NPS Form 10-900
(Rev. Aug. 2002)

OMB No. 10024-0018
(Expires 1-31-2009)

1182

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "X" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, or computer, to complete all items.

1. Name of Property

historic name Hagel Family Farm

other names/site number N/A

2. Location

Street & number 11475 Tilton Trail South ___ not for publication N/A

city or town Hassan Township Rogers X vicinity

state Minnesota code MN county Hennepin code 053 zip code 55374

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this X nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property X meets ___ does not meet the National Register criteria. I recommend that this property be considered significant ___ nationally X statewide ___ locally. (___ See continuation sheet for additional comments.)

Britta L. Bloomberg 11/10/06

Signature of certifying official/Title Britta Bloomberg, Deputy State Historic Preservation Officer Date

Minnesota Historical Society
State or Federal agency and bureau

In my opinion, the property ___ meets ___ does not meet the National Register criteria. (___ See continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

Signature of the Keeper Date of Action

✓ entered in the National Register.
___ See continuation sheet

for Edson H. Beall 12-27-06

___ determined eligible for the National Register.
___ See continuation sheet

___ determined not eligible for the National Register.

___ removed from the National Register.

___ other, (explain:) ___

5. Classification

Ownership of Property
(Check as many boxes as apply)

- X private
- ___ public-local
- ___ public-State
- ___ public-Federal

Category of Property
(Check only one box)

- ___ building(s)
- X district
- ___ site
- ___ structure
- ___ object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
8	0	buildings
4	0	sites
6	0	structures
0	0	objects
18	0	Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

Agriculture/Subsistence: storage, agricultural field, animal facility, agricultural outbuilding

Domestic: single dwelling

Current Functions
(Enter categories from instructions)

Agriculture/Subsistence: agricultural field

Domestic: single dwelling

7. Description

Architectural Classification
(Enter categories from instructions)

Diversified farm

Materials
(Enter categories from instructions)

foundation Stone

walls Brick

Wood

roof Wood

other Concrete

Metal

Narrative Description
(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

X **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.

__ **B** Property is associated with the lives of persons significant in our past.

X **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

__ **D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is: N/A

__ **A** owned by a religious institution or used for religious purposes.

__ **B** removed from its original location.

__ **C** a birthplace or grave.

__ **D** a cemetery.

__ **E** a reconstructed building, object, or structure.

__ **F** a commemorative property.

__ **G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Agriculture
Architecture

Period of Significance
1855-1955

Significant Dates
1855
1890

Significant Person
(Complete if Criterion B is marked above)
N/A

Cultural Affiliation
N/A

Architect/Builder
Hagel, Frederick (builder)
Hagel, Arnold (builder)
Hagel, Leroy (builder)
Phenow, Peter (builder)
Schlegel, Lawrence (builder)

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):
- __ preliminary determination of individual listing (36 CFR 67) has been requested
- __ previously listed on the National Register
- __ previously determined eligible by the National Register
- __ designated a National Historic Landmark
- __ recorded by Historic American Buildings Survey #
- __ recorded by Historic American Engineering Record #

Primary location of additional data:
- X State Historic Preservation Office
- __ Other State agency
- __ Federal agency
- __ Local government
- __ University
- X Other

Name of repository:
In possession of John A. Hagel, 11475 Tilton Tr. S., Rogers, MN 55374

10. Geographical Data

Acreage of Property 120 acres

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing
1	15	455360	5001690 (A)
2	15	455360	5000660 (B)
3	15	454950	5000660 (C)
4	15	454960	5001470 (D)

X See continuation sheet

Verbal Boundary Description
(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification
(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Susan Granger and Scott Kelly (with John Hagel)

organization Gemini Research date September 10, 2006

street & number 15 E. 9th Street telephone 320-589-3846

city or town Morris state MN zip code 56267

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional Items
(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name _____

street & number _____ telephone _____

city or town _____ state _____ zip code _____

7. DESCRIPTION

The Hagel Family Farm, a 120-acre property, is located in Sections 34 and 27 of Hassan Township, about 30 miles northwest of Minneapolis in northwestern Hennepin County. The farm's period of significance is 1855-1955.

The Hagel farm fields have been in continuous crop production since they were cleared and developed by Peter and Helena Hagel in the mid-19th century. The farm buildings and structures were built beginning circa 1890. In 1955 the Hagels stopped active farming. Since 1955 the fields have been rented to neighbors and the farmstead has been used as a rural residence by members of the Hagel family. Several of the buildings and structures are currently under rehabilitation by John and Leroy Hagel.

The information in Section 7 that specifically pertains to the Hagel farm came from field observations and August 2006 interviews with Leroy Hagel (born 1926) and John Hagel (born 1958). Statements that compare the Hagel farm to other diversified family farms in Minnesota during the late 19th and early-to-mid 20th century are derived from a recent comprehensive statewide historic context of family farming in Minnesota, 1820-1960. This written study has been released as a draft report (Granger and Kelly 2005, hereafter G and K 2005) and will soon be issued in final form.

Hagel Family

Key members of the Hagel family are briefly identified below to help clarify the information in Section 7:

Peter and Helena Hagel. German immigrants Peter and Helena Hagel began creating a 160-acre farm on this land circa 1855. The couple built a farmstead and developed fields by clearing the dense woodlands. The northern half of Peter and Helena's farm is included within the nominated property. The southern half (which includes their farmstead) is not within the nominated property because at Peter's death in 1890 the farm was split into two farms of equal size for two sons, Frederick and Paul. Frederick purchased the northern 80 acres and built his own farmstead on this land. (These 80 acres and an additional 40 acres bought by Frederick and Gertrude in 1912, comprise the nominated property.) Paul purchased the southern 80 acres. (The southern farm has lost historic integrity.)

Frederick and Gertrude Hagel. Frederick Hagel was the son of Peter and Helena Hagel. He worked on the farm beginning in his childhood. He received the northern half of Peter and Helena's farm circa 1890 and developed his own farmstead on this land. These 80 acres and an additional 40 acres bought by Frederick and his wife Gertrude in 1912 comprise the nominated property. Frederick and Gertrude lived on the farm until they retired in the mid-1920s.

Arnold and Anna Hagel. Arnold Hagel was the son of Frederick and Gertrude Hagel. He worked on the farm beginning in his childhood and, with his wife Anna, became the principal operator when his parents retired in the 1920s. Arnold died in 1951, but Anna lived on the farm until her death in 1987.

Leroy and Lois Hagel. Leroy Hagel is the son of Arnold and Anna Hagel and, like his father and grandfather, grew up working on the farm. He became principal operator at his father's death in 1951. He and his wife Lois farmed here until 1955 when they moved to Golden Valley. (After 1955 the fields were rented to neighbors and Anna Hagel continued to live on the farm until 1987.) Leroy and Lois' son John Hagel has been living on the Hagel Family Farm since 1988.

Setting

The Hagel Family Farm is located in Hassan Township about two miles southwest of the unincorporated hamlet of Fletcher and about three miles south of the center of the city of Rogers. The farm's immediate setting is generally well preserved and consists of surrounding farms with rolling hills, tilled fields, pastures, wetlands, and deciduous woodlands. In the greater vicinity are a number of farms that have been subdivided into suburban residential developments during the past 20 years. Hassan Township is the last incorporated township remaining in Hennepin County, and is surrounded by suburban municipalities, many of which are growing rapidly.

Spatial Organization

The spatial organization of the Hagel farm is basically intact. The farm is a 120-acre parcel, a size typical for a diversified family farm in Minnesota during the period of significance (G and K 2005: 5.5). The 120 acres form an "L" shape. (See the accompanying two-page sketch map entitled "Hagel Family Farm, Hassan Township, Hennepin County, Minnesota.") Part of the northern, southern, and eastern boundaries are defined by roads (both public and private) and the rest of the outer boundary is generally defined by fence lines. The farmstead or building cluster is located in the east-central part of the farm and comprises about four acres, which is typical of diversified family farms during the period (G and K 2005: 7.167-7.178). The fields comprise five distinct areas located both north and south of the farmstead. The farm has two major woodlots, both located northwest of the farmstead, as well as scattered stands of trees. The farm has two major wetlands, located north and south of the farmstead, as well as smaller wetlands and scattered wet spots.

Within the farmstead, the buildings and structures comprise a grouping that is roughly square in shape and surrounds a central yard accessed by the farm driveway. (This arrangement is one of several common patterns seen in Minnesota.) Many of the buildings were angled away from cardinal north, probably so their windows would catch maximum sunlight. In general, the buildings and structures were closely-spaced to make farm tasks more efficient, help shelter the central farm yard from prevailing winds, and allow resources like water and power to be readily shared. Farmstead buildings are also grouped according to function. For example, several

structures related to hog husbandry – the hog house, a corncrib, the smokehouse, and the cistern shed or kettle house – are all sited close together. This made the job of feeding and butchering the hogs and preserving the meat and rendering lard more efficient. In the same way, the garage-work room and woodshed were both sited near the farmhouse where they would be most handy, and the vegetable garden and orchard were located nearby.

Farm Resources

The Hagel Family Farm's substantive resources are included in the resource count that appears in "Number of Resources Within Property" in Section 5 above. These resources are also listed below in "Summary of Resources" at the end of Section 7.

The Hagel farm buildings, structures, and sites are described below. Three of the Hagel farm's principal landscape features – the fields, woodlots, and wetlands – are counted as separate resources within this nomination and described. The farm also includes numerous minor landscape features and small-scale elements that are not counted as separate resources. Many are mentioned within the nomination text. They include:

Roads. The farm roads are in their historic locations and are typical of those found on diversified family farms during the period (G and K 2005: 7.389-7.398). The farm has one field road – a narrow north-south cartway or lane that leads from the farmstead to the northern fields, meadow, and woodlot. (The northern fields could also be accessed from the "Hagel [Nicholas]-Tucker cartway" which lies outside of the boundaries of the nominated property.) Two public roads (now called Tilton Trail South and 113th Ave. E.) mark the southern and southeastern boundaries of the farm. (They are also outside the boundaries of the nominated property.) The Hagels historically used these two roads to access the southern fields and their farmstead. The farmstead driveway, a narrow, east-west gravel lane, enters the farm from Tilton Trail South and extends westward to the center of the building cluster.

Fences. Approximately half of the farm's historic fencing remains. (See locations on accompanying sketch map.) Historically the Hagels fenced many of their fields, woodlots, grazing areas, and livestock yards, and fence maintenance was a continual job. (This was typical of most diversified family farms during the period of significance (G and K 2005: 7.183, 7.200).) In addition to containing the livestock, the fences formed visual patterns in the landscape, particular because small trees and shrubs such as sumac, chokecherries, and gooseberries "volunteered" along them. Many of the fences were built of hand-split oak (cut on the farm) and homemade woven wire fencing. (The Hagels' fence-making machine is still in storage on the farm.) The Hagels built other fences with oak posts and barbed wire and, in the early 1950s, used some electric fencing. Fence gates were hand-fashioned by Frederick and Arnold Hagel from scrap iron and other materials. Sections of historic fencing remain in the woodlots and near the western boundary of the farm. Fencing was removed from the cow yard, hog yard, and several other areas in the 1990s. In many areas, "volunteer" trees and shrubs still mark the fence locations and visually edge the fields. (All of the handmade gates and some historic fencing materials are in storage.)

Electric Poles and Wires. Much of the farm's historic electrical system retains integrity. It is all located within the farmstead. In circa 1948 electricity was brought to the Hagel farm via a local farmers cooperative (now Wright-Hennepin Cooperative Electric Association). The farmstead was wired by Killian Electric Company of St. Michael. The 60-amp service included three wooden utility poles in the farm yard: one in the orchard southeast of the chicken house, one near the blacksmith shop, and one that still stands north of the house and has a yard light. Overhead lines distributed power from the poles to the house, barn, granary, garage, and blacksmith shop. A branch line from the blacksmith shop served the cistern shed, hog house, and chicken house. This electrical system was typical of that installed on diversified family farms in Minnesota (G and K 2005: 7.487-7.492). Several of the original overhead lines are extant but may need replacement for safety reasons. In 1994 the service was upgraded to 200 amps, the poles near the blacksmith shop and former orchard were removed, and a new pole was installed near the former orchard with underground service to the house.

Note: Electricity brought tremendous changes to farm operations. While the gasoline engines used throughout the farm had been an improvement over previous sources of power (primarily human, horse, and wind), they were smoky and difficult to run, especially in winter. When electricity arrived the Hagels put electric motors on the well pump, milking machine, washing machine, and other devices. The new electric lighting in the chicken house was put on a timer to increase egg laying in the winter. Throughout the farm, electric lights supplemented natural light from windows, and replaced the kerosene lamps that had been used for decades. According to Leroy Hagel (who was about 22 when the farm was electrified), there was a big difference in the amount of light inside the barn and other outbuildings when electric lights replaced kerosene lamps. The additional light was particularly welcome on winter days when daylight hours were fewer. Power lines also brought electric refrigeration. Before then, the Hagels cooled butter, milk, and other perishables in the well pit, and later in an ice box filled with blocks delivered to the farm.

Vegetation. The vegetation historically present on the Hagel farm was typical of other Minnesota family farms during the period of significance (G and K 2005: 7.211-7.214, 7.303-7.308; 7.331-7.333 et al). The farm's vegetation still retains good integrity. In addition to the fields, woodlots, and wetlands – which are described separately below – the farm contains scattered areas of deciduous trees and shrubs, including those that have grown up along historic fence lines. The farmstead or building cluster historically contained a mixture of deciduous shade trees including cottonwood, boxelder, basswood, ash, and elm. Some of these trees were lost to storm damage and Dutch Elm Disease in recent decades, but several large deciduous trees remain including three massive cottonwoods. A large butternut tree still stands north of the driveway near the edge of the former orchard. Nuts for the table were harvested from both the butternut and a nearby black walnut (removed). The farmstead also contains several pines west of the granary that were planted in 1993-1994.

Most of the farmstead is planted with turf grass which, family members report, was always neatly mowed historically. The farmstead also contained a vegetable garden, orchard, and flower

garden which have been removed. The first vegetable garden was located south of the house. It measured about 50' x 75' and was fenced to keep chickens out. The vegetable garden was moved in the 1930s to a location immediately west of the granary. The orchard was located southeast of the chicken house, north of the driveway. It consisted of 10-15 apple, crabapple, and plum trees, all of which have been lost to disease, storm damage, or old age. The flower garden (removed) was located east of the house and was protected from chickens by a high woven wire fence.

Description of Substantive Resources

Buildings and Structures. The farm's principal buildings and structures were constructed between circa 1890 and 1934 with the exception of the milkhouse, which was built onto the barn circa 1948. All retain good integrity (even including original window glass). All of the principal buildings and structures are located within the farmstead, which was typical of family farms in Minnesota. All of the buildings and structures are located in their original locations except the woodshed, which stands very close to its original site.

All of the Hagels' principal buildings and structures are extant with one exception: a 20' x 60' machine shed. The machine shed superstructure has been removed but its fieldstone foundation remains. One minor structure has also been demolished – a small semi-portable shed that was sometimes used for brooding chicks. Like many Minnesota farmers, the Hagels also occasionally built temporary structures such as poultry or livestock housing made of straw bales.

With the possible exception of the house, most of the buildings and structures were probably designed by the Hagels themselves. As they planned the buildings, the Hagels may have drawn inspiration from sources like previous personal experience, buildings and structures built by neighbors, information provided by equipment and materials manufacturers, university bulletins, and articles or advertisements in the agricultural press. (These were typical sources of architectural information for diversified family farmers in Minnesota.) As was typical, the buildings were designed with a greater emphasis placed on practical goals (e.g., cost, functionality, durability) than on aesthetic or decorative considerations. Several were built as combination structures, which was fairly common, and several of the buildings and structures evolved through time as new functions and spaces were added, which was also typical (G and K 2005: 6.15-6.28, 7.55-7.58).

In general, the size, design, materials, and craftsmanship displayed in the Hagel buildings and structures are typical of the diversified family farms in Minnesota during the period of significance. Some exceptions are noted in the individual building descriptions below:

Most of the buildings and structures were built by the Hagels with the exception of the brick house and clay tile silo, which were built with the help of professional masons. Most of the lumber was cut on the farm. It was sawn and then used for posts, beams, headers, joists, pens, and other components. (This was typical, since Minnesota family farmers during the period of significance often had more time and raw materials than cash which could be used to hire labor

or buy factory-made materials.) The Hagels hauled felled logs to saw mills located about five miles away. They first patronized a water-powered saw mill called Bernings Mill located west of the farm on the Crow River along the Territorial Road in St. Michael. Later they hauled logs to a tractor-powered saw mill operated by Gregor Scherber, a neighbor. The Hagels also used stones from their fields for foundations, and the farm's sand and gravel for concrete and mortar. The Hagels' buildings and structures contain iron hinges, fasteners, gates, and other parts made by Frederick and Arnold Hagel. The wood shingles, window glass, masonry units, and most of the siding were purchased. The corrugated metal that appears on the roofs and sides of many of the Hagel buildings was salvaged from the roof of the storm-damaged, 20' x 60' machine shed that collapsed sometime after 1955.

With the exception of the milkhouse, which is white, all of the outbuildings are painted red with white trim. It is believed that they have been painted only three times: once at original construction, once in 1940, and again in the early 1990s. Most of the buildings and structures were reshingled with wood shingles about 1952. (Most of the wood shingles are extant; some lie beneath corrugated metal roofing.)

The farm buildings and structures are discussed below in the approximate order of construction. Agricultural fields, woodlots, and wetlands are described near the end.

Barn, Silo, and Milkhouse
Built: ca. 1890/enlarged ca. 1905 (barn), 1934 (silo), ca. 1948 (milkhouse)
Builder: Frederick Hagel (barn), Frederick and Arnold Hagel (barn expansion), Peter Phenow (silo), Arnold and Leroy Hagel and neighbor Lawrence Schlegel (milkhouse)
Resource Count: One Contributing Building

The barn is the oldest and largest building on the farmstead. It is located northwest of the house and is aligned roughly north and south. The barn was built circa 1890 as a 20' x 33', single-bay, balloon frame, gable-roofed horse barn. This is the current southern portion of the building. Frederick Hagel built the barn shortly after the 160-acre parcel was split into two 80-acre farms (see above). He used the barn to house work horses as he developed his new farmstead and worked the surrounding fields. In circa 1905, when Frederick and Gertrude had enough cows to begin milking their own dairy herd, they enlarged the barn and moved their cows here from the "home place" – the Peter and Helena Hagel farmstead to the south (which was Paul Hagel's farm at the time). The expansion involved adding two 20'-wide timber-frame bays to the northern side of the horse barn, making the resulting building a 33' x 60', three-bay gambrel-roofed barn with a central drive-through. The northern and southern bays have poured concrete floors and the central drive-through has a dirt floor.

The barn rests on a fieldstone foundation and has no basement. The timber framework is comprised of 8" x 8" timbers assembled using mortise and tenon joinery and wooden pegs. The barn is sheathed in board and batten siding. (Some siding is missing from the northern facade at the ground level. The Hagels had applied rock wool insulation within the barn in the late 1930s,

which proved to be a mistake because it absorbed moisture and led to deterioration of the siding.) The barn has sliding doors at both eastern and western ends of the central drive-through. There are four single-leaf doors and several 4-light, single-sash windows. The windows in the gambrel ends and at the top of the central bays were installed at an angle to create diamond shapes. Both southern and northern bays have hay mows above the animal floors. The mow floor joists are round, peeled logs about 8"-12" in diameter. The mow floors are made of variable-width and 8" boards, possibly basswood. The barn's gambrel roof is currently covered with asphalt shingles over wood shingles. There are early lightning rods on the peak of the roof.

The barn's central bay formed a drive-through alley that could be used for overflow feed storage (as necessary) and parking of equipment. The northern wall of the drive-through is covered with variable-width basswood boards, while the southern wall of the drive (which was originally the northern exterior wall of the horse barn) is sheathed in drop siding. Both the northern and southern walls of the drive have homemade basswood ladders that lead to the hay mows at the upper level of the northern and southern bays (above the cow and horse stables). The central drive also served as a sturdy, controlled area in which to confine the bull and cow when a dairy cow was bred.

The southern bay of the barn, which was the horse stable, has wooden stalls that housed six horses and mules. Near the western wall is a stall made of steel bars that housed the dairy bull. Harnesses and other equipment were kept along the alley that runs along the southern wall. Horses and mules provided primary power for farm work until the late 1940s. The Hagels generally owned two horses and four mules to comprise three teams. During later years, horses and mules were used in the field alongside the tractors. Draft animals were phased out in the late 1940s.

The northern bay of the barn was the cow stable in which about 18 dairy cows were housed in two rows facing outward (toward the north and south). The interior walls and ceiling are whitewashed. The room had feed troughs along the northern and southern walls and a steel stanchion system with water cups. A central alley and adjacent manure gutters were located between the stanchion rows. (The feed troughs, stanchions, and manure gutters have been removed.) A gasoline-powered, Surge brand vacuum pump milking system was installed around the early 1920s, soon after the Surge milker entered the market in 1923. The Hagels moved the milker bucket from cow to cow to collect the milk, which was then carried to the milk room to be strained and poured into cans to be cooled.

The barn retains evidence of labor-saving equipment and features. For example, under the floor of the horse stalls is a concrete "liquid manure" collection system. The urine ran under the floor and into a pit from which it was periodically removed to be spread onto the fields. Both the horse and cow stables have steel manure carrier tracks that extend outside through the western wall of the barn. (A manure carrier track also ran out the eastern wall of the northern bay of the barn before the milkhouse was added circa 1948.) The manure was cleaned from the gutters daily, loaded into the carriers' baskets, moved out of the barn on the tracks, and dropped onto a manure spreader or sled (depending on the season) from which it was spread onto the fields.

Until recently the cow stable had an elevated stock tank in the southeastern corner to which well water was piped. (The tank was removed but is in storage.) The Hagel barn has a Louden brand metal hay carrier track installed along the interior roof ridge. The mows were filled with loose hay that was hoisted up in hay slings from the barn's central drive-through. (The Hagels did not use baled hay.) The mow floors have hay chutes through which hay was dropped to the animal floor below – a common labor-saving device in Minnesota barns. (Straw for animal bedding was generally kept outside in one large stack west of the barn and granary where the grain was threshed with a large mechanical thresher.)

The barn interior is largely intact, although some of the equipment has been removed from the dairy cow stable.

The cow yard was located north of the barn. This pasture area was generally partitioned with fences into two large pens so that horses and cows could graze in one section while the grasses in the other section rejuvenated. The cow yard fencing has been removed but the area is still edged with trees and largely open. (Gates and some of the fencing materials are in storage.) The cow yard was a primary pasture for the cows, but they also grazed in the woodlots and in the meadow along the shores of the former Tilton Lake (see Wetlands below). Cows were also let into fields to eat crop residue.

The Hagels added a clay tile silo in 1934 during the Depression. The silo was built by local concrete contractor Peter Phenow who, as the husband of Nellie Hagel, was Arnold Hagel's brother-in-law. The silo is 12' in diameter and measures about 44' to the peak of the roof. It is located a few feet west of the barn (adjacent to the northern bay) and linked to the barn via a silage room. Like most masonry silos, the interior of the silo was coated with a thin coat of concrete to protect the mortar from the caustic silage and to smooth the walls so that the silage wouldn't get caught on them. While the silage room was built at the same time as the silo in 1934, its walls are built of concrete block, rather than clay tile – probably because the Hagels already had the block on hand. The silage room has a poured concrete floor and a metal-covered gabled roof. In circa 1940 the silo was enlarged when six more courses of tile were added to the top. At first the silo was roofless, but a domed corrugated steel roof was eventually added. The dome has a small silo-filling door with an adjacent steel platform on which a worker can stand. Both are accessed by an exterior ladder. The silo chute ladder, which is located on the eastern side above the silage room, is enclosed within a corrugated steel chute. The Hagels filled the silo with a Gehl brand tractor-powered silo filler owned jointly with a neighbor, Leonard Herman, from circa 1935-1951. The workers fed corn bundles into the machine which chopped the silage and blew it through a pipe to the top of the silo. Prior to building the silo, the Hagels stored corn fodder for winter feed inside the barn.

In circa 1948 a gable-roofed milkhouse was added to the northeastern corner of the barn to meet state requirements for Grade A milk production. (This was about the same time the farm was electrified.) The milkhouse measures about 12' x 20'. It has balloon frame construction, 6" drop siding, and a poured concrete foundation and floor. The shed roof was originally covered with wood shingles and was vented with two square steel vents. The roof was recently covered with

corrugated metal and the vents were removed. (They are in storage.) The milkhouse has single-leaf doors on the southern and eastern facades, as well as one interior door leading into the barn. It has four multipaned windows on the eastern and northern facades. The southern part of the milkhouse consists of an alley (about 6' x 12') that could be entered from the barn, the milkhouse, or the outside. After a cow was milked, the warm milk was strained in the alley and then dumped into a milk can for cooling. The northern part of the milkhouse consists of a single 12' x 14' milk room that housed a front-loading electric cooler that held about eight 10-gallon milk cans. (The farm never had a bulk milk tank.) The room had a hot water heater and large sinks in which the equipment was washed. Along the western wall of the room was a rack on which clean milk cans were stored upside down. (The cooler, rack, and sinks have been removed.)

Milk was picked up daily, and clean, empty cans were dropped off. (In the farm's earliest years the Hagels separated their own milk, fed the skim milk to the hogs, and hauled the cream to a local creamery.) Prior to construction of this milkhouse, the Hagels cooled milk in a tank at the cistern shed, and, beginning circa 1940, in a milk room within the garage.

The barn, silo, and milkhouse are all well preserved. They are typical of the type of barns, livestock yards, silos, and milkhouses built and used on diversified family farms in Minnesota during the period of significance (G and K 2005: 7.55-7.68, 7.89-7.124, 7.277-7.282, 7.313-7.324, 7.429-7.448, 7.461-7.468).

Well and Windmill
Built: ca. 1890 (well), ca. 1900 (windmill)
Builder: Unknown (well), Baker Manufacturing Co. (windmill)
Resource Count: One Contributing Structure

The farm's well, dug circa 1890, is located between the house and the barn and was one of the first structures developed on the new farm. The well has a brick-lined well pit covered with simple, removable planks. (Most of the boards are replacements of original boards.) The Hagels suspended milk and butter on a rope and pail in the well pit as their early method of refrigerating milk and other perishables. Since the late 19th century straw and snow have been piled on top of the boards during the winter to insulate the well.

In circa 1900 a Monitor Steel, 10'-wide, Model D windmill was erected above the well. (Prior to constructing the windmill, the Hagels pumped water by hand.) The windmill has an 8'-square steel-legged tower, that is about 40' tall. Monitor Steel windmills were manufactured between 1898 and 1930 by the Baker Manufacturing Company of Evansville, Wisconsin, and were widely sold throughout the Midwest. The windmill head was recently removed because the blades were becoming entangled in the branches of a large cottonwood tree. (The windmill head is in storage.)

In the early 20th century the wind power was augmented by a Red Jacket brand pump jack (a piston well pump) that could be operated by hand. The pump was then run by a gasoline engine

and pulley. Soon after the farm was electrified, circa 1948, an electric pump jack, made by Duplex Manufacturing, was installed. (It is extant.) In circa 1905 the Hagels eased the job of hand-carrying water from the well to the buildings by laying underground water pipes to the farmhouse, and then from the farmhouse to the barn (both north and south ends) and cistern shed (near the hog house and chicken house). A pressure tank was located in the basement of the house. The pipes have apparently frozen very seldom, but did freeze up in one particularly cold, dry winter during the Depression. The well still serves the farmstead, although a second, modern well with a submersible pump and a 4" casing was drilled in 1992 south of the garage. (It is a low, unobtrusive structure.)

The Hagel farm well and windmill are well preserved and are typical of the type of wells and windmills built and used on diversified family farms in Minnesota during the period of significance (G and K 2005: 7.383-7.388, 7.501-7.508, 7.515-7.522).

Farmhouse

Built: ca. 1892
Builder: Frederick Hagel and an unknown mason
Resource Count: One Contributing Building

The farmhouse was constructed circa 1892 and has been occupied by members of the Hagel family since that time. It is a 1 1/2 story, gabled-ell building with a fieldstone foundation and a balloon frame veneered with cream-colored brick. The oldest portion of the house measures about 25' x 37'. A one-story, brick-veneered, gable-roofed kitchen wing was added to the western (rear) of the house circa 1900. It measures about 13' x 13'.

While lumber for the house was cut on the farm, the brick was hauled over the frozen Mississippi River from Anoka (about 10 miles away) using a sled pulled by a team of mules. Frederick Hagel played a major role in building the house, but family members believe the brick was laid by an itinerant German mason. The cream-colored brick is similar to the type of brick used extensively for German immigrant farmhouses in nearby areas including Carver and Stearns counties. There were very few houses built of cream-colored brick in Hassan Township. Those that are well preserved include this farmhouse and the Nicholas and Christena Hagel farmhouse located about one mile to the north. (Nicholas and Frederick Hagel were brothers.)

An open front porch on the main (eastern) facade has turned wooden posts, a wooden floor, and a shed roof – all of which are temporary replacements (built in 1988) of original elements which had deteriorated and are in storage. The eastern porch roof was originally hipped. The southern porch (on the southern facade) originally resembled the eastern porch. It was replaced in 1948 by a small addition that measures about 9' x 13' and has 8" cedar siding. The northern porch (located near the northeastern corner of the house) has been partially enclosed. Near the porches are poured concrete stoops and short stretches of poured concrete sidewalk that date from two periods: 1911 and sometime shortly after World War II.

The house has segmental-arched window openings with brick sills and 1/1 sash. On the main (eastern) facade are two more elaborate decorative windows: a larger window with the original colored glass transom on the first floor and a rounded-arched window on the upper floor. The house roof is sheathed in wood and asphalt shingles. There are early lightning rods on the peak of the roof. Immediately below the eaves is a wide fascia board. There are two brick chimneys. (A third brick chimney has been removed.) The interior of the farmhouse retains historic window sash, trim boards, and flooring. The house contained three to four bedrooms, including one for the hired man. In addition to serving a domestic function, the farmhouse also served as a work shop, particularly in cold weather. Within the farmhouse, for example, seed grain was test-germinated and the Hagels built a heavy-duty horse-drawn work bobsled of oak boards and iron fittings. The house was heated with stoves and, after circa 1920, by a central furnace that could burn wood or coal. (Heat rose through open registers in the floor.) Coal was delivered into the basement through an opening near the front (eastern) door. The cooking range and a separate laundry stove both burned wood. (For heavy cooking jobs, the kitchen was augmented by summer kitchens established in the woodshed and garage.) The family used the well pit as its first refrigerator, then for a few years had an ice box filled with ice delivered by an ice man, and later purchased an electric refrigerator soon after electricity was installed circa 1948. Light was provided by kerosene lamps and a gas ceiling light before the farm was wired for electricity. Frederick Hagel constructed two underground cisterns beneath the farmhouse. The hard water cistern was filled with water pumped from the well for drinking and cooking. The soft water cistern was filled with rain water that was used for bathing, washing clothes, etc. The basement was enlarged circa 1940. A bathroom was installed in the house soon after 1948. A modern propane tank was installed southwest of the farmhouse and garage after 1955.

In design, construction, and use the Hagel farmhouse is typical of the type of brick farmhouses constructed on diversified family farms in Minnesota during the late 19th and early 20th centuries, especially by German immigrants to central Minnesota (Martens 1988; Martens 1990; G and K 2005: 7.149-7.166, 7.247-7.256).

Privy
Built: ca. 1892
Builder: Frederick Hagel
Resource Count: One Contributing Building

Built circa 1892, the two-hole privy is a small balloon-frame building with a gabled roof covered with wood shingles. It measures about 4' x 4', is sheathed in 8" drop siding, and has a concrete block foundation. It has a single-leaf door on the southern facade and a tiny glass window on the eastern side that was added by Leroy Hagel when he was a young boy. The privy is located immediately north of the blacksmith shop where it was convenient to the outbuildings but tucked away from the house. Because it was located close to the work areas, the privy was still used until circa 1955, even though an indoor bathroom was installed in the farmhouse soon after 1948. The privy was tipped up occasionally so the vault could be cleaned out.

The privy is well preserved and is typical of the type of outhouses built and used on diversified family farms in Minnesota during the period of significance (G and K 2005: 7.377-7.380).

Smokehouse
Built: ca. 1892
Builder: Frederick Hagel
Resource Count: One Contributing Structure

The smokehouse, built ca. 1892, is a small balloon-frame structure located adjacent to the blacksmith shop. The smokehouse measures about 6' x 8' and, like several of the other buildings and structures, is sheathed with 6" drop siding. It has a dirt floor and a gabled roof covered with wood shingles. Its foundation – originally fieldstone – is currently under repair. The smokehouse has a single-leaf door on the western facade, but no windows. (The door is currently off for repair.) The smokehouse was used to smoke meats, sausages, and sometimes whitefish as a food preservation method that was particularly important before the Hagels installed electric refrigeration sometime after 1948. (The family also cured some hams in brine.) Butchering and smoking was generally done in the late fall after most fieldwork was completed and freezing weather had come. The smokehouse had a metal stove against the eastern wall that burned green maple and other wood that gave off thick, pungent smoke. Meat hung from hooks in the ceiling. The interior walls of the structure are still blackened by smoke and soot.

The smokehouse is well preserved and is typical of the type of smokehouses built and used on diversified family farms in Minnesota during the period of significance. Smokehouses were especially prevalent among farm families of German ethnicity, but built by many groups that immigrated to the state (G and K 2005: 7.449-7.452).

Woodshed
Built: ca. 1892
Builder: Frederick Hagel
Resource Count: One Contributing Structure

The woodshed, built circa 1892, stands southwest of the house. The 12' x 20' structure has a balloon frame and a dirt floor. The walls are covered with 6" drop siding (the lower 2' are temporarily covered with corrugated steel during siding repairs). The woodshed has single-leaf doors on the northern and southern facades, a small door for filling on the western facade, and two small square windows on the southern facade. The Hagels filled the shed with firewood cut for heating and cooking, sometimes leaving the wood to dry for an additional year if needed. During warm months, space inside the woodshed was reserved for the summer kitchen. The Hagels moved in a metal stove on which laundry water was heated and food was cooked and preserved, thereby keeping the farmhouse kitchen cooler and less congested. This was especially important when the farm's large garden and orchard were harvested since the process of canning required large quantities of boiling water. (The garden was located nearby – first south of the farmhouse and later to the west.) After wood was no longer needed for heating and a summer kitchen had been created in the garage, the Hagels moved the woodshed north of the barn.

(Moving buildings and adapting them to new uses was very common on diversified family farms within the period of significance.) The structure was filled with thick straw bedding and served as a nursery for pregnant cows and newborn calves. The woodshed now stands very close to its original site.

The woodshed is well preserved. The woodshed (and its summer kitchen use) is typical of the type of woodsheds built and used on diversified family farms in Minnesota during the period of significance (G and K 2005: 7.473-7.474, 7.527-7.528).

Cistern Shed
Built: ca. 1894
Builder: Frederick Hagel
Resource Count: One Contributing Building

The cistern shed, also called the kettle house, is a 10' x 12', gable-roofed, balloon-frame building that comprises the western end of the farm's long east-west series of connected buildings and structures. Attached to its eastern wall is the hog house. (See Hog House below.) The cistern shed was built circa 1894 and is sheathed with 6" drop siding. It has a fieldstone foundation, a poured concrete floor, and an exterior brick chimney. Metal covers the western slope of the roof, while the eastern is covered with wood shingles. There is a small square window on the western facade and a larger window and a single-leaf door on the southern facade.

The shed stands over an underground poured concrete cistern (extant) that was filled with water pumped from the well. (The water flowed through an underground pipe beginning circa 1905.) A hand pump inside the cistern shed was used to pump water for the hogs and chickens housed nearby. A metal milk cooling tank with a wooden cover was constructed outside the southern wall of the cistern shed circa 1905. (The tank has been removed.) The tank was filled with cold well water and milk cans were lowered into it. Overflow water ran through a pipe and into the hog yard (directly north of the cistern shed) to create an earthen hog wallow. The tank was used for cooling milk until about 1940 when a milk room was created in the garage.

The cistern shed or kettle house also contains a large cooker – a poured concrete structure that rests on the floor and measures about 30" x 54" x 54". Recessed in the top of the cooker is a cast iron kettle (40" wide and 24" deep) suspended over a fire box. The fire vents through the brick chimney. The kettle was used to cook culled potatoes for hog feed. During fall butchering the kettle was used to boil water for scalding hogs and to cook down hog fat which rendered it into lard.

The cistern shed is well preserved. While both cisterns and feed cookers were somewhat common on diversified farms, the Hagels' cistern shed or kettle house is believed to be a fairly unique structure designed and built by the Hagels to efficiently meet several needs (G and K 2005: 7.49-7.54, 7.337-7.338). Leroy Hagel, currently age 80, believes none of the neighbors had a similar structure.

The practice of constructing buildings side-by-side to make use of a shared wall (but often no interior connections) was typical on diversified family farms in Minnesota during the period of significance because it saved construction costs and made farm tasks more efficient by reducing the steps the worker had to move (G and K 2005: 7.55-7.58). This practice may have been more prevalent among particular immigrant groups such as Germans, however, and needs further research. It is suspected that the longest series of connected buildings on the Hagel farm (comprising, left to right, the cistern shed, hog house, tractor shelter, corncrib, and chicken house) is fairly unique. It is believed that, while building a connected or combination structure with two or three units was fairly typical, a long, narrow structure with essentially five units is unusual.

Chicken House-Corncrib
Built: ca. 1894
Builder: Frederick Hagel
Resource Count: One Contributing Building

Built circa 1894, the chicken house-corncrib currently comprises the eastern portion of the farm's long series of connected buildings and structures. Before construction of the tractor shelter, the chicken house-corncrib was a detached building. It is a 16' x 44' balloon frame building. The corncrib comprises the western four feet (closest to the hog house), while the chicken house comprises the majority of the building. The building has a fieldstone foundation and a poured concrete floor. It has an intersecting gabled roof covered with wood shingles and some metal patches. Most of the building is sided with 6" drop siding, while the corncrib is sided with spaced, horizontal slats. The corncrib is accessed by a single-leaf door on the southern facade. The chicken house has a single-leaf door and four pair of 6/6 windows on the southern facade to let in maximum sunlight to encourage egg laying. (Timed lights installed circa 1948 served the same purpose.) The southern facade also has a small, low poultry door that originally accessed an exterior chicken run. The western part of the chicken house contains a feed room that was also used as a brooder room for newborn chicks. The brooder room was kept warm with a metal stove. The chicken house has a storage attic lit by a small square window in a wall dormer on the southern facade and accessible via a door in the eastern gable end.

The Hagels raised about 300 chickens annually. They generally ran free in the farmstead, and helped keep the orchard free of bugs. They were fed ground farm-raised grain, as well as feed mixes with supplements that were purchased in town. Chicks were generally bought from a nearby hatchery, including one located in Osseo. The Hagels took their eggs into the nearby town of Rogers where they were traded for groceries. During the early 20th century, eggs were also hauled to Ruff Brothers on West Broadway Avenue in Minneapolis which accepted eggs in trade for merchandise.

The chicken house-corncrib is well preserved. The chicken house portion is somewhat elaborate for its age but, in general, is typical of those built and used on diversified family farms in Minnesota during the period of significance (G and K 2005: 7.31-7.38, 7.351-7.361). The practice of incorporating a corncrib within the massing of a chicken house is believed to be

unusual. (Corncribs were more typically built alone or in combination with a granary (G and K 2005: 7.69-7.88.) While a series of two or three side-by-side buildings was somewhat common on Minnesota diversified farms, it is believed that the Hagels' long, narrow five-unit series is unusual.

Hog House
Built: ca. 1896
Builder: Frederick Hagel
Resource Count: One Contributing Building

In circa 1896 a hog house was constructed east of the cistern shed, using the cistern shed's eastern wall as its western wall. It is a 14' x 29' balloon-frame building with vertical siding of variable width, a fieldstone foundation, a poured concrete floor, and a gabled roof covered with wood shingles. The western end of the building consists of a separate room with its own exterior single-leaf door and window on the southern facade. This room was used to store feed, lumber, and other materials. The hog housing area is accessed by a sliding door on the southern facade and two low hog doors on the northern facade. Inside are two strong wooden pens (each about 10' x 10') with wooden rope-and-pulley drop gates and low concrete feed troughs. There is an alley along the southern wall adjacent to the pen gates. The Hagels generally raised four or five litters of pigs each year, selling the fattened hogs and butchering a few for themselves. The pigs were fed skim milk, corn, culled potatoes, and other products raised on the farm.

North of the hog house was the hog yard. This open area was generally divided by woven wire fencing into three large pens so that pigs of different ages could be segregated and so that the pigs could be confined in part of the yard while the vegetation in the rest of the yard was allowed to rejuvenate. The hog yard also contained an earthen hog wallow fed by overflow water piped from the milk cooling tank on the south wall of the cistern shed. The hog yard fences have been removed but the area is still edged with trees and largely open. (Gates and some of the fencing materials are in storage.)

The hog house is well preserved. The hog house and hog yard are typical of the type of hog facilities built and used on diversified family farms in Minnesota during the period of significance (G and K 2005: 7.257-7.276, 7.461-7.468). As described above, it is believed that the Hagels' long, narrow five-unit series of buildings and structures is unusual.

Blacksmith Shop
Built: ca. 1897
Builder: Frederick Hagel
Resource Count: One Contributing Building

The farm's 12' x 15' blacksmith shop stands northeast of the farmhouse, near the smokehouse and privy. The core of the blacksmith shop appears to be an older shed-roofed building that was remodeled and enlarged circa 1897 to create a blacksmith shop. The northern wall of this core displays a square framing technique that is characteristic of German fachwerk-style construction.

(In Minnesota the squares created in German fachwerk-style walls were generally left open, while in Wisconsin and other states early examples of fachwerk were often filled with nogging of clay and straw, brick, wattle-and-daub or another material. for insulation.) The rest of the blacksmith shop walls have more typical balloon framing.

The blacksmith shop has a dirt floor and a gabled roof covered with wood shingles and some metal patches. The lower part of the walls is sheathed with 6" drop siding, while the upper part is covered with vertical wood. At some point the exterior siding was covered with heavy tar paper secured by wide-headed tacks (possibly to reduce drafts). The siding (including some surviving sections of tar paper) was covered with corrugated metal circa 2000. The building's fieldstone foundation is under repair. There is a double-leaf door on the western facade and two 4/4 windows on both the southern and eastern facades. At the attic level is a storage loft where wood and tools were stored.

The blacksmith shop was an essential farm workshop and repair center where tools were sharpened, horses shod, tin soldered, and all types of vehicles and equipment were fabricated and repaired. Frederick and Arnold Hagel were excellent blacksmiths who forged hundreds of pieces of ironwork on the coal-fired forge that was located against the eastern wall. (The existing farm buildings contain many hinges, fasteners, and other components made by the Hagels.) The forge chimney was eventually removed (around the late 1930s) and the Hagels began to patronize a blacksmith in the nearby town of Rogers when a smith was needed.

Frederick, Arnold, and Leroy Hagel were all skilled mechanics who regularly invented or modified tools and equipment as they sought ways to make difficult farm work more efficient. The shop was outfitted with a workbench, anvil, post drill, sickle grinder, tool grinder, buggy jack, braces, block and tackle, chains, fence stretcher, and other devices, as well as countless smaller tools and scrap iron.

The blacksmith shop is well preserved and is typical of the type of blacksmith shops, workshops, and repair shops built and used on diversified family farms in Minnesota during the period of significance (G and K 2005: 7.143-7.148).

Granary-Machine Shed
Built: ca. 1898
Builder: Frederick Hagel
Resource Count: One Contributing Structure

The granary-machine shed stands southwest of the barn. It is a 31' x 24', two-story, balloon frame structure that was built circa 1898. Attached to the southern side of the structure is the corncrib-machine shed. (See Corncrib-Machine Shed below.) The granary-machine shed has 8" drop siding and an "uneven" gabled roof in which the northern set of rafters are longer than the southern set, creating a machine shed on the north. (Some corrugated metal is temporarily protecting deteriorated siding on the western facade.) The roof is covered with metal over wood shingles. There are early lightning rods on the peak of the roof. The granary portion of the

structure is 1 1/2 stories tall and has a high foundation of widely-spaced boulders designed to deter rodents and facilitate crop drying. It has a 6" matched wooden floor so that grain wouldn't leak out. The single-leaf door on the main (eastern) facade was accessed via simple wooden stairs which were recently replaced with wooden stairs and a small landing. There are 6/6 windows on the eastern and western facades that were used for loading. Inside the granary are several large wooden bins in which loose grain was stored.

Grain was usually threshed in the yard west of the granary and barn. The straw was generally left in an outside pile west of the barn for use as animal bedding. The Hagels stored most of their grain in this granary, although the garage was occasionally used for extra storage. (The farm had no metal grain bins.) The granary was filled by various means including by hand and with a mechanical auger. Sometime after circa 1920 Arnold Hagel built a wooden hopper that was used with the corn shredder blower to blow grain into the second floor of the granary. The granary also housed a large Fairbanks platform scale, a fanning mill (used to clean the harvested grain from the chaff), and a Holland burr mill (used about every six weeks to grind livestock feed). The machines were gasoline- or tractor-powered before circa 1948 when electricity was installed.

The machine shed portion of the structure comprises the northern part. Leroy Hagel remembers this shed housing a grain binder against the back wall, a 1917 Fordson tractor in front of it, and a hired man's car or a loaded grain wagon in the remaining space. The Fordson, the farm's first tractor, was purchased new in 1917 by Arnold Hagel to supplement the draft animals. It is believed to be the first Fordson tractor used in Hennepin County. The Fordson was the first mass-produced farm tractor in the U.S. and was the nation's leading seller between 1918 and 1924. (The Hagels bought a second tractor circa 1932, prompting construction of the tractor shelter between the hog house and chicken house-corncrib.) In 1937 the Fordson was traded for a John Deere GP [General Purpose] tractor. The tractors were used for fieldwork as well as to power large equipment for a broad range of farm jobs.

The granary-machine shed is well preserved. Both the granary and machine shed portions are typical of those built and used on diversified family farms in Minnesota during the period of significance (G and K: 205: 7.215-7.232, 7.291-7.298). (See Cistern Shed above for a discussion of combination or side-by-side buildings.)

Machine Shed Foundation
Built: ca. 1900
Builder: Frederick Hagel
Resource Count: One Contributing Site

The machine shed, built circa 1900 and located in the cow yard northwest of the barn, was the only farmstead building not located within the relatively tight building cluster. It measured about 20' x 60' and was sided with 8" shiplap sheathing applied vertically. Its gabled roof was covered with corrugated metal and its southern facade was open to reveal three storage bays. The machine shed often housed a rack for drying home-sawn boards and the circular saw used

for cutting firewood. Horse-drawn implements stored in the shed included a McCormick corn planter, potato planter, Deering corn binder, Van Brunt wooden wheeled grain drill, corn cultivators, manure spreader, two-row potato bug sprayer, and a top buggy. At times the machine shed was also used as a shelter for livestock. The shed was damaged by a series of severe storms and collapsed sometime after 1955. The superstructure was removed circa 1990, but the building's rectangular fieldstone foundation remains. The building materials, including roofing, siding, and interior ironwood support posts, were kept in storage. Corrugated metal salvaged from the roof has been used to patch roofs and cover deteriorated wood siding throughout the farmstead.

This machine shed was typical of those built and used on diversified family farms in Minnesota during the period of significance (G and K 2005: 7.291-7.298).

Garage-Work Room
Built: ca. 1902
Builder: Frederick and Arnold Hagel
Resource Count: One Contributing Building

The garage-work room is a 20' x 20' balloon-frame building located west of the house. It was built circa 1902 and is sheathed with 8" shiplap sheathing applied vertically. Its hipped roof is covered with asphalt shingles over wood shingles. It has a concrete with stone aggregate foundation and a poured concrete floor. There is storage space in the attic level.

The western half of the building consists of a garage used for storing a horse-drawn top buggy and, eventually, automobiles. It has small square windows on the southern and western facades and an original sliding vehicle door (made of vertical boards) on the northern facade. The Hagels' first automobile was a Ford Model T roadster bought circa 1910. They bought a Ford Model A in 1929 and eventually traded it for a 1949 Chevrolet pickup truck.

The eastern part of the building contains two separate rooms, the work room and the milk room. The work room is located in the southeastern corner and is lighted by a pair of 6/6 windows on the southern facade. It had a metal stove for summer cooking and laundry. A line shaft is still installed near the ceiling along the eastern wall. Powered by a water-cooled gas engine, the line shaft drove a cream separator, butter churn, clothes washer, and other equipment. The milk room was located in the northeastern part of the building and served this purpose between circa 1940 and circa 1948 when a new milkhouse was built onto the barn. The milk room has an exterior single-leaf, sliding door and a single window, both on the northern facade. The milk room still contains a copper water pipe and an open milk cooling tank into which milk cans were lowered. The tank is an insulated, double-walled steel and wooden structure with a wooden cover that measures 32" x 80". (Overflow water ran through a pipe and onto the ground near the trees south of the building.) Milking equipment was washed in the farmhouse kitchen until the milkhouse adjacent to the barn was built.

The garage was typical of those built and used on diversified family farms in Minnesota during the period of significance. It is believed, however, that the work room with its line shaft and provision for mechanical equipment may represent a higher degree of technical or mechanical prowess than is typically displayed in work rooms on diversified family farms in Minnesota during the period (G and K 2005: 7.143-7.148, 7.207-7.210; 7.473-7.476).

Corncrib-Machine Shed
Built: ca. 1920
Builder: Frederick and Arnold Hagel
Resource Count: One Contributing Structure

The corncrib-machine shed was built circa 1920 on the western side of the granary-machine shed. (See Granary-Machine Shed above.) The structure measures about 17' x 24' and created additional dry storage for ear corn and additional storage for the farm's growing collection of implements. The eastern and western facades were sheathed in 6" drop siding, although the western facade is now covered with metal. The corncrib has a keystone shape and spaced, 3" horizontal slats on the north and south sides. It has a single-leaf door on the eastern facade. The corncrib significantly increased the farm's storage capacity and probably allowed the Hagels to raise more hogs. (The farm had no metal corncribs.) The additional machine shed bay housed a Rosenthal corn shredder, a high wooden-wheeled grain wagon, a two-wheeled trailer, and a tractor. The corn shredder, which was purchased in late 1919 or early 1920 and was tractor-powered, separated ear corn from stalks which had been dried in the fields, and shredded the stalks and leaves for winter fodder. (Corn fodder was especially important before the Hagels built a silo in 1934.) Arnold Hagel also did some custom shredding for neighbors.

The corncrib-machine shed is well preserved and both units are typical of those built and used on diversified family farms in Minnesota during the period of significance (G and K: 205: 7.69-7.88, 7.291-7.298). (See Cistern Shed above for a discussion of combination or side-by-side buildings.)

Tractor Shelter
Built: ca. 1932
Builder: Frederick and Arnold Hagel
Resource Count: One Contributing Structure

In circa 1932 the Hagels built a 10' x 16' tractor shelter between the chicken house-corncrib and the hog house. (See those buildings above.) This completed the farm's long east-west series of attached building and structures. Construction of the tractor shelter was prompted by Arnold Hagel's recent purchase of a used International Titan two-cylinder tractor – still housed on the farm – that had been manufactured about 1915. The shed was sometimes used for short-term storage of crops loaded on a wagon. The tractor shelter has a poured concrete floor, a corrugated metal northern wall (partly missing), and a metal-covered gabled roof. The northern wall had a door that led to the hog yard.

The tractor shelter, which is basically intact, is typical of the simple provisions for equipment storage made on many diversified family farms in Minnesota during the period of significance (G and K 2005: 7.291-7.298).

Agricultural Fields
Built: Developed in the mid-19th century
Resource Count: One Contributing Site

The Hagel fields have been in continuous crop production since they were cleared and developed by Peter and Helena Hagel in the mid-19th century. Hassan Township was one of Hennepin County's most naturally wooded areas, requiring that the first farmers gradually develop fields by cutting trees and removing stumps – both backbreaking tasks in the years before gasoline engines. In 1912 Frederick and Gertrude Hagel expanded their 80-acre farm to 120 acres by buying an additional 40 acres – adjacent to the north – from neighbor John Tucker.

The Hagels tilled the fields to plant small grains, corn, hay, and sometimes potatoes. In general all crops were fed to livestock, rather than sold for cash. The type, amount, and location of crops varied from year to year as needed, and a single field was not always planted with a single crop but was sometimes split in two. The Hagels followed a typical Minnesota crop rotation of corn, small grains, and mixed hay to help maintain soil fertility and texture and reduce weeds and pests. The Hagels did not use chemical fertilizers but instead relied on crop rotation and continually applying manure to the fields to increase fertility. Livestock was let into some of the fields after harvest to forage the crop missed by harvesting equipment.

Hay, often a mixture such as brome grass and timothy, was cut and dried in the field before being picked up and stored loose in the barn to be fed to the cows and horses. Small grains, which might comprise 15 to 30 acres in a typical year, often included oats, barley, and some wheat. Most of the grain was ground for feed. Corn was fed to the hogs. The Hagels generally saved their own oats and barley for seed, but bought seed corn, especially after corn hybrids were introduced in the 1930s.

The fields are located both north and south of the farmstead and comprise all areas that are not too wet or too wooded to be tillable. The Hagels' southern fields were accessed directly from the farmstead and via the two township roads near the farm's southeastern corner (now Tilton Trail S. and 113th Ave. E.). The northern fields were accessed via an extant field road that runs primarily north and south (see accompanying sketch map) and a farm lane known historically as the "Hagel-Tucker cartway" that lies outside of the northern farm boundary.

The fields varied in size within the period of significance, with the largest being about 20 acres, some being about 10 acres, and the smallest being 5 or 6 acres. Like fields on all Minnesota farms, their size was historically determined by geographic features, drainage, efficient use of labor and equipment, and other factors.

In the early 20th century the Hagels, like most of their neighbors, installed underground clay drainage tiles to increase the amount and quality of their tillable land. One of the public drainage ditches that collects water from the Hagels and their neighbors, and dates from about the 1920s, crosses the Hagel farm in an east-west path west of the largest wetland. When the farm drainage system was fully operating in the mid-20th century, the Hagels had about 90 acres of tillable fields. In size, location, and use, the Hagel fields were typical of those found on diversified farms in Minnesota during the period of significance.

After the Hagels stopped farming in 1955, the fields were rented to neighbors, the tiles were not well maintained, and the wetlands began increasing in size thereby reducing the amount of tillable land. Today the Hagel Family Farm has about 52 acres of tillable land in production, all of which is rented to Keith Webber, a grandson of Frederick Hagel.

The Hagel farm fields are generally well preserved and are very small by modern standards, in part because woodlots and wetlands confine them. The fields are currently smaller than their maximum circa 1950 size, and are closer to the size they were in the late 19th and early 20th century before maximum drainage. They remain in their historic locations, and largely retain their historic shapes – shapes that were determined by the farm property boundaries and by natural conditions including topography and the size and shape of woodlands and wetlands. The fields are still clearly edged by roads, wetlands, woods, and/or fence lines. While in some cases the fencing has been removed, vegetation growing along the former fence lines continues to form visual boundaries for the fields, contributing to their integrity.

Woodlots

Resource Count: One Contributing Site

The 120-acre Hagel farm historically included two natural woodlots, one in the west central part of the farm and one near the northwestern corner. Both are well preserved. They comprise about 7 and 14 acres, respectively. The woodlands contain deciduous trees such as white oak, red oak, bur oak, basswood, poplar, ash, elm, cottonwood, butternut, black walnut, and boxelder, as well as some white pines. For decades the Hagels harvested fuel and building materials from the woods, cutting firewood with an engine-driven circular saw and hauling logs to a local sawmill to be cut into boards. About 6-10 sugar maple trees were tapped each year for syrup, and chokecherries and raspberries were harvested for fruit. The woods were fenced so that cows and hogs could be pastured beneath the trees. Several stretches of this fencing remain in place. An open public drainage ditch (ca. 1920s) runs along the northern edge of the west central woodlot. The Hagels' use of their woodlots was typical of diversified family farms in Minnesota during the period of significance (G and K 2005: 7.523-7.526).

Wetlands

Resource Count: One Contributing Site

The Hagel Family Farm has about 25 acres of wetlands, all with good historic integrity. They include two large areas – one located in the northeastern part of the farm and one located south

of the farmstead – as well as numerous smaller wetlands and scattered low, wet spots. The wetlands varied in size through the years according to the amount of rainfall, the height of the watertable, and the functioning of the farm's underground tile drainage system. The shores of the wetlands were used as grazing areas and as places to cut wild hay. During very dry years, some wet areas were tilled. The largest wetland, located near the northeastern corner of the farm, is what remains of the former Tilton Lake, a body of water that was reduced in size in the early 20th century by drainage. The western and southern shores of this wetland were known by the Hagels as the "meadow" and used for grazing and hay cutting. It was also a prime muskrat-trapping site. (Muskrat pelts could be sold for cash.) The ways in which the Hagels used their wetlands were typical of diversified family farms in Minnesota during the period of significance (G and K 2005: 7.199-7.206).

Summary of Resources

The Hagel Family Farm includes 18 Contributing resources and no Noncontributing resources. The resources are listed below:

Name	Date	
Barn, Silo, and Milkhouse	ca. 1890/1934/ca. 1948	One Contrib Building
Well and Windmill	ca. 1890/ca. 1900	One Contrib Structure
Farmhouse	ca. 1892	One Contrib Building
Privy	ca. 1892	One Contrib Building
Smokehouse	ca. 1892	One Contrib Structure
Woodshed	ca. 1892	One Contrib Structure
Cistern Shed	ca. 1894	One Contrib Building
Hog House	ca. 1896	One Contrib Building
Chicken House-Corncrib	ca. 1894	One Contrib Building
Blacksmith Shop	ca. 1897	One Contrib Building
Granary-Machine Shed	ca. 1898	One Contrib Structure
Machine Shed Foundation	ca. 1900	One Contrib Site
Garage-Work Room	ca. 1902	One Contrib Building
Corncrib-Machine Shed	ca. 1920	One Contrib Structure
Tractor Shelter	ca. 1932	One Contrib Structure
Agricultural Fields	developed mid-19th c.	One Contrib Site
Woodlots	used ca. 1855-1955	One Contrib Site
Wetlands	used ca. 1855-1955	One Contrib Site

8. STATEMENT OF SIGNIFICANCE

The Hagel Family Farm is eligible for the National Register under Criteria A and C in the areas of significance of Agriculture and Architecture. The farm is an unusually well-preserved family-operated diversified farm that was developed and operated in the late 19th and early-to-mid 20th centuries. The farm embodies the distinctive characteristics of a type, period, or method of construction, and represents a significant and distinguishable entity whose components may lack individual distinction. The property is associated with two statewide historic contexts: "Railroads and Agricultural Development, 1870-1940" and "Euro-American Farms in Minnesota, 1820-1960." The property has a statewide level of significance and the period of significance is 1855-1955.

Diversified Family Farms in Minnesota

The Hagel Family Farm is an excellent representative example of the family-run diversified farms that were developed throughout Minnesota and dominated the state's agricultural production during the late 19th and early-to-mid 20th centuries. Minnesota's family farms were recently described in a statewide historic context study entitled "Historic Context Study of Minnesota Farmsteads, 1820-1960." This 970-page report has been issued in draft form (Granger and Kelly 2005, hereafter G and K 2005) and is currently under revision for final release. The context study served as a principal source for Section 8 of this nomination.

It is unquestioned that agriculture has played a leading economic and social role in Minnesota between 1850 and 1960. When Minnesota became a state in 1858, only 345,000 acres (0.6 of the state's land area) were under cultivation. By 1935 (the peak in agricultural land use), Minnesota had more than 197,000 individual farms and more than 32 million acres – or about 63 percent of the state's land area – devoted to agriculture. In 2002 the state's 79,000 working farms were still using more than 28 million acres for agriculture.

The vast majority of Minnesota farms during the years 1850-1960 were operated by individual families, as opposed to larger companies or other entities. The work force of each farm generally consisted of a single extended family, one or two hired hands (employed seasonally or year-around), and occasional labor-sharing with neighbors during critical times like harvest.

The majority of the state's farms during this period raised a mixture of crops and livestock – hence the term "diversified." Diversified farming was a system or model that evolved from the self-sufficient farming of the state's pioneering era. On self-sufficient farms, livestock and poultry were kept to supply horsepower, meat, milk, and eggs, and a variety of crops were grown, primarily to feed the family and the livestock. During this early settlement period, most of the farm's output was consumed on the farm, in part because Minnesota lacked efficient transportation networks over which farm products could be marketed. As technology improved,

farm productivity increased, marketing systems were developed, and farms began to sell products for cash. Diversification emerged as one of the most common farming systems practiced by Minnesota family farmers between the late 19th century and the 1950s, in large part because it was relatively profitable (or at least economically stable) during much of the period. In some parts of the state, farms went through a period of single-cropping (e.g., growing just wheat) before diversifying, but in other parts of the state diversification followed the pioneering subsistence stage with no intervening monocrop phase (G and K 2005: 4.3-4.40, 7.247-7.249).

Diversified family farms raised a mixture of crops and livestock for several reasons. Farm labor was more evenly dispersed throughout the year if there were both crop and livestock chores, farm income was derived from more than one source and therefore was less vulnerable to market changes, and marketing grain "on the hoof" in the form of fattened livestock was often more profitable than selling the bulky, relatively low-valued grain outright. Raising livestock made good use of total farm labor (including children) and made use of farm "by-products" such as skimmed milk, culled vegetables, and crop residue, all of which could be fed to animals. Diversification was also sustainable over the long run. The processes of spreading manure on fields and allowing livestock to graze the land helped maintain soil fertility and tilth and reduced weeds. Crop rotation – a hallmark of diversification – helped check crop diseases and maintain fertility, and also ensured that a feed crop, a potential cash crop, and a soil-building crop were always being grown. Spreading manure on the fields to improve next year's crop is just one example of the interrelationship between crop and livestock on a diversified farm: chickens helped keep orchards free of pests, milk skimmed from the marketable cream was fed to the pigs, livestock were let into fields to clean up crop residue, and straw left over from threshed grain was used as animal bedding (G and K 2005: 4.25-4.40 et al).

Diversification's value was increasingly recognized in Minnesota in the 1870s and 1880s after the unsustainability of the state's previous wheat monoculture became evident, and as dairying began to spread through the state. Dairy cows were well-suited to diversified farming: the herd (while expensive) could be built slowly, the cream was highly marketable through a growing system of small local creameries, Minnesota's climate was good for growing pasture crops like the newly-developed winter-hardy alfalfa, and dairy cows could graze on hilly or otherwise untillable land. With the development of the silo in the late 19th century, dairy cows could be fed green silage during the winter to induce them to give milk during this period, thereby giving farmers productive work during months when the fields were frozen. (Dairying had several challenges including the labor-intensive twice-daily milking, the need to create good housing for the somewhat delicate cows, the need to store large quantities of hay, and the need to create facilities to handle the perishable fresh milk (G and K 2005: 4.25-4.40 et al).)

Minnesota's diversified farms usually kept five or six horses and mules as draft animals, and typically raised pigs. In some parts of the state beef cattle and, less often, sheep were raised. Young pigs and calves could be fed a variety of farm products including skimmed milk, but made the best weight gains if fed corn. Pork and beef were quite marketable, and butchering a few animals could provide the farm family with a winter's worth of meat (G and K 2005: 4.25-4.40 et al).

Most of Minnesota's diversified family farms also raised chickens which could be fed farm-raised grain. Like the "cream check" or "milk check", the income from eggs could provide a small but steady flow of cash, and eggs (like farm-made butter) could often be traded in town for groceries. Chickens also provided food for the table and could be sold for meat (G and K 2005: 4.25-4.40 et al).

Most diversified farms in Minnesota raised corn, small grains (e.g., oats, barley, wheat), and hay (e.g., alfalfa, clover, timothy), as well as some potatoes, sugar beets, or other "alternative" crops. (Soybeans did not become a major crop until after World War II.) Some farms fed all of their crops to livestock, while some had excess hay, grain, or corn to market.

The Hagel farm – in its founding, development, physical attributes, labor composition, and operations – is an excellent example of the farms that formed the backbone of Minnesota's agricultural production during the period.

Distinctive Characteristics of a Type, Period, or Method of Construction

The Hagel Family Farm embodies all of the distinctive characteristics that distinguish a property type that is significant to Minnesota agricultural history: the diversified family farm developed and operated during the late 19th and early-to-mid 20th centuries. The characteristics that distinguish this property type were identified and described in the statewide historic context cited above (G and K 2005) and are summarized below.

Minnesota's diversified family farms were each a composite of buildings, structures, and sites (or land uses), all developed to support the farming operations described in the preceding paragraphs. Each component in this diverse collection of elements was needed to perform specific functions necessary to successfully raise crops and livestock. If certain elements were missing, farm operation suffered. These critical farm components and their interrelationships embody the practice of diversified family farming in Minnesota, the broad range of tasks involved in such farming, and the skills these farm families needed to be productive.

Diversified family farms operating in Minnesota during the late 19th and early-to-mid 20th centuries usually needed to include *all* of the following components to operate (G and K 2005):

Fields and grazing areas. Minnesota's diversified family farms were typically about 160 acres in size. (Diversified farms were generally smaller than, for example, cash grain farms.) Many fields and grazing areas were fenced to contain livestock. The fields and grazing areas were often located on several sides of the farmstead so that livestock and machinery could be efficiently moved to them. Farms often had dedicated grazing areas located on land too hilly, wooded, or wet to till. It was typical for fields to be evenly-sized to facilitate crop rotation.

Animal housing. Diversified family farms in Minnesota during the period generally needed a hog house and a poultry house. To house cattle and horses, most farms had a two-story barn

with a hay mow. The barn could be a dedicated dairy barn (in which case another building for stabling work horses was needed), or a multipurpose barn that could accommodate both cows and horses, and sometimes other animals. There were invariably livestock pens or yards adjacent to the animal housing.

Milk handling. Milk-handling facilities were needed so that milk could be strained, cooled, and held, and so that milking and cream-separating equipment could be washed and stored. Such facilities usually included milk-cooling tanks located in milk rooms or milkhouses.

Crop growing. Raising crops required an implement shed in which to house large (and expensive) equipment. It was also essential that the farm have an area where equipment could be serviced and repaired.

Crop storage and processing. Diversified farms needed to store large quantities of hay, usually in a barn loft or hay shed. A silo (or some other provision for storing green fodder for winter feeding) was needed for successful dairying. Corncribs were needed to store ear corn for hogs. Granaries were needed to store loose grain, much of which was home-ground for feed.

Other service buildings and structures. Minnesota's diversified family farms needed a number of other service and support facilities including a farmhouse, privy, facilities for power and fuel, a water infrastructure, a windbreak and/or woodlot, a vegetable garden and often an orchard, and a circulation system of drives or field roads. Somewhere on the farm the family also needed to store quantities of tools and machines including a wood cutter, tool sharpener, feed mill, etc.

The Hagel Family Farm clearly embodies all of the characteristics that distinguish this property type. All elements (with exception of one machine shed) are well preserved and no major elements historically present on the farm are missing.

	Currently Present on the Hagel Farm
Fields and grazing areas.	Small farm size. Intact, small fields. Fields and grazing areas on three sides of farmstead. Untillable grazing areas. Fenced fields and grazing areas.
Animal housing.	Horse and dairy barn, with bull housing. Hog barn. Chicken house. Cow and hog yards adjacent to barns.
Milk handling.	Progression of three facilities: at cistern shed, then milk room in garage-work room, and then milkhouse adjacent to barn.
Crop growing.	Implement sheds: three extant shed and shelter bays, and one machine shed represented only by a foundation. Blacksmith shop.

Crop storage and processing. Hay storage in barn. Silo with silage room. Two corncribs. Granary.

Other service buildings & structures. Farmhouse with shade trees and lawn. Privy. Woodshed. Woodlots. Electrical power infrastructure. Cistern shed or kettle house. Smokehouse. Well, windmill, and underground water lines. Garage-work room. Field road and farm driveway.

Like those on the Hagel farm, most buildings and structures on Minnesota's diversified family farms were built by the farmers themselves, often with the help of relatives and neighbors. Many were built with materials obtained on the farm, especially during a farm's early decades (G and K 2005: 6.15).

The buildings, structures, and sites on the Hagel farm also embody the critical changes that Minnesota's diversified family farms underwent during the period of significance as technology improved and farming methods evolved. For example, power was first provided by humans, draft horses, and the wind, and was later greatly improved with gasoline-powered motors and equipment, and by electricity. Milk-handling became increasingly sophisticated as it evolved from outside cooling tanks to an indoor milk room to a milkhouse meeting "Grade A" production standards. As the Hagels and their fellow farmers instituted changes such as these, buildings and structures often needed to be modified. Because the Hagels ended active farming in 1955 when they sold their livestock and began renting out the fields, their farm avoided many of the post-1955 changes common to many diversified family farms in Minnesota. These changes often included phasing out livestock and their housing, accommodating larger scales of production, shifting to use of chemical fertilizers and pesticides, and adding metal grain bins, corncribs, feed bins, mechanical crop dryers, and expansive implement sheds to house larger field equipment.

Significant and Distinguishable Entity Whose Components May Lack Individual Distinction

The Hagel Family Farm represents a significant and distinguishable entity whose components may lack individual distinction.

Because a diversified family farm in Minnesota was primarily an economic production unit (in addition to serving a domestic function), most farm buildings and structures were planned with economy and practicality in mind. In most cases, the buildings and structures were rather plain and utilitarian in appearance. Driving most decisions was a continual need to make labor efficient and make the farm operate productively. Buildings and structures were usually designed, sited, and built to be durable, to utilize low-cost building materials and labor, and to best serve the functions for which they were intended (or the functions to which they were being adapted). Many buildings and structures became multi-functional in use, or were adapted to new uses as need arose. Altering, enlarging, and even moving buildings and structures were common

as farm operations changed (G and K 2005: 6.1-6.56).

Each of the Hagel buildings, structures, woodlots, wetlands, and fields is well preserved (with the exception of the 20' x 60' machine shed). All are on their original sites (with the exception of the woodshed which is close to its original site). No major buildings or structures that historically stood on the farm are missing. Most of the components are not remarkable in and of themselves, but taken together they form a complete interrelated set of elements that embodies the practice of diversified family farming during the period.

The Hagel Family

The fields on the Hagel Family Farm were worked circa 1855-1955 by four generations of Hagel family members, while the farmstead was occupied circa 1890-1955 by three generations. (Biographical information in this nomination comes primarily from U.S. federal census schedules; Hagel, Lois ca. 1995; Hagel, Leroy 2006; and Larson 2005.)

Development of the farm began circa 1855 when Peter (1826-1890) and Helena (1826-1918) Hagel moved to Section 34 of Hassan Township to begin to develop a 160-acre farm. (The deed was recorded in 1858.) The Hagels were among the earliest settlers to Hassan Township and were the first Euro-Americans to farm this land. (Hassan Township was first settled by Euro-Americans in 1854-1856. It became home to many immigrant farm families from England, Germany, Ireland, Canada, and elsewhere. The township was organized governmentally in 1860 and received its first post office in 1866.) Like many of the state's first farmers, both Peter and Helena Hagel were born in Germany. (The exact year of their immigration to the U.S. is not known.) Before moving to Hennepin County, the couple lived in New Jersey where four of their children (Nicholas, Peter, Rose, and Elizabeth) were born in 1851-ca. 1855. Eight more children (Francis, John, Paul, Walburga, Josephine, Helena, Frederick, and Mary) were born in Minnesota beginning circa 1855. The entire Hagel family participated in operating the farm.

When Peter Hagel died in 1890, Helena Hagel split the 160-acre farm into two farms, one for each of her youngest sons. The northern 80-acre parcel – within the nominated property – was sold to the sixth son, Frederick Hagel. The southern 80-acre parcel, which included Peter and Helena's own farmstead, was sold to the fifth son, Paul Hagel. (Deeds for these two transfers were recorded in 1892.) By the time Helena Hagel split the original farm, her two eldest sons Nicholas and Peter had already established their own farms a short distance to the north in Section 27. After Paul and Frederick took possession of their farms, Hassan Township had a north-south line of four farms owned by Hagel brothers.

Frederick Hagel (1864-1943) is believed to have begun to develop his farmstead (the farmstead on the nominated property) in 1890 when the farm was split. In 1894 he was married to Gertrude Boyken (1864-1946). Both were about 30 years old, and they were married for nearly 50 years. Gertrude had been born in Germany and immigrated to the U.S. when she was a young woman. The couple had three children: Nellie (born ca. 1895), Arnold (born 1897), and Henrietta (born ca. 1899). By the time of the 1920 census, Nellie had moved away from the

farm, but Arnold (now age 22) and Henrietta (now age 21) were still living and working with their parents.

Frederick and Gertrude Hagel retired around 1925 and moved to a house in the nearby town of Osseo, about 8 miles away. (They died in the mid-1940s.) The Hagel farm then became the property of their son Arnold and his wife Anna.

Arnold Hagel (1897-1951) lived and worked on the farm his entire life. Anna Hill (1899-1987) had been born in Minnesota, grew up in Shakopee, and was of Irish, Scotch, and English descent. She had attended normal school and, prior to her marriage, taught at the District 68 schoolhouse located about 1 1/4 miles from the Hagel farm. Married in 1925, the couple had two children, Leroy C. (born 1926) and Gertrude R. (born 1927). By the time of the 1930 census, the household consisted of Arnold and Anna Hagel, Leroy (now age 3), Gertrude (now age 2), and a hired hand, Hugh House.

In 1940 the Hagel farm was one of 4,215 farms operating in Hennepin County, according to the University of Minnesota Agricultural Experiment Station. Farms comprised 69 percent of the land in Hennepin County in 1940 (Engene and Pond 1944). In 2002 there were 626 farms in the county.

Arnold and Anna Hagel owned and operated the farm until 1951 when Arnold died unexpectedly. Their son Leroy, who had been living and working on the farm his entire life except for years of service in World War II, was 24 years old when his father died. He took over principal operation of the farm. In 1952 Leroy was married to Lois Cavanagh (born 1929) who had grown up in Robbinsdale and was a teacher.

Leroy and Lois Hagel operated the Hagel farm, along with Leroy's mother Anna Hagel, until 1955 when the Hagels stopped actively farming. The livestock and implements were sold, the fields were rented to neighbors, and the couple moved about 20 miles away to the suburban community of Golden Valley. (Leroy then became a building contractor and Lois pursued a career in education.) Anna Hagel, however, continued to live on the farm, renting the fields to neighbors. She was still living there in 1987 when she died at the age of 88.

In 1988 following Anna's death, John Hagel (born 1958) – the eldest of Leroy and Lois Hagel's three children – moved onto the farmstead. He represents the fourth generation of Hagel family members to live in the farmhouse.

Like that of many Minnesota farm families in the late 19th through mid 20th centuries, the Hagel family's social and cultural life revolved around operation of the farm, socializing with a network of relatives and neighbors (most of whom also farmed), participating in church and school life, and interacting with the merchants and tradesmen with whom they did business. Most of the Hagel children attended the District 68 schoolhouse near the farm and/or the Catholic parochial school in Fletcher. Most family members attended St. Walburga Catholic Church in Fletcher. The Hagels usually shopped in the town of Rogers, which had a bank,

implement dealer, lumberyard, hardware store, drugstore, blacksmith shop, and other services. They also shopped occasionally in the hamlet of Fletcher and in other nearby towns.

The first two generations of Hagels – Peter and Helena, and Frederick and Gertrude – grew up speaking German and spoke it much of their lives. Frederick and Gertrude's son Arnold Hagel was taught German as a child and was fluent, but rarely spoke it as an adult. His wife, Anna Hagel, was not of German ancestry.

Hagel family members were assisted in farm operations by a series of hired hands. One was an Iowa-born man named Hugh House, who lived with the Hagels in 1930. Other employees in the early-to-mid 20th century included Herman Jensen, who worked on the farm about three years, Mike Lightener, who worked there two or three years, George Hagen, and Vernon Deluge, who is remembered to have kept his Ford Model T coupe in the granary-machine shed. The hired workers were generally unmarried men whom the Hagels met through neighbors or acquaintances. They were generally respected and liked by Hagel family members. The hired man usually slept in his own bedroom on the second floor of the farmhouse. One longtime hired man, Lawrence Schlegel, was first a neighbor, and later lived in a small "shack" on the Hagel's farm near the meadow. He was a good carpenter and well liked by the family.

In 1995 the Hagel farm was named a Minnesota Century Farm under a joint program of the Minnesota State Agricultural Society and the Minnesota Farm Bureau. John Hagel, great-great-grandson of Peter and Helena Hagel, still resides on the Hagel farm. He is a cofounder of the Friends of Minnesota Barns, a nonprofit group formed in 2003.

Summary

The Hagel Family Farm is an excellent and well-preserved example of the type of diversified family farms that dominated Minnesota agricultural production in the late 19th and early-to-mid 20th centuries. Operated by the Hagel family until 1955, the farm embodies the characteristics that distinguish Minnesota's diversified family farms, and provides an excellent illustration of how such farms were an integrated collection of varied, essential, interrelated components. Few of the components are individually distinguished (especially in appearance), but taken together they embody the complex operation of a diversified family farm during the period of significance.

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10. GEOGRAPHICAL DATA, CONTINUED

Additional UTM References

Ref	Zone	Easting	Northing
5	15	454560	5001470 (E)
6	15	454560	5001690 (F)

Verbal Boundary Description

The boundaries of the nominated property are shown by the solid black line on the accompanying sketch map entitled "Hagel Family Farm, Hassan Township, Hennepin County, Minnesota."

The property is legally described as the West 1/2 of the NE 1/4 Except Cartway of Sec. 34, and the South 1/2 of the SE 1/4 of the SW 1/4 and the South 1/2 of the SW 1/4 of the SE 1/4 of Sec. 27, all in T120N R23W (Hassan Township, Hennepin County).

Boundary Justification

The nominated property is comprised of the parcel of land historically associated with the Hagel Family Farm.

Index to Photographs

All photos depict resources in the Hagel Family Farm nomination, Hassan Township, Hennepin County, Minnesota. Gemini Research photographed the resources in August 2006. The negatives are in the possession of the Minnesota Historical Society, 345 Kellogg Boulevard West, St. Paul, Minnesota 55102.

Driveway and farmstead from east edge of farm
Looking northwest
Photo #1 (014997-18)

Farmstead and driveway from east edge of farm
Looking northwest
Photo #2 (014997-17)

Yard east of house; barn and blacksmith shop
Looking northwest
Photo #3 (014997-20)

Main or east façade of house; milkhouse at right
Looking northwest
Photo #4 (014996-5)

East and north facades of house
Looking southwest
Photo #5 (014996-7)

North façade of house
Looking south
Photo #6 (014996-10)

South façade of house
Looking north
Photo #7 (014996-4)

Well and windmill with pump jack
Looking north
Photo #8 (014996-12)

Well and windmill with pumpjack; garage-work room in background
Looking west
Photo #9 (014996-11)

Garage-work room; single leaf door leads to milk room
Looking west
Photo #10 (014996-15)

Woodshed
Looking southeast
Photo #11 (014996-18)

Corncrib-machine shed-granary-machine shed
Looking northwest
Photo # 12 (014996-20)

South and east facades of barn and milkhouse
Looking north
Photo #13 (014997-22)

West and south facades of barn and silo with tractor being restored by Leroy Hagel
Looking northeast
Photo #14 (014995-12A)

North façade of barn, silo and milkhouse
Looking south
Photo #15 (014995-4A)

Barn, milkhouse and cistern shed at left edge
Looking southwest
Photo #16 (014995-2A)

Left to right: cistern shed-hog house-tractor shelter-corncrib-chicken house
Looking east
Photo #17 (014996-24)

Right to left: chicken house-corncrib-tractor shelter
Looking northwest
Photo #18 (014997-9)

Left to right: rear of Chicken house-corncrib-tractor shelter-hog house and cistern shed
Looking southwest
Photo #19 (014997-8)

Left to right: rear of Chicken house-corncrib-tractor shelter
Looking southeast
Photo #20 (014997-6)

Center: smokehouse
Looking east
Photo #21 (014997-14)

Left to right: smokehouse and blacksmith shop
Looking southeast
Photo #22 (014997-15)

Privy
Looking northwest
Photo #23 (014994-11)

Cow yard and machine shed foundation at tree line
Looking northeast
Photo # 24 (014995-8A)

Field road at left edge and field north of cow yard at right; tree line marks drainage ditch and separates field from meadow
Looking northeast
Photo #25 (014995-15A)

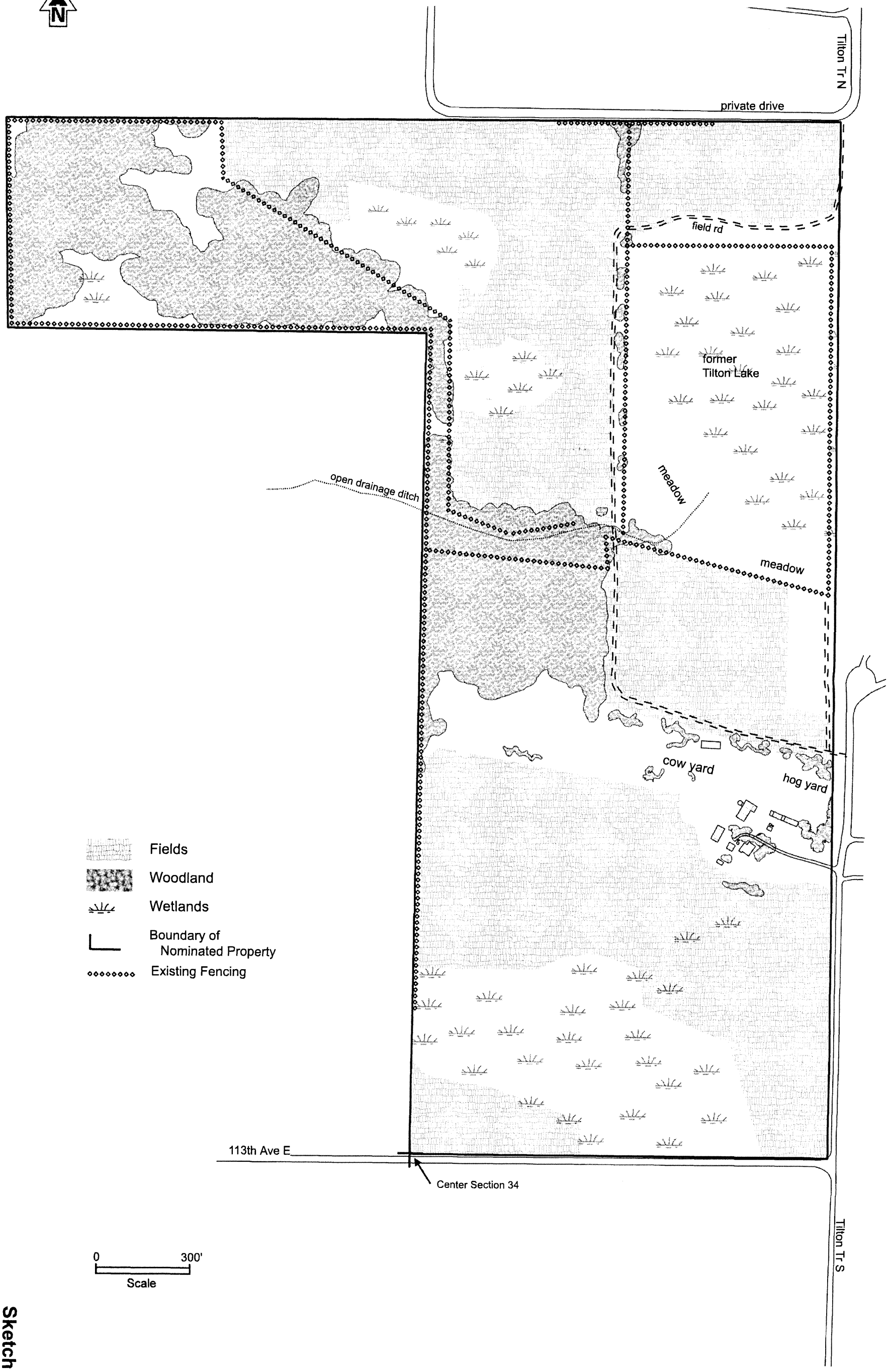
South edge of woodlot in center of farm
Looking west
Photo #26 (014995-17A)

Wetland (formerly Tilton Lake); looking south from northeast corner of the farm
Looking south
Photo #27 (014995-21A)

Driveway and yard, facing east edge of farm

Looking east
Photo #28 (014997-16)

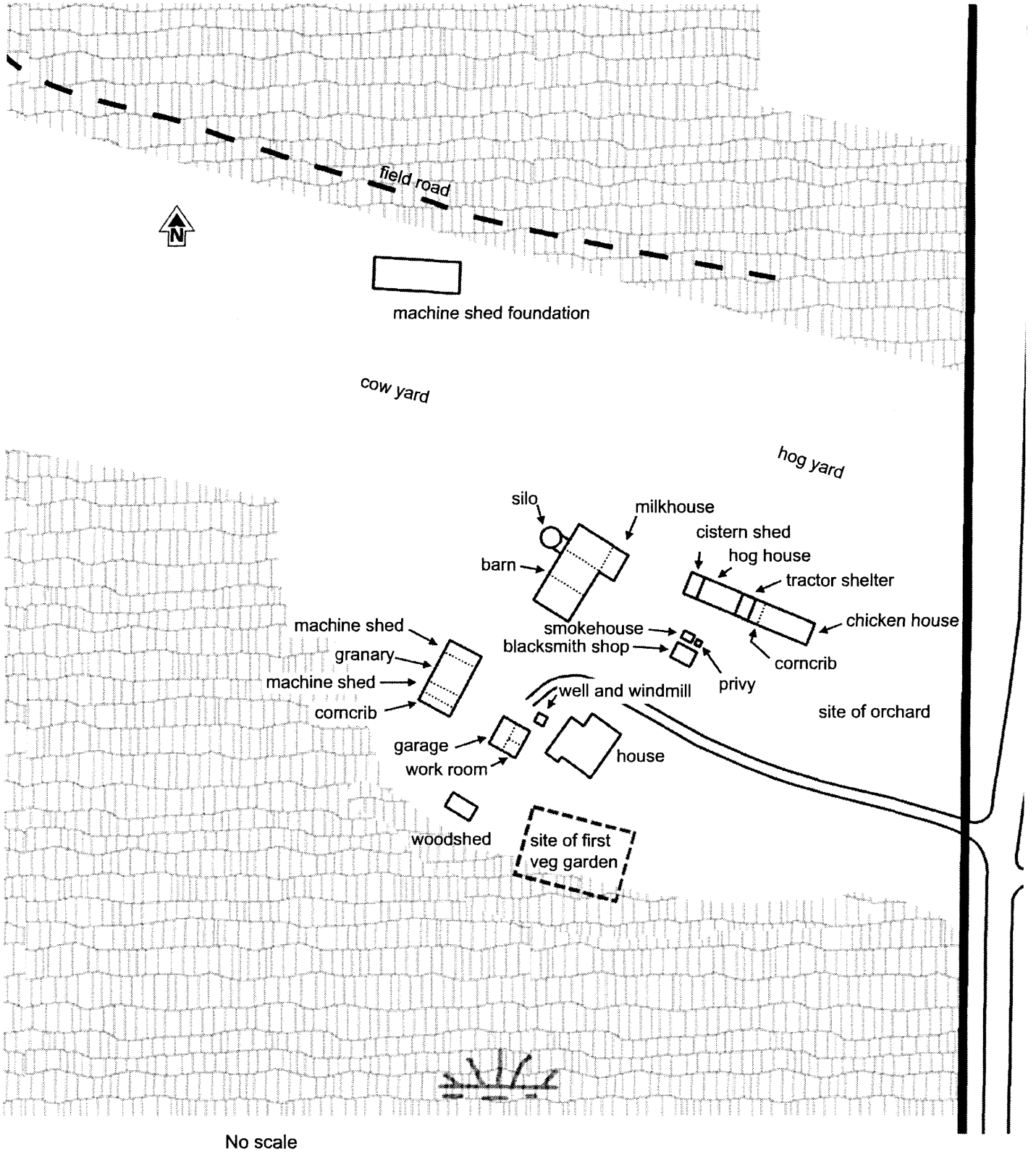
Hagel Family Farm, Hassan Township
Hennepin County, Minnesota



Sketch Map
Sheet 1 of 2

prep by Gemini Research 08-06

Hagel Family Farm, Hassan Township
Hennepin County, Minnesota



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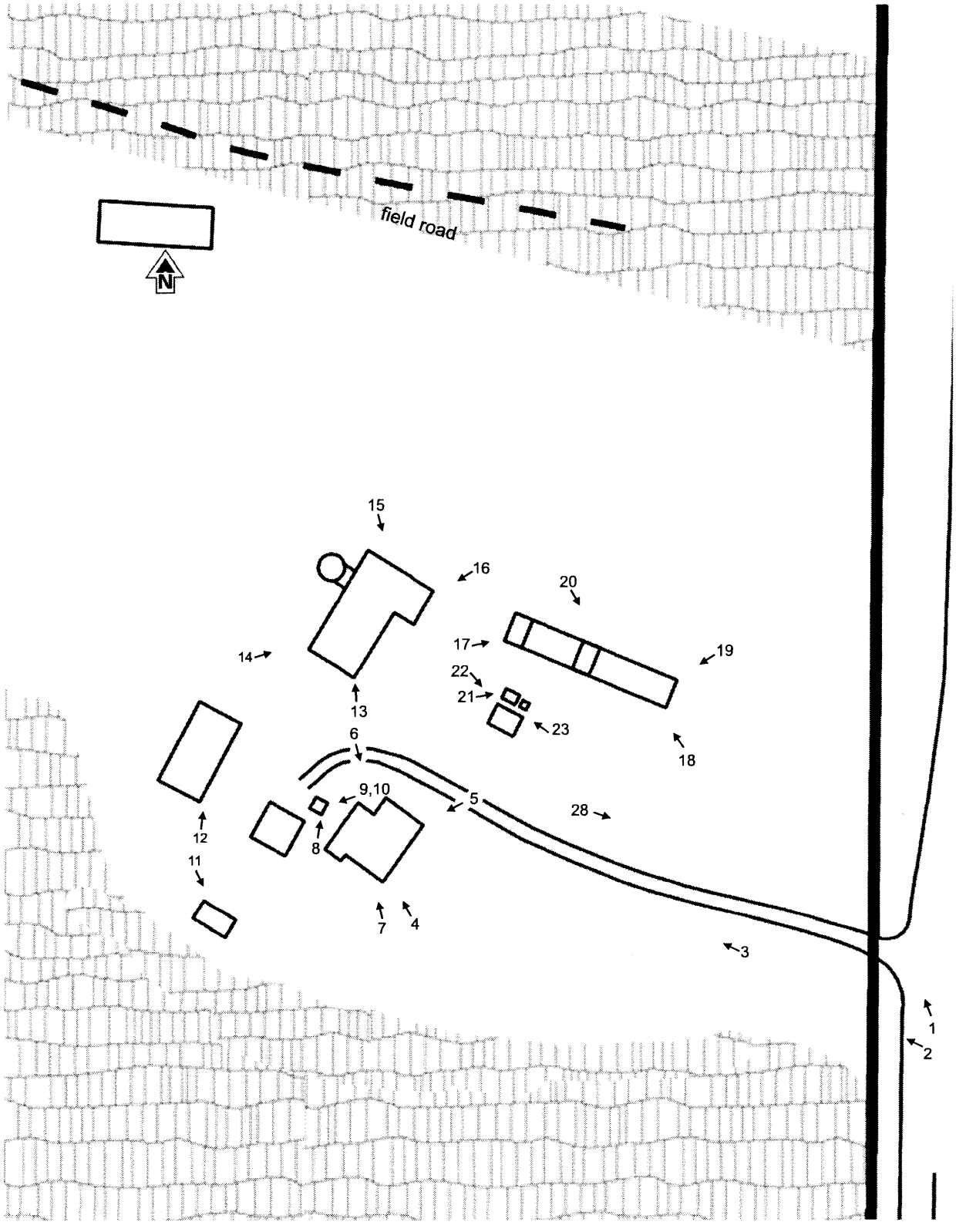
Sketch Map
Sheet 2 of 2

Prep by Gemini Research 08-06

Hagel Family Farm, Hassan Township
Hennepin County, Minnesota

aerial 2003

Hagel Family Farm, Hassan Township
Hennepin County, Minnesota



No scale

Photo Facing Map
Sheet 1 of 2

Prep by Gemini Research 08-06

Hagel Family Farm, Hassan Township
Hennepin County, Minnesota

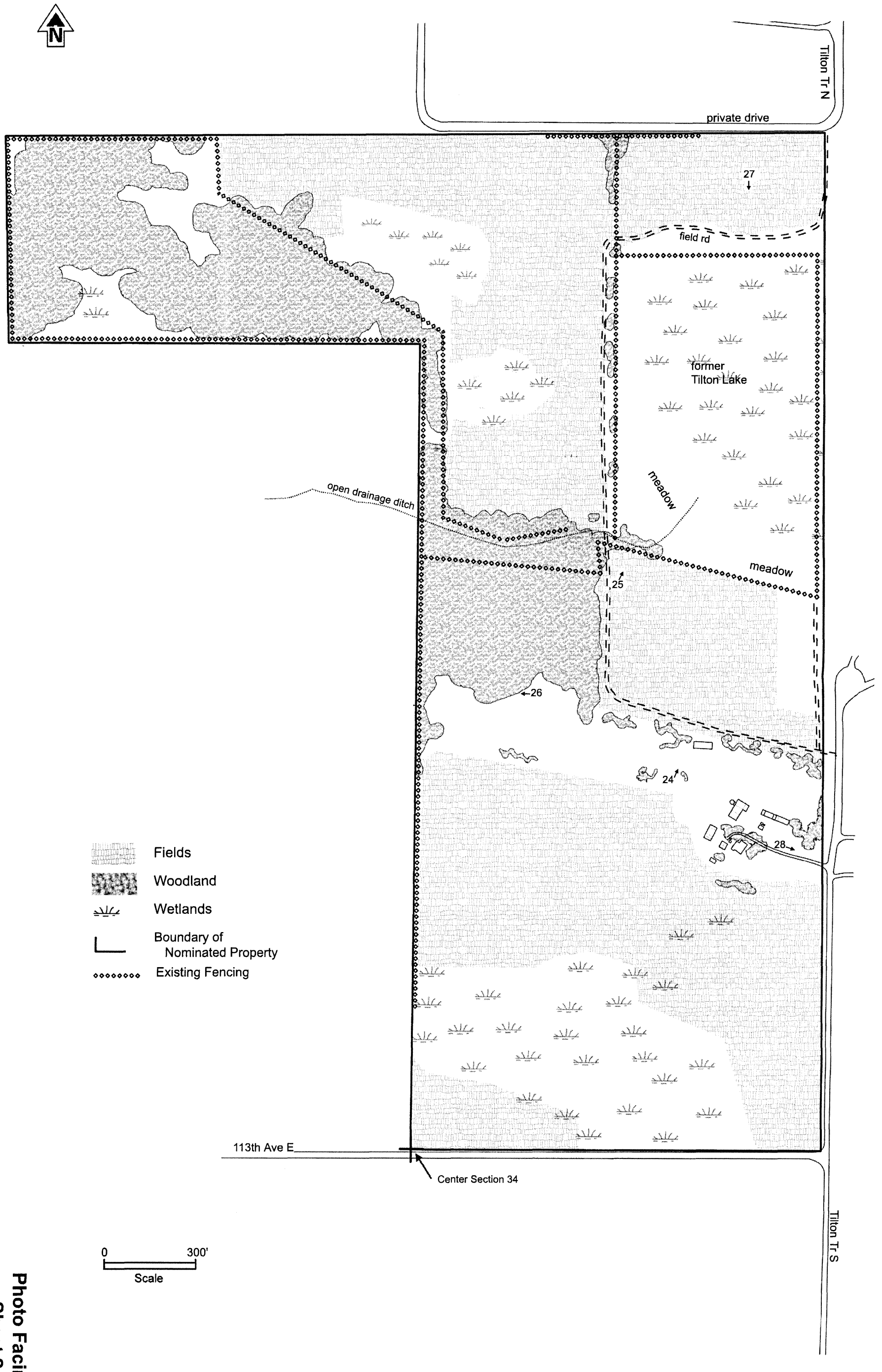
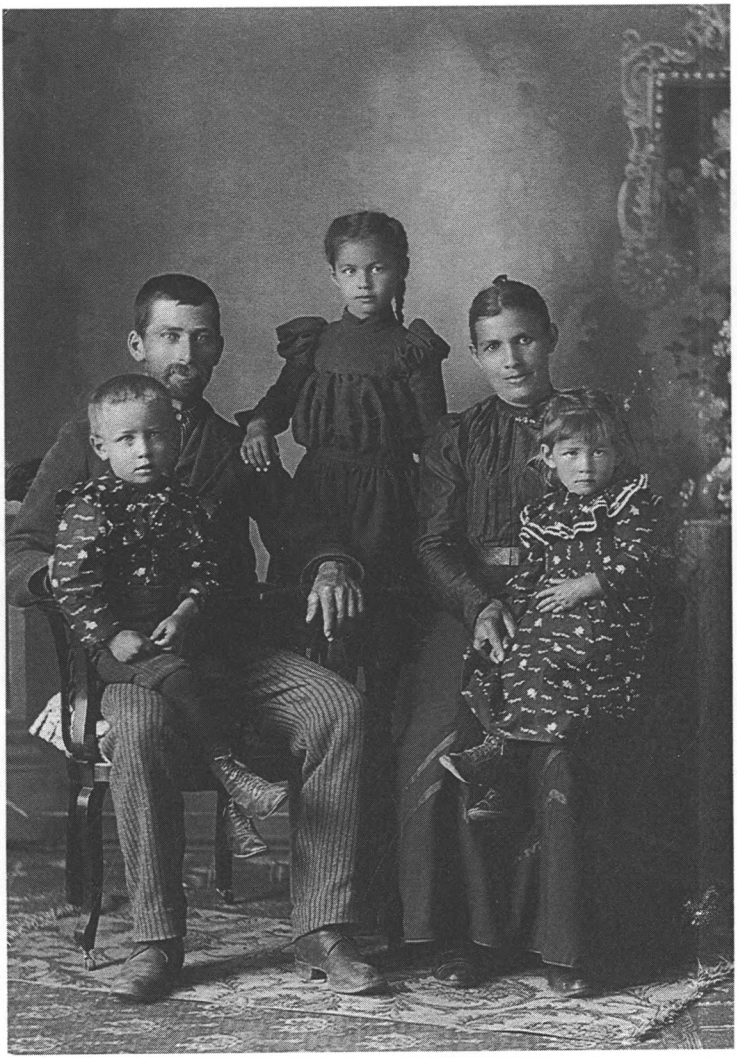


Photo Facing Map
Sheet 2 of 2

prep by Gemini Research 08-06



Frederick and Gertrude Hagel with children (L-R) Arnold, Nellie, and Henrietta, ca. 1902 (courtesy John A. Hagel).

Hagel farmstead from south, ca. 1936 (courtesy John A. Hagel).

Leroy C. Hagel with horse "Shorty"; granary-machine shed-corncrib at rear, ca. 1937 (courtesy John A. Hagel).

Arnold Hagel with mule team; granary-machine shed-corncrib at left; note stacks of unthreshed grain behind Arnold, ca. 1938 (courtesy John A. Hagel).

Hagel Family Farm
Hennepin Co., MN

Arnold Hagel on John Deere GP tractor, ca. 1945 (courtesy John A. Hagel).

Anna G. and Arnold J. Hagel with their children Gertrude and Leroy, ca. 1945 (courtesy John A. Hagel).