

# Technical Memo



Responsive partner.  
Exceptional outcomes.

**To:** Patrick Fahn, North Dakota Public Service Commission

**From:** Samantha Swanberg, Wenck Associates, Inc.

**Copy:** Kevin Magstadt, P.E., Wenck Associates, Inc.

**Date:** August 31, 2016

**Subject:** PU-15-801 ONEOK Bakken Pipeline Project (Bear Creek Pipeline) - Construction Inspection Report

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## **Construction Inspection Report**

Site Visits: June 3 and August 18, 2016

### **ONEOK Bakken Pipeline LLC. – 8-inch Natural Gas Liquids Pipeline Project (Bear Creek Pipeline) – PSC Case No. PU-15-801**

In attendance:

- Bradley Case – Construction Coordinator – ONEOK, Inc.
- Kolton Burge – Construction Coordinator – ONEOK, Inc.
- Bill Beggler – H2 Enterprises, L.L.C.
- Samantha Swanberg – Environmental Scientist – Wenck Associates, Inc.

The construction inspection on August 18, 2016 was done with Kolton Burge and Bill Beggler and on June 3, 2016 with Bradley Case. During the June inspection a majority of the right-of-way (ROW) clearing and grading was complete, and close to half of the ditching, lowering pipe and backfilling was complete. During the August inspection, restoration work was in progress. H2 Enterprises is the contractor completing the reclamation work (topsoil, seeding, etc.). Topsoil had been replaced on the ROW and large rocks had been removed. If the area appeared to be compacted, a ripper had been used to de-compact it, and it was seeded and mulched. Many of the areas that had been seeded and mulched within the last month already had some vegetation starting to sprout. The seed mix used for grassland areas included western wheatgrass, slender wheatgrass, green needlegrass, side-oats grama and oats. Erosion control devices (such as silt fences) were observed on the site.

Some of the observed areas of interest from the June and August inspection include (see attached pictures and map):

- Temporary sign put up to show approved project access road. Other signs were put up throughout the project area which included, but were not limited to, environmentally sensitive area, speed limits, and a “slow, children at play” sign near a residence (Photo #1);

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ND Public Service Commission  
August 31, 2016



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- Contractor lowering pipe into trench. There is a "Caution Overhead Power-Lines" sign on the far right of the ROW (Photo #2, Point #434);
- Survey crew (shown at top of hill) came in after pipe was laid to survey for the as-built (pipe welds and depths) (Photo #3, Point #434);
- Cleaning station set up near edge of ROW. This could be used when going into environmentally sensitive areas, etc., to prevent spread of weeds (Photo #4);
- Many of the swamp mats on site were laid over a tarp, which prevents the mat from being buried when driven over (Photo #5, near Point #435);
- Near bore tie-in area showing fence along bell-holes. Swamp mats are visible in center of photo, used to cross low area/drainage. Silt fences were in place along edges of ROW in low areas. Contractors stated that the open trench was not open for more than 3 days (Photo #6, Point #432);
- Topsoil had been replaced back on the ROW. Straw mulch was laid down with seeding. Some vegetation had already started to grow (Photo #7, Point #451);
- Water bar shown at the bottom of the photo. Travel lane still being used on the right side of the ROW to get to the hill in the background. The hill in the background was rocky and has not yet been seeded (Photo #8, Point #453);
- ROW still needs to be fine graded, seeded and crimped (Photo #9, Point #453);
- Excavator/hoe moving topsoil pile out from the edge so dozer can come through and spread topsoil on ROW (Photo #10, Point #453);
- Topsoil pile moved from edge of ROW closer to the center of ROW (Photo #11, Point #454);
- Heavy rain washed some sediment down the hill and was caught in silt fence. Dozer is pushing some of the sediment back up the hill (Photo #12, Point #455);
- Dozer pushing sediment up the hill and smoothing out the area from a rain event. Pipe test lead shown in middle left of ROW (Photo #13, Point #455);
- Motor grader shown smoothing out ROW (Photo #14, Point #457);
- Dozer spreading topsoil out on the ROW (Photo #15, Point #456);
- Pipeline ROW, reclamation done by local contractor (not H2 Enterprises). ONEOK/H2 Enterprises stated that they thought it had been re-seeded (a second seeding) the week before (Photo #16, Point #458);
- Gully forming in drainage area. No erosion control device was in place but it was stated by H2 Enterprises that an erosion control device will be placed here (Photo #17, Point #458);
- Pipeline ROW, drainage area and road bored. Bore pit was at the top of the hill, area in between was driven on to access bore area. Note signs and pipeline markers along fence line with fence gate (Photo 18, Point #458).

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Lead Project Manager, Kevin Magstadt, and Environmental Scientist, Samantha Swanberg, prepared the report.

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Kevin Magstadt, P.E., Principal/Regional Manager

\_\_\_\_\_  
Date

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Samantha Swanberg, Environmental Scientist

\_\_\_\_\_  
Date

Enclosed

- Attachment 1: Figure 1 – Inspection GPS Waypoints
- Attachment 2: Photo Log with Notes

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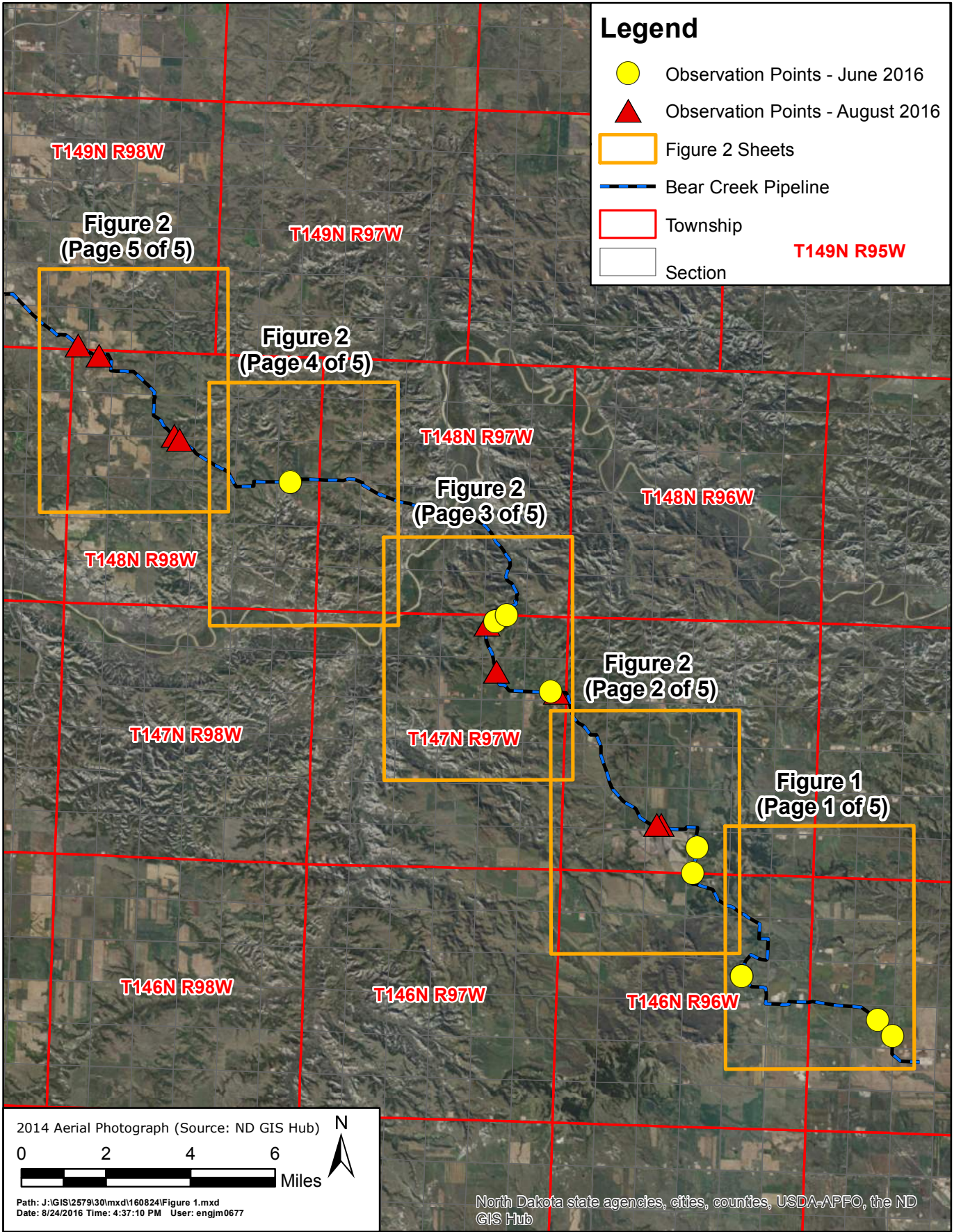
## Attachment 1

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### **Figure 1 – Interim Inspection GPS Waypoints**

### Legend

- Observation Points - June 2016
- ▲ Observation Points - August 2016
- Figure 2 Sheets
- Bear Creek Pipeline
- Township
- Section

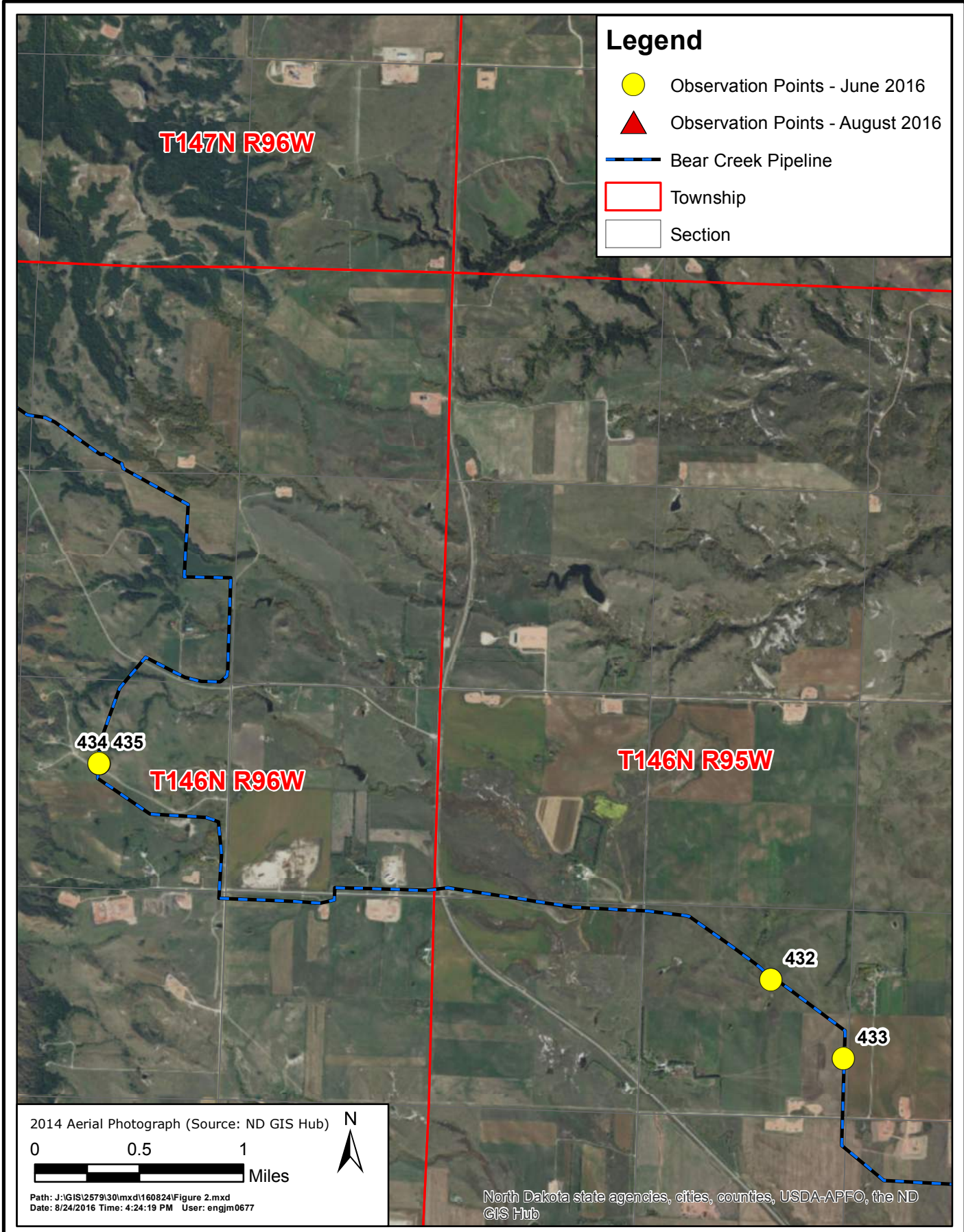


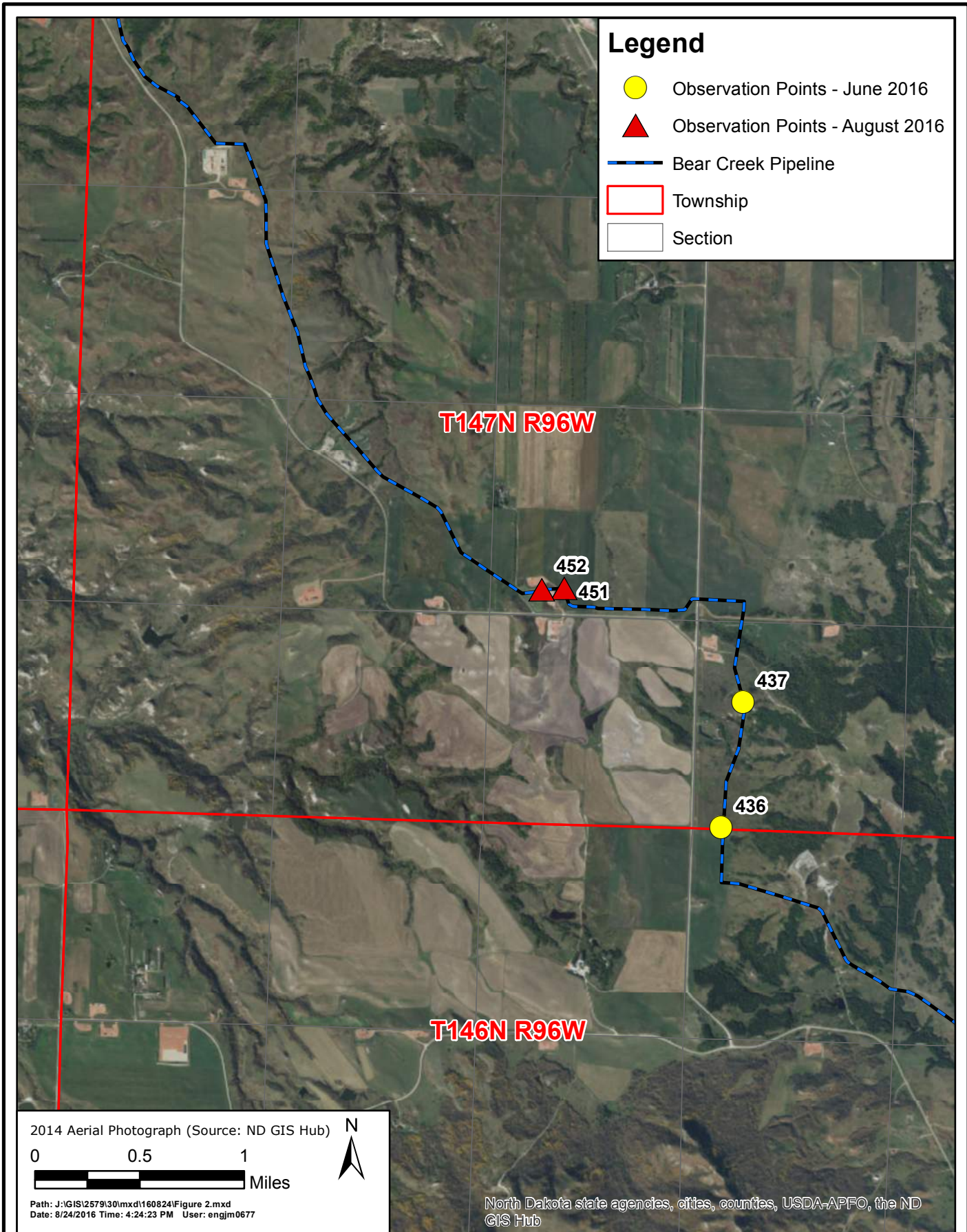
2014 Aerial Photograph (Source: ND GIS Hub)

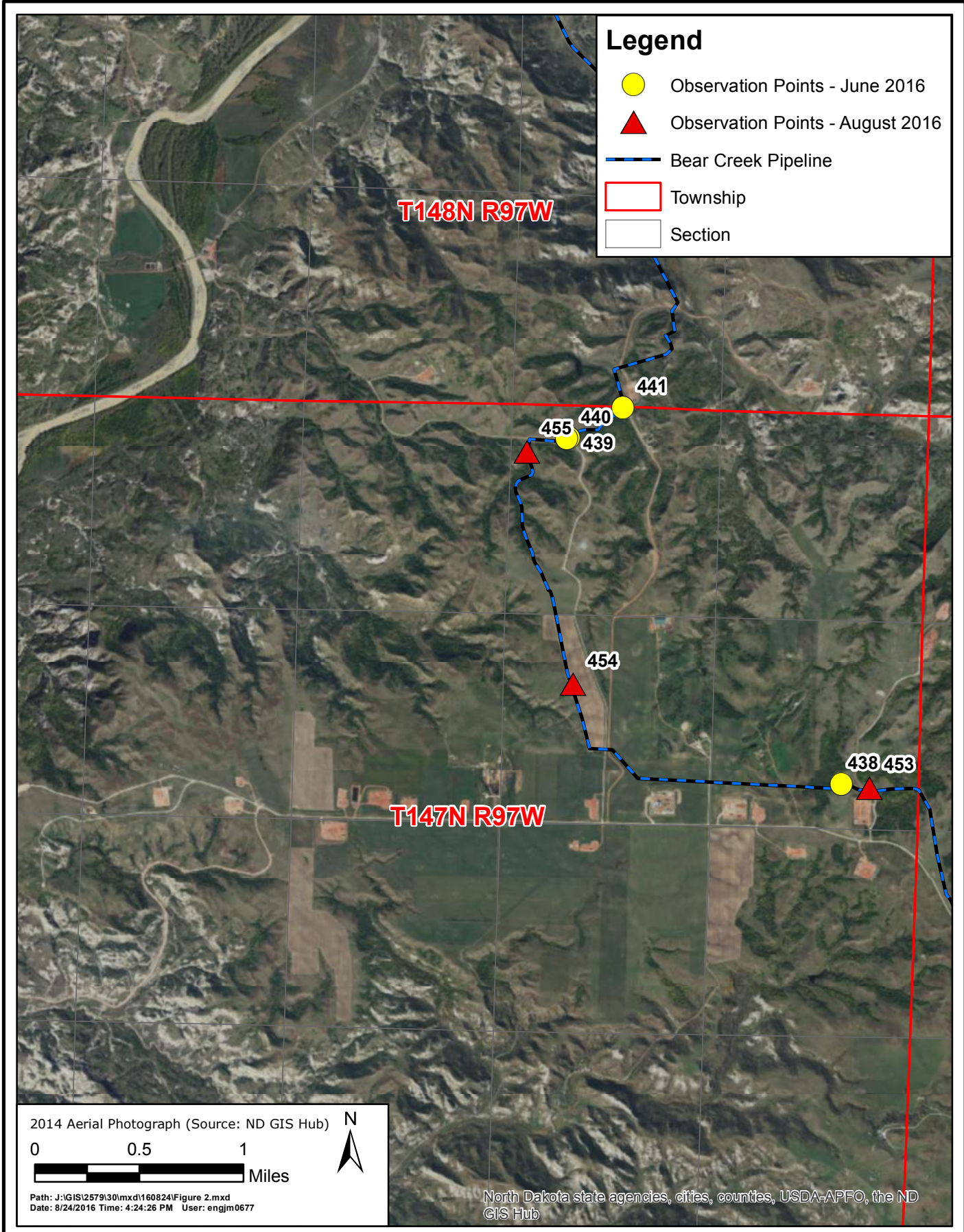


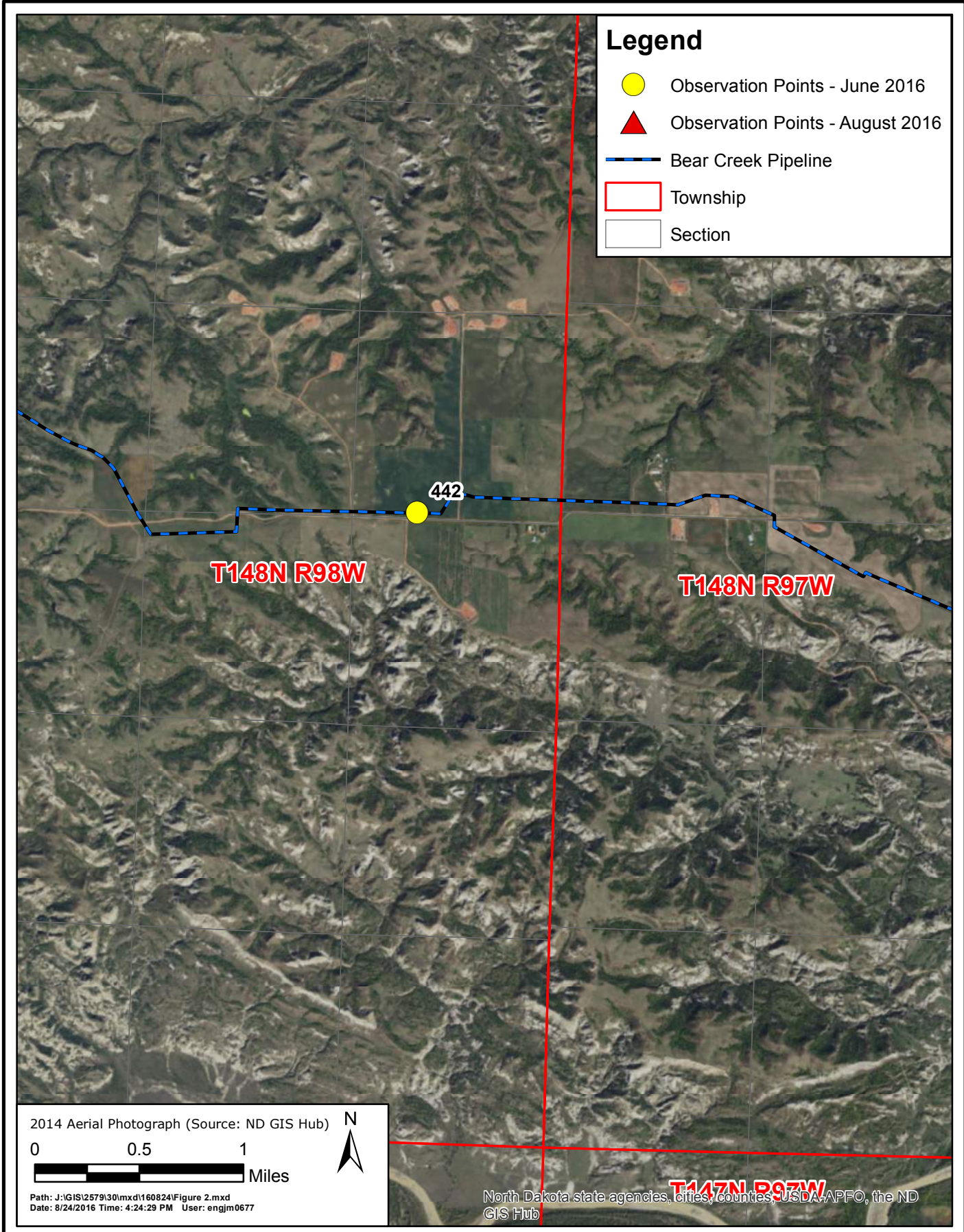
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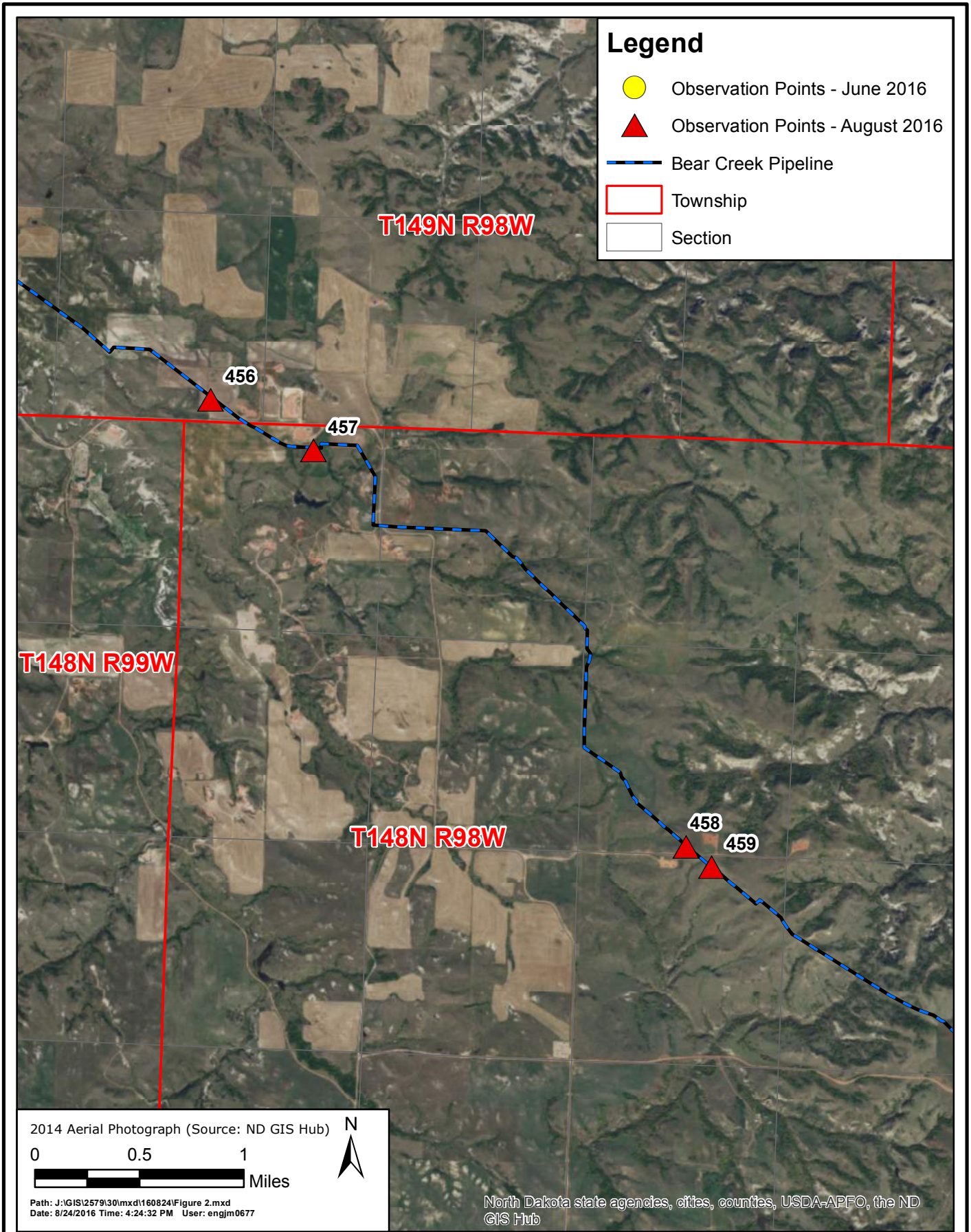
North Dakota state agencies, cities, counties, USDA-APFO, the ND GIS Hub











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## Attachment 2

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### Photo Log with Notes



**Photo 1.** – Temporary sign put up to show approved project access road. Other signs were put up throughout the project area which included, but were not limited to, environmentally sensitive area, speed limits, and a “slow, children at play” sign near a residence.



**Photo 2.** (GPS Point #434) – Contractor lowering pipe into trench. There is a “Caution Overhead Power-Lines” sign on the far right of the ROW. Direction: North.



**Photo 3.** (GPS Point #434) – Survey crew (shown at top of hill) came in after pipe was laid to survey for the as-built (pipe welds and depths). Direction: North.



**Photo 4.** – Cleaning station set up near edge of ROW. This could be used when going into environmentally sensitive areas, etc., to prevent spread of weeds.



**Photo 5.** (Near GPS Point #435) – Many of the swamp mats on site were laid over a tarp, which prevents the mat from being buried when driven over.



**Photo 6.** (GPS Point #432) – Near bore tie-in area showing fence along bell-holes. Swamp mats are visible in center of photo, used to cross low area/drainage. Silt fences were in place along edges of ROW in low areas. Contractors stated that the open trench was not open for more than 3 days.



**Photo 7.** (GPS Point #451) - Topsoil had been replaced back on the ROW. Straw mulch was laid down with seeding. Some vegetation had already started to grow.



**Photo 8.** (GPS Point #453) – Water bar shown at the bottom of the photo. Travel lane still being used on the right side of the ROW to get to the hill in the background. The hill in the background was rocky and has not yet been seeded. Direction: East.



**Photo 9.** (GPS Point #453) – ROW still needs to be fine graded, seeded and crimped.  
Direction: West.



**Photo 10.** (GPS Point #454) – Excavator/hoe moving topsoil pile out from the edge so dozer can come through and spread topsoil on ROW. Direction: North.



**Photo 11.** (GPS Point #454) – Topsoil pile moved from edge of ROW closer to the center of ROW. Direction: South.



**Photo 12.** (GPS Point #455) – Rain event washed some sediment down the hill and was caught in silt fence. Dozer pushing some of the sediment back up the hill. Direction: South.



**Photo 13.** (GPS Point #455) – Dozer pushing sediment up the hill and smoothing out the area from a rain event. Pipe test lead with metal stake shown in the middle left of ROW.  
Direction: South.



**Photo 14.** (GPS Point #457) – Motor grader shown smoothing out ROW.



**Photo 15.** (GPS Point #456) – Dozer spreading topsoil out on the ROW.



**Photo 16.** (GPS Point #458) – Pipeline ROW, reclamation done by local contractor (not H2 Enterprises). ONEOK/H2 Enterprises stated that they thought it had been re-seeded (a second seeding) the week before. Direction: Northwest.



**Photo 17.** (GPS Point #459) – Gully forming in drainage area. No erosion control device was in place but it was stated by H2 Enterprises that an erosion control device will be placed here.



**Photo 18.** (GPS Point #459) – Pipeline ROW, drainage area and road bored. Bore pit was at the top of the hill, area in between was driven on to access bore area. Note signs and pipeline markers along fence line with fence gate. Direction: Southeast.