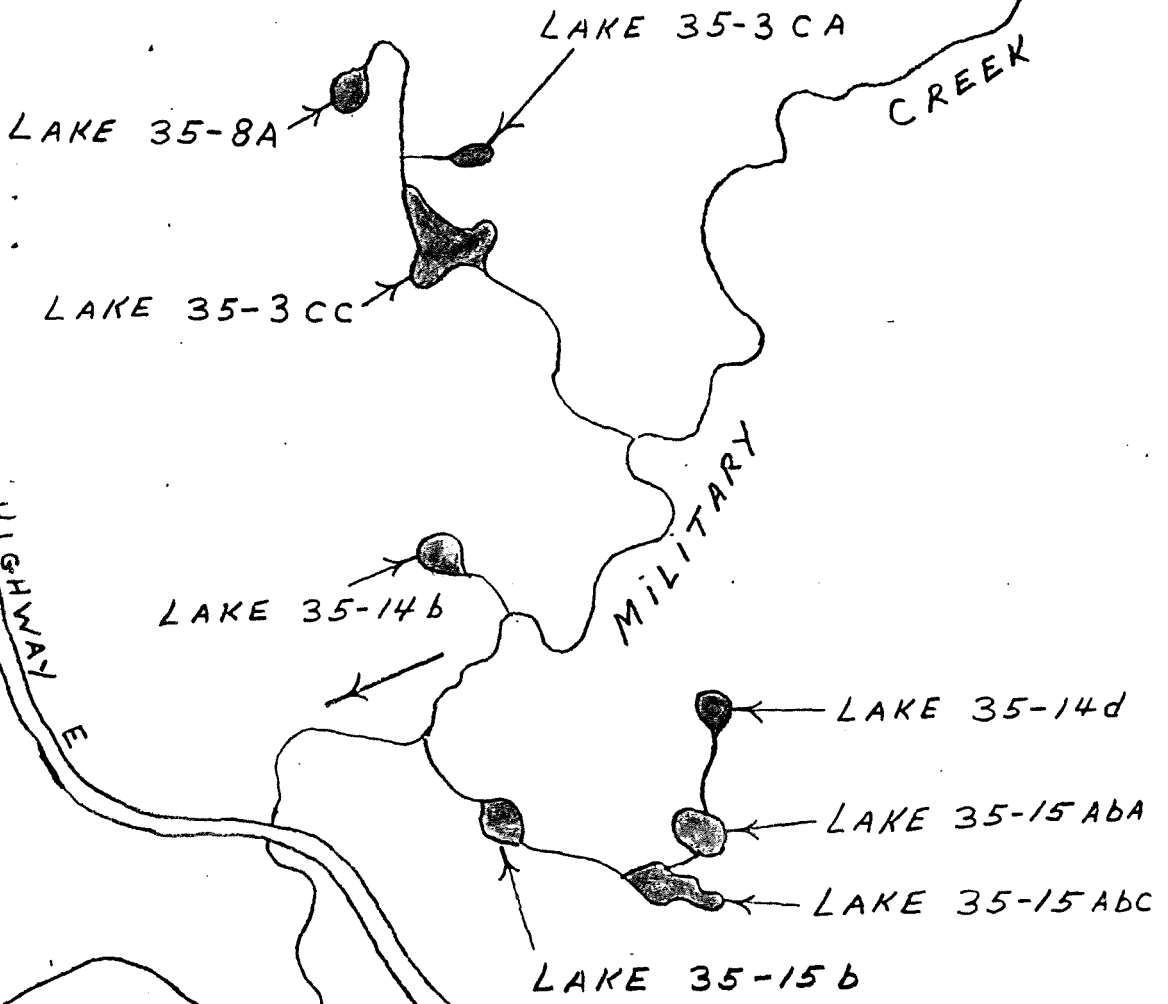
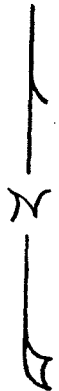
(2)

(1)

R-11E

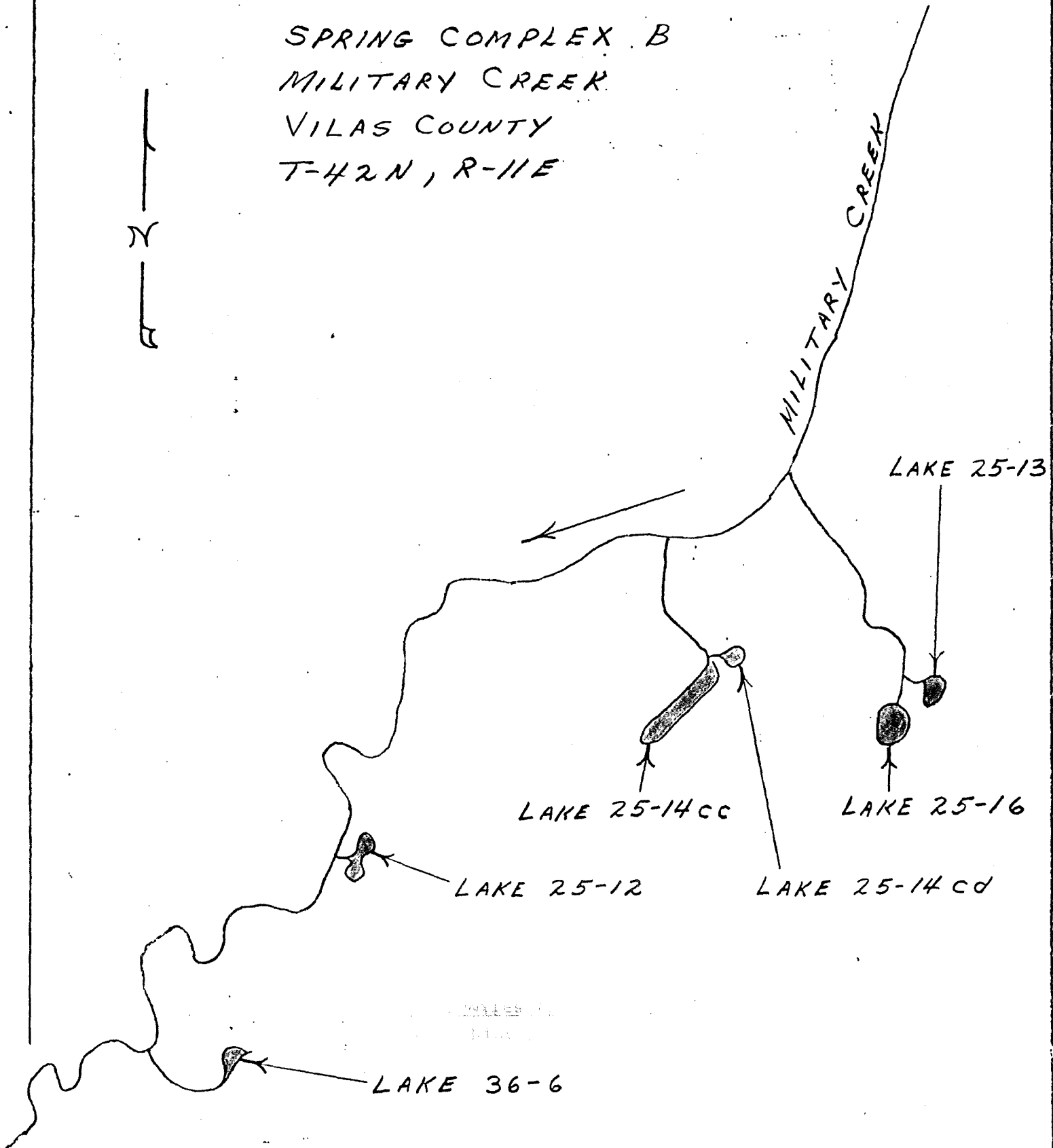


SPRING COMPLEX. A
MILITARY CREEK
VILAS COUNTY
T-42N, R-11E



NORTH TWIN
LAKE

SPRING COMPLEX B
MILITARY CREEK
VILAS COUNTY
T-42N, R-11E



SCALE
1:1000

NAME Military Creek		COUNTY Vilas	
LOCATION T42N, R11E, Sec. 35		Tributary to: North Twin Lake Watershed: Wisconsin River Basin	
SIZE:			
Average width of trout water <u>25</u> ft.		Total length of trout water <u>3.8</u> mi.	
Area of trout water <u>11.5</u> acres		Total length of stream <u>3.8</u> mi.	
DRAINAGE AREA:		FLOW: October 14, 1976	
Direct _____ sq. miles.		<u>Estimated 3.0</u> cfs.	
Total <u>3.6</u> sq. miles.		Average velocity <u>Sluggish</u>	
TEMPERATURE:			
Average <u>43°F</u> Minimum <u>40°F</u> Maximum <u>45°F</u>			
<u>Water temperatures represent those taken during surveys.</u>			
WATERSHED LAND USE: <u>Wooded & wild - 94%, Residential & industrial - 6%</u>			
BANK COVER: <u>Open marsh-58%, shrub marsh-28%, swamp conifer-14%</u> <u>Logs - common</u>			
INSTREAM COVER: <u>Undercut banks, rocks, debris & aquatic vegetation - scarce</u> <u>Riffles - 1% A & B pools present and</u>			
POOLGRADE AND POOL-RIFFLE RATIO: <u>Flat water - 99% continuous</u>			
WGA/MPA:	pH:	Cl:	CONDUCTANCE (µmhos at 77°F):
<u>54 ppm</u>	<u>6.8</u>	<u>122</u>	<u>122</u>
			WATERCOLOR: <u>Clear</u>

PROBLEMS (List): Stream lacks gradient.
Accumulation of silt in most of stream channel. Stream difficult to fish by wading.

FISHING CONDITIONS: _____ of stream.
Access One public road crossing. Wilderness type public access on upper half
Fishability Poor, due to unstable bottom material. Bank fishing & from small craft.
Fishing intensity Moderate.

COMMENTS: Military Creek is tributary to North Twin Lake. Possibly 20 spring ponds exist in the watershed. The upper 1.9 miles (3.8 miles of frontage) is public, on Nicolet National Forest land.

INVESTIGATOR Stueck - Andrews - Krause	DATE Feb. 25, 1976
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Military Creek Tributaries

Creek 25-14a (T42N, R11E, S-25)

Length	0.2 mile
Surface Area	0.1 acre
Average Width	6 feet

A medium hard water stream having slightly alkaline, clear water. The fish population is unknown, however, brook trout and forage minnows may be present. The entire stream is Class III brook trout water. This stream drains Lake 25-13 and 25-16. A small portion of the stream possibly 200 feet (400 feet of frontage), is on Nicolet National Forest land. Navigable water access is possible from Military Creek.

Creek 25-14b (T42N, R11E, S-25)

Length	0.1 mile
Surface Area	0.2 acre
Average Width	15 feet

A medium hard water stream having neutral, clear water. A portable Powermaker generator producing 125V-D.C. and a longline was used to electrofish 450 feet of stream. Fish collected included brook trout, brook stickleback and central mudminnow. All nine brook trout recovered were under six inches. The entire stream is Class IB brook trout water. This stream drains Lakes 25-14cc and 25-14cd. The entire stream flows across private land. Rust colored seeps were observed entering the stream.

Creek 35-14c (T42N, R11E, S-35)

Length	0.2 mile
Surface Area	0.4 acre
Average Width	15 feet

A medium hard water stream having neutral, clear water. The fish population is unknown, however, brook trout and forage minnows may be present. The entire stream is Class III brook trout water. This stream drains Lakes 35-14d, 35-15aba, 35-15abc, and 35-15b. The entire stream is on private land. Navigable water access is possible from Military Creek.

Creek 35-14a (T42N, R11E, S-35)

Length 0.1 mile
Surface Area 0.2 acre (estimated)
Average Width 15 feet (estimated)

A medium hard water stream having slightly alkaline, light brown water. The fishery resource is unknown, however, brook trout and forage minnows may be present. This stream drains Lakes 35-3ca, 35-3cc and 35-8a. The entire stream is on private land. Navigable water access is possible from Military Creek.

Lake 25-12 (T42N, R11E, S-25)

Surface Area 0.5 acre (estimated)
Maximum Depth 7 feet

A medium hard water spring pond having slightly alkaline, light brown water. The pond is surrounded by wetland of mixed meadow shrub and conifer. The entire bottom is covered with silt. Forage minnows were observed in this pond. Brook trout may be present. A short navigable outlet flows to Military Creek. The entire shoreline is on private land.

Lake 25-13 (T42N, R11E, S-25)

Surface Area 0.2 acre (estimated)
Maximum Depth 8 feet

A soft water spring pond having slightly alkaline, light brown water. The immediate shoreline is all wetland meadow with some shrub. The pond basin is silt covered. Forage minnows were observed. Brook trout may be present. A short navigable outlet flows to Creek 25-14a. The entire shoreline is on private land.

Lake 25-14cc (T42N, R11E, S-25)

Surface Area 1.0 (estimated)
Maximum Depth 1 foot

A medium hard water spring pond having slightly alkaline, clear water. The immediate shoreline is wetland of mixed meadow, shrub and conifer. The littoral materials are comprised of sand (65 percent), silt (34 percent), and gravel (1 percent). The fish population is unknown, however, brook trout and forage minnows may be present. A navigable outlet flows to Military Creek. All the shoreline is on private land.

Lake 25-14cd (T42N, R11E, S-25)

Surface Area 0.2 acre (estimated)
Maximum Depth 11 feet

A medium hard water spring pond having neutral, light brown water. The pond is surrounded by wetland of meadow and conifer. The pond basin is covered with silt. Brook trout were observed in this pond. A short navigable outlet flows to Creek 25-14b. All the shoreline is on private land.

Lake 35-3cd (T42N, R11E, S-35)

Surface Area 0.3 acre (estimated)
Maximum Depth 7 feet

A medium hard water spring pond having slightly alkaline, light brown water. The immediate shoreline is wetland of mixed meadow, shrub and conifer. The fish population is unknown, however, brook trout and forage minnows may be present. A short nonnavigable outlet flows to Creek 35-14a. The shoreline is on private land.

Lake 35-3cc (T42N, R11E, S-35)

Surface Area 1.5 acre (estimated)
Maximum Depth 12 feet

A medium hard water spring pond having slightly alkaline, light brown water. The immediate shoreline is wetland of mixed meadow, shrub and conifer. The entire pond basin is covered with silt. The fishery resource is unknown, however, brook trout and forage minnows may be present. A short navigable outlet flows to Military Creek. The entire shoreline is on private land.

Lake 35-8a (T42N, R11E, S-35)

Surface Area 0.3 acre (estimated)
Maximum Depth 2 feet

A medium hard water spring pond having slightly alkaline, light brown water. The immediate shoreline is predominantly wetland (80 percent) of mixed meadow, shrub and conifer with some wooded upland (20 percent). The entire pond basin is covered with silt. Forage minnows were observed. Brook trout may be present. A short navigable outlet flows to Lake 35-3cc. The shoreline is on private land.

Lake 35-14b (T42N, R11E, S-35)

Surface Area 0.2 acre (estimated)
Maximum Depth 6 feet

A medium hard water spring pond having slightly alkaline, light brown water. The pond is surrounded by wetland of mixed meadow, shrub and conifer. The pond basin is 100 percent silt. Forage minnows were observed. Brook trout may be present. A short navigable outlet flows to Military Creek. The entire shoreline is on private land.

Lake 35-14d (T42N, R11E, S-35)

Surface Area 0.2 acre (estimated)
Maximum Depth 5 feet

A medium hard water spring pond having slightly alkaline, light brown water. The pond is surrounded by a wetland bog. The entire pond bottom is silt covered. The fishery resource is unknown, however, brook trout and forage minnows may be present. A short navigable outlet flows to Lake 35-15aba. The entire shoreline is on private land.

Lake 35-15aba (T42N, R11E, S-35)

Surface Area 0.2 acre (estimated)
Maximum Depth 6 feet

A medium hard water spring pond having slightly alkaline, clear water. The pond is surrounded by wetland-bog. The entire pond basin is silt covered. The fish population is unknown, however, brook trout and forage minnows may be present. A short navigable outlet flows to Lake 35-15abc. The entire shoreline is on private land.

Lake 35-15abc (T42N, R11E, S-35)

Surface Area 0.3 acre (estimated)
Maximum Depth 4 feet

A medium hard water spring pond having slightly alkaline, clear water. A wetland bog surrounds the entire pond. The pond bottom is 100 percent silt. The fishery resource is unknown, however, brook trout and forage minnows may be present. A short navigable outlet flows to Lake 35-15b. The entire shoreline is on private land.

Lake 35-15b (T42N, R11E, S-35)

Surface Area 0.2 acre (estimated)
Maximum Depth 4 feet

A medium hard water spring pond having slightly alkaline, light brown water. The immediate shoreline is all wetland bog. The pond basin is covered with silt. Forage minnows were observed. Brook trout may be present. A short navigable outlet flows to Military Creek. The entire shoreline is on private land.

Lake 36-6 (T42N, R11E, S-36)

Surface Area 0.1 acre (estimated)
Maximum Depth 1 foot

A medium hard water spring pond having slightly alkaline, clear water. The immediate shoreline is predominantly wetland (80 percent) of mixed meadow, shrub and conifer with some wooded upland (20 percent). Bottom materials consist of silt (90 percent) and sand (10 percent). The fishery resource is unknown, however, brook trout and forage minnows may be present. A short nonnavigable outlet flows to Military Creek. The entire pond is surrounded by private land.