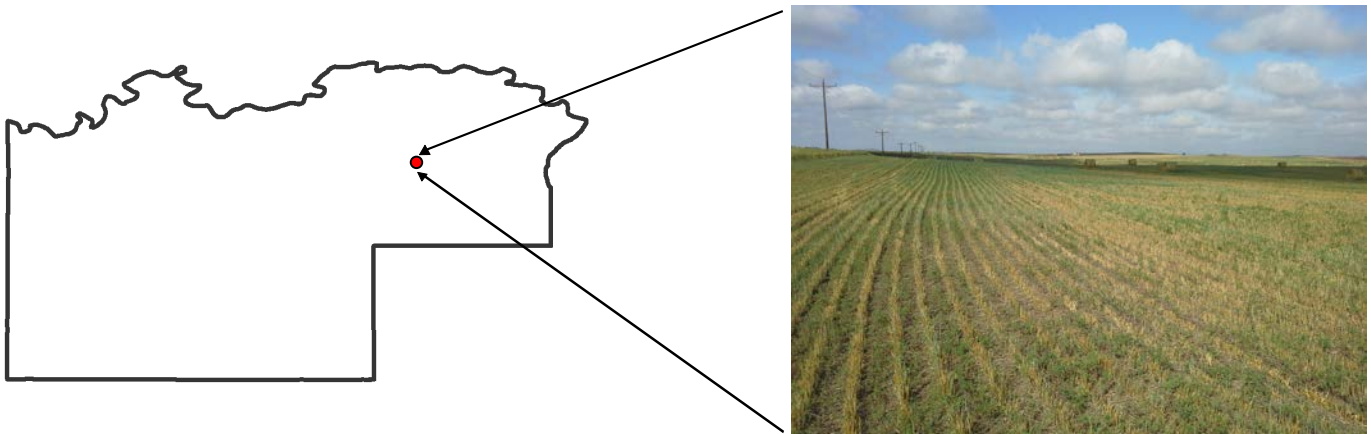


October 2014

**APPLICATION TO
NORTH DAKOTA PUBLIC SERVICE COMMISSION
FOR A CERTIFICATE OF SITE COMPATIBILITY**

Demicks Lake Gas Processing Plant

McKenzie County, North Dakota



ONEOK
ROCKIES MIDSTREAM

A SUBSIDIARY OF ONEOK PARTNERS, L.P.

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INTRODUCTION

ONEOK Rockies Midstream, L.L.C. (ONEOK) owns and operates natural gas gathering, processing and fractionation facilities in the Williston Basin area of North Dakota. ONEOK's facilities interconnect directly to the interstate natural gas pipeline grid, which serves markets in the Rocky Mountains, Midwest and California.

In the Williston Basin, ONEOK operates extensive gas gathering pipeline networks and multiple gas processing plants. Most of the wells connected to the facilities produce casinghead gas in association with crude oil. This casinghead gas is generally high in natural gas liquids (NGL) content, which is separated from the natural gas at the processing plants, fractionated into individual components and sold.

In response to the increased demand for the processing of natural gas, ONEOK proposes to construct the Demicks Lake Gas Processing Plant (Demicks Lake Plant, Plant, or Project) to address this regional need. ONEOK's Plant would be located approximately 13.5 miles northeast of Watford City in McKenzie County.

ONEOK hereby submits to the North Dakota Public Service Commission (PSC or Commission) this application for a Certificate of Site Compatibility for its Demicks Lake Gas Processing Plant Project.

This application provides the necessary information as stipulated by the North Dakota Century Code, Energy Conversion and Transmission Facility Siting Act, Chapter 49-22-08; and the PSC Administrative Code, Chapter 69-06-08-01 Energy Conversion Facility Siting Criteria.

The information presented in this application is organized into the following four main categories:

- SECTION 1: DESCRIPTION
- SECTION 2: STUDIES
- SECTION 3: NEED FOR FACILITY
- SECTION 4: LOCATION

To assist the Commission in its review of ONEOK's application, ONEOK has included with this application the information described in Section 49-22-09 of the Century Code, Factors to Consider in Evaluating Applications and Designation of Sites, Corridors, and Routes. This information is placed toward the end of Section 4, following the discussion of the Facility Siting Criteria.

SECTION 1: DESCRIPTION

1.1 TYPE

ONEOK's proposed Demicks Lake Plant would be located approximately 13.5 miles northeast of Watford City, North Dakota. As proposed, the Plant would be constructed on a plot of approximately 160 acres located in the NE $\frac{1}{4}$ of Section 20, Township 151 North, Range 96 West in McKenzie County, as depicted in the map included in Appendix B (Site).

The Plant will consist of two cryogenic turboexpander processing units (each a Train); each Train will have a design capacity of 200 million standard cubic feet per day (MMscfd) for a total Plant capacity of 400 MMscfd. The Plant will process well-head natural gas gathered from local crude oil production wells. ONEOK's gathering system will deliver well-head gas to the Plant for processing, and once processed, the NGL product will be transferred to on-site storage tanks prior to being sold to an NGL pipeline. Residue gas, largely methane and ethane, will be transferred to the Northern Border Pipeline for transit on that system.

Construction of the Plant will include the installation of underground piping, above ground piping, and above ground gas processing facilities. The major processing systems shall be located within the battery limits of the Plant. Starting from the inlet gas and following the process, these systems include the following:

- Inlet gas slug catchers;
- Inlet gas condensate pumping, filtration, and stabilization;
- Mole sieve dehydration;
- NGL extraction (including refrigeration);
- High pressure residue gas compression;
- NGL product storage and pipeline pumps;
- Flare system;
- Drain system;
- Plant control systems;
- Utility systems (electrical, instrument air, and heat medium).

A simplified engineering flow chart depicting the Plant's process and an overview plot plan drawing showing the layout of the proposed processing equipment are included in Appendix A.

1.2 PRODUCT

The Plant will produce an NGL mix stream containing products such as propane, butane, and natural gasoline, as well as pipeline grade natural gas, a mixture of methane, ethane and carbon dioxide.

1.3 SIZE AND DESIGN

1.3.1 GROSS DESIGN CAPACITY

The Plant is comprised of two process Trains each designed with a nameplate capacity of 200 MMscfd for a total Plant capacity of 400MMscfd. Appendix A includes a Design Data Report, which discusses the nameplate capacity in more detail.

1.3.2 NET DESIGN CAPACITY

The net design capacity of the proposed Plant using a feed stream benchmark is 400 MMscfd less 6.8 MMscfd for utility natural gas.

1.3.3 ESTIMATED THERMAL EFFICIENCY OF THE ENERGY CONVERSION PROCESS AND THE ASSUMPTIONS UPON WHICH THE ESTIMATE IS BASED

This is not applicable to the process.

1.4 PROVIDE ONE COPY OF THE DESIGN DATA REPORTS SEPARATE FROM THE APPLICATION

See Appendix A for complete Design Data Report.

1.5 TIME SCHEDULE

1.5.1 CERTIFICATE OF SITE COMPATIBILITY

ONEOK seeks a Certificate of Site Compatibility on or before December 17, 2014.

1.5.2 LAND ACQUISITION

ONEOK is under contract to purchase an approximately 160-acre parcel from a private party for this Project. The purchase agreement for this transaction is dated August 13, 2014 and closing is anticipated in the coming weeks.

1.5.3 CONSTRUCTION START DATE

ONEOK will begin construction of Train 1 upon receipt of necessary authorizations. ONEOK anticipates that construction of Train 1 will be initiated on or before January 8, 2015. Construction of Train 2 will commence following sufficient volume commitments and authorization by ONEOK management.

1.5.4 CONSTRUCTION COMPLETION DATE

ONEOK anticipates that Train 1 commissioning activities will begin in the first quarter of 2016, and will be fully in service shortly thereafter. Commissioning of Train 2 is

anticipated to occur approximately fifteen months following the commencement of construction on site and would be fully in service shortly thereafter. Site work including restoration may continue for several months following the completion of Train 2.

1.5.5 TEST OPERATIONS

ONEOK anticipates that testing for each Train will be completed before commissioning activities.

1.6 COMMERCIAL PRODUCTION DATA FOR TRAIN 1

<u>Product</u>	<u>Production</u>
Inlet Gas Rate	200 MMscfd
Mole Percent Ethane+	39%
Residue Gas Production	162 MMscfd
NGL Production	4,324,000 lbs/d
100 Percent Capacity Factor	Not applicable to this process

1.7 COMMERCIAL PRODUCTION DATA FOR TRAIN 2

<u>Product</u>	<u>Production</u>
Inlet Gas Rate	200 MMscfd
Mole Percent Ethane+	39%
Residue Gas Production	162 MMscfd
NGL Production	4,324,000 lbs/d
100 Percent Capacity Factor	Not applicable to this process

1.8 ESTIMATED COST OF CONSTRUCTION

ONEOK estimates that the total cost of construction of the proposed Project of Train 1 will be approximately \$321 million and Train 2 an additional \$321 million.

1.9 ANY EXPANSIONS OR ADDITIONS

No further expansions or additions are planned at this time.

SECTION 2: STUDIES

2.1 STUDY AREA

The Study Area is defined by the approximately 1-mile-wide buffer area centered upon the 160-acre Site. The Site and the Study Area are depicted on the maps found in Appendix B: Project Maps. The environmental analysis was conducted for the entire Study Area.

2.2 SITE

The Site is a 160-acre parcel as depicted in the maps found in Appendix B. A natural resource inventory was conducted that encompassed this entire parcel; resources inventoried included habitat analysis, wetland delineation, and tree/shrub inventory. Cultural resource field studies were also conducted throughout the entire parcel.

ONEOK provided project notification to the Federal and state agencies identified below for the purpose of environmental resource assessment as stipulated by the North Dakota Public Service Commission's siting requirements for Energy Conversion Facilities. Refer to Appendix C for copies of agency correspondence.

- U.S. Army Corps of Engineers (USACE);
- U.S. Fish and Wildlife Service (USFWS);
- North Dakota Game and Fish Department (NDGFD);
- North Dakota Parks and Recreation Department (NDPRD);
- North Dakota State Historic Preservation Office (NDSHPO);
- North Dakota Department of Trust Lands (NDDTL), Minerals Management Division and Surface Management Division); and
- North Dakota Department of Health (NDDoH)

Agency comments and field studies are summarized below.

2.3 ENVIRONMENTAL ANALYSIS

2.3.1 NATURAL RESOURCE INVENTORY

ONEOK retained E3 Environmental LLC (E3) to conduct a natural resource inventory of the Site. This inventory was conducted to study the presence or absence of protected species and critical habitat. Field studies included a wetland and waterbody survey and a tree/shrub inventory. The inventory and field studies were completed on August 21, 2014. A copy of the report can be found in Appendix D.

The Site is characterized as primarily agricultural. Natural resource features recorded by the field survey included one ephemeral stream, one palustrine emergent wetland, one concentration of woody vegetation.

2.3.1.1 BOTANICAL INVENTORY

The Site is comprised primarily of cultivated wheat (*Triticum aestivum*) and Alfalfa (*Medicago sativa*) which had recently been harvested for hay. Smooth brome (*Bromus inermis*), crested wheatgrass (*Agropyron cristatum*), common yarrow (*Achillea millefolium*), American licorice (*Glycyrrhiza lepidota*), western snowberry (*Symphoricarpos occidentalis*), silver-leaf scurf pea (*Psoralea argophylla*), Palmer's amaranth (*Amaranthus palmeri*), Kochia (*Kochia scoparia*), common sunflower (*Helianthus annuus*), curlycup gumweed (*Grindelia squaarrosa*), greater ragweed (*Ambrosia trifida*), common ragweed (*A. artemisiifolia*) and Canada thistle (*Cirsium arvense*) are present along fence lines and hill crests too steep or rocky to cultivate.

2.3.1.2 TREE/SAPLING/SHRUB INVENTORY

Desktop analysis of the Study Area found woody vegetation to be sparse and limited to woody draws and ravines associated with drainage ways. The field survey of the Site recorded one population, approximately 0.02 acres in size, of silver buffaloberry (*Symphoricarpos occidentalis*) which is a woody shrub.

2.3.1.3 WETLAND AND WATERBODIES INVENTORY

A desktop review of the Study Area recorded four National Wetland Inventory (NWI) mapped wetland features, however none of these features are located on the Site. A review of the Study Area utilizing National Hydrograph Data (NHD) recorded four waterbody features, one of which occurs within the Site. The USGS Web Soil survey was accessed to identify soils within the Study Area. No soils within the Site are listed as hydric soils. Field studies of the Site were commissioned to record the actual resources on the property.

ONEOK retained E3 to conduct field studies to determine the presence or absence of wetlands and waterbodies on the Site. These studies were completed on August 21, 2014. The results of these studies are provided in the Natural Resource and Wetland/Waterbody Determination Report, Demicks Lake Gas Processing Plant Project, McKenzie County, North Dakota, a copy of which can be found in Appendix D.

Results of the wetland and waterbody survey recorded two features on the Site, one wetland and one ephemeral stream. The wetland, which is located on the east property boundary, has been characterized as a palustrine emergent wetland. The ephemeral stream originates on the west boundary of the Site and drains to the northeast, terminating on the property. Hydrophytic vegetation was not present within or adjacent to the stream. This flowage is ephemeral in nature, with water present only during spring snowmelt is not under the jurisdiction of the USACE as confirmed by the USACE in the Approved Jurisdictional Determination (AJD) dated September 25, 2014, a copy of which can be found in Appendix C. Field crews were unable to locate the mapped waterbody feature that was identified during desktop analysis. Field surveys conducted in the area of the feature could not ascertain an Ordinary High Water Mark or other evidence suggestive of a waterbody.

2.3.1.4 WILDLIFE INVENTORY

The wildlife observed on the Site are species commonly associated with agricultural communities. Various common avian and mammalian fauna were observed. No Federal or state species of concern were observed on the Site.

2.3.2 U.S. FISH AND WILDLIFE SERVICE

The U.S. Fish and Wildlife Service (USFWS) administer several natural resource programs designed to identify and protect various plant and animal species of special status including habitats deemed critical. ONEOK provided the USFWS with project notification which included a description of the Project and an assessment of its impacts relative to the interests of the USFWS as detailed in the following sections.

2.3.2.1 FEDERALLY PROTECTED SPECIES REVIEW

Under the authority of the Endangered Species Act (ESA) of 1973, the USFWS assesses wildlife populations for viability throughout their current and historic ranges. Those species that have been characterized as Threatened or Endangered Species and their critical habitats are managed by the USFWS under the authority of the ESA.

E3 provided ONEOK technical assistance with protected species review and subsequent correspondence with the USFWS. A review of USFWS published data identified the following listed species with the potential to occur within the Study Area:

- Least tern (*Sterna antillarum*) – endangered;
- Piping plover (*Charadrius melodus*) – threatened, and designated critical habitat;
- Rufa red knot (*Calidris canutus rufa*) – proposed threatened;
- Sprague’s pipit (*Anthus spragueii*) – candidate;
- Whooping crane (*Grus americana*) – endangered;
- Pallid sturgeon (*Scaphirhynchus albus*) – endangered;
- Dakota skipper (*Hesperia dacotae*) – proposed threatened, and designated critical habitat;
- Gray wolf (*Canis lupus*) – endangered.

Least tern: The interior populations of the Least Tern have historically been associated with large river systems for breeding and migratory habitats. Breeding birds are known to congregate in colonies, utilizing sandbar habitat common to larger rivers. Regionally, the Missouri River, which is more than 14 miles from the Site, is known to host remnant breeding populations of terns. Desktop analysis, supported with field studies, has concluded that no suitable habitat is present within the Study Area; therefore, impacts to the Least Tern are not anticipated.

Piping plover: The piping plover is associated with shorelines along small alkaline lakes, large reservoir beaches, and river islands and adjacent sand pits. Breeding birds select wide beaches with highly clumped vegetation covering less than 25 percent of the area. The Missouri River and Lake Sakakawea, approximately 13.7 miles east of the Site at its nearest point, are the closest designated critical habitats for the Piping plover.

Desktop analysis, supported with field studies, have concluded that no suitable habitat is present within the Site or Study Area; therefore, impacts to the piping plover or its designated critical habitat are not anticipated.

Rufa red knot: The rufa red knot migrates between breeding grounds in Canada and wintering grounds in South America. A significant factor threatening the rufa red knot is the loss or modification of its habitat due to beach erosion and shoreline protection efforts. Migratory behavior and habitat requirements of this species are poorly understood particularly for those populations occupying the midcontinent flyways. Inland stopovers include the Mississippi Valley, Great Lakes, and Great Plains. Desktop analysis, supported with field studies, has concluded that no suitable habitat is present within the Study Area; therefore impacts to the rufa red knot are not anticipated.

Sprague's pipit: The Sprague's pipit is a small passerine that is a candidate species under USFWS evaluation for future listing and the additional protection afforded by the Endangered Species Act. The Sprague's pipit prefers large undisturbed tracts of native grasslands for breeding. They have not been observed in areas smaller than 71.6 acres on their breeding grounds (USFWS, 2010). Sprague's pipits are sensitive to patch size and avoid edges between grasslands and other habitat features. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Study Area; therefore, impacts to the Sprague's pipit are not anticipated.

Whooping crane: The whooping crane is a large bodied marsh species that breeds primarily in Canada and winters in the Gulf of Mexico. This species has been closely studied and monitored in recent years due to its small population. North Dakota provides migratory habitat for the species, providing roosting and feeding opportunities during migration. This species prefers larger wetland complexes for roosting habitat, typically using adjacent uplands for foraging opportunities.

Precautionary measures will be implemented during construction if whooping cranes are sighted in or near the Site. ONEOK will voluntarily suspend all heavy equipment operation activities and notify the USFWS should a whooping crane be spotted within 0.5 mile of the Site. Heavy equipment activities will resume upon the departure of the individual(s). The Project under consideration will not result in a loss of crane habitat. Construction activities would likely serve as a deterrent and once constructed the proposed facility would present a fairly prominent feature to be avoided relative to its surrounding landscape.

Pallid sturgeon: The pallid sturgeon's preferred habitat includes the benthic environment associated with swift waters of large turbid, free-flowing rivers with braided channels, dynamic flow patterns, periodic flooding of terrestrial habitats, and requiring extensive micro habitat diversity. The species inhabits the Missouri and Mississippi Rivers from Montana to Louisiana. In North Dakota, reaches of the Missouri River have been cited as providing suitable habitat for the pallid sturgeon. However, there is no suitable sturgeon habitat in the Site or Study Area as the Missouri River does not

intersect the Project corridor; as such, impacts to the pallid sturgeon are not anticipated.

Dakota skipper: Dakota skippers require untilled, high-quality prairie. Habitat preferred by the skipper is wet-mesic prairie with little topographic relief on near-shore glacial lake deposits and in rolling native-prairie terrain over gravelly glacial moraine deposits. Larvae feed on grasses, favoring little bluestem (*Schizachyrium scoparium*). Adults commonly feed on nectar of flowering native forbs such as harebell (*Campanula rotundifolia*), wood lily (*Lilium philadelphicum*), and purple coneflower (*Echinacea angustifolia*). This species is not known to disperse widely and has low mobility, dispersing a maximum of 0.6-mile. The species is threatened by conversion of native prairie to cultivated agriculture or shrublands, over-grazing, invasive species, gravel mining, and inbreeding. The proposed Project Site is primarily cultivated cropland and has been managed as such for more than 20 years. Review of aerial photos and soil survey data indicate that untilled, high-quality prairie dominated by native grasses that contain a high diversity of native forbs are not present within the Site or Study Area. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Site or Study Area; therefore, impacts to the Dakota skipper are not anticipated.

Gray wolf: The gray wolf is a large carnivore that through conservation measures has experienced strong population recovery, particularly in the Great Lakes states of the upper Midwest. As populations rebound, individuals may break from packs to explore opportunities to establish packs in unoccupied territory. Roaming individuals can cover great distances without establishing viable breeding populations in previously unoccupied habitat(s). This species is not tolerant of human disturbance and will tend to avoid interaction with humans. The activities associated with construction and later Plant operations would likely serve as a deterrent to this species. Therefore, this Project will have no effect on the gray wolf.

On September 4, 2014, ONEOK submitted project notification to the USFWS providing a comprehensive project description and environmental analysis. A response from the USFWS was provided on October 6, 2014 indicating concurrence with ONEOK's conclusion that the Project will not adversely affect listed species. See Appendix C for a copy of the correspondence.

2.3.2.2 U.S. FISH AND WILDLIFE SERVICE MIGRATORY BIRD TREATY CORRESPONDENCE

The USFWS is responsible for the protection of migratory birds; management of this responsibility has largely focused on protection of the birds while on their breeding grounds during the breeding season, defined by the USFWS as February 1 through July 15. Cultivated land provides marginal habitat for breeding birds, and tilled fields typically lack the preferred vegetative cover necessary to provide suitable breeding habitat. Site preparation activities for the proposed Project are anticipated to begin during the 1st quarter of 2015 and continue through the 3rd quarter of 2016, for a

duration of approximately 18 months. The proposed Project schedule would overlap with the 2015 breeding season, however the proposed schedule would mitigate impacts by initiating ground disturbing activities in advance of the breeding season. Furthermore, construction activities would serve as an effective deterrent for breeding birds.

On September 4, 2014, ONEOK submitted project notification to the Bismarck, ND office of the USFWS describing the proposed measures that ONEOK would employ to avoid and mitigate potential impacts to migratory birds. A response from the USFWS was provided on October 6, 2014 indicating concurrence with ONEOK's conclusion that the Project will not adversely affect migratory birds. See Appendix C for a copy of the correspondence.

2.3.3 U.S. FISH AND WILDLIFE SERVICE MANAGED LANDS

Conservation programs such as Waterfowl Production Areas (WPAs) and wetland and grassland easements represent an important tool used by the USFWS to identify and manage high-quality wildlife habitat. A review of public records did not identify any USFWS managed lands within the Site or Study Area. On September 4, 2014, Project notifications were initiated with the Bismarck, ND office of the USFWS requesting concurrence that there are no managed lands in the Site or Study Area. A response from the USFWS was provided on October 6, 2014 indicating concurrence with ONEOK's conclusion that the Project will not adversely affect USFWS managed lands. See Appendix C for a copy of the correspondence.

2.3.4 NORTH DAKOTA GAME AND FISH DEPARTMENT

The North Dakota Game and Fish Department (NDGFD) has oversight of the State's game species and certain state managed lands (i.e.; PLOTS). On September 4, 2014, the NDGFD was provided with project notification, this correspondence offered the agency the opportunity to verify the absence/presence of State Conservation Priority Species and confirmation on the absence/presence of NDGFD PLOTS lands within the Site or Study Area. A response from the NDGFD was provided on October 1, 2014 indicating concurrence with ONEOK's conclusion that the Project will not adversely affect wildlife or wildlife habitat, and there are no PLOTS lands within the Site or Study Area. See Appendix C for a copy of the correspondence.

2.3.5 NORTH DAKOTA PARKS AND RECREATION DEPARTMENT

The North Dakota Parks and Recreation Department – Natural Resource Division (NDPRD) scope of authority and expertise covers recreation and biological resources (in particular rare species and ecological communities). The NDPRD also maintains a database identifying the location and recorded occurrences of plant and animal species of special concern.

On September 19, 2014 ONEOK received confirmation that the NDPRD completed a review of the Project. The NDPRD confirmed that there have been no documented occurrences of species or ecological communities of concern in within the Site or Study Area, and the Project as defined will not affect state park lands or Land and Water

Conservation Fund recreation projects. See Appendix C for a copy of the correspondence.

2.3.6 NORTH DAKOTA STATE HISTORIC PRESERVATION OFFICE

The North Dakota State Historical Society (NDSHPO) is responsible for managing the cultural (historical and archaeological) resources of the state. E3 was retained by ONEOK to investigate cultural resources at the proposed Project Site and Study Area and report the results to the NDSHPO.

On August 14, 2014, E3 conducted a Class I Cultural Resource Inventory of the Site and Study Area. This literature review included a search of NDSHPO records and the GLO Plat maps maintained digitally by the Bureau of Land Management to identify any previous cultural resource investigations and previously recorded cultural resources in the Project Site and the Study Area. No previously recorded cultural resources were identified in the Site or Study Area.

On August 20, 2014, E3 conducted a Class III Cultural Resource Inventory of the Site. The Site can be classified as an agricultural field. One newly recorded cultural resource was documented in the Project Site, which appeared to be a foundation remnant.

E3 compiled a report that detailed the results of the literature review and field survey. The report concluded that the newly recorded cultural feature is not eligible for the National Register of Historic Places, and that the Project be granted a determination of *No Significant Sites Affected* and *No Historic Properties Affected*. See Appendix E for a copy of this report.

On September 9, 2014, ONEOK submitted the cultural resource report to the NDSHPO. The purpose of this correspondence was to provide project notification to the agency, supply the agency with survey results and associated cultural resource analysis, and to afford the agency the opportunity to review the Project and the information provided. On September 23, 2014, NDSHPO issued a concurrence with a *No Significant Sites Affected* determination for the Project. See Appendix C for a copy of the correspondence.

2.3.7 NORTH DAKOTA DEPARTMENT OF TRUST LANDS, MINERALS AND SURFACE MANAGEMENT

The North Dakota Department of Trust Lands (NDDTL) is responsible for managing surface acres and mineral interests held in trust for various schools and institutions.

On September 8, 2014, ONEOK provided project notification to the NDDTL affording the agency the opportunity to review the Project and to confirm the presence or absence of surface or mineral trust lands located within the Site and Study Area. The NDDTL Surface Management Division responded on September 12, 2014 and confirmed the absence of surface interests in the Site. However, a surface interest was identified in the southern ½ of Section 16, T151N, R96W, which is located within the Study Area just northeast of the proposed Project. A preliminary review of publicly available mineral trust lands information concluded that Sections 16 and 21, T151N, Range 96W intersect

with mineral interests within the Study Area, and are located northeast and east of the proposed Project. A response from NDDTL Mineral Trust Division is pending. See Appendix C for a copy of the correspondence.

2.3.8 NORTH DAKOTA DEPARTMENT OF HEALTH

The North Dakota Department of Health (NDDoH) administers regulatory programs that monitor and enforce compliance with state and Federal laws related to air and water quality. ONEOK is currently engaged at various stages in the permitting process with the NDDoH with respect to air emissions and water discharges.

2.3.8.1 NDDOH AIR QUALITY

The NDDoH administers the state's air quality protection programs. ONEOK is applying for the required permits for construction and operation of the new emission sources. Equipment such as electric-driven compressors, heat medium fluid heaters, storage vessels, flares, and other ancillary equipment could be regulated emission sources and will be included in the permit application required by NDDoH for the construction and operation of air emission sources.

ONEOK's design plans include incorporating the control measures to minimize total emissions for the Plant and ascertain compliance with all state and Federal rules. The estimated total emissions for the Plant have not been finalized.

ONEOK will obtain an NDDoH Air Pollution Control Permit to Construct (PTC) that will address net potential emissions from the Plant.

2.3.8.2 NDDOH POLLUTION DISCHARGE ELIMINATION SYSTEM

The North Dakota Pollution Discharge Elimination System (NDPDES) is the regulatory program that regulates water discharges. ONEOK will procure the following NDPDES permits from the NDDoH for regulated discharges associated with the construction and operation of the Plant.

Construction Stormwater: ONEOK will be seeking coverage under NDR10-0000 *Authorization to Discharge Under the North Dakota Pollutant Discharge Elimination System* general permit for construction sites as required when disturbing an area greater than five acres during construction. This permit also provides authorization for site dewatering. A project-specific erosion control plan, referred to as Storm Water Pollution Prevention Plan (SWPPP), will be prepared and maintained on-site for the duration of the Project. ONEOK will properly implement the SWPPP which will be designed to manage run-off in a manner to minimize exposure to chemicals, waste, or petroleum products and to describe erosion control measures designed to minimize off-site transfer of sediments.

Hydrostatic test water discharges: ONEOK will seek coverage under NDG07-0000 *Authorization to Discharge Under the North Dakota Pollutant Discharge Elimination*, a general permit for hydrostatic test water discharges.

Industrial discharges: ONEOK will not seek an industrial discharge permit for stormwater, given the applicability of exemptions from certain federal and/or state permit requirements. See 40 CFR §122.26 and NDAC 33-16-01-01.1(4).

SECTION 3: NEED FOR FACILITY

3.1 ANALYSIS OF NEED BASED ON PRESENT AND PROJECTED DEMAND, INCLUDING SYSTEM STUDIES

Hydrocarbon production in the Bakken Shale and Three Forks formations of the Williston Basin has witnessed a steady increase over the 24 month period ending in July 2014. The ND Department of Mineral Resources (DMR) reported a one month increase in natural gas production of an estimated 3 percent (approximately 40 MMCFD volume equivalent) in July 2014. The DMR issued 785 drilling permits in the three month period from June through August 2014 providing a strong indication that recent trends in both drilling and ensuing production will continue in the region.

The increase in gas production from Bakken and Three Forks wells has exceeded the existing processing capacity available in the region, and construction of additional processing capacity is required to meet the demand of area producers. Absent the construction of additional processing capacity, gas produced in association with oil production must be flared, which is a loss of revenue to the producers, royalty owners, and a concern of the North Dakota Industrial Commission (NDIC).

On July 1, 2014, the NDIC strengthened its position on flaring by adopting an additional policy designed to reduce flaring by promoting gas capture at the wellhead throughout the state. The policy has a stated goal to reduce incrementally the number of wells flaring from the long term average of approximately 30 percent down to 5 percent by 2020. To comply with the policy, producers will be required to develop a gas capture plan identifying the anticipated volume of gas to be produced and infrastructure to be utilized for processing. Producers who fail to comply may be required to curtail production.

Gas gathering and processing is a non-discretionary service that is required for the marketing and sale of natural gas produced in association with oil. ONEOK is an established provider of these services throughout the state. This Project is a key component in supporting the NDIC gas capture policy objectives. The Demicks Lake Gas Plant has an aggregate design capacity of 400 MMscfd and will provide gas processing services for an estimated 400 MMscfd.

3.2 DESCRIPTION OF FEASIBLE ALTERNATIVE METHODS OF SERVING THE NEED

A thorough analysis of all reasonable alternatives was conducted. Various factors were considered by ONEOK, including engineering, economic, and environmental factors in multidisciplinary and iterative fashion. This process identified the following alternatives.

No Action Alternative: Overall regional production would continue to be constrained by gas processing capacity, resulting in increased flaring at well head and loss of natural resources. This alternative is not desirable.

Expansion of Existing Processing Facilities: ONEOK initially considered the expansion of its existing gas processing assets in the region. This included three gas processing plants located in McKenzie County.

The Grasslands Plant was expanded from 60 MMscfd to 100 MMscfd in 2009 when Bakken formation wells were first drilled in the Elm Coulee Field in Richland County, Montana. However, ONEOK concluded that further expansion of the Grasslands Plant was uneconomical due to (1) a lack of sufficient space and limited capacity of peripheral equipment at the Grasslands Plant to accommodate further expansion, and (2) a lack of capacity in ONEOK's high pressure gathering system to deliver significant volumes of gas production from northern and eastern McKenzie County to the Grasslands Plant. The Grasslands Plant is approximately 70-80 miles from the area where the production is currently being developed, thus, this alternative is not desirable.

ONEOK also considered sending additional gas to the Garden Creek Gas Plant located near Watford City in McKenzie County. Development at this site has expanded incrementally to meet rising production volumes. The construction of Garden Creek 2 Plant and Garden Creek 3 Plant were in response to increased production volumes. Further expansion of this facility is constrained by available space and as such this alternative is not desirable.

Additionally the Lonesome Creek Gas Plant, currently under construction, was considered. The potential processing capacity of this facility was evaluated relative to local production levels. Project planners have forecasted that the existing design capacity of this facility as well as the additional capacity that could be developed in the future is necessary to support current and forecasted gas volumes that are produced locally. For this reason this alternative is not viable.

Alternative Plant Location: Alternative locations near the current site with different landowners, and with different parcels from the same landowner, were also considered but were found to have greater indirect impact to area resources as each alternative site considered would require installation of additional infrastructure (e.g., access roads, utilities, and delivery pipelines) due, in part, to an increased distance from ONEOK's existing gas gathering system delivering gas to the Plant. This alternative is not desirable.

3.3 10-YEAR PLAN

ONEOK's most recent 10-year plan was filed August 6, 2012 (PU-12-673) and is included as Appendix F. The Demicks Lake Plant includes two Plants (or Trains), I and II: Plant I was listed in the 10 year plan as a "Proposed Energy Conversion Facilities during the next 5 year time period" in Section C; and Plant II was listed in the 10 year plan as a "Proposed Energy Conversion Facilities during the next 10 year time period" in Section D.

SECTION 4: LOCATION

4.1 STUDY AREA

ONEOK's Study Area included a 1-mile wide area surrounding the 160-acre Site as shown in Appendix B. ONEOK initiated agency correspondence, Geographic Information System mapping, internet based research and desktop analysis when conducting the resource inventory of the Site. These efforts were augmented with biological and cultural resource surveys of the Site.

4.2 IDENTIFY AND MAP CRITERIA

The information presented in this section was developed to demonstrate conformance with the Commission's siting criteria for Energy Conversion Facilities. ONEOK has conducted a thorough inventory of the Study Area and evaluated the resources that occur within the Site and Study Area sufficiently to assess the compatibility of the Plant with the state's siting criteria. The following sections identify and discuss the presence or absence of siting criteria within the Site or Study Area.

4.3 EXCLUSION AREA INVENTORY AND ANALYSIS

Exclusion areas are geographic areas that should be excluded from consideration when siting an Energy Conversion Facility. The following table and text identify and discuss exclusion areas identified within the Site or Study Area.

Exclusion Area		Project Site	Within Study Area
Federal			
	National Parks or Memorial Parks	No	No
	Historic Sites, Districts, or Landmarks	No	No
	Natural Landmarks or Monuments	No	No
	Wilderness Areas or Wildlife Areas	No	No
	Wild, Scenic or Recreational Rivers	No	No
	Wildlife Refuges or Grasslands	No	No
State			
	Parks, Forest or Forest Management Lands	No	No
	Historic Sites, Monuments, or Historical Markers	No	No
	Archaeological Sites	No	No
	Grasslands	No	No
	Wild, Scenic or Recreational Rivers	No	No
	Game Refuges or Game Management Areas	No	No
	Management Areas	No	No

Exclusion Area		Project Site	Within Study Area
	Nature Preserves	No	No
County			
	Parks	No	No
	Recreation Areas	No	No
	Municipal Parks	No	No
Other			
	Parks or public lands held by other government entities.	No	Yes
	Prime Farmland	Yes	No
	Irrigated Farmland	No	No
	Critical habitat for protected species	No	No
	Areas within 1,200 feet of ICBM facilities	No	No

4.3.1 FEDERAL RESOURCE REVIEW

Based upon a review of publicly available information, ONEOK has concluded that there are no national parks, memorial parks, historic sites and landmarks, monuments, or wilderness areas within the Site or Study Area. ONEOK has provided project notification to the appropriate Federal agencies to offer the opportunity to review and confirm this conclusion. See Section 2 for a comprehensive discussion of ONEOK's correspondence.

4.3.2 STATE RESOURCE REVIEW

Based upon a review of field surveys, publicly available information, and agency correspondence, ONEOK has concluded that there are no state parks, historic sites, monuments, historical markers, archaeological sites, or nature preserves within the Site.

The NDDTL-Surface Management Division responded to ONEOK's project notification on September 12, 2014 and confirmed the absence of surface interests in the Site; however, a surface interest was identified in the southern ½ of Section 16, T151N, R96W, which is located within the Study Area just northeast of the proposed Project.

ONEOK has identified NDDTL-Mineral Management Division interests located within the Study Area in Sections 16 and 21, T151N, R96W; though none were identified within the Site.

ONEOK has provided project notification to various state agencies to offer the opportunity review and confirm these conclusions. A response from NDDTL Mineral Trust Division is pending. See Section 2 for a comprehensive discussion of ONEOK's efforts and Appendix C for related Agency Correspondence.

4.3.3 COUNTY RESOURCE REVIEW

Based upon a review of publicly available information, ONEOK has concluded that there are no county parks, recreation areas, municipal parks, or parks owned by other

subdivisions of government bodies within the Site or Study Area. ONEOK provided project notification to various agencies to offer the opportunity review and confirm this conclusion. See Section 2 for a comprehensive discussion of ONEOK's efforts.

4.3.4 PRIME FARMLAND

ONEOK conducted a review of published data to assess both the Site and Study Area for the presence of Prime Farmland. ONEOK confirmed that approximately 5 percent (8.7 acres) of the Site is comprised of Prime Farmland; no other Prime Farmland was recorded in the remainder of the Study Area.

This analysis also evaluated Farmland of Statewide Importance. Generally, Farmland of Statewide Importance includes areas considered nearly Prime Farmland and has the potential to produce economically high yields of crops when treated and managed according to acceptable farming methods. This analysis concluded that approximately 92.5 acres or 58 percent of the Site has been characterized as Farmland of Statewide Importance. An additional 262 acres of this United States Department of Agriculture mapping unit was recorded within the Study Area.

North Dakota has an estimated 9,761,025 acres of Prime Farmland and an estimated 10,063,663 acres of Farmland of Statewide Importance. As such, the acreages within the Project Site represent approximately 0.00009 percent and 0.0009 percent of the total Prime Farmland and Farmland of Statewide Importance in North Dakota, respectively. Thus, the proposed development of the Site will not have a significant impact on Prime Farmland or Farmland of Statewide Importance when assessed on a statewide basis.

4.3.5 IRRIGATED FARMLAND

ONEOK's investigation found no evidence of irrigation within the Site or Study Area.

4.3.6 PROTECTED SPECIES RESOURCE REVIEW

ONEOK conducted field surveys of the Site and reviewed published information, and has concluded that there are no areas critical to the life stages of threatened or endangered animal or plant species within the Site or Study Area. In addition to field studies, ONEOK has provided project notification to Federal and state agencies to offer the opportunity to review and confirm this conclusion. See Section 2 for a comprehensive discussion of ONEOK's efforts.

4.3.7 CRITICAL HABITAT FOR PROTECTED SPECIES

ONEOK augmented agency notifications with field studies of the Site. Based upon these efforts ONEOK has confirmed the absence of critical habitat within the Site or Study Area. See Section 2 for a comprehensive discussion of ONEOK's efforts.

4.3.8 AREAS IN PROXIMITY TO ICBM FACILITIES

Based upon information compiled by the University of Wyoming regarding current and historic missile site locations, which was comprised of both tabular data describing

these sites and supported with additional aerial imagery for each Minot Air Force Base Minuteman Intercontinental Ballistic Missile (ICBM) site, ONEOK has confirmed the absence of ICBM facilities within 1,200 feet of the Site.

4.4 AVOIDANCE AREA INVENTORY AND ANALYSIS

Avoidance Area		Project Site	Within Study Area
Other			
	Other Historic Resources not meeting Exclusion Areas criteria	No	No
	Areas within City Limits or Military Installation Boundaries	No	No
	Areas within Known 100-Year Floodplains	No	No
	Areas of Known Geologic Instability	No	No
	Woodlands and Wetlands	Yes	Yes
	Areas of Recreational Significance not categorized as Exclusion Areas	No	No

4.4.1 OTHER HISTORICAL RESOURCES NOT MEETING EXCLUSION AREA CRITERIA

ONEOK commissioned a Class I study of the Site and Study Area, and Class III cultural resource survey of the Site; these studies resulted in the documentation of one historical resource on the Site. The historical resource was recommended *Not Eligible* to the National Register of Historic Places, and on September 9, 2014 ONEOK submitted survey results to the NDSHPO for review and comments seeking concurrence with this conclusion. On September 23, 2014, ONEOK received NDSHPO concurrence and no further work is recommended regarding the historical resource. See Section 2 for a comprehensive discussion of ONEOK's efforts.

4.4.2 AREAS WITHIN CITY LIMITS OR MILITARY INSTALLATION BOUNDARIES

ONEOK has confirmed that the Site and Study Area are not located within city limits or within the boundaries of military installations.

4.4.3 AREAS WITHIN KNOWN 100-YEAR FLOODPLAINS

Flood hazards are benchmarked with Federal Emergency Management Administration's (FEMA) 100-year floodplain analysis. Preliminary floodplain mapping has been

completed by FEMA in McKenzie County. Analysis of the Site and Study Area determined that this area is located within the mapped Zone X (non-floodplain). Therefore, the Site and Study Area are not located within the 100-year or 500-year floodplain.

4.4.4 AREAS OF KNOWN GEOLOGIC INSTABILITY

There are no known areas of geological instability within the Site or Study Area. North Dakota has not experienced an earthquake of sufficient magnitude to damage welded steel piping or structural steel in recorded history. Sink holes are known to occur in North Dakota but are more closely related to mining activities and no evidence of mining or sink holes were identified. Finally, the potential for landslides was evaluated using the North Dakota Geological Survey's Areas of Landslides, Demicks Lake 24K Quadrangle and Keene 24K Quadrangle, North Dakota. Desktop analysis indicated that no landslide deposits are located in the Site or Study Area; the nearest reported deposit occurs outside of the Study Area and is located along the eastern bank of Demicks Lake (Sec. 19, T151N, R96W).

4.4.5 WOODLANDS AND WETLANDS/WATERBODIES

Natural resource studies of the Study Area and Site utilized GIS analytical capabilities. Field studies of Site were also utilized to enhance assessment of the physical characteristics of the Site. This analysis relied upon field verification to confirm the presence or absence of natural resources found within the Site.

A comprehensive field survey of the entire Site was conducted on August 21, 2014, to assess the presence or absence of these features within the boundaries of the Site. The Site was evaluated for the presence of trees, saplings or shrubs. Woody vegetation present on the Site consists of silver buffaloberry (*Symphoricarpos occidentalis*) shrubs and is limited to an area 0.02 acres in size. Woody vegetation within the surrounding Study Area is sparse and limited to woody draws and ravines associated with drainage ways.

Field surveys identified one ephemeral stream which originates on the west boundary of the Site and flows northeast into the NHD mapped waterbody. Hydrophytic vegetation was not present within or adjacent to the stream. This flowage is ephemeral in nature, with water present only during spring snowmelt and is not under the USACE's jurisdiction. Field survey of the Site included an attempt to locate the NHD mapped feature, however the results of these efforts determined that no Ordinary High Water Mark or other evidence of a waterbody is present within the area of the NHD mapped waterbody. Desktop analysis identified other mapped wetlands and waterbodies within the Study Area that appear to be closely associated with drainage patterns and collection points influenced by the local topography.

Ephemeral drainages are non-jurisdictional by definitions outlined in the *Ordinary High Water Mark Delineation Manual for Section 404 Waters* (1995). However, the USACE has final authority on jurisdictional status. ONEOK has engaged the USACE regarding the

jurisdictional status of the wetland and waterbody features delineated on the Site. See Appendix D for the detailed natural resource report and Appendix C for a copy of related agency correspondence.

4.4.6 AREAS OF RECREATIONAL SIGNIFICANCE NOT CATEGORIZED AS EXCLUSION AREAS

No areas of recreational significance occur within the Site or Study Area.

4.5 FACTORS TO BE CONSIDERED IN EVALUATING APPLICATIONS AND DESIGNATION OF SITES, CORRIDORS AND ROUTES (SECTION 49-22-09, N.D.C.C.)

4.5.1 SELECTION CRITERIA

The selection criteria require a study of environmental impacts and changes in land use that may result from the siting of the proposed facility. The results of this effort are presented below.

4.5.1.1 AGRICULTURAL IMPACT ASSESSMENT

Agricultural Production: The Plant will remove approximately 160 acres of tillable land from agricultural production. This parcel represents the minimum amount of surface area necessary to develop the gas processing capacity with current design specifications while maintaining minimum spacing requirements for the equipment, and installation of necessary peripheral equipment such as a flare, power substation, roads, and continually occupied office building.

Family Farms and Ranches: The property is being acquired through a purchase agreement negotiated by ONEOK and the landowner. The Site will be converted from agricultural/rangeland to industrial use. No other impacts to family farms or ranches are anticipated.

Lands Suitable for Irrigation: Construction activity will not impact irrigated lands. Land that is most efficient for irrigation is relatively level and has soils that are well drained and highly permeable. The combination of topographic relief and soil characteristics at the Site indicate that the Site is not suitable for irrigation. No above-ground irrigation systems have been identified in the Site or Study Area.

Surface Drainage: The Site is within the Upper Clear Creek watershed. USGS NHD mapping and aerial photography indicates the presence of a water flowage originating at the center of the Site and draining to the northwest corner of the Site. This waterbody flows northwest to its confluence with Clear Creek which continues northwest to Tobacco Garden Creek and ultimately Lake Sakakawea approximately 14.5 miles northwest of the Site.

Ground Water: The Site is located within the McKenzie County Water Resource District (Rural Water Association) and Western Area Water Supply (WAWS). ONEOK will be seeking a permit to install a ground water well to provide a source of water during construction and as a source of utility water to the office building after construction.

Water demands during and after construction are anticipated to be minimal. ONEOK expects the permitting process associated with siting the well will ensure that the resource will be sufficient to support the anticipated demand without impacting other current or anticipated beneficial use of the resource.

Agricultural Quality of the Cropland: Land acquired for the Plant will be permanently removed from agricultural production. No other impact to agricultural lands is anticipated.

4.5.1.2 IMPACT UPON THE AVAILABILITY AND ADEQUACY OF LOCAL PUBLIC SERVICES:

The potential impacts to local public services including law enforcement, fire department, health care, public schools, and recreational facilities are anticipated to be temporary in duration and minimal in their overall effect to existing programs and systems. Construction activities are anticipated to occur over an 18 to 24 month period for each Train. During this period, there will be an influx of employees ranging from laborers, skilled trades, technicians, engineering and environmental professionals. The work force will typically engage 250 individuals, with periods of peak activity where the workforce will increase to levels of up to 300 individuals for a period of up to 6 months.

Area resources may experience increased demand on services with the addition of construction workers temporarily residing in the area. The peak demands will likely occur in 2015. The most noticeable impact may be due to an increase in vehicle traffic associated with the Plant.

Prior to construction, ONEOK will coordinate with local health care providers and emergency responders to discuss emergency response coordination.

4.5.1.3 POTENTIAL IMPACTS

Local Institutions: Due to its proximity to the Site, Watford City, ND may see the greatest impact from the Project. These impacts from facility construction will be temporary, as construction will occur over a period of 18-24 months for each Train. Once operational, the Plant will employ approximately 25 full time employees to operate the facility. Plant operations will engage local businesses and contractors to support the facility. Generally, the impacts will be beneficial to the local economy due to the addition of revenues from outside of the community being spent on goods and services locally. The beneficial impacts of the additional workforce associated with permanent workforce required to operate the facility will have long term benefits on the economy that are anticipated to be greater than the demands placed upon the institutions.

Noise-Sensitive Land Uses: There are no noise-sensitive resources located within 500 feet of the Site. ONEOK did not identify any dwellings within the proposed Site, however, two dwellings were identified within the Study Area. The Project has been sited approximately 13.5 miles northeast of Watford City in a rural setting, effectively isolating the Project from the majority of sensitive receptors. Local residents may experience additional motor vehicle volumes on area roadways, but the noise associated with

vehicles will be similar to existing background levels and occur largely during normal business hours.

Rural Residences and Businesses: The Project is located approximately 13.5 miles from Watford City. Residents may experience additional traffic congestion and an increase in commerce in response to the influx of temporary workers purchasing goods and services. The Plant will likely benefit the local economy for both the near and long term.

Aquifers: The aquifers that underlay North Dakota are typically associated with two types of geologic formations, specifically bedrock and glacial drift. Bedrock aquifers in the area are known to occur from 3,000 to 5,000 feet below the surface, while glacial drift aquifers are known to occur at depths of from a few feet to up to 500 feet below the surface. Ground water suitable for domestic and livestock supplies in McKenzie County is available from three aquifer systems in semi-consolidated rocks of Late Cretaceous and Tertiary age. In McKenzie County, the Fox Hills and basal Hell Creek aquifer system is used as a source for livestock and domestic supplies. This aquifer system generally is 1,100 to 1,800 feet below land surface. Tertiary age aquifers are limited in use due to chlorides and dissolved solids. Ground water is also available from aquifers in unconsolidated sand and gravel of Quaternary age that is suitable for domestic, livestock, municipal, industrial, and irrigation uses. Six of these aquifers occur in McKenzie County; the Bennie Peer, Charbonneau, Cherry Creek, Little Missouri River, Tobacco Garden, and Yellowstone-Missouri aquifers. The proposed Project is not located within any of these ground water resource areas.

Human Health and Safety: ONEOK promotes a safe and healthy workplace during construction and operations of all its assets. A corporate policy that meets or exceeds Federal and state laws, rules and regulations is enforced and adhered to by all employees and contractors. ONEOK governs operations and construction activities with safe work procedures designed to protect property and personnel and maintain regulatory compliance.

Animal Health and Safety: The wildlife currently inhabiting the Site are common and are generally mobile. The local wildlife inhabitants will be displaced by the Project without a measurable impact to the viability of these populations. No species of special concern are anticipated to experience direct impacts due to construction or operation of the Plant.

Plant Life: The Project will result in the loss of negligible amount of pasture land, when measured on a county- or state-wide basis. No species of special concern will be impacted by the Project.

Temporary and Permanent Housing: The region has experienced increased demand for permanent and temporary housing as the result of the continued expansion of resource production. The area has witnessed this increased activity since the early 2000's and as a result has steadily increased lodging resources in response. The

temporary work force is expected to be well aware of the situation and willing to accept non-traditional lodging opportunities such as work camps if necessary.

Temporary and Permanent Skilled and Unskilled Labor: Construction of the Demicks Lake Plant will require a work force of approximately 250 to 300 temporary employees. The construction employees will be comprised of both skilled and unskilled personnel. Skilled labor will include craft workers such as operating engineers, iron workers, welders, electricians, carpenters and boilermakers. The unskilled workforce will be comprised of common laborers who work closely with the skilled trades.

Once the Plant is operational, it will require approximately 25 full-time employees. These personnel will be responsible for day-to-day operations, maintenance, and support of local gathering assets that supply the Plant.

4.5.2 CUMULATIVE EFFECTS OF THE LOCATION OF THE FACILITY IN RELATION TO EXISTING AND PLANNED AND FACILITIES AND OTHER INDUSTRIAL DEVELOPMENT

ONEOK is not aware of any new planned facilities or industrial developments at the Site. The introduction of additional gas processing capacity may expose existing demand that may result in development of additional gathering capacity. Also as a result of new processing capacity, there may be development of additional take-away capacity to bring the product to market.

4.6 POLICY CRITERIA

The Commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in some cases may require the adoption of such policies and practices. The Commission may also give preference to an applicant that will maximize interstate benefits.

4.6.1 POLICIES AND COMMITMENTS TO LIMIT ENVIRONMENTAL IMPACT

ONEOK is committed to conducting its business in compliance with all applicable environmental laws and regulations. These laws and regulations are designed to safeguard the environment, human health, wildlife, and natural resources. Our commitment to observe them faithfully is an integral part of our business and our values.

ONEOK will make compliance with environmental considerations contained in the permits and authorizations received for this Project a priority. ONEOK will conduct its activities with the objectives of providing a healthful and safe workplace for our employees, preventing accidents and environmental incidents, and controlling emissions and wastes to below harmful levels.

All persons and firms providing service to ONEOK are required to conduct their work in compliance with environmental conditions, permit authorizations, and regulations, and will be held accountable for their actions in that regard.

4.6.2 RECYCLING OF THE CONVERSION BYPRODUCTS AND EFFLUENTS

Not applicable to this type of Project.

4.6.3 ENERGY CONSERVATION THROUGH LOCATION, PROCESS AND DESIGN

The siting of the Plant in close proximity to wellhead and gathering systems reduces emissions associated with shipping raw feed gas over greater distances. Waste energy is generated in the expansion of cooled inlet gas to the cryo-thermal gas plant. The gas is first chilled to condense liquids. After separation, the temperature of the gas is then lowered further via the process of throttling expansion in the expander section of the turbo-expander. The expander is tied to a compressor by an integral shaft to compress gasses from the stabilizer overhead prior to the residue compressors. The mechanical efficiencies of the turbo-expanders can achieve 90 percent.

4.6.4 TRAINING AND UTILIZATION OF AVAILABLE LABOR IN THIS STATE FOR THE GENERAL AND SPECIALIZED SKILLS REQUIRED

Gas plant construction is a specialized niche construction market and the labor force needed to build the Plant will be primarily comprised of a non-local workforce. The primary contractor will be a non-local contractor, supplying specialized skilled labor. ONEOK will draw upon the local labor force to supply general laborers. The workforce is anticipated to reach a peak of approximately 300 personnel of which up to 10 percent could be drawn upon locally.

4.6.5 USE OF A PRIMARY ENERGY SOURCE OR RAW MATERIAL LOCATED WITHIN THE STATE

The raw feed gas supplying the proposed Plant will be produced from within North Dakota. Products from the Plant will be distributed for further processing, transmission or consumption by various inter and intra state parties.

4.6.6 NONRELOCATION OF RESIDENTS

No residences shall be displaced or require relocation due to the Project.

4.6.7 THE DEDICATION OF AN AREA ADJACENT TO THE FACILITY TO LAND USES SUCH AS RECREATION, AGRICULTURE, OR WILDLIFE MANAGEMENT

ONEOK does not own property adjacent to the proposed Project suitable for recreation, agricultural, or wildlife management purposes. The current land use of properties adjacent to the Project is agricultural/range land (see Appendix B).

4.6.8 ECONOMIES OF CONSTRUCTION AND OPERATION

ONEOK has sited the plant to be near current and projected future development. The location will also take advantage of close proximity to existing infrastructure including electrical power, gathering and discharge pipelines. The expander is tied to a compressor by an integral shaft to compress gasses from the stabilizer overhead prior to the residue compressors. The mechanical efficiencies of the turbo-expanders can achieve 90 percent. The Plant's location and design are clear examples of creating an economy of

scale project concept, achieving additional production capacity in the most minimally intrusive and most efficient way possible, in terms of new infrastructure development.

4.6.9 SECONDARY USES OF APPROPRIATE ASSOCIATED FACILITIES FOR RECREATION AND THE ENHANCEMENT OF WILDLIFE

Construction of the Plant will result in the development of an industrial facility and a setting not typically suitable for recreational or wildlife application.

4.6.10 USE OF CITIZEN COORDINATING COMMITTEES

ONEOK has established and maintained a good relationship with the local residents through its existing gathering and processing systems in the area. Through these relationships ONEOK has maintained several grass roots communication channels to inform local residents regarding the developments associated with the Plant. At the time of writing, ONEOK intends to meet both formally and informally with the following government and economic groups:

- Blue Buttes Township;
- McKenzie County Commission;
- McKenzie County Planning and Zoning Office;
- Watford City Chamber of Commerce.

ONEOK will engage with the McKenzie County Planning and Zoning Office to modify the zoning designation of the Site from Agricultural to Industrial Use.

4.6.11 A COMMITMENT OF A PORTION OF THE TRANSMITTED PRODUCT FOR USE IN THIS STATE

The raw feed gas supplying the proposed Plant will be produced from within North Dakota. Products from the Plant will be distributed for further processing, transmission or consumption by various inter and intra state parties.

4.6.12 LABOR RELATIONS

ONEOK does not anticipate encountering any adverse labor relations on this Project. The labor market in the Study Area is supportive of the oil and gas industry.

4.6.13 THE COORDINATION OF FACILITIES

ONEOK is actively engaged in the operation of a regional natural gas gathering infrastructure which is integrated into its gas processing facilities. The integrated approach allows for the most efficient utilization of existing infrastructure while fully capitalizing on the available processing capacity.

4.6.14 MONITORING OF IMPACTS

ONEOK will coordinate with its primary contractor(s), the oversight responsibilities for construction activities at the Site. Environmental responsibilities shall be coordinated in the same manner.

4.6.15 PROBLEMS RAISED BY FEDERAL AGENCIES, OTHER STATE AGENCIES, AND LOCAL ENTITIES

ONEOK has provided project notification to Federal, state, and local authorities who have various forms of oversight authority. To date, responses have been received from three of six agencies contacted, indicating that there will be no significant impacts associated with the proposed Project.

- The NDDTL-Surface Management Division responded on September 12, 2014 and confirmed the absence of surface interests in the Site; however, a surface interest was identified in the southern ½ of Section 16, T151N, R96W, which is located within the Study Area just northeast of the proposed Project. NDDTL advised ONEOK that any future development on this tract, including pipeline installation, will require coordination with agency to address potential restoration issues due to the soil characteristics at this location.
- The NDPRD response on September 19, 2014 recommended that ONEOK utilize native species to restore any areas impacted by the Project.

ONEOK will remain responsive to agency input through construction, restoration and operations.

SECTION 5: MITIGATIVE MEASURES

ONEOK's commitment to minimize environmental impacts is a key mitigation element. As described previously, ONEOK's design took into consideration various elements to maximize efficiencies while minimizing impacts to the environment. This combination of actions effectively mitigates the impacts of the Plant.

SECTION 6: LIST OF PREPARERS

Jeff Hammond

Project Engineer

ONEOK Partners, 100 W. Fifth Street, Tulsa, OK 74103

B.S. Chemical Engineering, Oklahoma State University. Mr. Hammond has 15 years of professional experience. As an engineer in the specialty chemical, petroleum, and natural gas industries, he has designed and overseen multiple projects.

Joseph Soerries, P.E.

Project Manager

ONEOK Partners, 100 W. Fifth Street, Tulsa, OK 74103

B.S., Mechanical Engineering, University of Tulsa. Mr. Soerries has worked in many different positions in the petroleum and natural gas industries for over 30 Years. As a project manager, he has managed over 10 natural gas processing plants in the past twenty years. Since 1982, Mr. Soerries has been a licensed Professional Engineer by examination in the State of Oklahoma.

William McCarthy, C.W.B.

Senior Environmental Compliance Analyst

E3 Environmental, LLC, 871 Jefferson Avenue, St. Paul, MN 55102

M.S. Wildlife Biology, University of Minnesota – Twin Cities; and B.S. Wildlife Biology, Michigan State University. Mr. McCarthy is an environmental compliance analyst with 18 years of environmental consulting experience working with various energy assets and regulatory agencies. As a compliance analyst he has managed the environmental requirements for facility siting, pipeline routing, Federal licensing, and various Federal, state and local permits. Mr. McCarthy is a certified wildlife biologist and in this role conducts and coordinates field studies, agency consultations, mitigation and avoidance plans.

Dan Woodward, RPA

Senior Archaeologist

E3 Environmental, LLC, 871 Jefferson Avenue, St. Paul, MN 55102

M.A. Anthropology (archaeology focus), California State University - Fullerton; and B.A. History, University of Florida. Mr. Woodward is a secretary of the interior qualified archaeologist with 15 years of environmental consulting experience working with various energy assets and regulatory agencies. As a senior archaeologist, he has overseen all phases of archaeological fieldwork from class I record searches and class III intensive surveys to detailed excavations and archaeological damage assessments. He has authored dozens of cultural resource technical reports fulfilling NHPA and NEPA cultural resource requirements. Mr. Woodward has also coordinated with multiple Native American groups and has met with interested Tribal representatives in the field

to address project concerns. Mr. Woodward has performed historic building analysis and authored built-environment technical reports. Mr. Woodward has also assisted with extensive paleontological fieldwork including surveys, monitoring, and salvage activities.

Lindsey Danielson

GIS Analyst

E3 Environmental, LLC, 871 Jefferson Avenue, St. Paul, MN 55102

Graduate Certificate in Geographic Information Science, St. Mary's University of Minnesota; B.S. Geoscience: Geology, Winona State University. Ms. Danielson is also working toward a M.S. in Geographic Information Science at St. Mary's University of Minnesota with concentrations in Homeland Security/Emergency Management as well as Natural Resource Management. Ms. Danielson has almost 3 years of professional experience creating and editing data from various sources and formats. She excels at advanced cartography, data management, and spatial analysis.

Erica Davis

Environmental Consultant

E3 Environmental, LLC, 871 Jefferson Avenue, St. Paul, MN 55102

M.S. Horticulture, University of Minnesota; and B.S. Business Administration: Marketing major, Suffolk University – Boston, MA. Ms. Davis has 4 years of professional experience involving Environmental Assessments, Environmental Impact Statements, regulatory review, environmental permitting and compliance. She has over 8 years of experience as a research scientist and teaching professional. Ms. Davis has consulted and worked collaboratively with units of government (e.g., municipal planners, parks and recreation departments, park districts, watershed districts, county, regional and state agencies), nursery and landscape businesses, growers and homeowners on issues pertaining to soil and water quality, natural resource conservation, environmental impacts, landscaping plant selection, and weed and pest management.

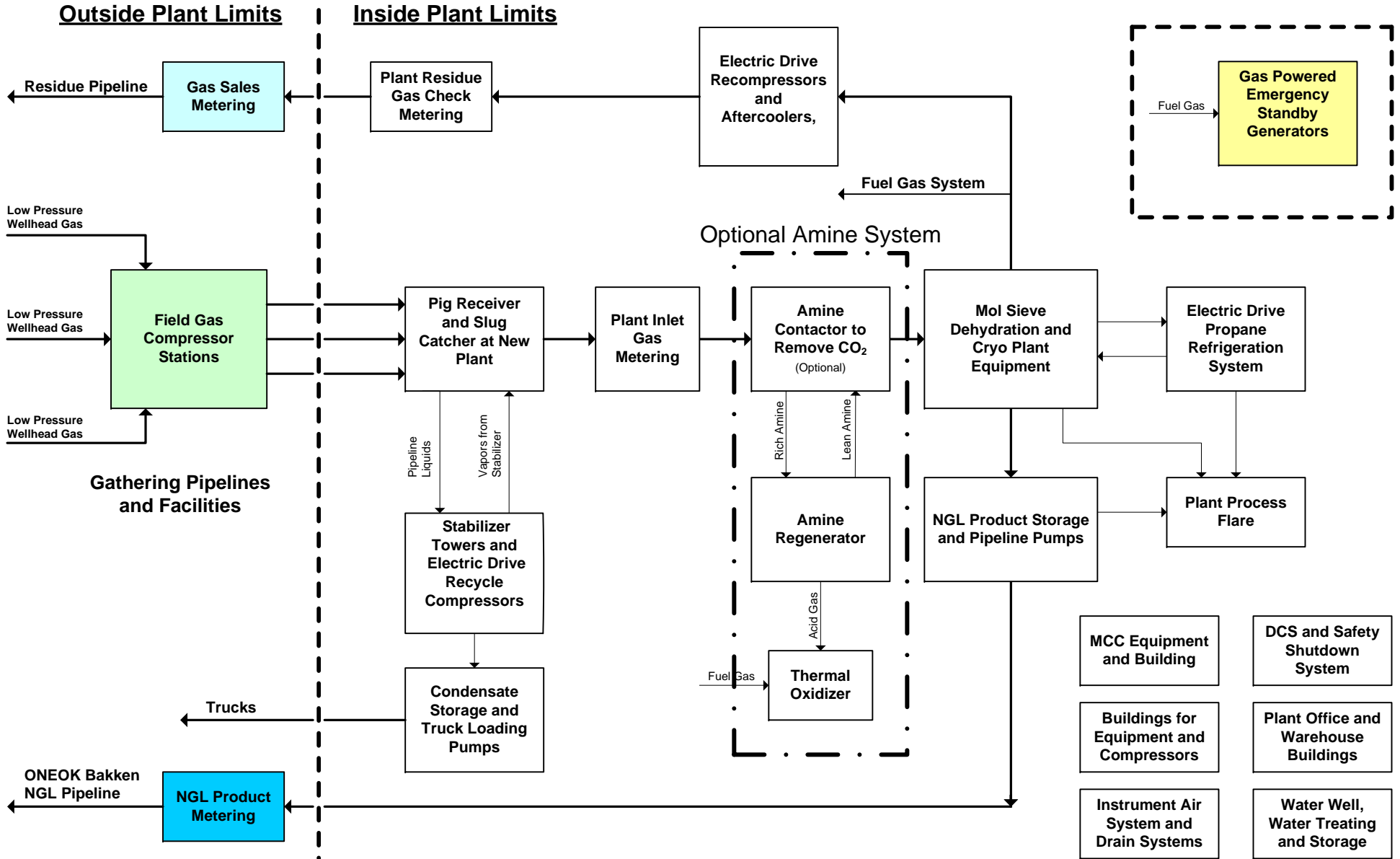
Appendix A

Engineering Documents

Plant and Gathering System

Block Diagram for the Demicks Lake Processing Plant

Sept 10, 2014



PROJECT DESIGN DATA

1.1 PLANT CAPACITY

Each train of the Demicks Lake Plant is designed with a nameplate capacity of 200 MMSCFD to accommodate the forecasted gas composition shown below. The trains must have enough incremental capacity to accommodate intra-day flow swings of approximately – 50 MMSCFD.

1.2 FEED STREAM FLOWS & COMPOSITIONS

Raw associated gas from oil production wells is designed to enter the plant fence at a pressure between 550 and 1100 psig at a temperature between 40 F and 90 F. The inlet slug catcher is rated to handle a maximum of 200 MMSCFD of inlet gas flow at 1,100 psig (MAWP). Raw inlet gas is limited to 4 ppm Hydrogen Sulfide. For the purposes of design, refer to the table below:

Components	Mol%	GPM
Nitrogen	2.079	
Carbon Dioxide	0.75	
Hydrogen Sulfide	0	
Methane	58.116	
Ethane	21.824	5.822
Propane	11.535	3.17
Iso-butane	1.101	0.3594
Butane	3.14	0.9874
Iso-pentane	0.471	0.1718
N-Pentane	0.653	0.2361
Hexane	0.199	0.144
Heptane	0.099	Included in
Octane Plus	0.033	Hexane GPM
Totals	100.000	Ethane + 10.89 GPM Propane + 5.069 GPM

1.3 BATTERY LIMIT CONDITIONS

Inlet gas conditions at the plant inlet

	Design	Maximum	Minimum
Gas Volume (MMscfd)	200	250	50
Gas Pressure (psig)	600	1100	550
Temperature (°F)	80	90	40

Hydrogen Sulfide (ppm)	3.0	4.0	0.0
Water Content (lbs water/MMscf)	Saturated	Saturated	0.0

1.4. PRODUCT SPECIFICATIONS

1.4.1 NGL Product Specifications

Y-Grade Product	Design	Maximum	Minimum
Pipeline MAOP (psig)	1,440	1440	N/A
Carbon dioxide to ethane liquid volume ratio	0.0035	0.025	N/A
Methane to ethane liquid volume ratio	0.01	0.015	0.05
Methane vol% of total hydrocarbons	N/A	0.5	N/A
Vapor pressure at 100 °F (psig)	550.0	600.0	N/A
Copper Strip test at 100 °F	N/A	N/A	No. 1
Minimum product temperature (°F)	60.0	N/A	40.0
Maximum product temperature (°F)			
- Product with >= 65 mol% ethane	80.0	90.0	N/A
- Product with < 65 mol% ethane	100.0	110.0	N/A

Natural Gasoline (Condensate)	Design	Maximum	Minimum
Reid Vapor Pressure at 100°F	13	14	12
Liquid vol% of Propane	0.0	0.0	None
Liquid vol% of Butanes	3.0	6.0	1.5
Liquid vol% of Pentanes	N/A	N/A	40
Liquid vol% of Hexanes and heavier	N/A	50	N/A

1.4.2 Residue Gas Pipeline Specifications

Residue Gas	Design	Maximum
Pressure (psig)	1,440	1650
Temperature (°F)	120	120
Water content (lbs/MMscf)	Nil	5.0
Hydrogen sulfide (ppm)	0.0	4.0
Gross higher heating value (BTU/ft ³)	N/A	1,200
Carbon dioxide (mol%)	0.0	2.0
Cricondentherm Temperature (°F)	N/A	20

ACCESS ROAD

17

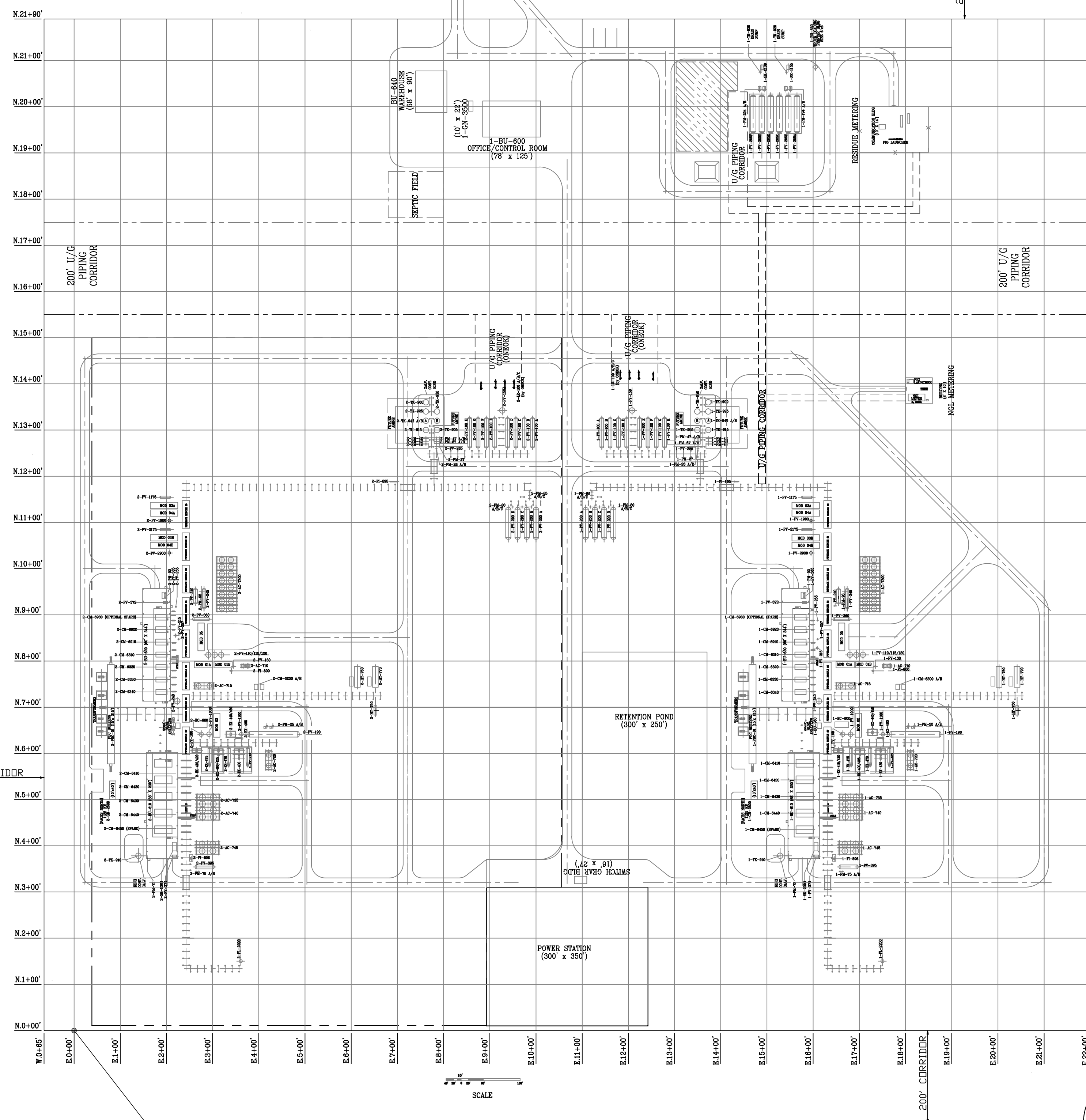
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21



MODULE EQUIPMENT LEGEND

- MODULE 01A - PROCESS MODULE
 - 1&2-FI-810 A/B INLET DUST FILTERS
- MODULE 01B - PROCESS MODULE
 - (KND EQUIPMENT - SWITCHING VALVES)
- MODULE 02 - PUMP MODULE
 - 1&2-PM-10 A/B LEFC BOTTOMS PUMPS
 - 1&2-PM-45 METHANOL INJECTION PUMP
 - 1&2-PM-380 METHANOL VESSEL
- MODULE 03A - STABILIZER MODULE UNIT 1
 - 1&2-EX-1507 SLUG CATCHER LIQUID HEATER
 - 1&2-EX-1515 FEED/BOTTOMS EXCHANGER
 - 1&2-FI-1865 A/B STABILIZER CDARSE FILTERS
 - 1&2-FI-1870 A/B STABILIZER CLAY FILTERS
 - 1&2-FI-1890 A/B STABILIZER FINE FILTERS
- MODULE 03B - STABILIZER MODULE UNIT 2
 - 1&2-EX-2507 SLUG CATCHER LIQUID HEATER
 - 1&2-EX-2515 FEED/BOTTOMS EXCHANGER
 - 1&2-FI-2865 A/B STABILIZER CDARSE FILTERS
 - 1&2-FI-2870 A/B STABILIZER CLAY FILTERS
 - 1&2-FI-2890 A/B STABILIZER FINE FILTERS
- MODULE 04A - STABILIZER MODULE UNIT 1
 - 1&2-EX-1520 A/B STABILIZER REBOILERS
- MODULE 04B - STABILIZER MODULE UNIT 2
 - 1&2-EX-2520 A/B STABILIZER REBOILERS
- MODULE 05 - HOT OIL MODULE
 - 1&2-EX-505 A/B FEED GAS HEATER
 - 1&2-EX-555 FUEL GAS HEATER
 - 1&2-HE-555 START-UP FUEL GAS HEATER
 - 1&2-FI-915 A/B INLET GAS FILTERS
 - 1&2-PM-960 A/B/C HOT OIL PUMPS
 - 1&2-PM-970 A/B/C HOT OIL PUMPS
 - 1&2-PV-140 FUEL GAS SCRUBBER
- MODULE 20 THRU 27 - PIPERACK MODULES (KND EQUIPMENT)

OFF-MODULE EQUIPMENT LEGEND

- 1&2-AC-710 REGENERATION GAS COOLER
- 1&2-AC-715 EXPANDER/COMPRESSOR DISCHARGE COOLER
- 1&2-AC-720 PRODUCT COOLER
- 1&2-AC-730 REFRIGERANT CONDENSER
- 1&2-AC-735 RESIDUE GAS 1st STAGE DISCHARGE COOLER
- 1&2-AC-740 RESIDUE GAS 2nd STAGE DISCHARGE COOLER
- 1&2-AC-745 RESIDUE GAS FINAL COOLER
- 1&2-CM-6200 A/B REGENERATION GAS COMPRESSORS (B=SPARE)
- 1&2-CM-6310 REFRIGERATION COMPRESSOR
- 1&2-CM-6320 REFRIGERATION COMPRESSOR
- 1&2-CM-6330 REFRIGERATION COMPRESSOR
- 1&2-CM-6340 REFRIGERATION COMPRESSOR
- 1&2-CM-6410 RESIDUE GAS COMPRESSOR
- 1&2-CM-6420 RESIDUE GAS COMPRESSOR
- 1&2-CM-6430 RESIDUE GAS COMPRESSOR
- 1&2-CM-6440 RESIDUE GAS COMPRESSOR
- 1&2-CM-6450 RESIDUE GAS COMPRESSOR (SPARE)
- 1&2-CM-6910 STABILIZER OVERHEAD COMPRESSOR
- 1&2-CM-6920 STABILIZER OVERHEAD COMPRESSOR
- 1&2-CM-6930 STABILIZER OVERHEAD COMPRESSOR (OPTIONAL SPARE)
- 1&2-EC-600 EXPANDER/COMPRESSOR
- PLATEFIN - 2 UNITS
 - 1&2-EX-400 A/B GAS/GAS EXCHANGER
 - 1&2-EX-425 A/B REGENERATION GAS EXCHANGER
- PLATEFIN - 1 UNIT
 - 1&2-EX-410 COLD GAS/GAS EXCHANGER
 - 1&2-EX-420 SUB-COOLER
- PLATEFIN - 3 UNITS
 - 1&2-EX-430 A/B/C HEFC SIDE HEATER
- PLATEFIN - 1 UNIT
 - 1&2-EX-440 HEFC REBOILER
 - 1&2-EX-450 PRODUCT EXCHANGER
- 1&2-EX-460 TRIM REBOILER
- 1&2-EX-465 FEED GAS CHILLER
- 1&2-EX-470 FEED GAS CHILLER
- 1&2-EX-475 HEFC OVERHEAD CHILLER
- 1&2-FI-800 INLET GAS FILTER SEPARATOR
- 1&2-FI-895 NGL PARTICULATE FILTER
- 1&2-FI-896 LUBE OIL SEPARATOR
- 1&2-FL-2200 FLARE
- 1&2-GN-2500 GENERATOR
- 1&2-GN-3500 GENERATOR (L.D.C. BY OFFICE/WAREHOUSE)
- 1&2-HT-750 REGENERATION GAS HEATER
- 1&2-HT-760 HOT OIL HEATER
- 1&2-HT-770 HOT OIL HEATER
- 1&2-LR-100 A/C PIG RECEIVERS (BY DNECK)
- 1&2-PM-25 A/B HEFC BOTTOM PUMPS
- 1&2-PM-28 A/B INTERMEDIATE FLASH VESSEL PUMPS
- 1&2-PM-42 METHANOL PUMP
- 1&2-PM-43 METHANOL TRANSFER PUMP
- 1&2-PM-72 LUBE OIL PUMP
- 1&2-PM-75 A/B FLARE LIQUIDS PUMPS
- 1&2-PM-80 A/B/C PRODUCT BOOSTER PUMPS
- 1&2-PM-85 A/B/C PRODUCT PIPELINE PUMPS
- 1&2-PM-92 SLOP WATER PUMP
- 1&2-PM-98 PROPANE MAKEUP PUMP
- 1&2-PM-194 A/B CONDENSATE PUMPS (STAB UNIT 1)
- 1&2-PM-294 A/B CONDENSATE PUMPS (STAB UNIT 2)
- 1&2-PV-100 A/H FEED GAS SLUG CATCHERS
- 1&2-PV-110 DEHYDRATOR
- 1&2-PV-115 DEHYDRATOR
- 1&2-PV-120 DEHYDRATOR
- 1&2-PV-130 REGENERATION GAS SCRUBBER
- 1&2-PV-150 INLET GAS RECEIVER
- 1&2-PV-160 COLD SEPARATOR
- 1&2-PV-190 PRODUCT SURGE TANK
- 1&2-PV-200 A/D PRODUCT STORAGE VESSEL
- 1&2-PV-205 A/B/C CONDENSATE STORAGE VESSEL (STAB UNIT 1)
- 1&2-PV-205 D/E/F CONDENSATE STORAGE VESSEL (STAB UNIT 2)
- 1&2-PV-210 REFRIGERANT SURGE VESSEL
- 1&2-PV-215 REFRIGERANT ECONOMIZER
- 1&2-PV-240 REFRIGERANT SUCTION SCRUBBER
- 1&2-PV-245 PROPANE STORAGE VESSEL
- 1&2-PV-255 STABILIZER OVERHEAD SCRUBBER
- 1&2-PV-257 FLASH GAS SCRUBBER
- 1&2-PV-285 INTERMEDIATE FLASH VESSEL
- 1&2-PV-360 HOT OIL EXPANSION TANK
- 1&2-PV-365 SLOP WATER VESSEL
- 1&2-PV-370 LUBE OIL DAY TANK
- 1&2-PV-372 LUBE OIL DAY TANK
- 1&2-PV-395 FLARE SCRUBBER
- 1&2-PV-1000 LIGHT ENDS FRACTIONATION COLUMN (LEFC)
- 1&2-PV-1175 STABILIZER FEED SEPARATOR (UNIT 1)
- 1&2-PV-1100 HEAVY ENDS FRACTIONATION COLUMN (HEFC)
- 1&2-PV-1900 STABILIZER (UNIT 1)
- 1&2-PV-2175 STABILIZER FEED SEPARATOR (UNIT 2)
- 1&2-PV-2900 STABILIZER (UNIT 2)
- 1&2-SK-1100 TRUCK LOADING SKID (STAB UNIT 1)
- 1&2-SK-2100 TRUCK LOADING SKID (STAB UNIT 2)
- 1&2-SK-2300 INSTRUMENT AIR PACKAGE
- 1&2-TK-910 LUBE OIL STORAGE TANK w/ 1-ZZ-910
- 1&2-TK-915 METHANOL TANK
- 1&2-TK-925 USED OIL TANK w/ 1-ZZ-925
- 1&2-TK-945 A/B SLOP WATER TANKS w/ 1-ZZ-945 A/B
- 1&2-TK-950 SLOP TANK w/ 1-ZZ-950

NOTES:

1. PLANT ELEVATION - 100'-0" = 2308'-0"

N. 332251.6560'
E. 1356368.3740'

LEGAL DESCRIPTION

The Northeast Quarter of Section 20, Township 151 North, Range 96 West of the Fifth Principal Meridian, McKenzie County, North Dakota.

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PROJECT NO. &AF2110A04G
LPP DWG. 000-LZP-1005

STATUS	ISSUE
B	1.0

REVISIONS				
NO.	DATE	DESCRIPTION	BY	CHK
A	10-03-14	FOR BASIC ENGINEERING - ISSUE FOR CLIENT PERMITTING	JAS	JT

QTR	TWSP	RNGE	SEC	INITIAL POINT	BLK NAME	BLK No
4						
SURVEY NAME		SURV No		ABSTRACT NAME		ABSTRACT No
DRW BY/DRW DATE		DES BY/APRD BY/SURVEY BY:				
PROJECT NAME		SCALE:				
		NONE				
AFE NO.:		CAD. NO.:				

ORIGINAL DWG BY: JAS
ORIGINAL DWG #: -
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ONEOK PARTNERS

ONEOK Rockies Midstream, L.L.C.

OVERALL PLOT PLAN FOR PERMITS

400 MMSCFD LIQUID RECOVERY UNIT

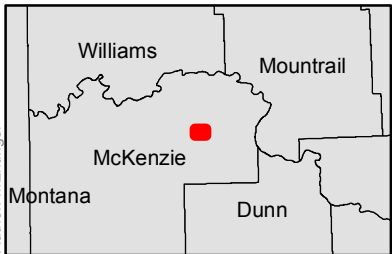
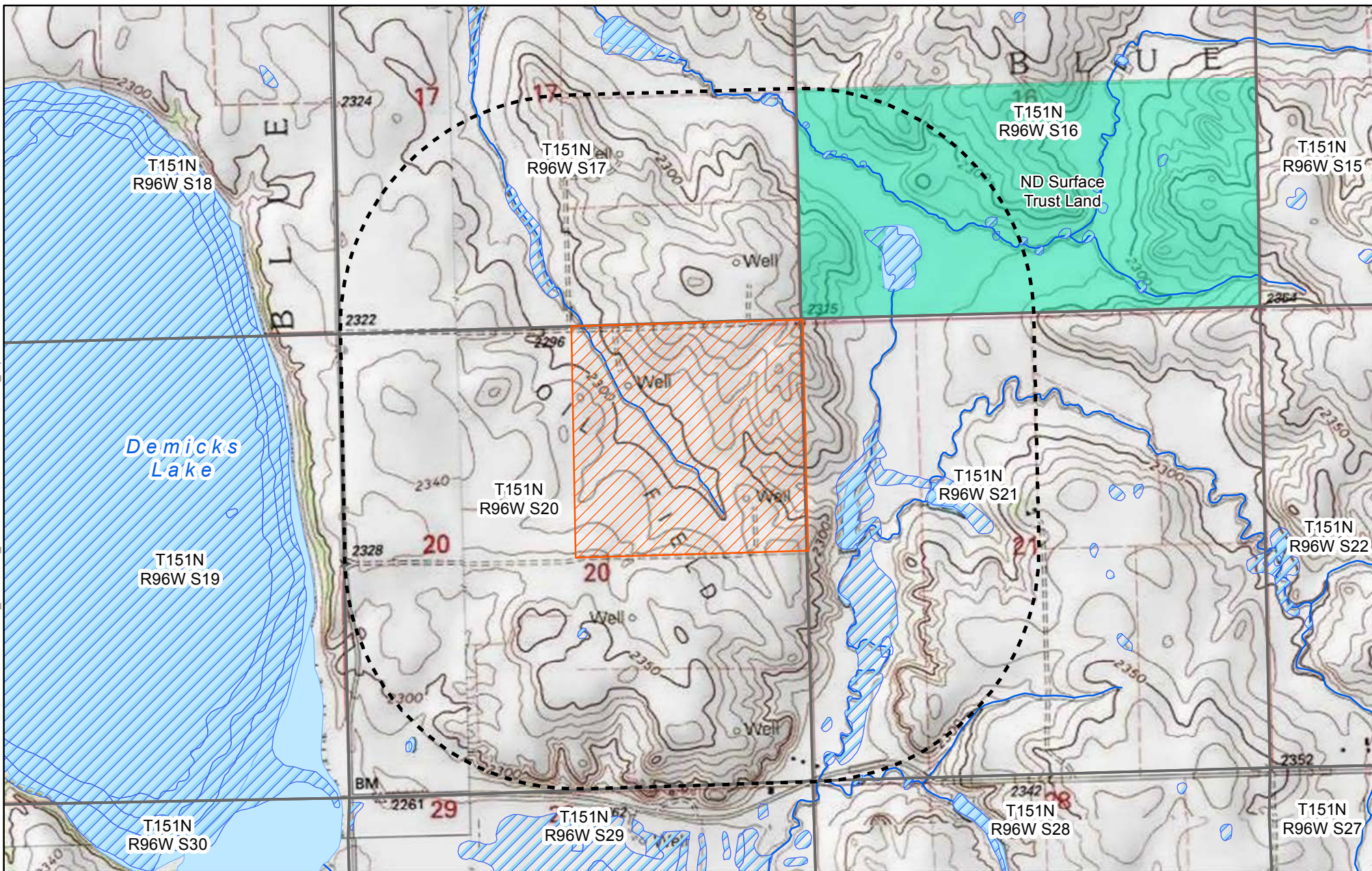
DEMICKS LAKE GAS PLANT

McKENZIE COUNTY, ND

Appendix B

Project Maps

Path: P:\ONEOK\DemickLake_GasPlants_2014\MXDs\DemickLakeGasPlant_TopoREAL.mxd
Date: 10/16/2014



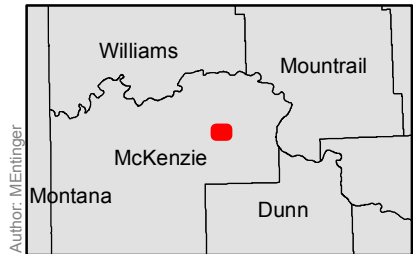
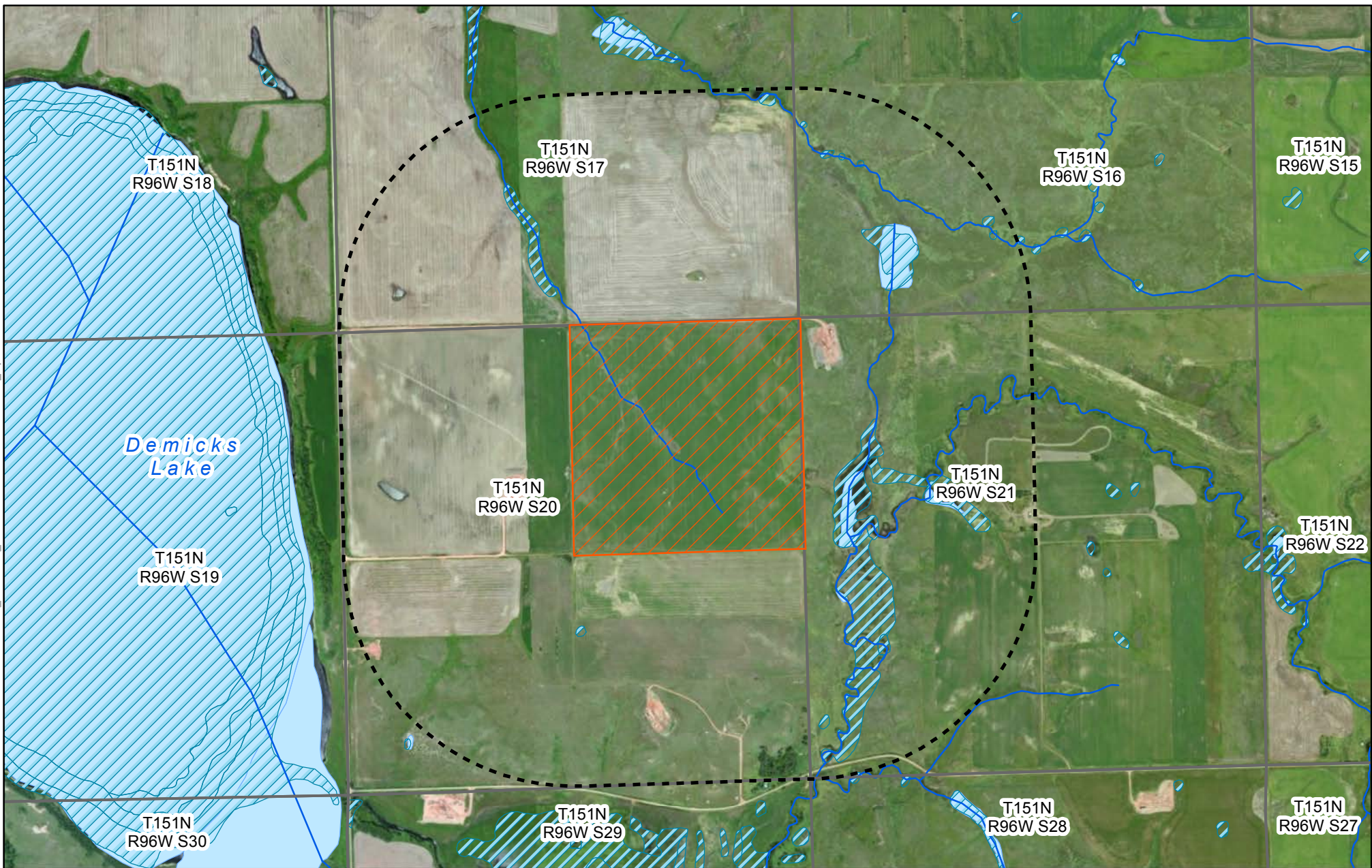
Study Area	Waterbody
Gas Plant Location	Stream or River
NWI	State Land



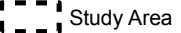
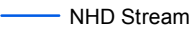

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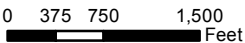
**ONEOK Rockies
Midstream, L.L.C.**
Demicks Lake Gas
Processing Plant
Scoping Map
McKenzie County, ND



Source: ESRI Online, EPA and USFWS

Date: 10/16/2014 Path: P:\ONEOK\DemickLake_GasPlants_2014\MXDs\DemickLakeGasPlant_topo.mxd



	Gas Plant Location		NWI Wetland
	Study Area		NHD Stream
	NHD Waterbody		



 1:18,000


A SUBSIDIARY OF ONEOK PARTNERS, L.P.

Enhancing Execution with Experience

Source: ESRI Online, EPA and USFWS

**ONEOK Rockies
Midstream, L.L.C.**
 Demicks Lake Gas
 Processing Plant
 Scoping Map
 McKenzie County, ND

Author: MEntinger

Appendix C

Agency Correspondence

USACE



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
NORTH DAKOTA REGULATORY OFFICE
1513 SOUTH 12TH STREET
BISMARCK ND 58504-6640

RECEIVED

SEP 29 2014

ONEOK
CORP ENVIRONMENTAL

September 25, 2014

North Dakota Regulatory Office

[NWO-2014-2143-BIS]

Ms. Deborah Perry-Chambers
ONEOK Rockies Midstream, L.L.C.
100 West Fifth Street
PO Box 871
Tulsa, Oklahoma 74102-0817

Dear Ms. Chambers:

We have reviewed your request for Department of the Army, US Army Corps of Engineers (Corps), jurisdictional determination (JD) for the Demicks Lake Gas Processing Plant project. The project is located in Section 20, Township 151 North, Range 96, McKenzie County, North Dakota.

Based on the information that you provided, we have determined that one water identified in your request, FV_01, is a jurisdictional waters of the United States. Therefore, should the proposed project result in the placement of dredge or fill material in the identified jurisdictional waters, a Corps permit, pursuant to Section 404 of the Clean Water Act, will be required prior to construction activities.

An approved (JD) has been completed for the wetland areas identified in your request and is enclosed for your information. The JD may also be viewed at our website located at: <http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/NorthDakota.aspx>. The JD will be available on the website within 30 days. You may also request copies of the supporting materials the Corps used in determining this JD. If you are not in agreement with the JD, you may request an administrative appeal under Corps regulations found at 33 CFR 331. The request for appeal (copy enclosed) must be received within 60 days from the date of this correspondence (September 25, 2014). If you would like more information on the jurisdictional appeal process, contact this office. It is not necessary to submit a Request for Appeal if you do not object to the JD. The JD will be valid for a period of 5 years from the date of this letter.

This determination was conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenants are USDA program participants, or anticipate participation in the USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

The Omaha District, North Dakota Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete our Customer Service Survey found on our website at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. If you do not have Internet access, you may call and request a paper copy of the survey that you can complete and return to us by mail or fax.

If you have any questions concerning this determination or jurisdiction, please feel free to contact Ms. Patsy Crooke of this office at (701) 255-0015, extension 2002, and reference project number **NWO-2014-2143-BIS**.

Sincerely,

A handwritten signature in black ink that reads "Daniel E. Cimarosti". The signature is written in a cursive style with a large initial 'D' and a distinct 'E'.

Daniel E. Cimarosti
Regulatory Program Manager
North Dakota

Enclosure

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: ONEOK Rockies Midstream, LLC	File Number: NWO-2014-2143-BIS	Date: 25 Sept 2014
---	--------------------------------	--------------------

Attached is:	See Section below
--------------	-------------------

	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
	PERMIT DENIAL	C
XX	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found in Corps regulations at 33 CFR Part 331, or at <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/FederalRegulation.aspx>

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:
US Army Corps of Engineers, Omaha District
North Dakota Regulatory Office
Attn: Mr. Daniel E. Cimarosti
1513 South 12th Street
Bismarck, North Dakota 58504

If you only have questions regarding the appeal process you may also contact:
US Army Corps of Engineers, Northwestern Division
Attn: Mary Hoffman, Regulatory Appeals Review Officer
1125 NW Couch Street
Portland, OR 97208-2870 Telephone (503) 808-3888
Mary.J.Hoffman@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): September 25, 2014

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Omaha, NWO-2014-2143-BIS, ONEOK Gas Processing Plant jd request

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: North Dakota County/parish/borough: McKenzie City: SW of Keene
Center coordinates of site (lat/long in degree decimal format): Lat. Wetland #1: 47.8859N; Long. -102.9844W
Universal Transverse Mercator:

Name of nearest waterbody:

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Lake Sakakawea

Name of watershed or Hydrologic Unit Code (HUC): Lake Sakakawea - 10110101

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date: 25 September 2014

Field Determination. Date(s): August 21, 2014 by E3 Environmental, LLC (E3)

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Impoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: 0.13 acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known):

2. Non-regulated waters/wetlands (check if applicable):³

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: another potential water was mapped, but after further review of field and office data, it was concluded that this feature is upland. Field surveys determined that no ordinary high water mark, hydric soils, or other evidence of a waterbody present within the area of the NHD mapped waterbody indicated on maps. It can be concluded that this feature could be an upland swale characterized by low volume, infrequent, and short duration flow and is generally not a waters of the U.S. because it is not a tributary or does it have a significant nexus to downstream traditional navigable waters. Any flow would be ephemeral in nature with water present only during spring snowmelt.

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through 2 tributaries before entering TNW.

Project waters are **10-15** river miles from TNW.

Project waters are **1-2** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: wetland to Clear Creek, to Tobacco Garden Creek, to Lake Sakakawea.

Tributary stream order, if known:

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) **General Tributary Characteristics (check all that apply):**

Tributary is: Natural
 Artificial (man-made). Explain:
 Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover:
 Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) **Flow:**

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime: FCC H12 in ArcMap.

Other information on duration and volume:

Surface flow is: **Discrete**. Characteristics:

Subsurface flow: **Unknown**. Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line
 vegetation matted down, bent, or absent sediment sorting
 leaf litter disturbed or washed away scour
 sediment deposition multiple observed or predicted flow events
 water staining abrupt change in plant community
 other (list):
 Discontinuous OHWM.⁷ Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

High Tide Line indicated by: Mean High Water Mark indicated by:
 oil or scum line along shore objects survey to available datum;
 fine shell or debris deposits (foreshore) physical markings;
 physical markings/characteristics vegetation lines/changes in vegetation types.
 tidal gauges
 other (list):

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: 0.13 acres within the project area acres

Wetland type. Explain: PEMC.

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain: project waters are entirely within the state of ND.

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: FCC of H12 in ArcMap.

Surface flow is: **Overland sheetflow**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain:

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **10-15** river miles from TNW.

Project waters are **10-15** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain: wetland vegetation dominated by juncus, carex.
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **1**

Approximately (0.13) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
y	0.13		

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
 TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
 Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
 Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
 - Other non-wetland waters: acres.
- Identify type(s) of waters: .

3. Non-RPW⁸ that flow directly or indirectly into TNWs.

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).
 - Other non-wetland waters: acres.
- Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 - Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
 - Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Field studies (wetland delineation report) indicated that the wetland was associated with Clear Creek which has an FCC of H12 in ArcMap.

Provide acreage estimates for jurisdictional wetlands in the review area: **0.13** acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from "waters of the U.S.," or
- Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: .
- Other factors. Explain: .

⁸ See Footnote # 3.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

Tributary waters: linear feet width (ft).

Other non-wetland waters: acres.

Identify type(s) of waters:

Wetlands: 0.13 acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.

Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:

Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

Non-wetland waters (i.e., rivers, streams): linear feet width (ft).

Lakes/ponds: acres.

Other non-wetland waters: acres. List type of aquatic resource:

Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).

Lakes/ponds: acres.

Other non-wetland waters: acres. List type of aquatic resource:

Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: wetland delineation report submitted for jd request.

Data sheets prepared/submitted by or on behalf of the applicant/consultant.

Office concurs with data sheets/delineation report.

Office does not concur with data sheets/delineation report.

Data sheets prepared by the Corps:

Corps navigable waters' study:

U.S. Geological Survey Hydrologic Atlas:

USGS NHD data.

USGS 8 and 12 digit HUC maps.

U.S. Geological Survey map(s). Cite scale & quad name: USGS 1:24K Quad - Keene.

USDA Natural Resources Conservation Service Soil Survey. Citation: USDA. NRCS. Field Indicators of Hydric Soils in the U.S.; USDA. NRCS. 2014. Soil Survey of McKenzie County, ND.

National wetlands inventory map(s). Cite name: USFWS/GIS.

State/Local wetland inventory map(s):

FEMA/FIRM maps:

100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)

Photographs: Aerial (Name & Date): Google Earth Pro; ESRI online, EPA, USFWS.
or Other (Name & Date): On site wetland photos.

Previous determination(s). File no. and date of response letter:

Applicable/supporting case law:

Applicable/supporting scientific literature:

Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: Supporting data and wetland delineation report available



CERTIFIED MAIL
RETURN RECEIPT REQUESTED

September 12, 2014

U.S. Army Corps of Engineers
North Dakota Regulatory Office
1513 South 12th Street
Bismarck, ND 58504

**ONEOK Rockies Midstream L.L.C. – Demicks Lake Gas Processing Plant
Request for Wetland and Waterbody Jurisdictional Determination**

ONEOK Rockies Midstream, L.L.C. (ORM) respectfully requests an Approved Jurisdictional Determination (AJD) of wetlands and/or waterbodies within the project area of the proposed Demicks Lake Gas Processing Plant (Project). On behalf of ORM, E3 Environmental, L.L.C. (E3) conducted a field wetland and waterbody delineation on August 21, 2014, in conjunction with a prior desktop review. The results of this delineation are provided in the attached Demicks Lake Gas Processing Plant Wetland and Waterbody Jurisdictional Determination Report.

ORM retained E3 to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact Bill McCarthy at 651.282.0650 or wmcCarthy@go2e3.com; you may also contact me at 918.588.7530 or Deborah.Perry@oneok.com.

Sincerely,

Deborah Perry
Manager, Environmental

Enclosures: Demicks Lake Gas Processing Plant
Wetland and Waterbody Jurisdictional Determination Report

cc Bill McCarthy, E3 Environmental
Jeff Hammond, ONEOK
Tulsa Environmental Files, Demicks Lake GP Large Construction



E3 ENVIRONMENTAL
Enhancing Execution with Experience

Wetland/Waterbody

Approved Jurisdictional Determination Report, Demicks Lake Gas Processing Plant Project, McKenzie County, North Dakota

Prepared for:

ONEOK Rockies Midstream, L.L.C.

Prepared by:

E3 Environmental, L.L.C.

September 5, 2014



ONEOK
ROCKIES MIDSTREAM

A SUBSIDIARY OF ONEOK PARTNERS, L.P.

Wetland/Waterbody Approved Jurisdictional Determination Report
ONEOK Rockies Midstream, L.L.C.
Demicks Lake Gas Processing Plant Project
McKenzie County, North Dakota

Prepared for:
ONEOK Rockies Midstream, L.L.C.

Prepared by:
Jennifer Kamm
Environmental Consultant

Reviewed by:
Bill McCarthy
Certified Wildlife Biologist/President

E3 Environmental, L.L.C.
871 West Jefferson Avenue
St. Paul, Minnesota 55102
(651)282-0650

September 5, 2014

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- Appendix B. Data Sheets
- Appendix C. Site Photos

SECTION 1: SUMMARY

This Approved Jurisdictional Delineation Report was prepared on behalf of ONEOK Rockies Midstream, L.L.C. (ORM), for the proposed Demicks Lake Gas Processing Plant (DLGP or Project) Project. This report provides baseline data concerning the type and extent of resources potentially under the jurisdiction of the U.S. Army Corps of Engineers and is based on field jurisdictional delineation surveys performed on August 21, 2014

SECTION 2: PROJECT LOCATION AND DESCRIPTION

ORM's proposed DLGP Project is located approximately 13.5 miles northeast of Watford City, North Dakota. As proposed, the facility would be constructed on a 160 acre plot located on the U.S. Geological Survey's (USGS) Keene 7.5-minute quadrangle within the NE ¼ of Section 20, Township 151 North, Range 96 West in McKenzie County, as depicted in the topographic map included in Appendix A. The project area is privately owned and is currently in agricultural production.

SECTION 3: METHODS

E3 conducted a desktop review of the 160-acre Project area. This literature review included USGS 7.5 minute topographic quadrangle maps; US Fish and Wildlife National Wetlands Inventory (NWI) maps; USGS National Hydrograph Data (NHD); USGS GAP Landcover mapping, and current and historical aerial photographs of the project area using Google Earth. The US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) web soil survey, and the National Oceanic and Atmospheric Administration (NOAA) National Climate Data Center was also reviewed.

The presence/absence of wetlands was identified in the field using routine on-site delineation methods in accordance with the USACE *Wetlands Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0)* (USACE 2010). These criteria include characterization of vegetation, hydrology and soils at the site. Wetlands are defined by the USACE as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” For an area to be delineated as a regulated wetland, the vegetative, hydrologic and soil characteristics must all be present and consistent with federal classification criteria.

More than 50 percent of the vegetative cover must consist of obligate and facultative wetland species as determined by the dominance test using the 50/20 rule; the prevalence index; or by evidence of morphological adaptation. Hydrophytic vegetation was determined to be present if any of these three indicators were satisfied. If none of

the indicators are satisfied, then hydrophytic vegetation is absent unless (1) indicators of hydric soil and wetland hydrology are present and (2) the site meets the requirements for a problematic wetland situation.

There must be evidence of periodic or permanent ground inundation. The presence of wetland hydrology was evaluated by recording the extent of observed surface flows, the depth of inundation, the depth to saturated soils, and the depth to free water in soil test pits.

The National Technical Committee for Hydric Soils (NTCHS) defines a hydric soil as a soil that is formed under conditions of saturation, flooding, or ponding that occurs long enough during the growing season to develop anaerobic conditions (or conditions of limited oxygen) at or near the soil surface and that favor the establishment of hydrophytic vegetation. The USDA-NRCS *Field Indicators of Hydric Soils in the United States—Guide for Identifying and Delineating Hydric Soils*, Version. 7.0 was used to determine the presence of hydric soils. The soil conditions on the site were verified by taking soil cores along a transect of the wetland/upland boundary to a depth of at least 20 inches.

The USACE *National Wetlands Plant List* was used to describe the taxonomy of wetland plants surveyed and their wetland indicator status. Determination of wetland type is based on the classification system developed by Cowardin et al. (1979).

Delineation of ordinary high water marks (OHWM) was conducted in accordance with the *Ordinary High Water Mark Delineation Manual for Section 404 Waters* (Harris County Flood Control Board, 2005). Delineation of the OHWM in both riverine and lake settings includes assessment of vegetation, soils, hydrology and physical indicators. The USACE defines ordinary high water mark as: “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

The location and boundaries of wetland and waterbody features identified by E3 during field surveys were recorded in the field using a Trimble Geoexplorer 6000 which typically achieves accuracy within 2 feet. A topographic map, aerial photo and USDA NRS soils mapping of the area surveyed are included in Appendix A. Field delineation data sheets are included in Appendix B. Representative photos of the site are included in Appendix C.

SECTION 4: RESULTS

4.1 GENERAL LANDSCAPE CHARACTERIZATION

The proposed Project is within the USDA NRCS Northern Great Plains Land Resource Region F and the Major Land Resource Area (MLRA) 54, Rolling Soft Shale Plain. An MLRA is a broad geographic area that is characterized by a particular pattern of soils, climate, water resources, vegetation and land use.

The Project area can be further defined by its location within the Northwestern Great Plains (Level III) ecoregion. The Northwestern Great Plains is characterized as a semiarid rolling plain of shale, siltstone, and sandstone punctuated by occasional buttes and badlands. Native shortgrass prairie persists in areas of steep or broken topography. Native prairie has been largely replaced by dryland farming of spring wheat, alfalfa, barley, oats and sunflowers and by pasture for cattle grazing throughout most of the ecoregion.

Within the Northwestern Great Plains ecoregion, the Project is within the Missouri Plateau (Level IV) ecoregion. The Missouri Plateau ecoregion was largely unaffected by glaciation and retains its original soils and complex stream drainage pattern. Physiography of the Missouri Plateau is described as moderately dissected, level to rolling plains with isolated sandstone buttes. This area is underlain by soft, calcareous shales, siltstones and sandstones of the Tertiary Fort Union Formation. The principal source of ground water in the area is in these rocks. Impermeable Cretaceous shale underlies these aquifers.

Natural prairie vegetation within the region consists of western wheatgrass, needleandthread, green needlegrass, and blue grama. Little bluestem, prairie sandreed, and sideoats grama are important species on shallow soils. Prairie rose, leadplant, and patches of western snowberry are interspersed throughout the area. Green ash, chokecherry, and buffaloberry occur in draws and narrow valleys.

McKenzie County climate is semi-arid to subhumid and continental. The county is usually warm in summer with frequent spells of hot weather and occasional cool days. The county is very cold in winter, when arctic air frequently surges over the area. The county has 95-130 mean annual frost free days. In winter, the average temperature is 13 degrees F. In summer the average temperature is 72 degrees F. The mean air temperature min/max for January is -3/21 and July 55/83 degrees F.

Mean annual precipitation is 15-17 inches. Most of the precipitation falls during the warm period with about 80 percent falling April through September. It is normally heaviest in late spring and early summer. The average seasonal snowfall is about 35 inches. On average, 43 days of the year have at least 1 inch of snow on the ground. Winter snowfall is normally not too heavy, and it is blown into drifts, so that much of

the ground is free of snow. National Weather Service data for the Williston, North Dakota monitoring station recorded precipitation totals for the period from May 2014 to August 21st 2014 to be 4.30 inches as described in Table 1 below. The normal precipitation average for this time period is 7.98. For this time period, rainfall was 3.68 inches below normal.

**Table 1. National Weather Service
 Monthly Recorded Rainfall at Williston, North Dakota**

Month	Recorded Precipitation (inches)	Normal Precipitation (inches)	Difference (inches)
May	1.62	1.92	-0.30
June	1.44	2.52	-1.08
July	0.66	2.54	-1.88
August 1 - 21	0.58	1.00	-0.42
Total	4.30	7.98	-3.68

Source: National Oceanic and Atmospheric Administration (2014)

4.2 WETLANDS

National Wetland Inventory (NWI) mapping for the Project area does not indicate the presence of wetlands within the Site. The USGS topographic quadrangle map and current and historic aerial photographs do not indicate the presence of wetlands within the Project area. The USGS Web Soil survey was accessed to identify soils within the Project area. No soils within the project area are listed as hydric soils. Soils within the Project area are described in Soils Section 4.5.

Field investigations conducted on August 21st, 2014 identified the presence of one palustrine emergent seasonally flooded (PEMC) wetland on the east boundary of the site. Dominant vegetation within the wetland included common spike rush (*Elyocharis palustris*), Baltic rush (*Juncus arcticus*), cattails (*Typha latifolia*), sedges (*Carex spp.*) and red top (*Agrostis stolonifera*).

The remainder of the Site is comprised of a single vegetative community dominated by cultivated wheat (*Triticum aestivum*) and Alfalfa (*Medicago sativa*). Smooth brome (*Bromus inermis*), crested wheatgrass (*Agropyron cristatum*), common yarrow (*Achillea millefolium*), American licorice (*Glycyrrhiza lepidota*), western snowberry (*Symphoricarpos occidentalis*), silver-leaf scurf pea (*Psoralea argophylla*), Palmer's amaranth (*Amaranthus palmeri*), Kochia (*Kochia scoparia*), common sunflower (*Helianthus annuus*), curlycup gumweed (*Grindelia squaarrosa*), greater ragweed (*Ambrosia trifida*), common ragweed (*A. artemisiifolia*) and Canada thistle (*Cirsium arvense*) are present along fence lines and hill crests too steep or rocky to cultivate.

Within the wetland, soils were saturated to the surface and water table was present within 5 inches of the surface meeting Primary hydrology indicators Saturation(A3) and High Water Table(A2). Adjacent upland areas did not meet any primary or secondary indicators of wetland hydrology.

Soils within the wetland were sandy loam and had a matrix color of 10YR3/1 with more than 5% distinct prominent mottles with a color of 5YR5/6 in the upper 4 inches and met the hydric soil indicator Redox Dark Surface (F6). Soils in the adjacent upland were sandy loam with a color of 10YR3/3 from 0 to 23 inches. Detailed descriptions of the characteristics of the soils on the site as mapped by the USGS NRCS are included below in Soils Section 4.4.

Maps showing the location of the field verified wetland, topography, NWI mapping and aerial photographs are included in Appendix A. Data sheets taken within the wetland and adjacent upland detailing field recorded vegetation, soils and hydrology are included in Appendix B.

Table 2. Wetland Characteristics

Wetland ID	Wetland Type	Acres within Site
FV_01	PEMC	0.13

4.3 WATERBODIES

The site is within the Upper Clear Creek watershed. NHD mapping and aerial photography indicates the potential presence of a water flowage originating at the center of the site and draining to the northwest corner of the site. According to NHD mapping, this waterbody flows northwest to its confluence with Clear Creek which continues northwest to Tobacco Garden Creek and ultimately Lake Sakakawea approximately 14.5 miles northwest of the site. This flowage is classified as a 305(b) EPA Assessed Waters. There is a Fish Consumption Advisory for this stream, however there are no listed impairments or total daily maximum load limits. Field surveys determined that no Ordinary High Water Mark, hydric soil, or other evidence of a waterbody is present within the area of the NHD mapped waterbody.

Field surveys identified one unmapped ephemeral stream, averaging 21 inches in width and 4 to 11 inches in depth, depicted as Eph1-1 on the maps attached in Appendix A. This ephemeral stream originates on the west boundary of the site and flows northeast and terminates at the confluence with the NHD mapped feature. Hydrophytic vegetation was not present within or adjacent to the stream. No free water is observed within 25 inches of the surface. USDA NRCS soil survey data shows that depth to water table in the vicinity of the field verified ephemeral stream is greater than 4 feet below land surface. This flowage is ephemeral in nature, with water

present only during spring snowmelt. A photo of the ephemeral stream Eph1-1 is included as Figure 3 in Appendix C.

Table 3. Waterbody Characteristics

Waterbody ID	Waterbody Name	Type	Average Width of OHWM (feet)	Total Acreage in Survey Area	Length within Site (feet)	Proposed Permanent Impacts (acres)
Eph1-1	Unnamed	Ephemeral	2	0.06	1,280	0.06

4.4 SOILS

The dominant soil orders in this Project and study area are Mollisols and Entisols. The soils have a frigid soil temperature regime, an ustic soil moisture regime, and mixed or smectitic mineralogy. They are shallow to very deep, generally somewhat excessively drained to moderately well drained, and loamy or clayey. Calciustolls (Chama series) and Ustorthents (Cabba series) formed in residuum and/or colluvium on uplands (USDA, 2006).

The following soil component descriptions represent the most prevalent soil series found within the Site.

4.4.1 CHAMA

The Chama series consists of well drained soils formed in materials weathered from soft siltstone, mudstone and shale on uplands. These soils are moderately deep to soft siltstone, mudstone or shale. These soils are moderately or moderately slowly permeable. Runoff is medium to rapid. Slope ranges from 0 to 45 percent. Soils are cropped to small grains, which are mostly wheat; a significant acreage is in rangeland. The native vegetation is principally western wheatgrass, needleandthread and blue grama (NRCS 2014).

4.4.2 CABBA

The Cabba series consists of shallow, well drained soils that formed in residuum or colluvium derived from semiconsolidated, loamy sedimentary beds. These soils are on hills, escarpments, and sedimentary plains. Runoff is very low to high depending on slope. Slopes are 2 to 70 percent. Used as rangeland. The potential native vegetation is mainly little bluestem, western wheatgrass, needleandthread, prairie sandreed, bluebunch wheatgrass, green needlegrass, plains muhly, forbs, and shrubs (NRCS 2014).

4.4.3 SEN

The Sen series consists of well drained, moderately permeable soils that formed in calcareous siltstone or shale. They are moderately deep to soft bedrock. These soils are on upland plains and have slope of 0 to 25 percent. Runoff is slow, medium or rapid. Soils are cropped to small grains in a crop-summer fallow rotation. Native vegetation is mid and short prairie grasses as green needlegrass, needleandthread, western wheatgrass, blue grama and a variety of forbs (NRCS 2014).

4.4.4 GRAIL

The Grail series consists of deep and very deep, well or moderately well drained, moderately slow or slowly permeable soils that formed in alluvium. These soils are on terraces, fans, swales and foot slopes on uplands and have slope ranging from 0 to 15 percent. Runoff is negligible to medium depending on slope. Most areas are used for cultivated crops such as wheat, oats, and barley. Native vegetation includes mixed grasses such as western wheatgrass, big bluestem, green needlegrass, and needleandthread (NRCS 2014).

4.4.5 DAGLUM

The Daglum series consists of deep and very deep, moderately well and well drained soils formed in clayey alluvium or residuum on foot slopes and swales on terraces and uplands. These soils have slow or very slow permeability. Slopes range from 0 to 25 percent. Most areas are used for range, pasture and small grains. Native vegetation is western wheatgrass, blue grama, green needlegrass, needleleaf sedge and forbs.

4.4.6 BELFIELD

The Belfield series consists of deep and very deep, well or moderately well drained slowly permeable soils formed in alkaline, calcareous residuum or alluvium on uplands, flats, terraces and in swales. Slope ranges from 0 to 9 percent. Well or moderately well drained. Runoff is negligible to medium depending on slope and surface texture. Most areas are cropped to small grains. Some are used for hay or pasture. Native vegetation is mid and short prairie grasses such as western wheatgrass, blue grama, and green needlegrass.

The Table 4 below summarizes slope, depth to water table, ponding and flooding frequency, and hydric rating of the soils within the Site as mapped by the USDA Web Soil Survey. A soils map for the Site is included in Appendix A.

Table 4. Soils

Map Unit	Soil type	Percent Slope	Depth to Water table (Inches)	Ponding/ Flooding Frequency	Hydric Rating/ Percent Hydric	Acres within Project Area
E1333C	Regent-Savage silty clay loams	3 to 6 percent slopes	>79	None/None	C/0	5.5
E2107A	Arnegard loam	0 to 2 percent slopes	>79	None/None	B/0	8.7
E2913B	Chama-Sen-Cabba silt loams	3 to 6 percent slopes	>79	None/None	C/0	33.6
E133C	Vebar-Cohagen fine sandy loam	6 to 9 percent slopes	>79	None/None	B/0	11.1
E0837B	Regent-Janesburg complex	3 to 6 percent slopes	>79	None/None	C/0	0.6
E2803B	Amor-Shambo loams	3 to 6 percent slopes	>79	None/None	C/0	17.5
E2737C	Reeder-Werner loams	6 to 9 percent slopes	>79	None/None	C/0	3.2
E0447B	Daglum-Belfield complex	0 to 6 percent slopes	51	None/None	C/0	26.2
E2741D	Cabba-Chama-Sen silt loams	9 to 15 percent slopes	>79	None/None	D/0	8.0
E2737C	Chama-Cabba-Sen silt loams	6 to 9 percent slopes	>79	None/None	C/0	5.4
E0651B	Belfield-Savage-Daglum complex	2 to 6 percent slopes	>79	None/None	C/0	2.5

E3541B	Williams-Zahl loams	3 to 6 percent slopes	>79	None/None	C/0	8.5
E0837B	Savage silty clay loam	2 to 6 percent slopes	>79	None/None	C/0	11.4
E4005A	Harriet loam, occasionally flooded	0 to 2 percent slopes	9	Rare/Occasional	D/89	0.01
E0605A	Belfield-Grail clay loams	0 to 2 percent slopes	51	None/None	C/0	18.8

Source: USDA Web Soil Survey (2014).

SECTION 5: CONCLUSION OF REGULATORY APPROVAL PROCESS

5.1 REGULATORY PERMIT REQUIREMENTS

Based on the field survey and desktop review conducted for the Project Site, ORM respectfully requests USACE to issue an Approved Jurisdictional Determination confirming the features identified and classified within this report. As set forth below, this conclusion is consistent with USACE regulations and policy guidance for issuance of Approved Jurisdictional Determinations.

Pursuant to USACE Regulatory Guidance Letter (RGL) 08-02 (dated June 26, 2008), the USACE can issue two types of jurisdictional determinations to implement Section 404 of the CWA: Approved Jurisdictional Determinations and Preliminary Jurisdictional Determinations (USACE 2008a). An Approved Jurisdictional Determination is an official USACE determination that jurisdictional “waters of the U.S.,” “Navigable waters of the U.S.,” or both are either present or absent on a site. An Approved Jurisdictional Determination also identifies the precise limits of jurisdictional waters within a project site. The USACE will provide an Approved Jurisdictional Determination when (1) an applicant requests an official jurisdictional determination; (2) an applicant contests jurisdiction over a particular water body or wetland; or (3) when the USACE determines that jurisdiction does not exist over a particular water body or wetland. The Approved Jurisdictional Determination then becomes the USACE’s official determination that can then be relied upon over a five-year period to request regulatory authorization as part of the permit application process.

In addition, an Applicant may decline to request an Approved Jurisdictional Determination and instead obtain a USACE Individual Permit or General Permit Authorization based on a Preliminary Jurisdictional Determination or, in certain circumstances (e.g., authorizations by non-reporting nationwide general permits), with no Jurisdictional Determination.

The USACE Regulatory Branch Offices will coordinate with the USEPA Regional Office and USACE Headquarters (HQ), as outlined in its January 28, 2008, memorandum entitled the Process for Coordinating Jurisdictional Delineations Conducted Pursuant to Section 404 of the Clean Water Act in Light of the Rapanos and SWANCC Supreme Court Decisions (USACE 2008b). The guidance provided in this memorandum is quoted as follows:

1. Effective immediately, unless and until paragraph 5(b) of the June 5, 2007, Rapanos guidance coordination memorandum is modified by a joint memorandum from Army and EPA, we will follow these procedures:
 - a. For jurisdictional determinations involving significant nexus determinations, USACE districts will send copies of draft jurisdictional delineations via e-mail to appropriate EPA regional offices. The EPA regional office will have 15 calendar days to decide whether to take the draft jurisdictional delineation as a special case under the January 19, 1989, “Memorandum of Agreement Between the Department of the Army and the USEPA Concerning the Determination of the Section 404 Program and the Application of the Exceptions under Section 404(f) of the Clean Water Act.” If the EPA regional office does not respond to the district within 15 days, the district will finalize the jurisdictional determination.
 - b. For jurisdictional determinations involving isolated waters determinations, the agencies will continue to follow the procedure in paragraph 5(b) of June 5, 2007, coordination memorandum, until a new coordination memorandum is signed by USACE and EPA. (In accordance with paragraph 6 of the June 5, 2007, coordination memorandum, this is a 21-day timeline that can only be changed through a joint memorandum between agencies).
2. Approved JDs are not required for non-reporting NWP, unless the project proponent specifically requests an approved JD. For proposed activities that may qualify for authorization under a State Programmatic General Permit (SPGP) or RGP, an approved JD is not required unless requested by the project proponent.

3. The USACE will continue to work with EPA to resolve the JDs involving significant nexus and isolated waters determinations that are currently in the elevation process.
4. USACE districts will continue posting completed Approved JD Forms on their web pages.

SECTION 6: REFERENCES

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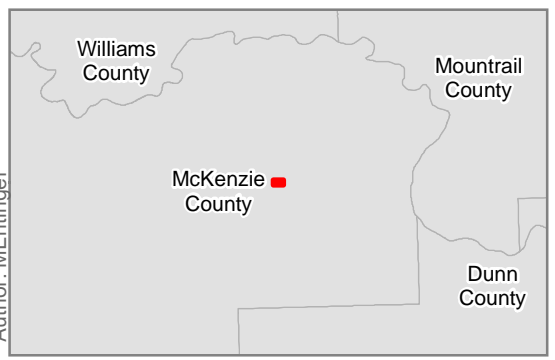
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Appendix A
Site Maps



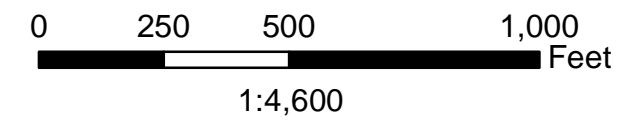
- Project Boundary (Approximate)
- Data Point
- Stream
- Wetland



ONEOK
ROCKIES MIDSTREAM
A SUBSIDIARY OF ONEOK PARTNERS, L.P.

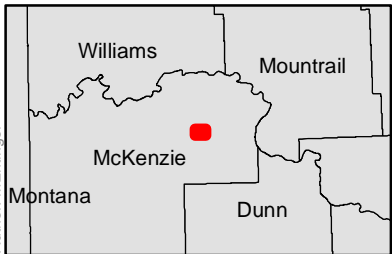
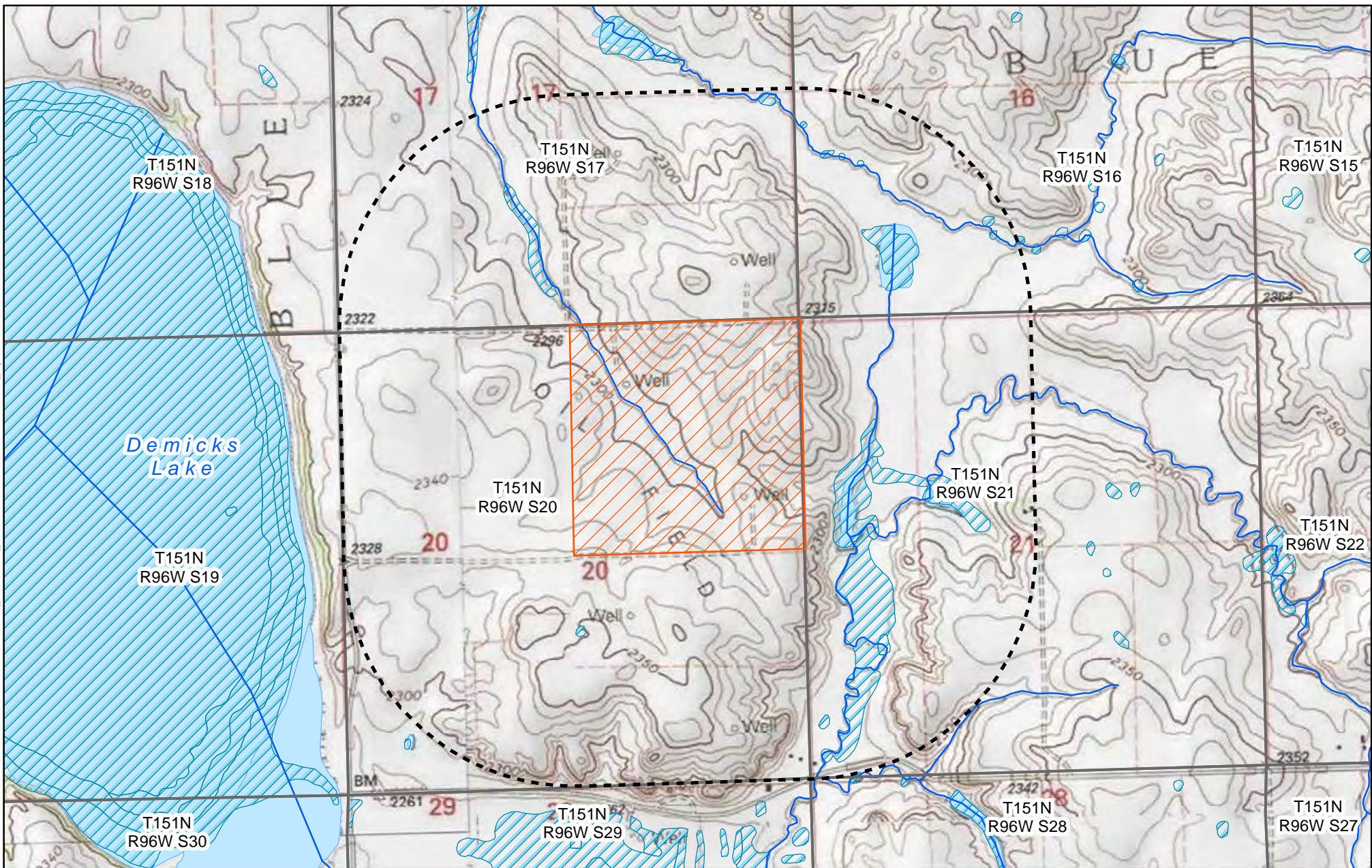


E3 ENVIRONMENTAL
Enhancing Execution with Experience



**ONEOK Rockies
Midstream L.L.C.**
Demicks Lake
Gas Processing Plant
Wetland Map
McKenzie County, ND

Path: P:\ONEOK\DemickLake_GasPlants_2014\MXDs\DemickLakeGasPlant_topo.mxd
Date: 9/8/2014



- Gas Plant Location
- Study Area
- 303(d) Stream
- 303(d) Waterbody
- NHD Stream
- NHD Waterbody
- NWI Wetland
- Federal Land
- State Land

Source: ESRI Online, EPA and USFWS



0 375 750 1,500 Feet

1:18,000



**ONEOK Rockies
Midstream, L.L.C.**
Demicks Lake Gas
Processing Plant
Scoping Map
McKenzie County, ND

Appendix B
Delineation Data Sheets

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Demicks Lake Gas Processing Plant City/County: McKenzie Sampling Date: 8/21/2014
 Applicant/Owner: ONEOK Rockies Midstream, LLC State: ND Sampling Point: EPH1-1
 Investigator(s): Kamm/Entinger Section, Township, Range: NE1/4 Section 20, Township 151 North, Range 96 West
 Landform (hillslope, terrace, etc.): upland swale Local relief (concave, convex, none): concave Slope (%): <1%
 Subregion (LRR): F Lat: 47.8863 Long: -102.9950 Datum: NAD83
 Soil Map Unit Name: Daglum silt loam NWI classification: Ephemeral stream

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.) -3.68 rainfall
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____				
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5</u>) 1. <u>Kochia scoparia</u> 55 Yes UPL 2. <u>Triticum aestivum</u> 20 Yes UPL 3. <u>Setaria pumila</u> 10 No FACU 4. <u>Hordeum jubatum</u> 5 No FACW 5. <u>Medicago sativa</u> 5 No UPL 6. _____ 7. _____ 8. _____ 9. _____ 10. _____				
<u>95</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30</u>) 1. _____ 2. _____ _____ _____ _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>5</u>				
Remarks:				

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Demicks Lake Gas Processing Plant City/County: McKenzie Sampling Date: 8/21/2014
 Applicant/Owner: ONEOK Rockies Midstream, LLC State: ND Sampling Point: DPW1
 Investigator(s): Kamm/Entinger Section, Township, Range: NE1/4 Section 20, Township 151 North, Range 96 West
 Landform (hillslope, terrace, etc.): Drainageway Local relief (concave, convex, none): flat Slope (%): <1%
 Subregion (LRR): F Lat: 47.8859 Long: -102.9844 Datum: NAD83
 Soil Map Unit Name: Harriet loam NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.) -3.68 rainfall
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5</u>)				
1. <u>Juncus balticus</u>	<u>60</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Carex spp.</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Eleocharis palustris</u>	<u>10</u>	<u>No</u>	<u>OBL</u>	
4. <u>Agrostis gigantea</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks:				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): 2 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species _____ x 1 = _____
 FACW species _____ x 2 = _____
 FAC species _____ x 3 = _____
 FACU species _____ x 4 = _____
 UPL species _____ x 5 = _____
 Column Totals: _____ (A) _____ (B)
 Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

SOIL

Sampling Point: DPW1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR3/1	95	5YR5/6	5	C	PL	sandy loam	
4-16	2.5Y5/3	90	7.5YR5/8	10	C	PL	sandy loam	
16-20	2.5Y4/2	100					sandy clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR F) <input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input checked="" type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H) <input type="checkbox"/> Dark Surface (S7) (LRR G) <input type="checkbox"/> High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <u>Y</u> No _____
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where not tilled) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where tilled) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>5</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Demicks Lake Gas Processing Plant City/County: McKenzie Sampling Date: 8/21/2014
 Applicant/Owner: ONEOK Rockies Midstream, LLC State: ND Sampling Point: DPU1
 Investigator(s): Kamm/Entinger Section, Township, Range: NE1/4 Section 20, Township 151 North, Range 96 West
 Landform (hillslope, terrace, etc.): upland swale Local relief (concave, convex, none): concave Slope (%): <1%
 Subregion (LRR): F Lat: 47.8904 Long: -102.9944 Datum: NAD83
 Soil Map Unit Name: Daglum silt loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.) -3.68 rainfall
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
0 = Total Cover				Total % Cover of: _____ Multiply by: _____	
Sapling/Shrub Stratum (Plot size: <u>15</u>)				OBL species _____ x 1 = _____	
1. _____	_____	_____	_____	FACW species _____ x 2 = _____	
2. _____	_____	_____	_____	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
0 = Total Cover				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: <u>5</u>)				Hydrophytic Vegetation Indicators:	
1. <u>Triticum aestivum</u>	<u>45</u>	<u>Yes</u>	<u>UPL</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
2. <u>Medicago sativa</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>	<input type="checkbox"/> 2 - Dominance Test is >50%	
3. <u>Echinochloa crus-galli</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
4. <u>Setaria pumila</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. <u>Kochia scoparia</u>	<u>5</u>	<u>No</u>	<u>UPL</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
6. <u>Ambrosia artemisiifolia</u>	<u>5</u>	<u>No</u>	<u>FACU</u>		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
90 = Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: <u>30</u>)				Hydrophytic Vegetation Present?	
1. _____	_____	_____	_____	Yes _____ No <u>X</u>	
2. _____	_____	_____	_____		
0 = Total Cover					
% Bare Ground in Herb Stratum <u>10</u>					
Remarks:					

SOIL

Sampling Point: DPU1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-16	10YR3/1	100					silty clay loam	
16-23	10YR4/2	100					silty clay loam	

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Demicks Lake Gas Processing Plant City/County: McKenzie Sampling Date: 8/21/2014
 Applicant/Owner: ONEOK Rockies Midstream, LLC State: ND Sampling Point: DPU2
 Investigator(s): Kamm/Entinger Section, Township, Range: NE 1/4 Section 20, Township 151 North, Range 96 West
 Landform (hillslope, terrace, etc.): Back slope Local relief (concave, convex, none): concave Slope (%): 5%
 Subregion (LRR): F Lat: 47.8862 Long: -102.9849 Datum: NAD83
 Soil Map Unit Name: Verbar fine sandy loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.) -3.68 rainfall
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15</u>) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____				
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5</u>) 1. <u>Agropyron cristatum</u> 100 Yes UPL 2. <u>Glycyrrhiza lepidota</u> 10 No FACU 3. <u>Symphoricarpos occidentalis</u> 10 No UPL 4. <u>Achillea millefolium</u> 5 No FACU 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____				
<u>125</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30</u>) 1. _____ 2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
Remarks:				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes _____ No <u>X</u>

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Demicks Lake Gas Processing Plant City/County: McKenzie Sampling Date: 8/21/2014
 Applicant/Owner: ONEOK Rockies Midstream, LLC State: ND Sampling Point: DPU3
 Investigator(s): Kamm/Entinger Section, Township, Range: NE1/4 Section 20, Township 151 North, Range 96 West
 Landform (hillslope, terrace, etc.): Upland flat Local relief (concave, convex, none): none Slope (%): 0%
 Subregion (LRR): F Lat: 47.8855 Long: -102.9908 Datum: NAD83
 Soil Map Unit Name: Belfield silty clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) -3.68 rainfall
 Are Vegetation No, Soil Yes, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:														
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
<u>0</u> = Total Cover				Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> </table> Prevalence Index = B/A = _____	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____ (A)	_____ (B)
Total % Cover of:	Multiply by:																	
OBL species _____	x 1 = _____																	
FACW species _____	x 2 = _____																	
FAC species _____	x 3 = _____																	
FACU species _____	x 4 = _____																	
UPL species _____	x 5 = _____																	
Column Totals: _____ (A)	_____ (B)																	
<u>0</u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
Herb Stratum (Plot size: <u>5</u>)																		
1. <u>Kochia scoparia</u>	<u>75</u>	<u>Yes</u>	<u>UPL</u>															
2. <u>Setaria pumila</u>	<u>5</u>	<u>No</u>	<u>FACU</u>															
3. <u>Helianthus annuus</u>	<u>5</u>	<u>No</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
<u>85</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
<u>0</u> = Total Cover																		
% Bare Ground in Herb Stratum <u>15</u>																		

Remarks:

SOIL

Sampling Point: DPU3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
								Rock disposal area - see below.
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)						Indicators for Problematic Hydric Soils³:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)			<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)		
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Dark Surface (S7) (LRR G)			<input type="checkbox"/> High Plains Depressions (F16)		
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Loamy Mucky Mineral (F1)			<input type="checkbox"/> Reduced Vertic (F18)		
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)		<input type="checkbox"/> Loamy Mucky Mineral (F1)			<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> Depleted Matrix (F3)		<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Redox Dark Surface (F6)		<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		<input type="checkbox"/> Redox Dark Surface (F6)			³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> High Plains Depressions (F16)		<input type="checkbox"/> Redox Depressions (F8)					
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<input type="checkbox"/> High Plains Depressions (F16)		<input type="checkbox"/> High Plains Depressions (F16)					
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	<input type="checkbox"/> High Plains Depressions (F16)		<input type="checkbox"/> High Plains Depressions (F16)					
Restrictive Layer (if present):								
Type: _____						Hydric Soil Present? Yes _____ No <u>X</u>		
Depth (inches): _____								
Remarks: Soils could not be evaluated. Field rock has been placed within this area.								

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)	
<input type="checkbox"/> Water-Stained Leaves (B9)			
Field Observations:			
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>X</u>	
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____		
Saturation Present? (includes capillary fringe) Yes _____ No <u>X</u>	Depth (inches): _____		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Presence of rocks prevented observation of hydrology.			

WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Demicks Lake Gas Processing Plant City/County: McKenzie Sampling Date: 8/21/2014
 Applicant/Owner: ONEOK Rockies Midstream, LLC State: ND Sampling Point: DPU4
 Investigator(s): Kamm/Entlinger Section, Township, Range: NE1/4 Section 20, Township 151 North, Range 96 West
 Landform (hillslope, terrace, etc.): Upland flat Local relief (concave, convex, none): none Slope (%): 0%
 Subregion (LRR): F Lat: 47.8852 Long: -102.9907 Datum: NAD83
 Soil Map Unit Name: Belfield silty clay loam NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.) -3.68 rainfall
 Are Vegetation No, Soil Yes, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5</u>)				
1. <u>Kochia scoparia</u>	<u>80</u>	Yes	UPL	
2. <u>Setaria pumila</u>	<u>5</u>	No	FACU	
3. <u>Helianthus annuus</u>	<u>5</u>	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>10</u>				
Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present? Yes _____ No <u>X</u>				
Remarks:				

Appendix C

Site Photos

Site Photos



Figure 1. Wetland on east boundary of site facing east.



Figure 2. Non-hayed grassland adjacent to wetland facing southeast.

Site Photos



Figure 3. Ephemeral Stream from west boundary of the Site facing east.

Site Photos



Figure 4. Vegetation on north perimeter of Site.



Figure 5. View of Site from southeast corner facing northwest.

USFWS



CERTIFIED MAIL 7014 1200 0000 2236 2633
RETURN RECEIPT REQUESTED

September 4, 2014

Mr. Scott Larson, Field Supervisor
U.S. Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926

U.S. FISH AND WILDLIFE SERVICE
ND Ecological Services Field Office

The Fish and Wildlife Service concurs with your conclusion that the described project will not adversely affect listed species. Contact this office if changes to the project are made or new information becomes available.

10/6/14
Date

Terry J. Ellert
Assistant Field Supervisor

**ONEOK Rockies Midstream L.L.C. – Demicks Lake Gas Processing Plant
Federally Listed Species, USFWS Managed Lands, and Migratory Bird Consultation**

ONEOK Rockies Midstream, L.L.C. (ORM) is proposing to construct the Demicks Lake Gas Processing Plant (Project) in response to growing demand for gas processing capacity of natural gas and natural gas liquids (NGL) produced in North Dakota. Site preparation and associated construction activities for the project under consideration would be initiated during the 4th quarter of 2014 and continue through the 3rd quarter of 2016, requiring approximately 18 months to complete. To satisfy state siting authority requirements, ORM is providing this project notification for your consideration.

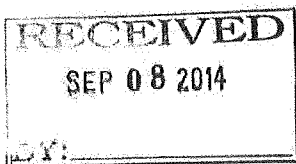
The Project will be located in the NE 1/4 of Section 20, Township 151N, and Range 96W in McKenzie County, North Dakota. A topographic map and aerial photograph depicting the Project location are attached.

The purpose of this request is to provide the U.S. Fish and Wildlife Service (USFWS) with notification of the proposed Project and to share ORM's analysis of the environmental topics relevant to the North Dakota Public Service Commission's siting requirements for Energy Conversion Facilities. On August 12, 2014, E3 Environmental, LLC (E3) conducted a web-based consultation using USFWS's IPaC system. This analysis is based upon results of the project specific query of the IPaC system.

Federally Listed Species Analysis:

The results of the search of the USFWS's IPaC system on August 12, 2014 found the following:

- Least tern – endangered
- Piping plover – threatened, and designated critical habitat
- Rufa red knot – proposed threatened
- Sprague's pipit – candidate
- Whooping crane – endangered
- Pallid sturgeon – endangered
- Dakota skipper – proposed threatened, and designated critical habitat
- Black-footed ferret – experimental population
- Gray wolf – endangered



Least Tern

The interior populations of the Least Tern have historically been associated with large river systems for breeding and migratory habitats. Breeding birds are known to congregate in colonies, utilizing sandbar habitat common to larger rivers. The Least Tern is found in North Dakota during the late spring and summer breeding season (mid-May through late August, with the peak of the nesting season occurring from mid-June to mid-July). Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area; therefore, impacts to the Least Tern are not anticipated.

Piping plover

The Piping plover is associated with shorelines along small alkaline lakes, large reservoir beaches, and river islands and adjacent sand pits. Breeding birds select wide beaches with highly clumped vegetation covering less than 25 percent of the area. Breeding season in North Dakota occurs mid-April through August. The Missouri River and Lake Sakakawea, approximately 13.7 miles east of the site at its nearest point, are the closest designated critical habitats for the Piping plover. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area; therefore, impacts to the Piping plover or its designated critical habitat are not anticipated.

Rufa red knot

The Rufa red knot migrates between breeding grounds in Canada and wintering grounds in South America. A significant factor threatening the Rufa red knot is destruction and modification of its habitat due to beach erosion and shoreline protection and stabilization projects. Migratory behavior and habitat requirements of this species are poorly understood particularly for those populations occupying the midcontinent flyways. Inland stopovers include the Mississippi Valley, Great Lakes, and Great Plains. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area; therefore impacts to the Rufa red knot are not anticipated.

Sprague's pipit

The Sprague's pipit is a small passerine, 10–15 centimeters in length, endemic to the Northern Great Plains (USFWS, 2010). In North Dakota, the Sprague's pipit breeds throughout the state except for the easternmost counties. During the breeding season, they prefer large patches of well-drained, open, unplowed native grassland with a minimum size of 358.3 acres (range = 170–776 acres). They have not been observed in areas smaller than 71.6 acres on their breeding grounds (USFWS, 2010). Sprague's pipits are sensitive to patch size and avoid edges between grasslands and other habitat features. They may avoid non-grassland features including roads, trails, oil wells, croplands, woody vegetation, and wetlands. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area; therefore, impacts to the Sprague's pipit are not anticipated.

Whooping crane

The whooping crane is a large bodied marsh species that breeds primarily in Canada and winters in the Gulf of Mexico. This species has been closely studied and monitored in recent years due to its small population. North Dakota provides migratory habitat for the species, providing roosting and feeding opportunities during migration. This species prefers larger wetland complexes for roosting habitat, typically using adjacent uplands for foraging opportunities.

Precautionary measures will be implemented if whooping cranes are sighted in or near the Project area. ORM will voluntarily suspend all heavy equipment operation activities and notify the USFWS should a whooping crane be spotted within 0.5 mile of the Project area. Heavy equipment activities will resume upon the departure of the individual(s). The Project under consideration will not result in a loss of crane habitat. Construction activities would likely serve as a deterrent and once constructed the proposed facility would present a fairly prominent feature to be avoided relative to its surrounding landscape.

Least Pallid Sturgeon

The pallid sturgeon's preferred habitat includes the benthic environment associated with swift waters of large turbid, free-flowing rivers with braided channels, dynamic flow patterns, periodic flooding of terrestrial habitats, and requiring extensive micro habitat diversity. The species inhabits the Missouri and Mississippi Rivers from Montana to Louisiana. In North Dakota, reaches of the Missouri River have been cited as providing suitable habitat for the pallid sturgeon. However, there is no suitable sturgeon habitat in the Project area as the Missouri River does not intersect the project corridor; as such, impacts to the pallid sturgeon are not anticipated.

Dakota skipper

Dakota skippers require untilled, high-quality prairie. Habitat preferred by the skipper is wet-mesic prairie with little topographic relief on near-shore glacial lake deposits and in rolling native-prairie terrain over gravelly glacial moraine deposits. Larvae feed on grasses, favoring little bluestem (*Schizachyrium scoparium*). Adults commonly feed on nectar of flowering native forbs such as harebell (*Campanula rotundifolia*), wood lily (*Lilium philadelphicum*), and purple coneflower (*Echinacea angustifolia*). This species is not known to disperse widely and has low mobility, dispersing a maximum of 0.6-mile. The species is threatened by conversion of native prairie to cultivated agriculture or shrublands, over-grazing, invasive species, gravel mining, and inbreeding. The proposed Project site is primarily cultivated cropland and has been managed as such for more than 20 years. Review of aerial photos and soil survey data indicate that untilled, high-quality prairie dominated by native grasses that contain a high diversity of native forbs are not present within the Project site or within one-half mile of the site. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area; therefore, impacts to the Dakota skipper are not anticipated.

Black-footed ferret

Black-footed ferrets inhabit the extensive prairie dog complexes of the Great Plains, typically composed of several smaller colonies close to one another that provide a sustainable prey base. The *Black-footed Ferret Survey Guidelines for Compliance with the Endangered Species Act* published by the USFWS (1989), states ferrets require black-tailed prairie dog (*Cynomys ludovicianus*) towns or complexes greater than 80 acres in size, and towns of this dimension may be important for ferret recovery efforts. This species has not been observed in the wild for more than 20 years and is not anticipated to be impacted by the proposed Project.

Gray wolf

The gray wolf is a large carnivore that through conservation measures has experienced strong population recovery, particularly in the Great Lakes states of the upper Midwest. As populations rebound, individuals may break from packs to explore opportunities to establish packs in unoccupied territory. Roaming individuals can cover great distances without establishing viable breeding populations in previously unoccupied habitat(s). This species is not tolerant of human disturbance and will tend to avoid interaction with humans. The activities associated with construction and later plant operations would likely serve as a deterrent to this species. Therefore, this Project will have no effect on the gray wolf.

USFWS Managed Lands:

Conservation programs such as Waterfowl Production Areas and wetland and grassland easements represent an important tool used by USFWS to identify and manage high quality wildlife habitat. A review of public records failed to identify any of these USFWS managed lands in the Project study area. ORM requests that USFWS notify ORM of any USFWS managed lands located within the proposed study area.

Migratory Bird Consultation:

USFWS administers various wildlife related mandates of national concern including the Migratory Bird Treaty Act (MBTA). ORM understands that unlike the Endangered Species Act, the MBTA has no provisions for the allowance of a take and therefore compliance may best be achieved by avoiding or minimizing the potential to interact with migratory species during the active breeding season. ORM also understands that in North Dakota, the breeding season is typically defined as occurring annually from February 1 through July 15.

In recognition of these facts, ORM has proposed to initiate construction during the 4th quarter of 2014 and continuing these activities through 2nd quarter of 2016, maintaining an active construction site for the approximately 18 month duration. The proposed project schedule would overlap with the 2015 breeding season, however the proposed schedule would mitigate impacts by initiating ground disturbing activities in advance of the breeding season. Furthermore, construction activities would serve as an effective deterrent for breeding birds.

In closing, E3 has been retained by ORM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact Bill McCarthy at 651.282.0650 or wmcCarthy@go2e3.com; you may also contact me at 918.588.7530 or Deborah.Perry@oneok.com.

Sincerely,



Deborah Perry-Chambers
Manager, Environmental-Large Construction

Enclosures: Project Map – USGS topographic
Project Map – Aerial photograph

cc Bill McCarthy, Erica Davis - E3 (pdf)
Jeff Hammond - ONEOK (pdf)
Tulsa Environmental File – Demicks Lake GP Large Construction



CERTIFIED MAIL 7014 1200 0000 2236 2633
RETURN RECEIPT REQUESTED

September 4, 2014

Mr. Scott Larson, Field Supervisor
U.S. Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926

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Sincerely,



Deborah Perry-Chambers
Manager, Environmental-Large Construction

Enclosures: Project Map – USGS topographic
Project Map – Aerial photograph

cc Bill McCarthy, Erica Davis - E3 (pdf)
Jeff Hammond - ONEOK (pdf)
Tulsa Environmental File – Demicks Lake GP Large Construction



ONEOK Rockies
Midstream, L.L.C.
 Demicks Lake Gas
 Processing Plant
 Scoping Map
 McKenzie County, ND

ONEOK ROCKIES MIDSTREAM
a subsidiary of oneok.com/oneok-co.-llc

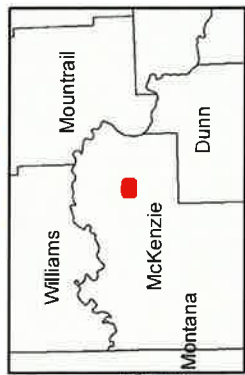
E3 ENVIRONMENTAL
Enhancing Location with Experience

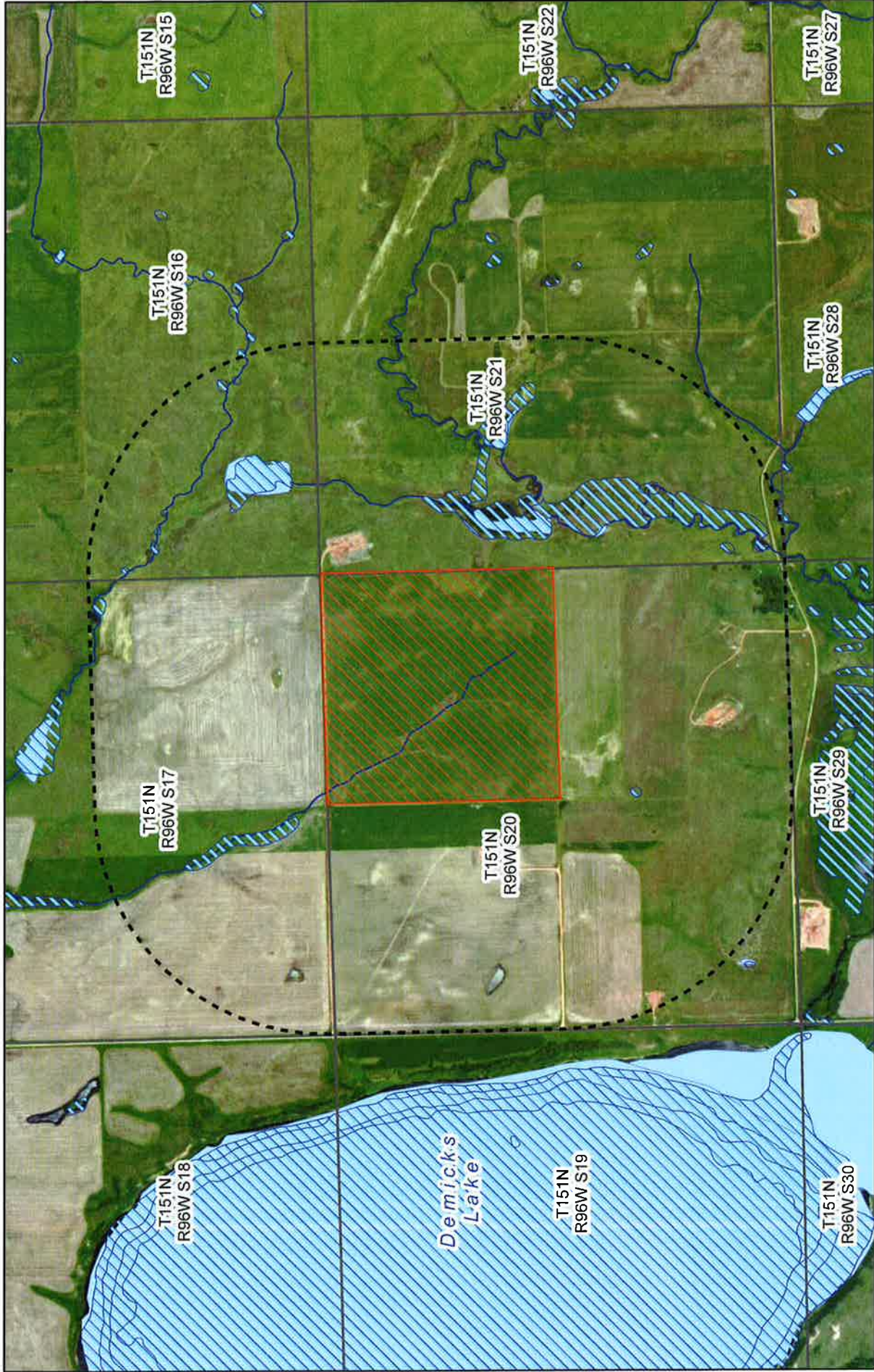
Legend:

- Study Area (Dashed line)
- Gas Plant Location (Orange hatched area)
- 303d Waterbody (Blue hatched area)
- NWI (Blue hatched area)
- Waterbody (Blue area)
- Stream or River (Blue line)
- Federal Land (Green hatched area)
- State Land (Red hatched area)

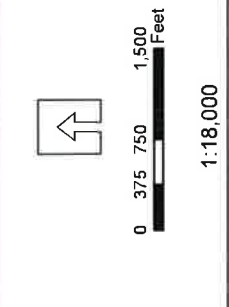
Scale: 0 375 750 1,500 Feet
 1:18,000

Source: ESRI Online, EPA and USFWS





- Study Area
- Gas Plant Location
- 303d Waterbody
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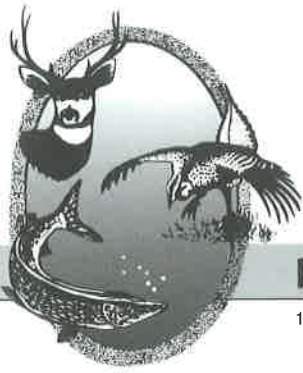


ONEOK Rockies
Midstream, L.L.C.
 Demicks Lake Gas
 Processing Plant
 Scoping Map
 McKenzie County, ND

Source: ESRI Online, EPA and USFWS

1:18,000

NDGFD



"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

October 15, 2014

Deborah Perry-Chambers
Manager, Environmental-Large Construction
ONEOK Rockies Midstream, L.L.C.
P.O. Box 871
Tulsa, OK 74102-0871

Dear Ms. Perry-Chambers:

RE: Demicks Lake Gas Processing Plant

ONEOK Rockies Midstream, LLC is proposing to construct the Demicks Lake Gas Processing Plant southwest of Keene in McKenzie County, North Dakota.

The North Dakota Game and Fish Department has reviewed this project for wildlife concerns. We do not believe it will have any significant adverse effects on wildlife or wildlife habitat, including species of conservation priority, based on the information provided.

Private Lands Open to Sportsmen (PLOTS) is a public access program which cost-shares with private landowners to help conserve fish and wildlife habitat. PLOTS lands are not owned or managed by the ND Game and Fish Department. Information regarding PLOTS locations is available at: <http://gf.nd.gov/hunting/private-land-open-sportsmen>. This page is updated to reflect changes as tracts are added or removed.

Sincerely,

A handwritten signature in blue ink that reads "Greg Link". The signature is fluid and cursive, with the first name being more prominent.

Greg Link
Chief
Conservation & Communication Division

js

Erica Davis

From: Erica Davis
Sent: Monday, October 13, 2014 5:19 PM
To: ndgf@nd.gov
Cc: Perry, Deborah A.; William McCarthy; Erica Davis
Subject: FW: Demicks - NDGF
Attachments: 1752_001.pdf

Dear Mr. Link:

E3 has been retained by ONEOK Rockies Midstream, L.L.C. (ORM) and I am contacting you on behalf of our client. Deborah Perry-Chambers at ORM received your letter in response to the Demicks Lake Gas Plant project notification (please see attached). In your letter, Demicks Lake Gas Plant is referenced in the subject line and a different project, Targa Lateral Pipeline, appears in the body of the text. I suspect this might have been residual text from a previous notification letter and wanted ask for your confirmation, and also kindly request a revised or correction letter for the Demicks Lake project. A copy of the letter may be sent via email by responding to all on this email.

Thank you for your time and consideration.

Respectfully,

Erica Davis
Associate Consultant
E3 Environmental, LLC
edavis@go2e3.com
O: 651.272.1151
871 Jefferson Avenue
St. Paul, MN 55102
www.go2e3.com



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"VARIETY IN HUNTING AND FISHING"

NORTH DAKOTA GAME AND FISH DEPARTMENT

100 NORTH BISMARCK EXPRESSWAY BISMARCK, NORTH DAKOTA 58501-5095 PHONE 701-328-6300 FAX 701-328-6352

RECEIVED

OCT 13 2014

ONEOK
CORP ENVIRONMENTAL

October 1, 2014

Deborah Perry-Chambers
Manager, Environmental-Large Construction
ONEOK Rockies Midstream, L.L.C.
P.O. Box 871
Tulsa, OK 74102-0871

Dear Ms. Perry-Chambers:

RE: Demicks Lake Gas Processing Plant

ONEOK Bakken Pipeline, LLC has proposed the construction of the Targa Lateral Pipeline, a new 10.6-mile 6-inch diameter NGL pipeline that will originate at Targa's Saddle Butte Plant and terminate at an interconnect with ONEOK's Garden Creek pipeline south of Arnegard in McKenzie County, North Dakota.

The North Dakota Game and Fish Department (NDGF) has reviewed this project for wildlife concerns. We do not believe it will have any significant adverse effects on wildlife or wildlife habitat, including species of conservation priority, based on the information provided.

Private Lands Open to Sportsmen (PLOTS) is a public access program which cost-shares with private landowners to help conserve fish and wildlife habitat. PLOTS lands are not owned or managed by the ND Game and Fish Department. Information regarding PLOTS locations is available at: <http://gf.nd.gov/hunting/private-land-open-sportsmen>. This page is updated to reflect changes as tracts are added or removed.

Sincerely,



Greg Link
Chief

Conservation & Communication Division

js



ONEOK
ROCKIES MIDSTREAM
A SUBSIDIARY OF ONEOK PARTNERS

CERTIFIED MAIL 7014 1200 0000 2236 2657
RETURN RECEIPT REQUESTED

September 4, 2014

Mr. Greg Link, Division Chief
Conservation and Communication Division
North Dakota Game and Fish Department
100 N. Bismarck Expressway
Bismarck, ND 58501-5095

**ONEOK Rockies Midstream L.L.C. – Demicks Lake Gas Processing Plant
State Conservation Priority Species Consultation, State Plots Land Review**

ONEOK Rockies Midstream, L.L.C. (ORM) is proposing to construct the Demicks Lake Gas Processing Plant (Project) in response to growing demand for gas processing capacity of natural gas and natural gas liquids (NGL) produced in North Dakota. Site preparation and associated construction activities for the project under consideration would be initiated during the 4th quarter of 2014 and continue through the 3rd quarter of 2016, requiring approximately 18 months to complete. To satisfy state siting authority requirements, ORM is providing this project notification for your consideration.

The purpose of this correspondence is twofold: to afford the North Dakota Game and Fish Department (Department) the opportunity to assess the Project and associated Study Area for the presence or absence of State Conservation Priority Species; and to assess the Project and associated Study Area for the presence or absence of Department managed PLOTS Lands.

The Project is located in the NE 1/4 of Section 20, Township 151N, and Range 96W in McKenzie County, North Dakota. The enclosed topographic map and aerial photo depict the Project site and associated Study Area. These have been provided to assist the Department's review of the Project.

In closing, E3 Environmental, LLC has been retained by ORM to provide environmental consulting support for this project. Should you have any questions or require additional information, please contact Bill McCarthy at 651.282.0650 or wmcCarthy@go2e3.com; you may also contact me at 918.588.7530 or Deborah.Perry@oneok.com.

Sincerely,


Deborah Perry-Chambers
Manager, Environmental-Large Construction

Enclosures: Project Map – USGS topographic
Project Map – Aerial photograph


cc: Bill McCarthy, Erica Davis-E3 (pdf)
Jeff Hammond - ONEOK (pdf)
Tulsa Environmental Files – Demicks Lake GP Large Construction




ONEOK Rockies
Midstream, L.L.C.
 Demicks Lake Gas
 Processing Plant
 Scoping Map
 McKenzie County, ND




ONEOK
ROCKIES MIDSTREAM
A subsidiary of ONEOK COMPANY, LP



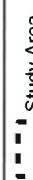







E3 ENVIRONMENTAL
Enhancing Efficiency and Experience



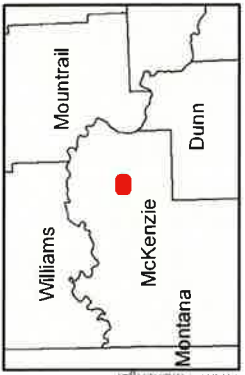


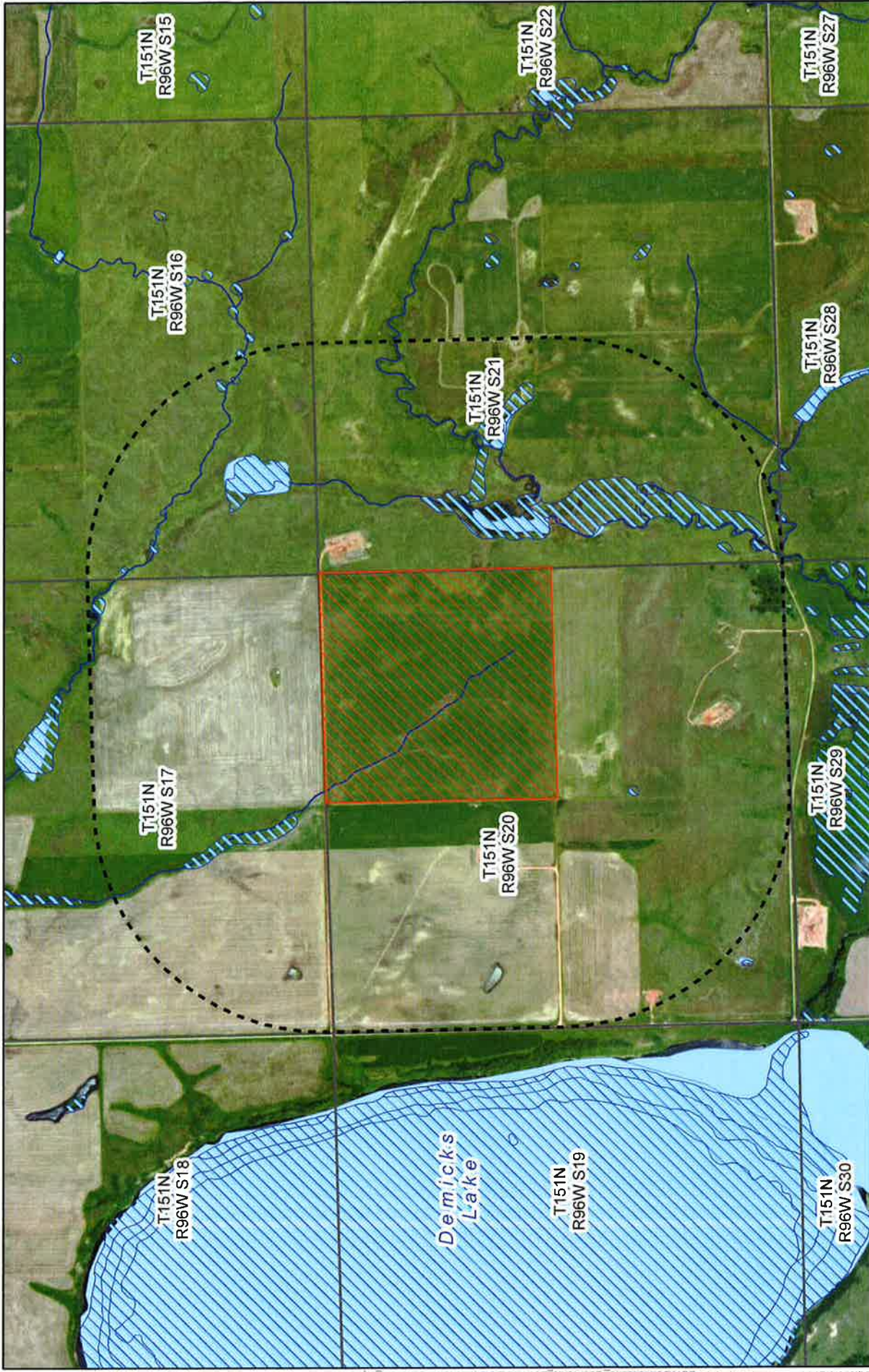
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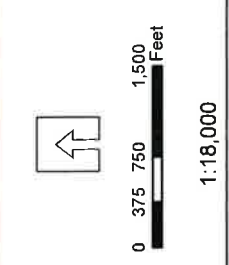
	Study Area		Waterbody
	Gas Plant Location		Stream or River
	303d Waterbody		Federal Land
	NWI		State Land

Source: ESRI Online, EPA and USFWS

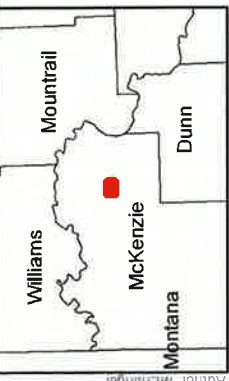




ONEOK Rockies
Midstream, L.L.C.
 Demicks Lake Gas
 Processing Plant
 Scoping Map
 McKenzie County, ND



- Study Area
 - Gas Plant Location
 - 303d Waterbody
 - NWI
 - Waterbody
 - Stream or River
 - Federal Land
 - State Land
- Source: ESRI Online, EPA and USFWS



NDPRD



Jack Dalrymple, Governor
Mark A. Zimmerman, Director
1600 East Century Avenue, Suite 3
Bismarck, ND 58503-0649
Phone 701-328-5357
Fax 701-328-5363
E-mail parkrec@nd.gov
www.parkrec.nd.gov

September 19, 2014

Deborah Perry-Chambers
ONEOK Rockies Midstream
100 West Fifth Street
PO Box 871
Tulsa, OK 74102-0871

Re: ONEOK Rockies Midstream LLC – Demicks Lake Gas Processing Plant

Dear Dale Bennett,

The North Dakota Parks and Recreation Department (the Department) has reviewed the above referenced proposed Demicks Lake Gas Processing Plant in McKenzie County.

Our agency scope of authority and expertise covers recreation and biological resources (in particular rare plants and ecological communities). The project as defined does not affect state park lands that we manage or Land and Water Conservation Fund recreation projects that we coordinate.

The North Dakota Natural Heritage biological conservation database has been reviewed to determine if any plant or animal species of concern or other significant ecological communities are known to occur within an approximate one-mile radius of the project area. Based on this review, there are no documented occurrences in our database within or adjacent to project area. Because this information is not based on a comprehensive inventory, there may be species of concern or otherwise significant ecological communities in the area that are not represented in the database. The lack of data for any project area cannot be construed to mean that no significant features are present. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources.

The Department recommends that the project be accomplished with minimal impacts and that all efforts be made to ensure that critical habitats not be disturbed in the project area to help secure rare species conservation in North Dakota. Regarding any reclamation efforts, we recommend that any impacted areas be revegetated with species native to the project area.

We appreciate your commitment to rare plant, animal and ecological community conservation, management and inter-agency cooperation to date. For additional information please contact me at (701-328-5370 or kgduttonhefner@nd.gov). Thank you for the opportunity to comment on this proposed project.

Sincerely,

Kathy Duttonhefner

Kathy Duttonhefner, Coordinator
Natural Resources Division

R.USNDNHI*2014_149 KD9/19/2014DL9.19.2014

• • • • •
Play in our backyard!



CERTIFIED MAIL 7014 1200 0000 2236 2640
RETURN RECEIPT REQUESTED

September 4, 2014

Kathy Duttonhefner
North Dakota Parks and Recreation
1600 East Century Avenue, Suite 3
Bismarck, ND 58503-0649

**ONEOK Rockies Midstream L.L.C. – Demicks Lake Gas Processing Plant
Natural Heritage Inventory Review Request**

ONEOK Rockies Midstream, L.L.C. (ORM) is proposing to construct the Demicks Lake Gas Processing Plant (Project) in response to growing demand for gas processing capacity of natural gas and natural gas liquids (NGL) produced in North Dakota. Site preparation and associated construction activities for the project under consideration would be initiated during the 4th quarter of 2014 and continue through the 3rd quarter of 2016, requiring approximately 18 months to complete. To satisfy state siting authority requirements, ORM is providing this project notification for your consideration.

The purpose of this request is to provide the North Dakota Parks and Recreation Department's (Department) notice of the Project such that the environmental topics that fall under the purview of the Department that are also relevant to the North Dakota Public Service Commission's siting requirements for Energy Conversion facilities are administrated properly. It is our understanding that the Department administers the following state programs:

- State Park Lands
- Land and Water Conservation Fund
- Natural Heritage Inventory

The Project would be located in the NE 1/4 of Section 20, Township 151N, and Range 96W in McKenzie County, North Dakota. The enclosed topographic map and aerial photo depict the Project site and associated Study Area. These have been provided to assist the Department's review of the Project for the presence or absence of any lands, projects, and sensitive species.

In closing, E3 has been retained by ORM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact Bill McCarthy at 651.282.0650 or wmcCarthy@go2e3.com; you may also contact me at 918.588.7530 or Deborah.Perry@oneok.com.

Sincerely,

A handwritten signature in blue ink that reads "Deborah Perry-Chambers". The signature is fluid and cursive, written over a white background.

Deborah Perry-Chambers
Manager, Environmental-Large Construction

Enclosures: Project Map – USGS topographic
Project Map – Aerial photograph

cc Bill McCarthy, Erica Davis – E3 (pdf)
Jeff Hammond - ONEOK
Tulsa Environmental Files – Demicks Lake GP Large Construction



**ONEOK Rockies
Midstream, L.L.C.**
Demicks Lake Gas
Processing Plant
Scoping Map
McKenzie County, ND

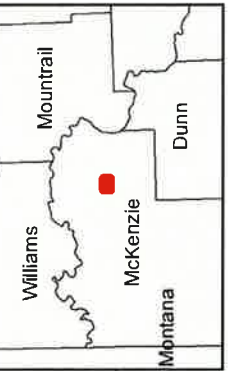
**ONEOK
ROCKIES MIDSTREAM**
A Division of Oneok Energy, L.P.

E3 ENVIRONMENTAL
Enhancing Excellence with Experience

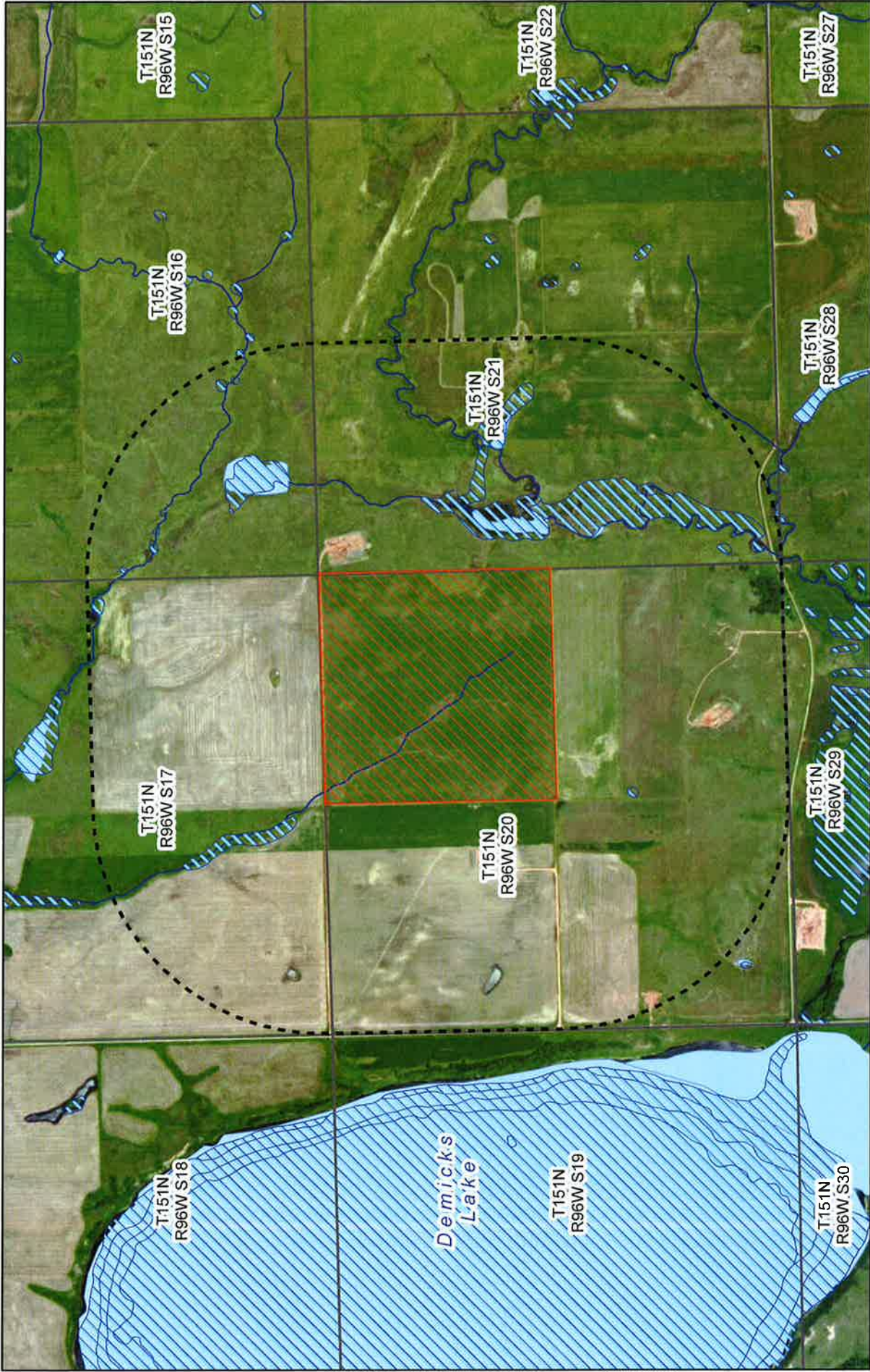
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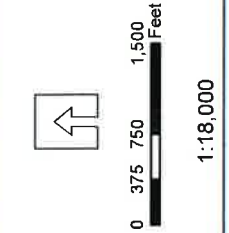
- Study Area
- Gas Plant Location
- 303d Waterbody
- NWI
- Waterbody
- Stream or River
- Federal Land
- State Land



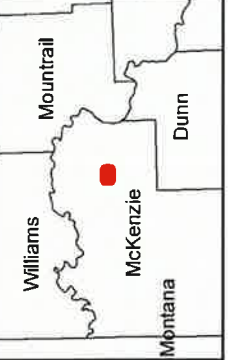
Source: ESRI Online, EPA and USFWS



ONEOK Rockies
Midstream, L.L.C.
 Demicks Lake Gas
 Processing Plant
 Scoping Map
 McKenzie County, ND



- Study Area
- Gas Plant Location
- 303d Waterbody
- NWI
- Waterbody
- Stream or River
- Federal Land
- State Land



Source: ESRI Online, EPA and USFWS

NDSHPO



**STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA**

RECEIVED

SEP 29 2014

ONEOK
CORP ENVIRONMENTAL

Jack Dalrymple
Governor of North Dakota

September 23, 2014

North Dakota
State Historical Board

Ms. Deborah Perry-Chambers
Manager, Environmental - Large Construction
ONEOK (MD 5-4)
PO Box 871
Tulsa, OK 74102-0871

Calvin Grinnell
New Town - President

A. Ruric Todd III
Jamestown - Vice President

ND SHPO REF.: 14-1701 PSC "Class I and Class III Cultural Resource Inventory Report Demicks Lake Gas Processing Plant Project, McKenzie County, North Dakota" in portions of [T151N R96W Section 20]

Margaret Puetz
Bismarck- Secretary

Albert I. Berger
Grand Forks

Gereld Gertholz
Valley City

Dear Ms. Perry-Chambers,

Diane K. Larson
Bismarck

We reviewed ND SHPO REF.: 14-1701 PSC "Class I and Class III Cultural Resource Inventory Report Demicks Lake Gas Processing Plant Project, McKenzie County, North Dakota" and find the report acceptable.

Chester E Nelson, Jr.
Bismarck

We concur with a "No Significant Sites" determination for the project, provided the project remains as described and mapped in the above-captioned E3 Environmental report dated September 9, 2014.

Sara Otte Coleman
Director
Tourism Division

Thank you for the opportunity to review this project. If you have questions please contact Susan Quinnell at squinnell@nd.gov or (701) 328-3576.

Kelly Schmidt
State Treasurer

Sincerely,

Alvin A. Jaeger
Secretary of State

Mark Zimmerman
Director
Parks and Recreation
Department

Merlan E. Paaverud, Jr.
Director, State Historical Society of North Dakota

Grant Levi
Director

Department of Transportation

Merlan E. Paaverud, Jr.
Director

Accredited by the
American Alliance
of Museums since 1986



September 8, 2014

Mr. Paul R. Picha, Chief Archeologist
State Historical Society of North Dakota
Archeology & Historic Preservation Division
612 East Boulevard Avenue
Bismarck, North Dakota 58505-0830

**ONEOK Rockies Midstream L.L.C.
Demicks Lake Gas Processing Plant
Cultural Resource Inventory Review Request**

Dear Mr. Picha:

ONEOK Rockies Midstream, L.L.C. (ORM) is proposing to construct the Demicks Lake Gas Processing Plant (Project) in response to growing demand for gas processing capacity of natural gas and natural gas liquids (NGL) produced in North Dakota. Site preparation and associated construction activities for the project under consideration would be initiated during the 4th quarter of 2014 and continue through the 3rd quarter of 2016, requiring approximately 18 months to complete. The Project is located in the NE 1/4 of Section 20, Township 151N, and Range 96W in McKenzie County, North Dakota. To satisfy state siting authority requirements, ORM is providing this Project notification for your consideration.

The purpose of this request is to provide the State Historical Society of North Dakota (SHSND) notice of the Project and to share ORM's analysis of cultural resource studies relevant to the North Dakota Public Service Commission's siting requirements for Energy Conversion Facilities. Enclosed is the *Class I and Class III Cultural Resource Inventory of the ONEOK Rockies Midstream Demicks Lake Gas Processing Plant Project in McKenzie County, North Dakota* (Report) in hard copy and digital CD format. In addition, following protocols prescribed by the North Dakota State Historical Preservation Office (NDSHPO) permit, a digital copy of the Report and related geospatial data have been uploaded to the SHSND FTP site.

The enclosed Report documents the results of a Class I and Class III inventory conducted for the Project. No previously recorded cultural resources are within the Project area. One newly recorded historic archaeological site is documented on the Project as Smithsonian Institution Trinomial System (SITS) number 32MZ2759. Due to the overall lack of integrity of the site, and the lack of National Register Criteria being met, site 32MZ2759 is **recommended not eligible** for the NRHP and should not be considered a Historic Property under federal guidelines.

Furthermore, due to the lack of significant cultural resources present on the project, it is recommended that a determination of *No Significant Sites Affected* and *No Historic Properties Affected* be granted for the Project.

In closing, E3 Environmental has been retained by ORM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact Bill McCarthy at 651.282.0650 or wmcCarthy@go2e3.com; you may also contact me at 918.588.7530 or Deborah.Perry@oneok.com. Please notify me in writing with the results of your review at the address listed below.

Sincerely,



Deborah Perry-Chambers
Manager, Environmental – Large Construction
ONEOK (MD 5-4)
P. O. Box 871
Tulsa, OK 74102-0871

Enclosures: Report in hard copy and digital CD format: *Class I and Class III Cultural Resource Inventory of the ONEOK Rockies Midstream Demicks Lake Gas Processing Plant Project in McKenzie County, North Dakota.*

xc: Bill McCarthy, Erica Davis – E3 (pdf)
Jeff Hammond – ONEOK (pdf)
Tulsa Environmental Files – Demicks Lake GP Large Construction

NDDTL Mineral Management Division

Erica Davis

From: Erica Davis
Sent: Tuesday, September 09, 2014 8:58 AM
To: 'kbayley@nd.gov'
Cc: William McCarthy; Lucas Bicknell
Subject: RE: ONEOK Rockies Midstream-Demicks Lake Project & Mineral Trust Lands Consultation
Attachments: ND State Land Mineral Trust_ORM Demicks Lake GP PSC mailed 9-8-14.pdf; StudyArea_MineralTrustLands.dbf; StudyArea_MineralTrustLands.prj; StudyArea_MineralTrustLands.sbn; StudyArea_MineralTrustLands.sbx; StudyArea_MineralTrustLands.shp; StudyArea_MineralTrustLands.shx

Dear Mr. Bayley:

E3 Environmental, LLC has been retained by ONEOK Rockies Midstream, L.L.C. to provide environmental consulting support for the Demicks Lake Project (see attached). For your convenience, E3 is submitting an electronic copy of the Project notification letter, a map, and shapefiles to assist in your review of the Project.

Please let me know if I can be of further assistance, or if you have any questions or concerns regarding the attached files.

Thank you for your time and consideration.

Sincerely,

Erica Davis
Associate Consultant
E3 Environmental, LLC
edavis@go2e3.com
O: 651.272.1151
871 Jefferson Avenue
St. Paul, MN 55102
www.go2e3.com



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September 8, 2014

Mr. Keith Bayley, Land Professional
North Dakota Department of Trust Lands
Minerals Management Division
1707 North 9th Street, P.O. Box 5523
Bismarck, ND 58506-5523

**ONEOK Rockies Midstream L.L.C.
Demicks Lake Gas Processing Plant
State Mineral Trust Lands Consultation**

ONEOK Rockies Midstream, L.L.C. (ORM) is proposing to construct the Demicks Lake Gas Processing Plant (Project) in response to growing demand for gas processing capacity of natural gas and natural gas liquids (NGL) produced in North Dakota. Site preparation and associated construction activities for the Project under consideration would be initiated during the 4th quarter of 2014 and continue through the 3rd quarter of 2016, requiring approximately 18 months to complete. ORM will restore the Project area to preconstruction conditions where practicable. To satisfy state siting authority requirements, ORM is providing this Project notification for your consideration.

The Project will be located in the NE 1/4 of Section 20, Township 151N, and Range 96W in McKenzie County, North Dakota. A review of the Project and associated Study Area (see attached) for the presence of State Mineral Trust Lands was conducted using available information at www.land.nd.gov. The results of this search concluded that Township 151N, and Range 96W, Sections 16 and 21 intersect State Lands in McKenzie County, which fall within the Study Area of the Project. The enclosed topographic map depicts the Project site and associated Study Area, and State Mineral Trust Lands within the Study Area. This has been provided to assist the Department's review of the Project.

The purpose of this correspondence is to seek your concurrence with this analysis. This information will be included in a North Dakota Public Service Commission application for the Project. For your convenience, I have directed E3 Environmental, LLC (E3) to submit an electronic copy of this letter, attached map, and shapefiles concurrently with this mailing.

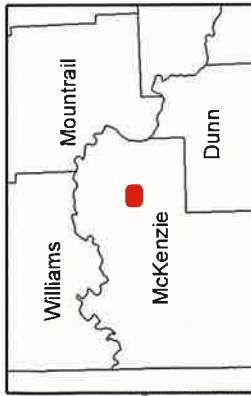
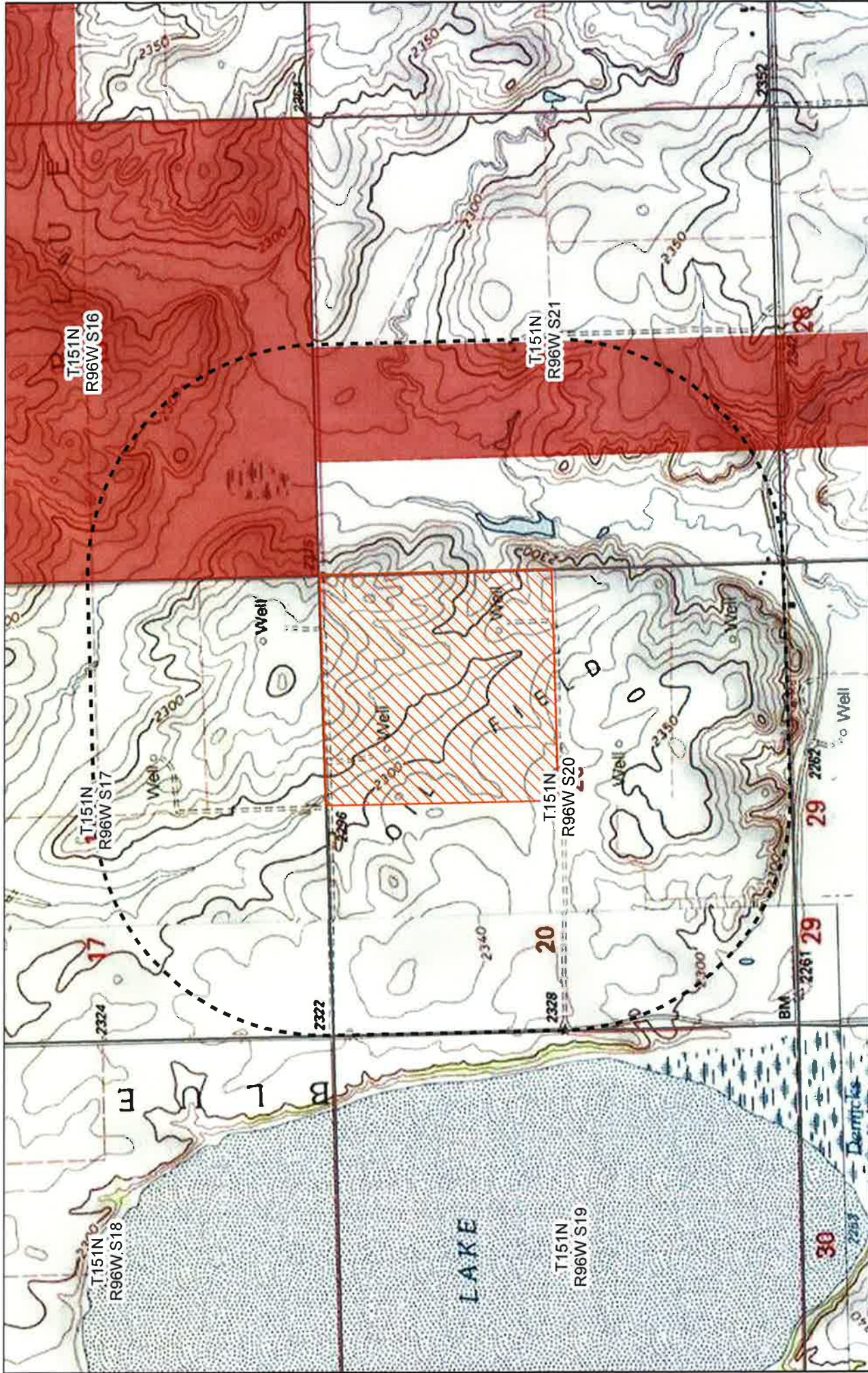
In closing, E3 has been retained by ORM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact Bill McCarthy at 651.282.0650 or wmcCarthy@go2e3.com; you may also contact me at 918.588.7530 or Deborah.Perry@oneok.com.

Sincerely,

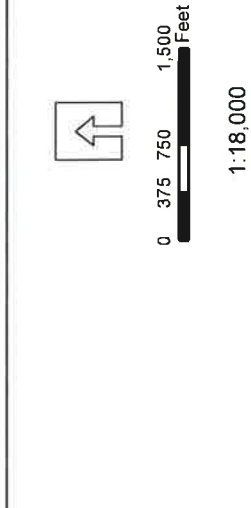
Deborah Perry-Chambers
Manager, Environmental – Large Construction

Enclosure: Project and ND Mineral Trust Lands Map – USGS topographic

xc: Bill McCarthy, Erica Davis – E3 (pdf)
Jeff Hammond – ONEOK (pdf)
Tulsa Environmental Files – Demicks Lake GP Large Construction



- Study Area
- Gas Plant Location
- ND Mineral Trust Lands



**ONEOK Rockies
Midstream, L.L.C.**
Demicks Lake Gas
Processing Plant
Scoping Map
McKenzie County, ND

NDDTL Surface Management Division

From: Haupt, Michael L. [<mailto:mhaupt@nd.gov>]

Sent: Friday, September 12, 2014 8:32 AM

To: wmcCarthy@go2e3.com; Perry, Deborah A.

Subject: (External) Oneok - Demicks Lake Gas Processing Plant - ND School Trust lands

Bill & Deborah,

Good morning! The ND School Trust owns surface in the S2 of section 16, T151N, R96W, which lies just northeast of the proposed Oneok gas plant. Being this close to the gas plant we can assume that Oneok may submit a request at some point for a pipeline right of way, or two. The concern with a pipeline request is the types of soils that occupy the majority of the S2 of section 16. This would be the Daglum-Belfield complex, 0 to 6 percent slopes (34B), as depicted on the attached aerial photo. Reclamation and revegetation of disturbances on these types of soils is difficult, as evidenced by the scar created by a pipeline which was built around 1961. With this in mind, a request from Oneok, or any company, for a pipeline route across this tract may require avoidance of these soils, perhaps by directional drilling or routing off of them. An onsite inspection by Trust Lands would be required in order to determine if there is a suitable pipeline corridor, no guarantee. Let me know if you have questions. Thanks.

Michael L. Haupt

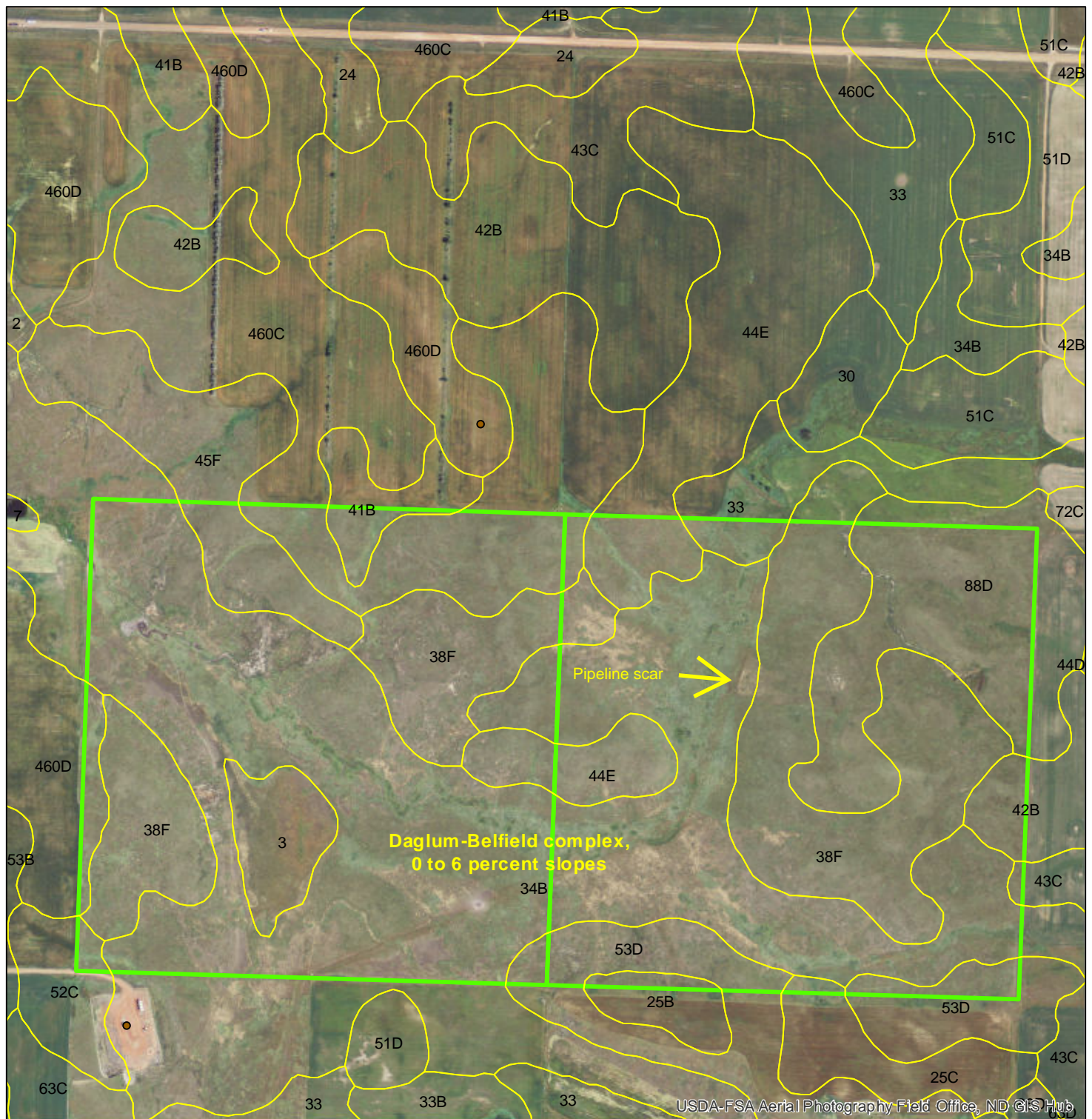
Land Management Professional, CPRM
North Dakota Department of Trust lands
1707 Nth 9th Street
Bismarck ND 58506-5523
701-328-1916
mhaupt@nd.gov

Note: You can track the real time status of your right-of-way application 24/7 at <http://www.land.nd.gov/surface/right-of-way.aspx> using either the ROW number or by entering at least the first three letters of the company name. By checking this site you can find the name, telephone number and email address of the person working on the application as well as its current status in real time.

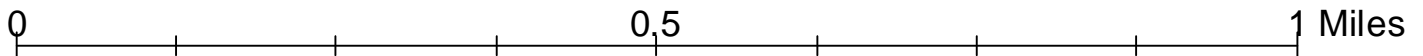
16-T151-R96

McKenzie County

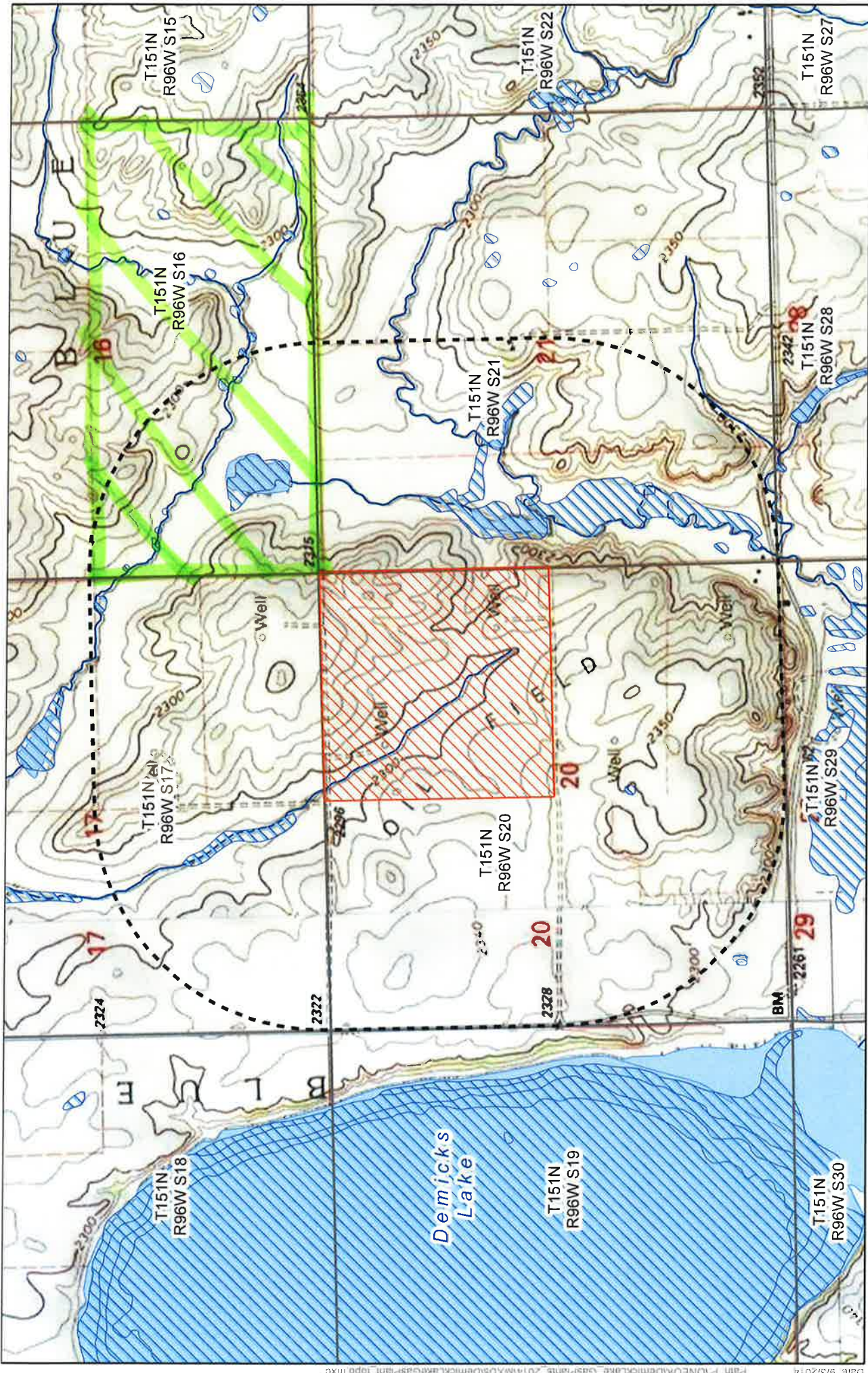
Township: Blue Buttes



Map Datum is WGS 84 (same as NAD 83)



Printed: 9/12/2014 -- ND State Land Dept.



ONEOK Rockies
Midstream, L.L.C.
 Demicks Lake Gas
 Processing Plant
 Scoping Map
 McKenzie County, ND

ONEOK ROCKIES MIDSTREAM
 A subsidiary of ONEOK COMPANY, L.P.

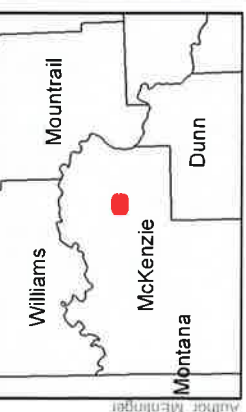
E3 ENVIRONMENTAL
 Advancing Execution with Experience

Legend:

- Study Area
- Gas Plant Location
- 303d Waterbody
- NWI
- Waterbody
- Stream or River
- Federal Land
- State Land

Scale: 0 375 750 1,500 Feet
 1:18,000

Source: ESRI Online, EPA and USFWS





CERTIFIED MAIL 7014 1200 0000 2236 2701
RETURN RECEIPT REQUESTED

September 8, 2014

Mr. Michael Haupt, Land Management Professional
North Dakota Department of Trust Lands
Surface Management Division
1707 North 9th Street, P.O. Box 5523
Bismarck, ND 58506-5523

**ONEOK Rockies Midstream, L.L.C.
Demicks Lake Gas Processing Plant
School Trust Lands Consultation**

ONEOK Rockies Midstream, L.L.C. (ORM) is proposing to construct the Demicks Lake Gas Processing Plant (Project) in response to growing demand for gas processing capacity of natural gas and natural gas liquids (NGL) produced in North Dakota. Site preparation and associated construction activities for the Project under consideration would be initiated during the 4th quarter of 2014 and continue through the 3rd quarter of 2016, requiring approximately 18 months to complete. ORM will restore the Project area to pre-construction conditions where practicable. To satisfy state siting authority requirements, ORM is providing this Project notification for your consideration.

The purpose of this correspondence is to request a review of the Project and associated Study Area (see attached) for the presence or absence of State School Trust Lands. This information will be included in a North Dakota Public Service Commission application for the Project.

The Project is located in the NE 1/4 of Section 20, Township 151N, and Range 96W in McKenzie County, North Dakota. The enclosed topographic map and aerial photo depict the Project site and associated Study Area. These have been provided to assist the Department's review of the Project.

In closing, E3 Environmental, LLC has been retained by ORM to provide environmental consulting support for this Project. Should you have any questions or require additional information, please contact Bill McCarthy at 651.282.0650 or wmcCarthy@go2e3.com; you may also contact me at 918.588.7530 or Deborah.Perry@oneok.com.

Sincerely,

Deborah Perry-Chambers
Manager, Environmental – Large Construction

Enclosures: Project Map – USGS topographic
Project Map – Aerial photograph

xc: Bill McCarthy, Erica Davis – E3 (pdf)
Jeff Hammond – ONEOK (pdf)
Tulsa Environmental Files – Demicks Lake GP Large Construction



ONEOK Rockies
Midstream, L.L.C.
 Demicks Lake Gas
 Processing Plant
 Scoping Map
 McKenzie County, ND

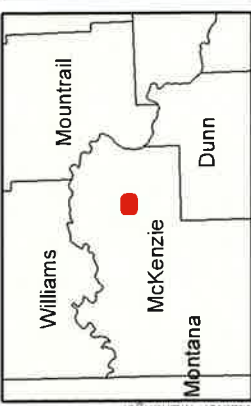
ONEOK ROCKIES MIDSTREAM
A DIVISION OF ONEOK PARTNERS L.P.

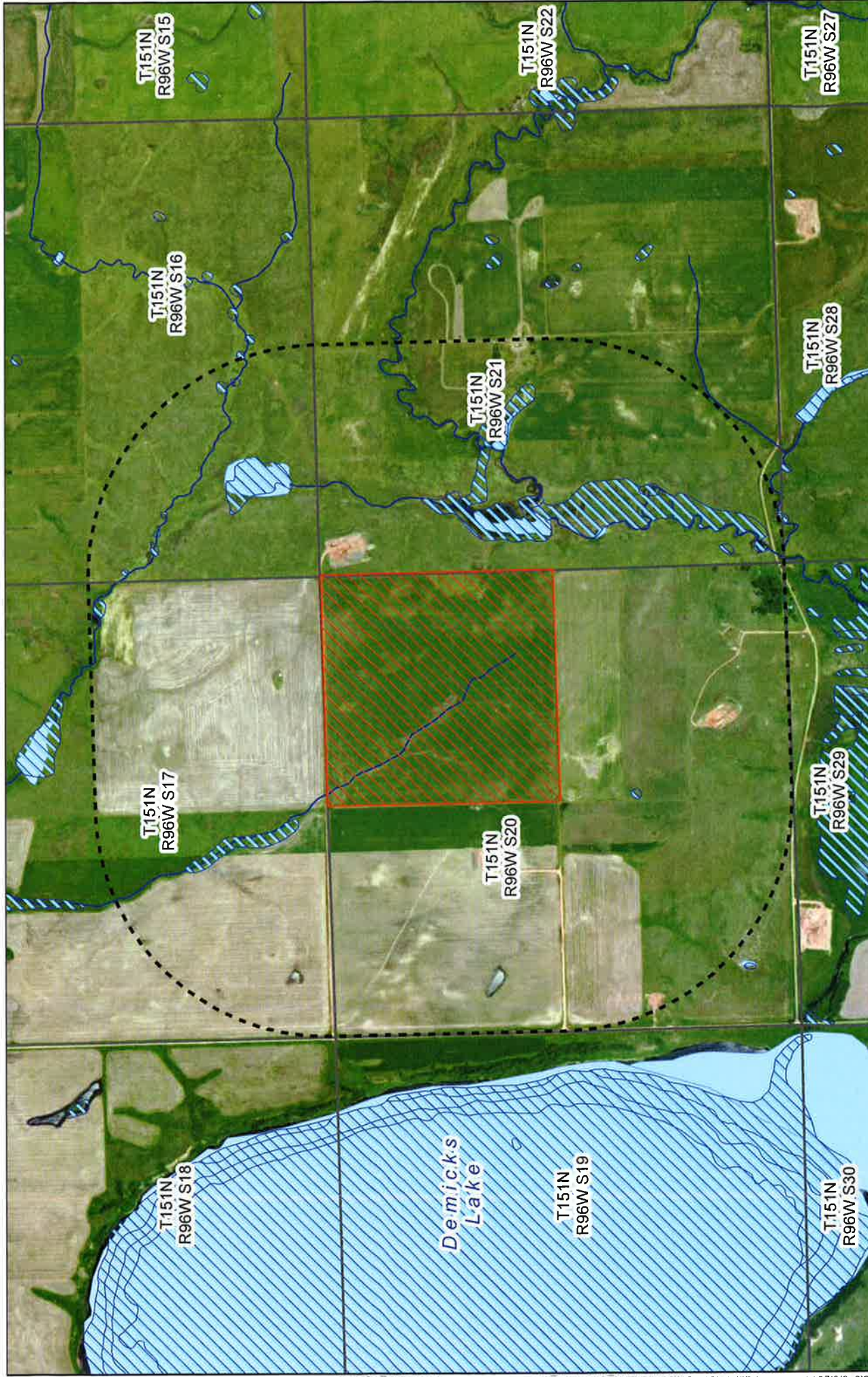
E3 ENVIRONMENTAL
Enhancing Operations and Experiences

Legend:

- Study Area
- Gas Plant Location
- 303d Waterbody
- NWI
- Waterbody
- Stream or River
- Federal Land
- State Land

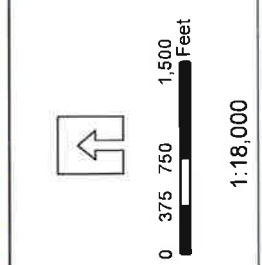
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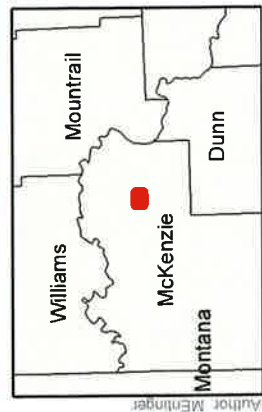


Path P:\ONEOK\DemicksLake_GasPlants_2014\MXDs\DemicksLakeGasPlant_topo.mxd Date 9/3/2014

ONEOK Rockies
Midstream, L.L.C.
 Demicks Lake Gas
 Processing Plant
 Scoping Map
 McKenzie County, ND



- Study Area
- Gas Plant Location
- 303d Waterbody
- NWI
- Waterbody
- Stream or River
- Federal Land
- State Land



Source: ESRI Online, EPA and USFWS

Author: Weinger

Appendix D

Natural Resources Report



E3 ENVIRONMENTAL
Enhancing Execution with Experience

**Natural Resource and Wetland/Waterbody
Determination Report,
Demicks Lake Gas Processing Plant Project,
McKenzie County, North Dakota**

Prepared for:

ONEOK Rockies Midstream, L.L.C.

Prepared by:

E3 Environmental, L.L.C.

September 5, 2014



ONEOK
ROCKIES MIDSTREAM

A SUBSIDIARY OF ONEOK PARTNERS, L.P.

Natural Resources and Wetland/Waterbody Determination Report
ONEOK Rockies Midstream, L.L.C.
Demicks Lake Gas Processing Plant Project
McKenzie County, North Dakota

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September 5, 2014

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SECTION 1: SUMMARY

E3 Environmental, LLC (E3) conducted a natural resources, wetlands and waterbody, and sensitive plant and wildlife analysis on the behalf of ONEOK Rockies Midstream (ORM), for the proposed Demicks Lake Gas Processing Plant (DLGP) Project. This report is prepared to supplement ORM's submittal of an application for a Certificate of Site Compatibility to the North Dakota Public Service Commission for the DLGP.

ORM's proposed DLGP Project is located approximately 13.5 miles northeast of Watford City, North Dakota. As proposed, the facility would be constructed on a 160 acre plot located in the NE ¼ of Section 20, Township 151 North, Range 96 West in McKenzie County, as depicted in the map included in Appendix A.

At the time of field surveys, the Site was primarily under cultivation and was planted in wheat (*Triticum aestivum*) and alfalfa (*Medicago sativa*). Results of the wetland and waterbody delineation determined that one palustrine emergent seasonally flooded wetland, 0.13 acres in size, is located on the east Site boundary. One ephemeral stream, approximately 2 feet in width and 0.06 acres in size originates on the west boundary of the Site and flows northeast into a U.S. Geological Survey (USGS) National Hydrograph Data (NHD) mapped ephemeral stream. Field surveys found no ordinary high watermark or other indication of the presence of a waterbody in the area of the USGS NHD mapped stream.

An area 0.02 acres in size, consisting of approximately 8 individual silver buffaloberry (*Symphoricarpos occidentalis*) shrubs is present on the Site. The average height of the shrubs was 7 feet, and diameter at breast height averaged 2 inches.

No federal- or state-listed threatened, endangered or special concern species or suitable habitat were observed on the Site during the survey. Several common wildlife species were observed. The Project may affect, but is not likely to adversely affect the federally listed Whooping crane. The proposed Project is not expected to have an adverse effect on any other listed or common species or designated critical habitat. No bald or golden eagles or evidence of nesting were observed.

SECTION 2: METHODS

E3 reviewed the Project area and a 1-mile surrounding study area for this natural resource and wetland/waterbody evaluation report. Literature reviewed included USGS 7.5 minute topographic quadrangle maps; U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps; USGS NHD mapping; USGS GAP Landcover mapping, and current and historical aerial photographs of the Project area using Google Earth. The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) web soil survey, and the National Oceanic and Atmospheric Administration (NOAA) National Climate Data Center was also reviewed. The USFWS Information, Planning, and Conservation System (IPaC) System was accessed on August 12, 2014 to determine whether any threatened and endangered

species, designated critical habitat, or other natural resources of concern may be present within the Project and study area.

The presence/absence of wetlands was identified in the field using routine on-site delineation methods in accordance with the U.S. Army Corps of Engineers (USACE) *Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0)* (Environmental Laboratory 2010). These criteria include characterization of vegetation, hydrology and soils at the Site. Wetlands are defined by the USACE as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” For an area to be delineated as a regulated wetland, the vegetative, hydrologic and soil characteristics must be consistent with federal classification criteria. More than 50 percent of the vegetative cover must consist of obligate and facultative wetland species. There must be evidence of periodic or permanent ground inundation and the soils must exhibit hydric characteristics. The Project is within the Northern Great Plains Land Resource Region F.

Delineation of ordinary high water marks (OHWM) was conducted in accordance with the *Ordinary High Water Mark Delineation Manual for Section 404 Waters* (Harris County Flood Control Board, 2005). Delineation of the OHWM in both riverine and lake settings includes assessment of vegetation, soils, hydrology and physical indicators. The USACE defines ordinary high water mark as: “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

The USACE *National Wetlands Plant List* was used to describe the taxonomy of wetland plants surveyed and their wetland indicator status. Determination of wetland type is based on the classification system developed by Cowardin et al. (1979).

The location and boundaries of wetland and waterbody features identified by E3 during field surveys were recorded in the field using a Trimble Geoexplorer 6000 which typically achieves accuracy within 2 feet. Topographic maps and aerial photos of the area surveyed are included in Appendix A. USDA NRCS Soil Maps are included in Appendix B. Representative photos of the Site are included in Appendix C.

SECTION 3: RESULTS

3.1 GENERAL LANDSCAPE CHARACTERIZATION

The proposed Project is within the USDA NRCS Major Land Resource Area (MLRA) 54, Rolling Soft Shale Plain. An MLRA is a broad geographic area that is characterized by a particular pattern of soils, climate, water resources, vegetation and land use.

The Project area can be further defined by its location within the Northwestern Great Plains (Level III) ecoregion. The Northwestern Great Plains is characterized as a semiarid rolling plain of shale, siltstone, and sandstone punctuated by occasional buttes and badlands. Native shortgrass prairie persists in areas of steep or broken topography. Native prairie has been largely replaced by dryland farming of spring wheat, alfalfa, barley, oats and sunflowers and by pasture for cattle grazing throughout most of the ecoregion.

Within the Northwestern Great Plains ecoregion, the Project is within the Missouri Plateau (Level IV) ecoregion. The Missouri Plateau ecoregion was largely unaffected by glaciation and retains its original soils and complex stream drainage pattern. Physiography of the Missouri Plateau is described as moderately dissected, level to rolling plains with isolated sandstone buttes. This area is underlain by soft, calcareous shales, siltstones and sandstones of the Tertiary Fort Union Formation. The principal source of ground water in the area is in these rocks. Impermeable Cretaceous shale underlies these aquifers.

Natural prairie vegetation within the region consists of western wheatgrass, needleandthread, green needlegrass, and blue grama. Little bluestem, prairie sandreed, and sideoats grama are important species on shallow soils. Prairie rose, leadplant, and patches of western snowberry are interspersed throughout the area. Green ash, chokecherry, and buffaloberry occur in draws and narrow valleys.

The Site is within the Upper Clear Creek watershed. USGS NHD mapping and aerial photography indicates the presence of a water flowage originating at the center of the Site and draining to the northwest corner of the Site. This waterbody flows northwest to its confluence with Clear Creek which continues northwest to Tobacco Garden Creek and ultimately Lake Sakakawea approximately 14.5 miles northwest of the Site. This flowage is classified as a 305(b) EPA Assessed Waters. There is a Fish Consumption Advisory for this stream, however there are no listed impairments or total daily maximum load limits.

Demicks Lake is located 0.6-mile west of the western boundary of the Site. Demicks Lake is classified by the USFWS NWI as a lacustrine, intermittently exposed littoral aquatic bed. Wetlands are present bordering the lake and are classified as palustrine emergent wetlands with hydrologic regimes ranging from temporarily to semipermanently flooded. One palustrine, semipermanently flooded and impounded aquatic bed, and temporarily flooded emergent wetland complex is located 360 feet east of the southeastern boundary of the Site. These wetlands and waterbodies are likely considered jurisdictional waters of the U.S. One isolated palustrine emergent wetland is located approximately 792 feet south of the Site and one is located approximately 370 feet northwest of the Site. Both of these wetlands are likely not jurisdictional waters of the U.S.

McKenzie County climate is semi-arid to subhumid and continental. The county is usually warm in summer with frequent spells of hot weather and occasional cool days.

The county is very cold in winter, when arctic air frequently surges over the area. The county has 95-130 mean annual frost free days. In winter, the average temperature is 13 degrees F. In summer the average temperature is 72 degrees F. The mean air temperature min/max for January is -3/21 and July 55/83 degrees F.

Mean annual precipitation is 15-17 inches. Most of the precipitation falls during the warm period with about 80 percent falling April through September. It is normally heaviest in late spring and early summer. The average seasonal snowfall is about 35 inches. On average, 43 days of the year have at least 1 inch of snow on the ground. Winter snowfall is normally not too heavy, and it is blown into drifts, so that much of the ground is free of snow. National Weather Service data for the Williston, North Dakota monitoring station recorded precipitation totals for the period from May 2013 to August 21st 2015 to be 4.30 inches as described in Table 1 below. The normal precipitation average for this time period is 7.98. For this time period, rainfall was 3.68 inches below normal.

**Table 1. National Weather Service
 Monthly Recorded Rainfall at Williston, North Dakota**

Month	Recorded Precipitation (inches)	Normal Precipitation (inches)	Difference (inches)
May	1.62	1.92	-0.30
June	1.44	2.52	-1.08
July	0.66	2.54	-1.88
August 1 - 21	0.58	1.00	-0.42
Total	4.30	7.98	-3.68

Source: National Oceanic and Atmospheric Administration (2014)

3.2 WETLANDS

National Wetland Inventory (NWI) mapping for the area does not indicate the presence of wetlands within the Site. The USGS 7.5 minute topographic quadrangle map and current and historic aerial photographs do not indicate the presence of wetlands within the Project area. The USGS Web Soil survey was accessed to identify soils within the Project area. No soils within the Project area are listed as hydric soils. Soils within the Project area are described in Soils Section 3.5.

Field investigations conducted on August 21st, 2014 identified the presence of one palustrine emergent marsh wetland on the east boundary of the Project area. Dominant vegetation within the wetland included common spike rush (*Elyocharis palustris*), Baltic rush (*Juncus arcticus*), cattails (*Typha latifolia*), sedges (*Carex spp.*) and red top (*Agrostis stolonifera*).

The remainder of the Site is comprised primarily of cultivated wheat (*Triticum aestivum*) and Alfalfa (*Medicago sativa*) which had recently been harvested for hay. Smooth brome (*Bromus inermis*), crested wheatgrass (*Agropyron cristatum*), common yarrow (*Achillea millefolium*), American licorice (*Glycyrrhiza lepidota*), western snowberry

(*Symphoricarpos occidentalis*), silver-leaf scurf pea (*Psoralea argophylla*), Palmer’s amaranth (*Amaranthus palmeri*), Kochia (*Kochia scoparia*), common sunflower (*Helianthus annuus*), curlycup gumweed (*Grindelia squaarrosa*), greater ragweed (*Ambrosia trifida*), common ragweed (*A. artemisiifolia*) and Canada thistle (*Cirsium arvense*) are present along fence lines and hill crests too steep or rocky to cultivate. Maps showing the location of the field verified wetland, topography, NWI mapping and aerial photographs are included in Appendix A.

Table 2: Wetland Characteristics

Wetland ID	Wetland Type	Acres within Site
FV_01	PEMC	0.13

3.3 WATERBODIES

Field surveys identified one ephemeral stream, averaging 21 inches and width and 4 to 11 inches in depth, depicted as Ephemeral Stream1 on the maps attached in Appendix A. This ephemeral stream originates on the west boundary of the Site and flows northeast into the NHD mapped waterbody. Hydrophytic vegetation was not present within or adjacent to the stream. This flowage is ephemeral in nature, with water present only during spring snowmelt and is likely not under the jurisdiction of the USACE. Field surveys determined that no Ordinary High Water Mark or other evidence of a waterbody is present within the area of the NHD mapped waterbody.

Ephemeral drainages are non-jurisdictional by definitions outlined in the *Ordinary High Water Mark Delineation Manual for Section 404 Waters* (1995). However, the USACE has final authority on jurisdictional status. Maps showing the location of the ephemeral stream Eph1-1, topography, NHD and NWI mapping and aerial photographs are included in Appendix A. A photo of the ephemeral stream Eph1-1 is included as Figure 3 in Appendix C.

Table 3: Waterbody Characteristics

Waterbody ID	Waterbody Name	Classification	Average Width of OHWM (feet)	Total Acreage in Survey Area	Length in Construction Area (feet)
Ephemeral Stream1	Unnamed	Ephemeral	2	0.06	1,280

3.4 VEGETATION

The Site is currently in agricultural production as cultivated cropland. At the time of field surveys the Site had been planted in wheat (*Triticum aestivum*) and alfalfa (*Medicago sativa*) and had been recently harvested. A small portion of the Site on the eastern boundary approximately 3.3 acres in size is uncultivated. This area is

dominated by crested wheatgrass, a non-native, introduced grass species. A description of vegetation observed during field surveys is provided in Section 3.2 Wetlands. Review of historic aerial photographs of the Site dating from 1995 to present show the Site to be maintained under cultivated or introduced vegetation continuously during this period.

3.4.1 WOODY TREES AND SAPLINGS

The Site was evaluated for the presence of trees, saplings or shrubs. An area 0.02 acres in size consisting of approximately 8 individual silver buffaloberry (*Symphoricarpos occidentalis*) shrubs is present on the Site. The average height of the shrubs was 7 feet, and diameter at breast height averaged 2 inches. Silver buffaloberry reproduces by root suckering forming dense thickets, the percent aerial cover within the Site was approximately 75%. Woody vegetation within the study area is sparse and limited to woody draws and ravines associated with drainage ways.

3.4.2 NOXIOUS WEEDS

Three populations of Canada thistle (*Cirsium arvense*) are present on the east and west Site boundaries as shown in the Site map in Appendix A. Canada thistle is a North Dakota state-listed noxious weed, therefore a management program should be implemented to control the present population and prevent further dispersal.

3.5 SOILS

The dominant soil orders in this Project and study area are Mollisols and Entisols. The soils have a frigid soil temperature regime, an ustic soil moisture regime, and mixed or smectitic mineralogy. They are shallow to very deep, generally somewhat excessively drained to moderately well drained, and loamy or clayey. Calciustolls (Chama series) and Ustorthents (Cabba series) formed in residuum and/or colluvium on uplands (USDA, 2006).

The following soil component descriptions represent the most prevalent soil series found within the Site.

3.5.1 CHAMA

The Chama series consists of well drained soils formed in materials weathered from soft siltstone, mudstone and shale on uplands. These soils are moderately deep to soft siltstone, mudstone or shale. These soils are moderately or moderately slowly permeable. Runoff is medium to rapid. Slope ranges from 0 to 45 percent. Soils are cropped to small grains, which are mostly wheat; a significant acreage is in rangeland. The native vegetation is principally western wheatgrass, needleandthread and blue grama (NRCS 2014).

3.5.2 CABBA

The Cabba series consists of shallow, well drained soils that formed in residuum or colluvium derived from semiconsolidated, loamy sedimentary beds. These soils are on hills, escarpments, and sedimentary plains. Runoff is very low to high depending on slope. Slopes are 2 to 70 percent. Used as rangeland. The potential native vegetation is mainly little bluestem, western wheatgrass, needleandthread, prairie sandreed, bluebunch wheatgrass, green needlegrass, plains muhly, forbs, and shrubs (NRCS 2014).

3.5.3 SEN

The Sen series consists of well drained, moderately permeable soils that formed in calcareous siltstone or shale. They are moderately deep to soft bedrock. These soils are on upland plains and have slope of 0 to 25 percent. Runoff is slow, medium or rapid. Soils are cropped to small grains in a crop-summer fallow rotation. Native vegetation is mid and short prairie grasses as green needlegrass, needleandthread, western wheatgrass, blue grama and a variety of forbs (NRCS 2014).

3.5.4 GRAIL

The Grail series consists of deep and very deep, well or moderately well drained, moderately slow or slowly permeable soils that formed in alluvium. These soils are on terraces, fans, swales and foot slopes on uplands and have slope ranging from 0 to 15 percent. Runoff is negligible to medium depending on slope. Most areas are used for cultivated crops such as wheat, oats, and barley. Native vegetation includes mixed grasses such as western wheatgrass, big bluestem, green needlegrass, and needleandthread (NRCS 2014).

3.5.5 DAGLUM

The Daglum series consists of deep and very deep, moderately well and well drained soils formed in clayey alluvium or residuum on foot slopes and swales on terraces and uplands. These soils have slow or very slow permeability. Slopes range from 0 to 25 percent. Most areas are used for range, pasture and small grains. Native vegetation is western wheatgrass, blue grama, green needlegrass, needleleaf sedge and forbs.

3.5.6 BELFIELD

The Belfield series consists of deep and very deep, well or moderately well drained slowly permeable soils formed in alkaline, calcareous residuum or alluvium on uplands, flats, terraces and in swales. Slope ranges from 0 to 9 percent. Well or moderately well drained. Runoff is negligible to medium depending on slope and surface texture. Most areas are cropped to small grains. Some are used for hay or pasture. Native vegetation is mid and short prairie grasses such as western wheatgrass, blue grama, and green needlegrass.

The Table 4 below summarizes slope, prime farmland classification, and hydric rating of the soils within the Site as mapped by the USDA Web Soil Survey. A soils map for the Site is included in Appendix B.

Table 4. Soils

Map Unit	Soil type	Percent Slope	Prime Farmland	Hydric Rating/ Percent Hydric	Acres within Project Area
E1333C	Regent-Savage silty clay loams	3 to 6 percent slopes	Farmland of Statewide Importance	C/0	5.5
E2107A	Arnegard loam	0 to 2 percent slopes	All Prime Farmland	B/0	8.7
E2913B	Chama-Sen-Cabba silt loams	3 to 6 percent slopes	Farmland of Statewide Importance	C/0	33.6
E133C	Vebar-Cohagen fine sandy loam	6 to 9 percent slopes	Not Prime Farmland	B/0	11.1
E0837B	Regent-Janesburg complex	3 to 6 percent slopes	Not Prime Farmland	C/0	0.6
E2803B	Amor-Shambo loams	3 to 6 percent slopes	Farmland of Statewide Importance	C/0	17.5
E2737C	Reeder-Werner loams	6 to 9 percent slopes	Farmland of Statewide Importance	C/0	3.2
E0447B	Daglum-Belfield complex	0 to 6 percent slopes	Not Prime Farmland	C/0	26.2
E2741D	Cabba-Chama-Sen silt loams	9 to 15 percent slopes	Not Prime Farmland	D/0	8.0
E2737C	Chama-Cabba-Sen silt loams	6 to 9 percent slopes	Not Prime Farmland	C/0	5.4
E0651B	Belfield-Savage-Daglum complex	2 to 6 percent slopes	Farmland of Statewide Importance	C/0	2.5
E3541B	Williams-Zahl loams	3 to 6 percent slopes	Not Prime Farmland	C/0	8.5
E0837B	Savage silty clay loam	2 to 6 percent slopes	Farmland of Statewide Importance	C/0	11.4

E4005A	Harriet loam, occasionally flooded	0 to 2 percent slopes	Not Prime Farmland	D/89	0.01
E0605A	Belfield-Grail clay loams	0 to 2 percent slopes	Farmland of Statewide Importance	C/0	18.8

Source: USDA Web Soil Survey (2014).

3.6 WILDLIFE AND THREATENED AND ENDANGERED SPECIES

Some of the common wildlife species that may occur in the area are white-tailed deer, mule deer, pronghorn antelope, red fox, coyote, white-tailed jackrabbit, prairie dog, ring-necked pheasant, gray partridge, sharp-tailed grouse, ducks, and geese. The species of fish in the area include rainbow trout, walleye, smallmouth bass, bluegill, yellow perch, and northern pike. However, fishing is limited mainly to rivers and impoundments.

The USFWS IPaC was accessed on August 12, 2014 to obtain information regarding the presence of threatened and endangered species in McKenzie County, North Dakota. This information does not represent a comprehensive survey, but rather acknowledges the past and/or current presence of listed species. The 160 acre Site currently consists primarily of cultivated cropland.

3.6.1 WILDLIFE OBSERVED

During the field survey, E3 ecologists observed four bird species and two mammal species (Table 5). These are species that use agricultural lands, grasslands and the associated habitat in the survey area. Wildlife may be affected both directly by incidents with construction equipment (nest or den destruction) or indirectly through fragmentation of habitat or introduction of noxious weeds as a result of construction activities.

Table 5. Observed Wildlife

Common Name	Scientific name	Observed Type
Eastern kingbird	<i>Tyrannus tyrannus</i>	Primary
Canada goose	<i>Branta canadensis</i>	Primary
Field sparrow	<i>Spizella pusilla</i>	Primary
Western meadowlark	<i>Sturnella neglecta</i>	Primary
White-tailed jackrabbit	<i>Lepus townsendii</i>	Primary and Secondary
Prairie vole	<i>Microtus ochrogaster</i>	Primary

3.6.1.1 FEDERALLY PROTECTED SPECIES REVIEW

Under the authority of the Endangered Species Act, the FWS assesses wildlife populations for viability throughout their current and historic ranges. Species characterized as Threatened or Endangered and their critical habitats are identified and managed under the FWS ESA program. A review of the FWS published data identified the following listed species with the potential to occur within the study area: The results of the search of the USFWS's IPaC system on August 12, 2014 found the following:

- Least tern – endangered
- Piping plover – threatened, and designated critical habitat
- Rufa red knot – proposed threatened
- Sprague's pipit - candidate
- Whooping crane – endangered
- Pallid sturgeon – endangered
- Dakota skipper – proposed threatened, and designated critical habitat
- Black-footed ferret – experimental population
- Gray wolf - endangered

Least Tern

The interior populations of the Least Tern have historically been associated with large river systems for breeding and migratory habitats. Breeding birds are known to congregate in colonies, utilizing sandbar habitat common to larger rivers. The Least Tern is found in North Dakota during the late spring and summer breeding season (mid-May through late August, with the peak of the nesting season occurring from mid-June to mid-July. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area.

Effects Determination: No Effect.

Piping plover

The Piping plover is associated with shorelines along small alkaline lakes, large reservoir beaches, and river islands and adjacent sand pits. Breeding birds select wide beaches with highly clumped vegetation covering less than 25 percent of the area. Breeding season in North Dakota occurs mid-April through August. The Missouri River and Lake Sakakwea, approximately 13.7 miles east of the Site at its nearest point, is the closest designated critical habitat for the Piping plover. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area.

Effects Determination: No Effect.

Rufa red knot

The Rufa red knot migrates between breeding grounds in Canada and wintering grounds in South America. A significant factor threatening the Rufa red knot is

destruction and modification of its habitat due to beach erosion and shoreline protection and stabilization projects. Migratory behavior and habitat requirements of this species are poorly understood particularly for those populations occupying the midcontinent flyways. Inland stopovers include the Mississippi Valley, Great Lakes, and Great Plains. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area.

Effects Determination: No Effect.

Sprague's pipit

The Sprague's pipit is a small passerine, 10–15 centimeters in length, endemic to the Northern Great Plains (USFWS, 2010). In North Dakota, the Sprague's pipit breeds throughout the state except for the easternmost counties. During the breeding season, they prefer large patches of well-drained, open unplowed native grassland with a minimum size of 358.3 acres (range = 170–776 acres). They have not been observed in areas smaller than 71.6 acres on their breeding grounds (USFWS, 2010). Sprague's pipits are sensitive to patch size and avoid edges between grasslands and other habitat features. They may avoid non-grassland features including roads, trails, oil wells, croplands, woody vegetation, and wetlands. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project area.

Effects Determination: No Effect.

Whooping crane

The whooping crane is a large bodied marsh species that breeds primarily in Canada and winters in the Gulf of Mexico. This species has been closely studied and monitored in recent years due to its small population. North Dakota provides migratory habitat for the species, providing roosting and feeding opportunities during migration. This species prefers larger wetland complexes for roosting habitat, typically using adjacent uplands for foraging opportunities.

Project precautionary measures would be implemented if a whooping crane is sighted in or near the Project area. ORM would voluntarily suspend all heavy equipment operation activities and notify the USFWS should a whooping crane be spotted within 0.5 mile of the Project area. Heavy equipment activities would resume upon the departure of the individual(s). The Project under consideration will not result in a loss of crane habitat. Construction activities would likely serve as a deterrent and once constructed the proposed facility would present a fairly prominent feature to be avoided relative to its surrounding landscape.

Effects Determination: May Affect, Is Not Likely to Adversely Affect.

Pallid Sturgeon

The pallid sturgeon's preferred habitat includes the benthic environment associated with swift waters of large turbid, free-flowing rivers with braided channels, dynamic flow patterns, periodic flooding of terrestrial habitats, and requiring extensive micro habitat diversity. The species inhabits the Missouri and Mississippi Rivers from

Montana to Louisiana. In North Dakota, reaches of the Missouri River have been cited as providing suitable habitat for the pallid sturgeon. However, there is no suitable sturgeon habitat in the Project area as the Missouri River does not intersect the Project corridor.

Effects Determination: No Effect.

Dakota skipper

Dakota skippers require untilled, high-quality prairie. Habitat preferred by the skipper is wet-mesic prairie with little topographic relief on near-shore glacial lake deposits and in rolling native-prairie terrain over gravelly glacial moraine deposits. Larvae feed on grasses, favoring little bluestem (*Schizachyrium scoparium*). Adults commonly feed on nectar of flowering native forbs such as harebell (*Campanula rotundifolia*), wood lily (*Lilium philadelphicum*), and purple coneflower (*Echinacea angustifolia*). This species is not known to disperse widely and has low mobility dispersing a maximum of 0.6-mile. The species is threatened by conversion of native prairie to cultivated agriculture or shrublands, over-grazing, invasive species, gravel mining, and inbreeding. The proposed Project Site is primarily cultivated cropland and has been managed as such for more than 20 years. Review of aerial photos and soil survey data indicate that untilled, high-quality prairie dominated by native grasses and that contain a high diversity of native forbs are not present within the Project Site or within one-half mile of the Site. Desktop analysis supported with field studies have concluded that no suitable habitat is present within the Project Site or within one-half mile of the Site.

Effects Determination: No Effect.

Black-footed ferret

Black-footed ferrets inhabit the extensive prairie dog complexes of the Great Plains, typically composed of several smaller colonies close to one another that provide a sustainable prey base. The *Black-footed Ferret Survey Guidelines for Compliance with the Endangered Species Act* published by the USFWS (1989), states ferrets require black-tailed prairie dog (*Cynomys ludovicianus*) towns or complexes greater than 80 acres in size, and towns of this dimension may be important for ferret recovery efforts. This species has not been observed in the wild for more than 20 years.

Effects Determination: No Effect.

Gray wolf

The gray wolf is a large carnivore that through conservation measures has experienced strong population recovery, particularly in the Great Lakes states of the upper Midwest. As populations rebound, individuals may break from packs to explore opportunities to establish packs in unoccupied territory. Roaming individuals can cover great distances without establishing viable breeding populations in previously unoccupied habitat(s). This species is not tolerant of human disturbance and will tend to avoid interaction with humans. The activities associated with construction and later plant operations would likely serve as a deterrent to this species.

Effects Determination: No Effect.

3.6.2 MIGRATORY BIRD TREATY ACT/BALD AND GOLDEN EAGLE PROTECTION ACT

Construction activities will be scheduled to avoid periods of critical reproductive or migratory activities of listed species. To the extent practicable, construction will be scheduled to commence late summer or fall/early winter of 2014 so as not to disrupt migratory birds during the breeding season (February 1 to July 15 generally, for Interior least terns and Piping plovers the breeding season extends through August 31) (USFWS 2011).

Construction activities would continue through the 2nd quarter of 2016, maintaining an active construction site for the approximately 18 month duration. The proposed Project schedule would overlap with the 2015 breeding season, however the proposed schedule would mitigate impacts by initiating ground disturbing activities in advance of the breeding season. Furthermore, construction activities would serve as an effective deterrent for breeding birds.

3.6.2.1 BALD EAGLE

Federal Status: Delisted in 2007; protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act

Effects of Project: No adverse effects anticipated

The bald eagle feeds on fish and carrion and typically roosts in large trees near a water source. Bald eagle nesting habitat is typically mature stands of conifer or cottonwood trees in association with rivers, streams, reservoirs, lakes, or any significant body of water. Bald eagles are uncommon in North Dakota and are usually observed along the Missouri River and Yellowstone River. Bald eagles frequently migrate through the grassland habitats. Suitable nesting and roosting habitat is not available in the Project area. Therefore, no adverse effects to bald eagles are anticipated.

3.6.2.2 GOLDEN EAGLE

Federal Status: Unlisted; protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Effects of the Project: No adverse effects anticipated.

Golden eagles were not observed during the field surveys. The golden eagle prefers habitat characterized by open prairie, plains, and forested areas. Usually, golden eagles can be found near badland cliffs, which provide suitable nesting habitat. Suitable nesting and foraging habitat was not found within the survey area. No primary or secondary indication of golden eagle presence, including nests, was observed in or near the survey area during the field survey.

SECTION 4: CONCLUSIONS AND RECOMMENDATIONS

1. At the time of field surveys the Site was planted in wheat (*Triticum aestivum*) and alfalfa (*Medicago sativa*). A small portion of the Site on the eastern boundary approximately 3.3 acres in size is uncultivated and is dominated by crested wheatgrass, a non-native, introduced grass species. Review of historic aerial photographs of the Site dating from 1995 to present shows the Site to have been maintained under cultivated or introduced vegetation continuously during this period.
2. One palustrine emergent seasonally flooded wetland, 0.13 acres in size, is located on the east Site boundary.
3. One ephemeral stream, approximately 2 feet in width and 0.06 acres in size originates on the west boundary of the Site and flows northeast into a U.S. USGS NHD mapped ephemeral stream. Field surveys found no ordinary high watermark or other indication of the presence of a waterbody in the area of the USGS NHD mapped stream.
4. An area 0.02 acres in size, consisting of approximately 8 individual silver buffaloberry (*Symphoricarpos occidentalis*) shrubs is present on the Site. The average height of the shrubs was 7 feet, and diameter at breast height averaged 2 inches.
5. Three populations of Canada thistle (*Cirsium arvense*) are present on the east and west Site boundaries as shown in the Site map in Appendix A. Canada thistle is a North Dakota state-listed noxious weed, therefore a management program should be implemented to control the present population and prevent further dispersal.
6. No federal- or state-listed threatened, endangered or special concern species or suitable habitat were observed on the Site during the survey. Several common wildlife species were observed. The Project may affect, but is not likely to adversely affect the federally listed Whooping crane. The proposed Project is not expected to have an adverse effect on any other listed or common species or designated critical habitat. No bald or golden eagles or evidence of nesting were observed.
7. Because construction activities will be initiated during the 4th quarter of 2014 and continue through the 2nd quarter of 2016, maintaining an active construction site for the approximately 18 month duration, significant impacts to migratory birds are not anticipated.

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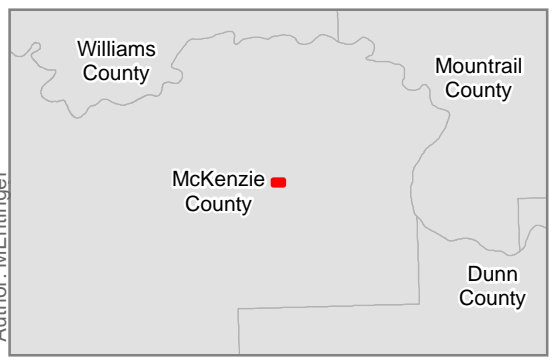
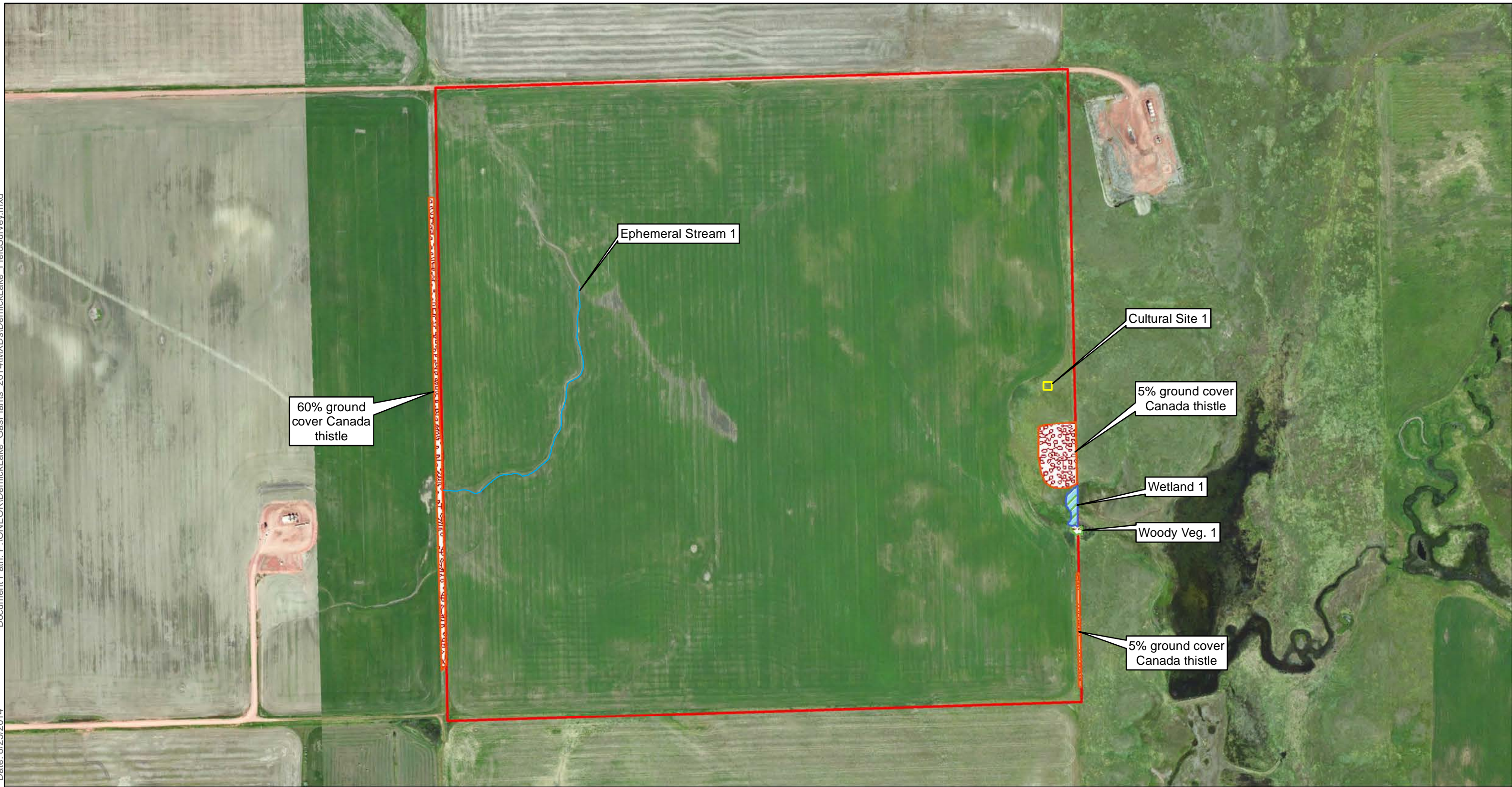
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Appendix A
Site Maps



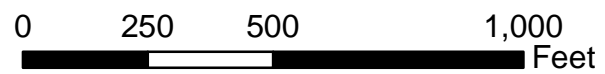
- Project Boundary (Approximate)
- Stream
- Cultural Resource
- Wetland
- Woody Vegetation
- Noxious Weed



ONEOK
ROCKIES MIDSTREAM
A SUBSIDIARY OF ONEOK PARTNERS, L.P.



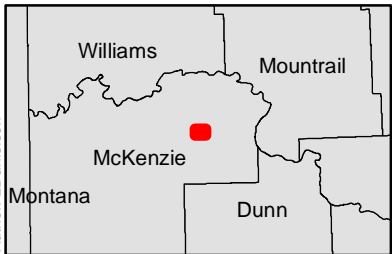
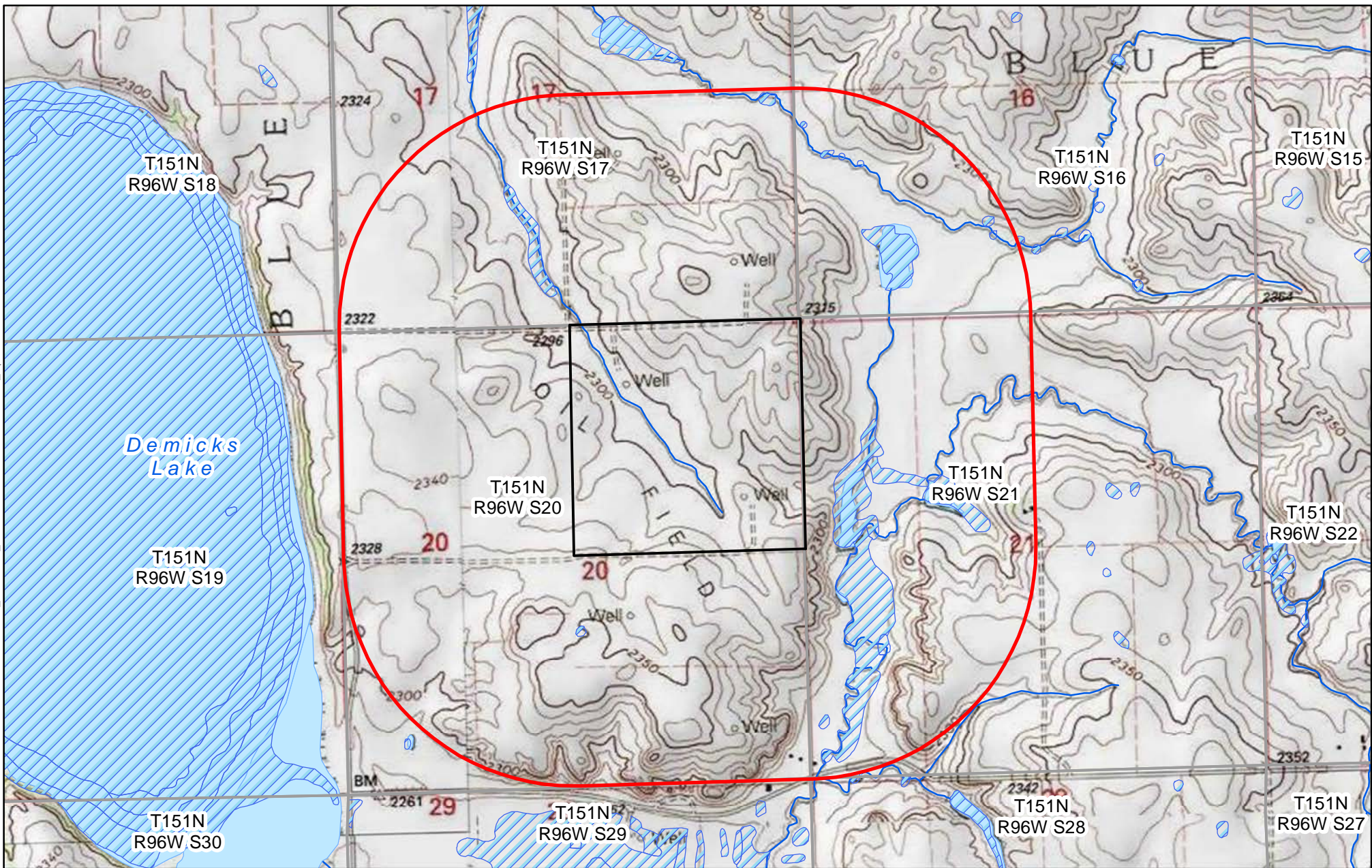
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1:4,600

**ONEOK Rockies
Midstream L.L.C.**
Demick Lake Gas Plants I&II
Field Survey
McKenzie County, ND

Path: P:\ONEOK\DemickLake_GasPlants_2014\MXDs\DemickLakeGasPlant_topo.mxd
Date: 8/14/2014



GasPlant_1mileBuffer	Federal Land
Gas Plant	State Land
303d Waterbody	
NWI	
Waterbody	
Stream or River	

1:18,000

A SUBSIDIARY OF ONEOK PARTNERS, L.P.

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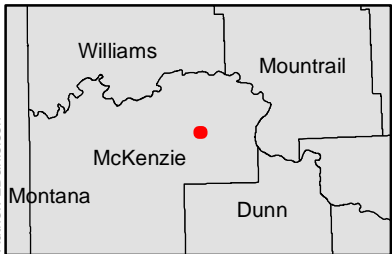
ONEOK Rockies Midstream
 Demick Lake Gas Plant
 Topo Map
 McKenzie County, ND






Author: LDanielson

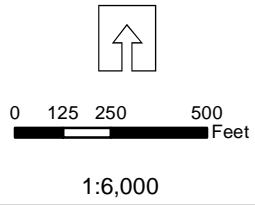
Source: ESRI, Google, EPA and USFWS

Appendix B
Soil Survey Map

Path: P:\ONEOK\DemickLake_GasPlants_2014\MXDs\DemickLakeGasPlant_soils.mxd
Date: 8/11/2014



 Gas Plant Location
Hydric Classification - Presence
 Not Hydric (0%)
 Some Hydric (1-50%)
 Mostly Hydric (51-99%)
 All Hydric (100%)
Source: ESRI Online, EPA and USFWS



ONEOK Rockies Midstream
Demick Lake
Gas Plant

Soils Map
McKenzie County, ND

Author: LDanielson

Appendix C

Site Photos

Site Photos



Figure 1. Wetland on east boundary of site facing east.



Figure 2. Non-hayed grassland adjacent to wetland facing southeast.

Site Photos



Figure 3. Ephemeral Stream from west boundary of the Site facing east.

Site Photos



Figure 4. Vegetation on north perimeter of Site.



Figure 5. View of Site from southeast corner facing northwest.

Appendix E

Cultural Resources Report



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**Class I and Class III Cultural Resource Inventory Report
Demicks Lake Gas Processing Plant Project,
McKenzie County, North Dakota**

Prepared for:
ONEOK Rockies Midstream, L.L.C.

Prepared by:
E3 Environmental, L.L.C.

September 9, 2014



ONEOK
ROCKIES MIDSTREAM

A SUBSIDIARY OF ONEOK PARTNERS, L.P.

MANUSCRIPT DATA RECORD FORM

1. Manuscript Number: [SHPO assigns]
2. SHPO Reference #: [SHPO assigns] 14-1701
3. Authors: Daniel Woodward and David Woodward
4. Title: Class I and Class III Cultural Resource Inventory of the ONEOK Rockies Midstream Demicks Lake Gas Processing Plant Project, McKenzie County, North Dakota
5. Report Date: September, 2014
6. Number of Pages (Including front matter, references cited and appendices): 28
7. Type – I = Inventory (Class 3 CRI)
8. Acres - 160
9. Legal Location(s) (no quarter sections) with Historic Context Study Unit(s):
Consult township tables in The North Dakota Comprehensive Plan for Historic Preservation: Archeological Component, (SHSND 1990) for Study Unit assignments.
Study Units: LM, CB, KN, HE, SM, GA, JA, GR, NR, SR, SO, SH, YE

COUNTY TWP RNG SEC SU

McKenzie 151N 96W 20 GA

**Class I and Class III Cultural Resource Inventory of the ONEOK
Rockies Midstream Demicks Lake Gas Processing Plant Project,
McKenzie County, North Dakota**

Submitted to:

State Historical Society of North Dakota

Prepared for:

ONEOK Rockies Midstream, L.L.C.

Prepared By:

Daniel Woodward and David Woodward

Principal Investigators:

Daniel Woodward and David Woodward

**E3 Environmental, LLC
871 Jefferson Ave
St. Paul, MN 55102**



E3 ENVIRONMENTAL
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EXECUTIVE SUMMARY

E3 Environmental (E3) conducted a Class I and a Class III cultural resource inventory for the proposed ONEOK Rockies Midstream (ORM) Demicks Lake Gas Processing Plant Project (Project). The Project is located on 160 acres of private land in Section 20, Township 151 North, Range 96, in McKenzie County.

The regulatory agencies involved are the North Dakota Public Service Commission (NDPSC) under the North Dakota Energy Conversion and Facility Siting Act. This Class I and Class III will assist ONEOK in meeting the cultural resource requirements in the NDPSC's Certificate of Site Compatibility application.

The Class I inventory was conducted on August 14, 2014 and the Class III inventory was performed on August 20, 2014.

No previously recorded cultural resources were identified in the Project area or within the one mile diameter study area. Three previously recorded resources were identified within a two-mile diameter study area. Any construction activity at the Project site will not affect any previously recorded cultural resources. One new cultural resource was recorded in the Project area (site 32MZ2759). Site 32MZ2759 consists of a historic depression and a low retaining wall; its original use and age are unknown. The site has been evaluated for its eligibility to the National Register of Historic Places.

Due to the overall lack of integrity of the site, as well as the lack of National Register Criteria being met (A, B, C, and D), site 32MZ2759 is **recommended not eligible** for the NRHP and should not be considered a Historic Property under federal guidelines. Furthermore, due to the lack of significant cultural resources present on the Project, it is recommended that a determination of ***No Significant Sites Affected and No Historic Properties Affected*** be granted for the Project to proceed as planned.

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APPENDIX – NORTH DAKOTA STATE HISTORICAL SOCIETY SITE FORM

SECTION 1: INTRODUCTION

This report details the Class I and Class III cultural resource inventory conducted by E3 Environmental, LLC (E3) on August 14 and August 21, 2014 for ONOEK Rockies Midstream, L.L.C. (ORM). ORM proposes to construct the Demicks Lake Gas Processing Plant (Project) on a privately-owned 160 acre parcel approximately 13.5 miles northeast of Watford City in the NE ¼ of Section 20, Township 151 North, Range 96 West in McKenzie County, North Dakota (see figure 1).

The North Dakota Public Service Commission (NDPSC) has jurisdictional authority over the Project. In compliance with NDPSC requirements, ORM has retained E3 to fulfill cultural resource obligations regarding the Project and assess the potential effects of activities associated with constructing a gas processing plant to cultural resources, and is prepared to supplement ORM's submittal to the NDPSC application for a Certificate of Site Compatibility for the Project.

For the cultural resource investigation, Daniel Woodward and David Woodward co-led the field survey and also served as Principal Investigators. Matt Entinger (GIS technician) also assisted with the field work. Amy Sakariassen performed the Class I inventory in Bismarck. This report is authored by Daniel Woodward and David Woodward.

SECTION 2: PROJECT SETTING

2.1 TOPOGRAPHY, LANDSCAPE, AND GEOLOGY

The proposed Project is within the Northwestern Great Plains ecoregion (Fenniman 1933). The Northwestern Great Plains is characterized as a semiarid rolling plain of shale, siltstone, and sandstone punctuated by occasional buttes and badlands (Bryce et al. 1998). Native shortgrass prairie persists in areas of steep or broken topography. Native prairie has been largely replaced by dryland farming of spring wheat, alfalfa, barley, oats and sunflowers and by pasture for cattle grazing throughout most of the ecoregion.

Within the Northwestern Great Plains ecoregion, the Project is within the Missouri Plateau ecoregion. The Missouri Plateau ecoregion was largely unaffected by glaciation and retains its original soils and complex stream drainage pattern. Physiography of the Missouri Plateau is described as moderately dissected, level to rolling plains with isolated sandstone buttes. This area is underlain by soft, calcareous shales, siltstones and sandstones of the Tertiary Fort Union Formation. The principal source of ground water in the area is in these rocks.

2.2 CLIMATE

McKenzie County climate is semi-arid to subhumid and continental. The county is usually warm in summer with frequent spells of hot weather and occasional cool days. The county is very cold in winter, when arctic air frequently surges over the area. The county has 95-130 mean annual frost free days. In winter, the average temperature is 13 degrees F. In summer the average temperature is 72 degrees F. The mean air temperature min/max for January is -3/21 and July 55/83 degrees F (National Climatic Data Center [NCDC]).

Mean annual precipitation is 15-17 inches. Most of the precipitation falls during the warm period with about 80 percent falling April through September. It is normally heaviest in late spring and early summer. The average seasonal snowfall is about 35 inches. On average, 43 days of the year have at least 1 inch of snow on the ground.

2.3 FLORA AND FAUNA

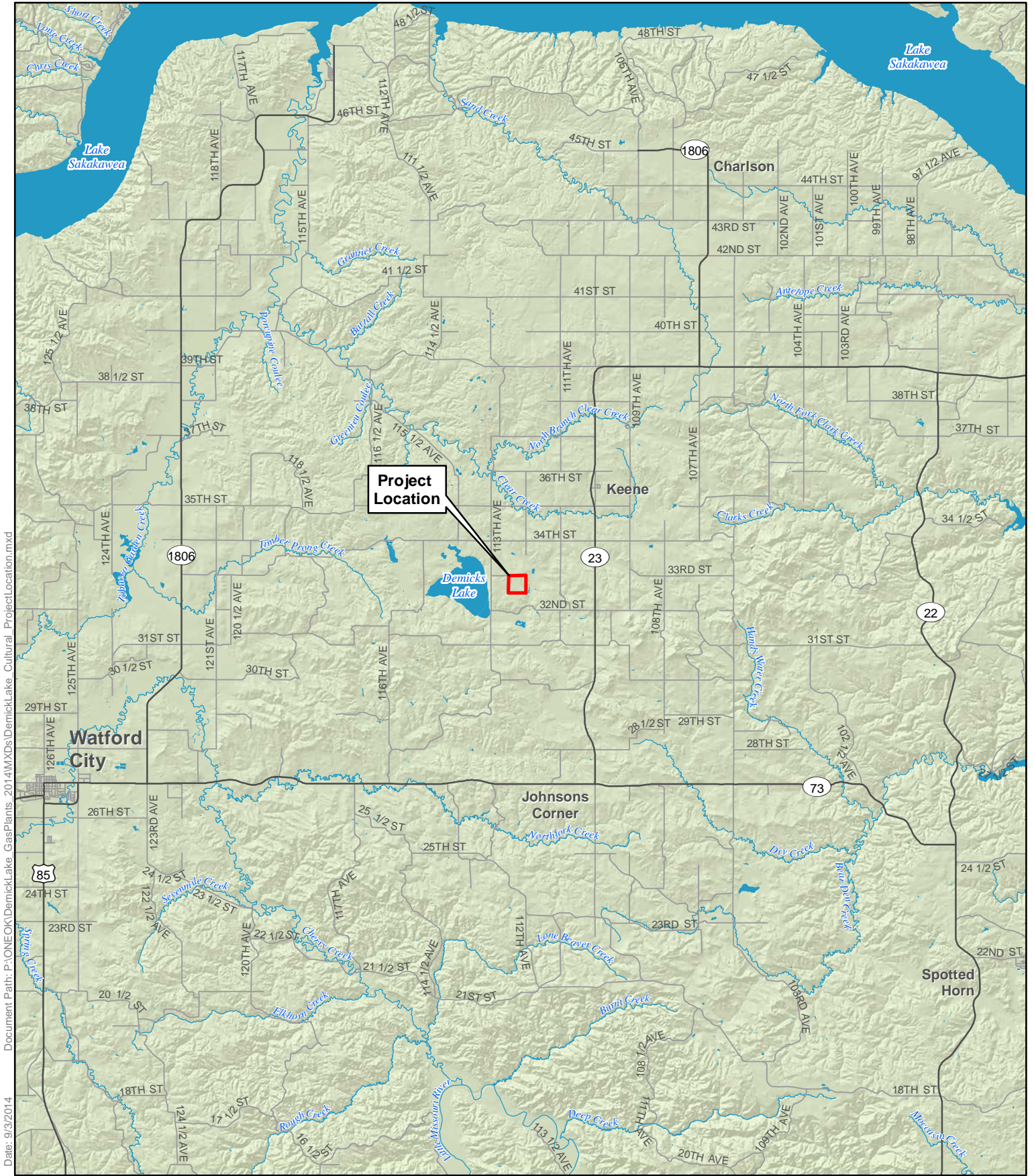
Some of the common wildlife species that may occur in the area are white-tailed deer, mule deer, pronghorn antelope, red fox, coyote, white-tailed jackrabbit, prairie dog, ring-necked pheasant, gray partridge, sharp-tailed grouse, ducks, and geese. The species of fish in the area include rainbow trout, walleye, smallmouth bass, bluegill, sunfish, crappies, yellow perch, and northern pike. In the larger area of the Missouri River ecosystem, many wildlife species may also occur including fur-bearing mammals such as beaver and muskrat. As well as historically significant mammals such as bison, elk, moose, black bear, mountain lion, and gray wolf. These wildlife species would have been more common and available for human use in the prehistoric and historic periods.

Natural prairie vegetation within the region consists of western wheatgrass, needleandthread, green needlegrass, and blue grama. Little bluestem, prairie sandreed, and sideoats grama are important species on shallow soils. Prairie rose, leadplant, and patches of western snowberry are interspersed throughout the area. Green ash, chokecherry, and buffaloberry occur in draws and narrow valleys.

The Project area is currently in agricultural production as cultivated cropland. At the time of field surveys the site was planted in wheat (*Triticum aestivum*) and alfalfa (*Medicago sativa*). A small portion of the site on the eastern boundary is uncultivated. This area is dominated by crested wheatgrass, a non-native, introduced grass species.

Figure 1. Project Overview from SE corner facing west






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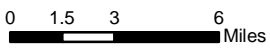
Date: 9/3/2014

Author: MEntinger

Figure 2

 160 Acre Project Area

Source: USGS, State of ND



1:350,000



**ONEOK Rockies
Midstream L.L.C.**
Demicks Lake Gas
Processing Plant
Project Location
McKenzie County, ND

SECTION 3: CULTURAL AND HISTORIC CONTEXT

As part of the legislative framework governing the treatment of cultural resources, the North Dakota State Historic Preservation Office (SHPO) has developed a series of historic and thematic contexts in which cultural properties may be interpreted and evaluated. North Dakota's developmental sequence is divided into three broad periods: Precontact (ca. 12,000 years B.P. to A.D. 1700), Contact (ca. A.D. 1630 to 1820) and Post-contact (ca. A.D. 1830 to the present). The precontact contexts emphasize patterns of regional adaptation, or technological and cultural traditions, whereas the contact and post contact contexts are generally organized by themes addressing different interactions and industries. The cultural history of the Upper Plains is rather complex and differs between regions. Additional information is available in the document entitled *Historic Preservation in North Dakota, II: A Statewide Comprehensive Plan* (Gregg, Picha, Swenson, Bleier 2008).

3.1 PREHISTORIC

The sequence of precontact cultural traditions within North Dakota resembles that of North America in that the cultural development is divided into generalized stages based on the material culture (e.g., tools, ceramics, refuse and fire hearths, and subsistence adaptations, such as hunting, gathering or horticulture). Whenever possible, other sources of information are used to "type" a cultural tradition, including American Indian oral tradition and language studies. The generalized stages consist of Paleoindian, Archaic, Woodland, and Late Precontact. Each general precontact cultural stage includes a variety of traditions.

This developmental or evolutionary sequence attempts to present a unified picture of the culture history of the Northern Plains in successive stages, from the first bands of migratory hunters on the periglacial fringe, through adaptations of increasingly diversified hunter-gatherers to rapid changes in climate and environment, to the tribal organizations and semi-permanent or permanent food-producing communities after A.D. 1000 to the equestrian adaptation of the early historic period. Each stage represents one or more developmental themes within an estimated time frame, such as technical and behavioral innovations, or environmental change with associated ecological adaptations. This sequence is a simplification of what is actually a complex situation. The sequence is discussed in more detail in the document entitled *Historic Preservation in North Dakota, II: A Statewide Comprehensive Plan* (Gregg, Picha, Swenson, Bleier 2008).

The Project area is located in the Garrison Study Unit (GSU) as defined in the statewide comprehensive plan (Gregg, Picha, Swanson, Bleier 2008). The following cultural discussion includes information from the GSU.

3.2 PALEOINDIAN PERIOD

About 12,000 years ago, increasing warmth and dry conditions during the early Holocene encouraged the final retreat of the glaciers. As the ice sheets disappeared and the landscape of the Upper Midwest/plains emerged from the glacial lakes, the environment slowly rebounded and the region was colonized by new plant and animal species. Small nomadic hunting bands moved into the area in pursuit of large game (i.e., mastodon, caribou, and Pleistocene bison) that followed the northward expansion of spruce forest, parkland, and prairie.

In North Dakota, the Paleoindian stage (ca. 11,500-7,900 B.P.) began after the retreat of the last glacier. The archaeological record for Paleoindian sites is sparse. Most evidence is confined to isolated lithic finds, specifically elongated or lanceolate-shaped projectile points. The lack of cultural material from this period may be a result of glacial destruction or the burying of older sites.

The Paleoindian tradition in North Dakota is divided into six main technological complexes, reflecting diagnostic tools types. The six complexes are: Clovi, Goshen, Folsom, Hell Gap/Agate Basin, Alberta/Cody, and Parallel Oblique Flaked. As of 2008, fourteen paleoindian sites have been found in the GSU. These sites include, the Beacon Island site (32MN234A), the Beacon Island Agate Basin site (32MN234), the Moe site (32MN101), and 32ME946 (Gregg and Bleier 2008).

3.3 ARCHAIC PERIOD

The second stage of the developmental sequence is the Archaic stage (ca. 8,000-1,500 B.P.), which is characterized by a new style of stone tool manufacturing and an increasing development of more varied hunting and gathering practices (Frison 1991). Between 8,000 and 1,500 years ago, the Upper Midwest experienced continued climatic and environmental change. During the warm and dry Atlantic climatic episode (Alithermal), oak-hardwood forests continued to replace coniferous forests, prairie grasses moved north and east in North Dakota, and big-game animals either migrated north or became extinct. Archaeologists associate these climatic and environmental transitions with the remains of a diverse series of hunter and hunter-gatherer populations (Carlson 1994). The shift in lithic technology included the abrupt appearance of large side notched projectile points, possibly reflecting a shift to atlatl use from spears, and the appearance of ground stone technology, reflecting the importance of plant resources (Frison 1991). There appear to be strong links between particular environments and specific cultural expressions. The main theme of the Archaic stage is the post-glacial adaptation to a broad-spectrum hunting and gathering subsistence base, after the demise of the Pleistocene megafauna. The stage is also characterized by the appearance of pit houses and storage pits, and a pre-ceramic technology suggesting a reduced mobility and a predictable seasonal round (Frison 1991). During the Archaic

period, specialized hunting continued to be a dominant subsistence practice in the Plains, where large grazing animals were common.

A total of 96 Archaic archaeological sites have been found within the GSU (Gregg and Bleier 2008). Important Archaic sites found in the GSU include the Mondrian Tree site (32MZ58) and the Moe site (32MN101).

In the northern plains, the Archaic stage is divided into three developmental parts, the Early, Middle, and Late Archaic. Rather than emphasizing standard chronological distinctions within the Archaic period, the historic contexts developed for the Archaic period in North Dakota are based on regional models of environmental adaptation (Frison 1991).

The Prairie Archaic represents an adaptation to grasslands, specifically bison hunting. Subsistence was probably focused on large ungulates, but there is evidence that Plains groups used a variety of available aquatic and woodland species. Additionally, the Plains Archaic was marked by other cultural changes such as the regionalization of projectile point styles, the decline in the quality of flintknapping technology, and the reduction in the extent of interaction between human populations in different areas. Seven cultural complexes have been identified for the Plains Archaic in North Dakota (Gregg and Bleier 2008).

The Logan Creek/Mummy Cave complex (5600-4000 B.P.) is the earliest complex and the first appearance of large side-notched projectile points on the northern Great Plains. Types of sites associated with the Logan Creek/Mummy Cave complex are bison kill sites, nomadic camps, and stone circle sites.

The early Archaic Oxbow complex (5000-4000 B.P.) is centered in northern Montana, Alberta, and Saskatchewan but is also found in North Dakota along the Missouri River and its tributaries. Side-notched, concave based projectile points identify this complex (Hannus 1994:180). Sites associated with this complex are bison focused such as, bison jumps, occupations on stream terraces, stone circles, and bison processing sites (Hannus 1994; Reeves 1969).

The early Archaic McKean complex (4500-3400 B.P.) contains three distinct sub-phases, the McKean Lanceolate, Duncan, and Hannah. Many of the McKean phase sites are associated with bison kill and processing sites, stone circles, lithic caching and seasonal settlements (Frison 1991). Ground stone artifacts and slab-lined pits are common suggesting a diversified foraging regime that included plant processing and storage (Carlson 1994; Frison 1991). Three common lithic resources found in relation to McKean complex sites are Swan River chert, Tongue River Silicified sediment, and Knife River Flint (Gregg 1985).

The middle Archaic Pelican Lake Complex (3000-2700 B.P.) is usually identified on the presence of corner-notched dart points and is likely a descendant of the McKean complex. This complex is found throughout the northern and central Great Plains

(Frison 1991). Communal bison kill sites are common and the wide distribution of the Pelican Lake Complex suggests a large population growth during this time.

3.4 PLAINS WOODLAND TRADITION

The Woodland tradition (ca. 2000 B.P. – 450 B.P) in eastern North America is traditionally differentiated from the Archaic stage by the manufacture of pottery, the appearance of sedentary village life, domestication of plants, the appearance of the bow and arrow, and the construction and use of burial mounds (Gregg 1985; Griffin 1967). These criteria for the Woodland stage do not adequately fit the archaeological record of the northern plains, since the fundamental subsistence strategies of peoples during the Plains Woodland era did not differ drastically from the previous Archaic tradition. Most communities continued to practice an essentially Archaic subsistence base despite the introduction of pottery in North Dakota and the emergence of mound building.

In North Dakota, Woodland (Ceramic/Mound Stage) and Late Precontact contexts are mostly organized according to known pottery traditions within a quasi-chronological framework. The Woodland pottery traditions can be placed into a standard Early, Middle, and Late sequence, but actual chronological relationships between traditions are unclear and some traditions are long-lived and appear to crosscut standard chronological divisions. Early Plains Woodland components appear to occur less frequently. They are found in southeastern North Dakota along the James River valley and possibly north of Winnipeg along the lower Red River. There are no named archaeological complexes associated with the Early Woodland. The Middle Plains Woodland period contains the Sonota, Besant, and Laurel complexes. The Late Plains Woodland contains the Avonlea, Brainerd, Blackduck, Mortlach, Old Women's and Sandy Lake complexes.

The first appearance of ceramics in North Dakota is associated with the Besant complex (2000-1500 B.P.) Small to medium sized side notched triangular projectile points characterize the Besant complex. Ceramics probably defused from eastern woodland cultures (Walde 2006). The vessels are conoidal shaped and suggest lump modeling with coarse cording (Wood and Johnson 1973). Knife River flint is prevalent in Besant complex sites and can be associated with stone rings. Bison communal kill sites are prevalent suggesting a heavy reliance on bison. A possible sub-complex to the Besant is the Sonota complex (1850 – 1350 B.P.) that includes ceramics, Knife River flint with the addition of a developed burial mound complex (Reeves 1983; Wood 1967).

The Laurel complex (1800 – 1000 B.P.) is located mainly in the eastern North Dakota. Laurel complex is known for mound building and a specific ceramic style. The Lithics associated with the Laurel complex are diverse and do not exhibit a particular style (Gregg 1985).

The Avonlea complex (1800-1000 B.P.) sites occur throughout the northern Great Plains and are contemporary with the Besant complex. Common site types associated with

the Avonlea complex include stone circles, bison kill sites, and rock shelters (Reeves 1970). Avonlea lithic technology didn't include larger dart points and was limited to arrowheads. This suggests a complete transition to the bow and arrow.

The Blackduck complex (A.D. 1150-450) comes from northern Minnesota and was concentrated in southern Manitoba, and is contemporary with the Avonlea Complex. There is evidence of Blackduck ceramics along the Missouri River that suggests trade relations between the Missouri River cultures and the Blackduck people to the north (Joyes 1970).

3.5 PLAINS VILLAGE TRADITION

The Plains Village Traditional is defined by a balanced economic strategy that included horticulture and bison hunting/foraging, semi-permanent villages on or near the Missouri River, earthen lodges, large storage pits and middens, distinctive ceramics, large numbers of end scrapers and arrow points; scapula hoes, and a heavy use of bone in making tools (Lehmer 1971). The Plains Village Tradition is divided into the Middle Missouri Tradition (A.D. 969 – 1500) and the Coalescent tradition (A.D. 1300 – 1650) (Gregg and Bleier 2008).

The Middle Missouri tradition is seen as a continuation and intensification of the Northern Plains Woodland tradition. The intensification of the Woodland lifeway coincides with the Medieval Warm period when the changing climate permitted plant cultivation in areas that were unsuitable for horticulture previously (Wood 2001)

The Coalescent period is marked by the migration of the Central Plains tradition village cultures to the Missouri River Valley in South Dakota (Blakeslee 1993). The Coalescent groups practiced an economy that was balanced between horticulture and bison hunting, much like the Middle Missouri groups (Johnson 1998). The Coalescent sites South Dakota are located on bluffs overlooking the Missouri River with fortifications, suggesting Warfare between groups. During the latter Coalescent period sites are located along the Missouri River and its tributaries. These later period sites are unfortified and contain circular earth lodges (Johnson 1998; Krause 2001; Lehmer 1971). The Coalescent tradition is ancestral to the Arikara (Krause 2001).

3.6 POST EUROPEAN CONTACT

In addition to the Mandan, Hidatsa, and the Arikara that developed out of the Middle Missouri and Coalescent traditions many other groups utilized the Great Plains and the Missouri River. The Assiniboine were active in the fur trade along the northern Missouri. The Cheyenne also were along the Missouri River by the middle of the eighteenth century (Schulenberg 1957). The Plains Cree and the Plains Chippewa were also present and traded with the Mandan and Hidatsa. The Crow also visited the Missouri River to trade (Schulenberg 1957).

The Dakota (Sioux) originated from the southwest Great Lakes region and were living on the Great Plains hundreds of years before European contact (Demallie 2001). The Assiniboine split from the Dakota around the mid seventeenth century (Hanson 1998). The Teton Dakota are subdivided into seven tribes; the Oglala, Brule, Sans Arc, Hunkpapa, Blackfeet, Miniconjou, and Two Kettles (Hanson 1998). The Teton Dakota moved west following smallpox epidemics from 1771 to 1781 that destroyed the Arikara villages and left the area around the Missouri River open to migration. Likewise, the Yankton and Yanktonai Dakota occupied the prairies east of the Missouri River and north into Minnesota in the mid seventeenth century. By the mid nineteenth century they were pushed out of Minnesota and spread across the plains east of the Missouri River (DeMallie 2001).

In the 1860s the first reservations were created and they continue to the present. This time period is marked by violence and genocide. Such things as relocation, forcing Native American children into boarding schools, attempts at termination, and outlawing their ceremonies occurred in North Dakota. Despite these attempts to remove Native Americans from their homelands and assimilate them into mainstream culture, they persist as a strong and dynamic people to the present.

3.7 EUROPEAN AND AMERICAN EXPLORATION

The French were the first to explore the Northern Great Plains. In 1738 Pierre Gaultier de Varennes Siure de la Verendrye traveled from New France to the Missouri River in North Dakota and westward to the Black Hills. During his travels he met the Mandan and his sons met the Arikara and Hidatsa (Dill 1983). His reports sparked interest in the region and the potential for trade with the native groups living there. A limited French Canadian fur trade developed in the region in the mid-1700s. It wasn't until the Lewis and Clark expedition in the early 19th century that the region experienced further exploration (Schulenberg 1957). In 1807, the St. Louis Missouri Fur Company established a trading post at the mouth of the Bighorn River and by 1809 they had built posts all along the Missouri River. Other Fur Trade Companies followed, such as the Northwest Company, Hudson Bay Company, the Columbian Fur Company, and the American Fur Company. These posts were short lived but had a large impact on the Native populations through introduced trade items and communicable diseases.

3.8 EUROPEAN AND AMERICAN HOMESTEADING

In 1868 the first homestead was established in North Dakota. It was the only one until 1871. The expansion of the Northern Pacific Railroad in the mid-1880s spurred a land rush and the first large-scale settlement in North Dakota. Crowding in eastern cities and the high cost of land in the east caused many to seek better opportunity on the Great Plains (Hudson 1976). In addition, the development of better technologies for "spring wheat" processing allowed this to become a profitable crop and North Dakota's climate is well suited for growing this crop. The areas west of the Missouri River were

not well suited for crop agriculture and were mainly used for ranching. The discovery of large deposits of lignite coal further spurred settlement in the area.

The most common crop grown in North Dakota during the early settlement period was spring wheat. This grain was suited to the dryer conditions of North Dakota but was hard to process into a commercial product because it is dark and coarse (Danborn 1998). A new way of processing spring wheat was developed in the late 1800s, which made it commercially viable. This significantly increased the market for spring wheat and further agricultural development occurred. Ranching also took off during the early part of the 19th century. Native Americans were restricted to reservations and this opened up huge tracts of land for cattle grazing. The expansion of the railroad into the western portion of the state facilitated the transportation of cattle to the large eastern markets (Mclaughlin 1994).

SECTION 4: INVENTORY METHODS

4.1 CLASS I METHODS

Standard Class I Cultural Resource Inventory methodologies were utilized; which requires the examination of files maintained at the State Historical Society of North Dakota in Bismarck. These files consist of a searchable digital database and GIS based mapping along with traditional paper files for site forms and manuscripts. In addition, Government Land Office (GLO) Plat maps were utilized from the BLM database.

4.2 CLASS III METHODS

The intensive survey was performed by two archaeologists walking parallel transects at 20 to 30-meter intervals across the entire Project area. The survey involved only surface inspection, not subsurface survey. When possible, E3's archaeologists examined subsurface exposures in erosional cut banks, road cuts, rodent burrow entrances, and ant hills for artifacts or evidence of buried cultural deposits.

When cultural material was encountered, closely spaced transects were walked and artifacts were marked with pin flags to define the extent of the cultural material on the surface and to document artifact frequency and distribution. No artifacts were collected or removed from the field. Sites, structures, features, and select isolated finds were photographed. Only resources that appeared to be more than 50 years old were recorded. Site locations and boundaries were mapped using a Trimble Geo XT 6000 Global Positioning System (GPS) unit and are provided in North American Datum (NAD) 83, and Universal Transverse Mercator (UTM) projection. The archaeological site was recorded on the appropriate North Dakota Historic Archaeological Site Form.

SECTION 5: INVENTORY RESULTS

5.1 CLASS I RESULTS

No previously recorded cultural resources are located in the Project area or in the 1-mile diameter study area. However three previously recorded cultural resources have been recorded near the study area (within a 2-mile diameter).

Table 1. Cultural resources near the study area

Site	Location	Description	NRHP Eligibility	Recommendations
32MZ2555	T151N R96W S17	Architectural	Unevaluated	Avoidance, 50 feet buffer, if Project area encroaches near mapped location
MZX1062	T151N R96W S18	Isolated find-prehistoric material scatter	Not Eligible	No further work
MZX0098	T151N R96W S19/30	Site Lead-Prehistoric material scatter, possible mound	Unevaluated	Avoidance, possible field investigation, if Project area encroaches on relevant sections

Site 32MZ2555 consists of a wood-framed granary located in the NW ¼ of the NW ¼ of the NE ¼ of Section 17 in Township 151N Range 96W. The building is in poor condition, and is unevaluated in terms of eligibility to the National Register of Historic Places.

Site 32MZX0098 is a site lead potentially consisting of a prehistoric material scatter and possible associated mound. The site lead is located within Section 19/30 of Township 151N Range 96W. The exact location of this resource has not been described to modern standards, and as such, is poorly defined as potentially occurring within the above-mentioned sections.

Site 32MZX1062 consists of a prehistoric chipped stone isolated find of unknown temporal affiliation located in the NE ¼ of the NW ¼ of the NW ¼ of Section 18 in Township 151N Range 96W. Isolated finds are not considered eligible to the National Register of Historic Places.

5.2 CLASS III RESULTS

The field investigations included an intensive pedestrian cultural resource inventory (Class III) of the entire 160 acres within the Project area. Surface visibility overall ranged from good to moderate across the entire Project area, and can be estimated at 30-40% overall surface visibility.

One previously unrecorded historic archaeological site (32MZ2759) was documented in the Project area. The site is located in the far eastern edge of the Project area, in an area that was not currently in use for agriculture. The location of the cultural resource is shown in the Appendix.

5.3 SITE 32MZ2759

Site Type: Historic features

Age of Site: Unknown temporal affiliation

Site Area: 115 square meters

NRHP Recommendation: ***Not Eligible***

The site consists of a historic stepped depression and a low concrete and cobble wall of an unknown age and use. Additional observations include two steel stakes imbedded in the ground, two rough-cut foundation stones, and a piece of dimensional (milled) lumber. The area around the site is heavily vegetated and visibility was very low (less than 5% surface visibility). A detailed examination of the immediate adjacent areas did not locate any associated historic debris. The site is in very poor condition with impacts from erosion, agriculture and grazing.

Feature 1 is a depression and measures a total of 21 feet north to south and 12 feet east to west. The inner depression measures 6 feet north to south and is also 12 feet east to west. The outer "step" is approximately 18 inches to 24 inches deep. The inner "step" is approximately 24 inches deeper than the outer step. Associated with that depression are two rough cut foundation stones along the southern edge of the depression.

Feature 2 is a low concrete wall consisting of small (fist-sized and smaller) cobbles roughly held together by concrete. It is located just off of the NW corner of the outer depression. The wall measures 12 feet 6 inches east to west, and nine feet north to south and is "L" shaped; another small extension of the wall extends approximately six feet NW from the bottom of the "L". The wall is approximately three inches wide and extends two to three inches above the ground surface.

Feature 3 consists of two steel stakes driven into the ground in the SW corner of the depression. These steel stakes were likely part of an anchor point or "dead man" where a guy wire could be attached. Directly next to the stakes, was a piece of heavily weathered directional (milled) lumber embedded in the ground.

Figure 3. Site 32MZ2759 - Feature 1 - Stepped depression, facing east



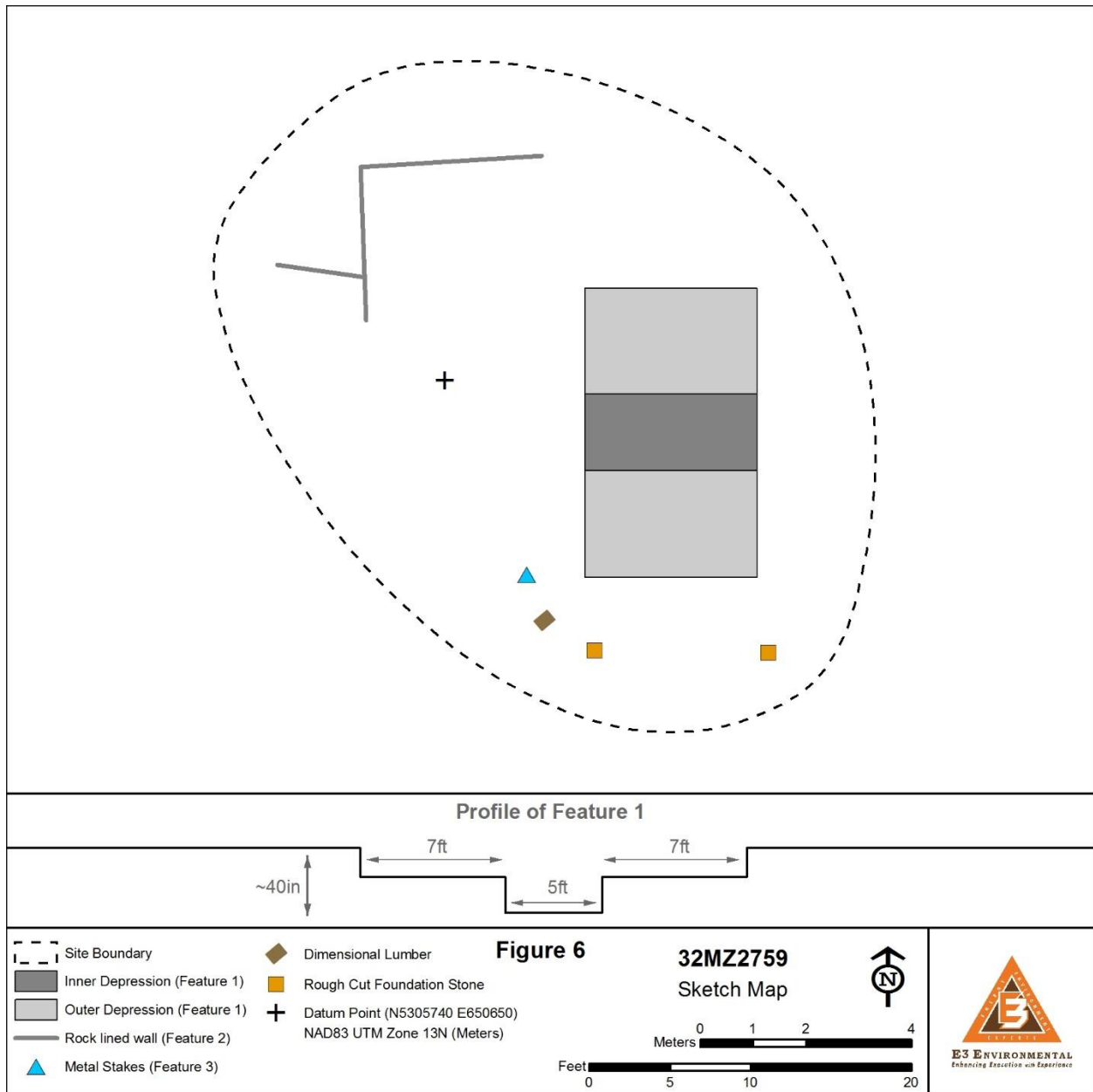
Figure 4. Site 32MZ2759 - Feature 2 - Cobble and concrete wall, top view



Figure 5. Site 32MZ2759 - Feature 3 - Steel stakes



Figure 6. Site 32MZ2759 - SKETCH MAP



SECTION 6: RECOMMENDATIONS

6.1 NATIONAL REGISTER OF HISTORIC PLACES EVALUATION

Site 32MZ2759 was evaluated for its eligibility for NRHP under criteria specified in 36 CFR 60.4. The integrity of the site was also taken into account. The quality of significance in American history, architecture, archaeology, and culture is present in sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, material, workmanship, feeling, and association, and which:

- a) are associated with events that have made a significant contribution to the broad patterns of our history; or
- b) are associated with the lives of persons significant in our past; or
- c) embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) have yielded or may be likely to yield information important in prehistory or history.

Following the Secretary of the Interior's Bulletin *How to Apply the National Register Criteria*, generally Criteria (A), (B), and (C) are applied to historic resources. Prehistoric archaeological sites or districts usually qualify for the register under Criterion (D), unless they are a type of site which may then qualify under Criteria (A) or (B). Prehistoric sites can embody characteristics beyond their NRHP qualifications alone, such as when human remains are present.

6.2 INTEGRITY

As the minimal remnants of a building or structure with an unknown purpose, site 32MZ2759 has very poor integrity. The only criteria of integrity that can be justified are integrity of setting and perhaps integrity of location (based on the embedded anchor and low cobble and cement wall). The other integrity criteria categories (design, material, workmanship, feeling, and association) are not present at the site. The structure at site 32MZ2759 was long ago removed almost entirely, leaving only a paucity of cultural features and materials behind.

6.3 SIGNIFICANCE

A land patent was issued to Lars Sigurdson on Feb 15, 1912 for the 160 acre NE Quarter of Section 20, T151 R96. No other records for Lars Sigurdson were located. As there is no evidence of an actual homestead (large concentrations of historic refuse, evidence of activity areas, standing buildings, etc.) in the surveyed area around site 32MZ2759, no association with any persons nor events of local, state, or national importance can be established (Criteria A and B). This site also does not exhibit distinctive or unusual characteristics for the area and as such cannot be recommended eligible under Criterion

C. As very few historic artifacts were found in the vicinity of the site and no classic homestead evidence was observed, there is likely no buried deposits associated with the site and all information potential has been exhausted (Criterion D).

Due to the overall lack of integrity of the site, as well as the lack of National Register Criteria being met (A, B, C, and D), site 32MZ2759 is **recommended not eligible** for the NRHP and should not be considered a Historic Property under federal guidelines.

SECTION 7: CONCLUSION

The 160-acre Demicks Lake Gas Processing Plant Project was surveyed for cultural resources in its entirety. One previously unrecorded historic site was documented in the Project area (site 32MZ2759), and is recommended **not eligible** to the NRHP. Due to the lack of significant cultural resources present on the Project, it is recommended that a determination of ***No Significant Sites Affected*** and ***No Historic Properties Affected*** be granted for the Project to proceed as planned.

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Appendix F

10-Year Plan

CROWLEY FLECK PLLP
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RECEIVED

August 6, 2012

AUG 06 2012

Hand Delivered

PUBLIC SERVICE COMMISSION

Mr. Darrell Nitschke
Executive Secretary
North Dakota Public Service Commission
600 East Boulevard Avenue
Dept. 408
Bismarck, ND 58505-0480

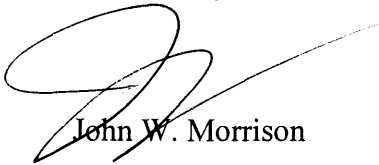
In re: ONEOK Rockies Midstream, LLC
Ten-Year Plan

Dear Mr. Nitschke:

Enclosed for filing are the original and ten copies of ONEOK Rockies Midstream, LLC's ten-year plan and exhibits.

If you have any questions, please feel free to contact me. Thank you.

Very truly yours,



John W. Morrison

lh
enc.

cc: Michael Dailey (via e-mail)

1

PU-12-673 Filed: 8/6/2012
2012 Ten year plan

Pages: 17

BILLINGS BISMARCK BOZEMAN HELENA KALISPELL

CROWLEY FLECK PLLP ATTORNEYS AT LAW

ONEOK Rockies Midstream, L.L.C.

John Morrison

ONEOK Rockies Midstream, LLC ("ORM") hereby submits our ten-year plan pursuant to North Dakota Century Code § 49-22-04 and North Dakota Administrative Code Chapter 69-06-02.

SECTION A: Existing Energy Conversion Facilities

Part I – Grasslands Plant

1. Location: ORM owns and operates an existing energy conversion facility at our Grasslands Gas Plant facility (formerly named McKenzie Gas Plant) located in Township 148 North, Range 105 West Section 36 in McKenzie County near Sidney, MT. A map showing the location of the site is attached hereto as **EXHIBIT "A"**.

2. Type and Capacity:

The plant cryogenically processes the casing head gas, generally high in natural gas liquids (NGLs), after the acid gas component and moisture have been removed from the gas. The raw NGLs are then fractionated into purity products that include propane, iso-butane, normal butane and natural gasoline. The separated products are then sold via truck at the facility or transported via pipeline to an offsite railcar loading facility.

 - a. Product Type: Natural Gas and separated NGLs
 - b. Plant Property Area: 160 acres (SE/4 of Section 36)
 - c. Plant Inlet Gas Rate: 100 MMscfd
 - d. Maximum Design Operating Pressure: 720 psig
 - e. Residue Gas Production: 81 MMscfd
 - f. Compressor specifications, including type, horsepower, output pressure and capacity:

- i. Ten 1,500 high pressure (HP) inlet/residue compressors
 - ii. Two 1,250 HP inlet/residue compressors
 - iii. Two 800 HP refrigeration compressors
 - iv. One 1,000 HP acid gas compressor
 - v. One 1,500 HP acid gas compressor
- Total compression horsepower: 21,600 HP
- g. NGL Production: 1,882,000 lbs/d
 - h. Plant in-service date: December 1980

This existing energy conversion facility is not committed to be retired in the next ten years.

Part II – Garden Creek Plant

1. Location: ORM owns and operates an existing energy conversion facility at our Garden Creek Gas Plant. It is located in Township 151 North, Range 98 West, Section 35 in McKenzie County near Watford City, ND. A map showing the location of the site is attached hereto as **EXHIBIT "B"**.

2. Type and Capacity:

The plant cryogenically processes casing head gas, which is generally high in natural gas liquids (NGLs), after the moisture has been removed from the gas. The separated Y-grade NGL product is sold via truck at the facility or transported via pipeline to an offsite railcar loading facility while the natural gas is transported via pipeline to an interstate natural gas pipeline system. A gathering system compressor station is on the site and operates independently of the gas plant.

- a. Product Type: Natural Gas and separated NGLs
- b. Plant Property Area: 80 acres (S1/2SE1/4 of Section 35)
- c. Plant Inlet Gas Rate: 100 MMscfd
- d. Maximum Design Operating Pressure: 1550 psig
- e. Residue Gas Production: 81 MMscfd
- f. Compressor specifications, including type, horsepower, output pressure and capacity:
 - i. Five 3,000 HP high pressure residue compressors
 - ii. Two 200 HP regeneration gas compressors
 - iii. Three 2500 HP refrigeration compressors
 - iv. Two 350 HP stabilizer overhead gas compressors

Total compression horsepower: 23,600 HP
- g. NGL Production: 2,170,000 lbs/d
- h. Plant in-service date: December 2011

This existing energy conversion facility is not committed to be retired in the next ten years.

SECTION B: Energy Conversion Facilities Under Construction

Part I – Stateline 1 and Stateline 2

1. Location: ORM has received a Certificate of Site Compatibility for the Stateline 1 and 2 Gas Plant facilities (PSC Case PU-10-666). This site will have 2 separate 100 MMscfd processing trains (Stateline 1 and Stateline 2) located in Township 155 North, Range 103 West, Section 21, SW/4 in Williams County near Williston, ND. A map showing the location of the site is attached hereto as **EXHIBIT “C”**.

2. Type and Capacity:

The plants will cryogenically process casing head gas, generally high in natural gas liquids (NGLs), after the moisture has been removed from the gas. The separated Y-grade NGL product will be sold via pipeline to an offsite railcar loading facility while the natural gas will be transported via pipeline to an interstate natural gas pipeline system.

 - a. Product Type: Natural Gas and separated NGLs
 - b. Plant Property Area: 160.3 acres (SW/4 of Section 21)
 - c. Plant Inlet Gas Rate: 200 MMscfd (100 MMscfd each plant)
 - d. Maximum Design Operating Pressure: 1650 psig
 - e. Residue Gas Production: 156 MMscfd (78 MMscfd each plant)
 - f. Compressor specifications, including type, horsepower, output pressure and capacity:
 - i. Four 3,000 HP high pressure residue compressors at each plant
 - ii. Two 150 HP regeneration gas compressors at each plant
 - iii. Three 3,000 HP refrigeration compressors at each plant
 - iv. Two 600 HP stabilizer overhead gas compressors at each plant
 - v. One spare 3,000 HP high pressure residue compressor at Stateline 2 only
 - g. Total compression horsepower: 48,000 HP for both plants
 - g. NGL Production: 5,948,000 lbs/d (2,974,000 lbs/d each plant)
 - h. Anticipated Plant in-service date: Stateline 1: Third Quarter 2012, Stateline 2: First Half 2013

SECTION C: Proposed Energy Conversion Facilities on Which Construction is Intended Within the Ensuing Five Years

Part I – Garden Creek II

1. Location: ORM has filed a Notice of Intent (NOI) for a new energy conversion facility adjacent to its existing Garden Creek Plant. It is located in Township 151 North, Range 98 West, Section 35 in McKenzie County near Watford City, ND. A map showing the location of the site is attached hereto as **EXHIBIT “B”**.

2. Type and Capacity:

The plant cryogenically processes casing head gas, which is generally high in natural gas liquids (NGLs), after the moisture has been removed from the gas. The separated Y-grade NGL product is sold via truck at the facility or transported via pipeline to an offsite railcar loading facility while the natural gas is transported via pipeline to an interstate natural gas pipeline system. A gathering system compressor station is on the site and operates independently of the gas plant.

- a. Product Type: Natural Gas and separated NGLs
- b. Plant Property Area: 80 acres (N1/2SE1/4 of Section 35)
- c. Plant Inlet Gas Rate: 100 MMscfd
- d. Maximum Design Operating Pressure: 1550 psig
- e. Residue Gas Production: 81 MMscfd
- f. Compressor specifications, including type, horsepower, output pressure and capacity:
 - i. Five 3,000 HP high pressure residue compressors
 - ii. Two 200 HP regeneration gas compressors
 - iii. Three 2500 HP refrigeration compressors
 - iv. Two 350 HP stabilizer overhead gas compressorsTotal compression horsepower: 23,600 HP
- g. NGL Production: 2,170,000 lbs/d
- h. Plant in-service date: Third Quarter 2014

This existing energy conversion facility is not committed to be retired in the next ten years.

If producer drilling activity in the Bakken/Three Forks continues at current levels, ORM anticipates it may need to build additional natural gas processing capacity in Western North Dakota sometime within the five year period.

SECTION D: Proposed Energy Conversion Facilities During the Next Ten-Year Time Period

If producer drilling activity in the Bakken/Three Forks continues at current levels, ORM anticipates it may need to build additional natural gas processing capacity in Western North Dakota sometime within the ten year period.

SECTION E: Existing Transmission Facilities (Electric)

ORM has no existing electrical transmission facilities.

SECTION F: Existing Transmission Facilities (Pipeline)

Part I – Fort Buford

1. Location. ORM owns and operates a natural gas transmission pipeline originating at the Grasslands Gas Plant (formerly named McKenzie Gas Plant) in Township 148 North, Range 105 West, Section 36 in McKenzie County and proceeding north-northeast to a point of intersection with the gas pipeline facilities of Northern Border Pipeline Company

in Township 151 North, Range 103 West, Section 4 in McKenzie County. It is permitted under PSC Corridor Certificate 53 and Route Permit 60. A system map showing the location of the pipeline is attached hereto as **EXHIBIT "D"**.

2. Type and Capacity. The design specifications for this facility are as follows:
 - a. Product Type: Natural gas and natural gas constituents
 - b. Length of Facility in Miles: Approximately 30 miles
 - c. Pipe Size: 10.75 inches
 - d. Maximum Design Operating Pressure: 1450 psig
 - e. Maximum Design Flow Rate: 55 MMscfd
 - f. Compressor or pumping station specifications, including type, horsepower, output pressure and capacity: None – compression to move product through the line is the plant recompression located at the Grasslands Plant site.
 - g. Minimum Cover Over Pipe: 48 inches
3. In-Service Date for Pipeline: January 31, 1993
4. Retirement. There is no projected retirement date during the next ten-year period for this pipeline.

Part II - Riverview

1. Location. ORM owns and operates a natural gas liquids pipeline for the transportation of propane and butane originating at the Grasslands Gas Plant (formerly named McKenzie Gas Plant) in Township 148 North, Range 105 West, Section 36 in McKenzie County, and proceeding due west and then along the southern boundary line of the SE/4 of Section 35, continuing on the south boundary line of the SW/4 of Section 35 moving northwesterly through the SW/4 of Section 35, angling through Section 34, Township 148 North, Range 105 West, McKenzie County. At this point the line crosses the state line into Montana where it terminates near Sidney, Montana. It is permitted under PSC Corridor Certificate 63 and Route Permit 73. A system map showing the location of the pipeline is attached hereto as **EXHIBIT "E"**.
2. Type and Capacity. The design specifications for this facility are as follows:
 - a. Product Type: Propane and butane
 - b. Length of Facility in Miles: Approximately 2 miles in North Dakota (total line length is approximately 11 miles including the Montana portion)
 - c. Pipe Size: 4.50 inches
 - d. Maximum Design Operating Pressure: 1200 psig
 - e. Maximum Design Flow Rate: Propane – 272 GPM under intake pressure of 595 psi and end of line pressure of 250 psi; Butane – 265 GPM under intake pressure of 535 psi and end of line discharge pressure of 125 psi
 - f. Compressor or pumping station specifications, including type, horsepower, output pressure and capacity: None – Injection pressure at the Grasslands Plant site is adequate to move the product through the pipeline.
 - g. Minimum Cover Over Pipe: 48 inches

3. In-Service Date for Pipeline. October 1, 1986
4. Retirement. There is no projected retirement date during the next ten-year period for this pipeline.

Part III – Garden Creek NGL Pipeline

1. Location: ORM owns and operates a natural gas liquids pipeline for the transportation of field grade NGLs originating at the Garden Creek Gas Plant in Township 151 North, Range 98 West, Section 35 in McKenzie County, and proceeding due west and south to Township 150 N, Range 99 West, Section 17 to bypass Watford City, then south and west to angle into existing pipeline corridors in Township 148 North, Range 103 West, travel south and west to pass near the Grasslands Gas Plant and through Section 34, Township 148 North, Range 105 West, McKenzie County. At this point the line crosses the state line into Montana where it terminates near Sidney, Montana. A system map showing the location of the pipeline is attached hereto as **EXHIBIT “F”**.
2. Type and Capacity. The design specifications for this facility are as follows:
 - a. Product Type: Y-Grade NGLs (Ethane, propane, butane and iso-butane mix, and pentanes and heavier NGLs)
 - b. Length of Facility in Miles: 54.2 miles (total line length is approximately 63.2 miles including the Montana portion)
 - c. Pipe Size: 10.75 inches
 - d. Maximum Design Operating Pressure: 1440 psig
 - e. Maximum Design Flow Rate: 700 gpm
 - f. Pumping station specifications, including type, horsepower, output pressure and capacity: None – Injection pressure at the Garden Creek Gas Plant site is adequate to move the product through the pipeline.
 - g. Minimum Cover Over Pipe: 48 inches
3. In-Service Date for Pipeline. December 2011
4. Retirement. There is no projected retirement date during the next ten-year period for this pipeline.

Part IV – Stateline NGL Pipeline

1. Location: ORM received a Certificate of Corridor Compatibility and Route Certificate for a natural gas liquids (NGL) line going from the Stateline 1 & 2 facility, currently under construction, in Township 155 North, Range 103 West, Section 21 in Williams County, and proceeding due west and south to Township 153N, Range 104W, Section 10. At this point the line will cross the state line into Montana where it will terminate near Sidney, Montana. A system map showing the proposed location of the pipeline is attached hereto as **EXHIBIT “G”**.

2. Type and Capacity. The design specifications for this facility are as follows:
 - a. Product Type: Y-Grade NGLs (Ethane, propane, butane and iso-butane mix, and pentanes and heavier NGLs)
 - b. Length of Facility in Miles: 12.4 miles (total line length is approximately 53.4 miles including the Montana portion)
 - c. Pipe Size: 10.75 inches
 - d. Maximum Design Operating Pressure: 1440 psig
 - e. Maximum Design Flow Rate: 700 gpm
 - f. Pumping station specifications, including type, horsepower, output pressure and capacity: None – Injection pressure at the Stateline Gas Plant site is adequate to move the product through the pipeline.
 - g. Minimum Cover Over Pipe: 48 inches

3. Projected In-Service Date for Pipeline: September, 2012

SECTION G: Proposed Transmission Facilities on Which Construction is Intended Within the Ensuing Five Years (Electric)

ORM has no proposed electric transmission facilities on which construction is intended within the ensuing five years.

SECTION H: Proposed Transmission Facilities on Which Construction is Intended Within the Ensuing Five Years (Pipeline)

If producer drilling activity in the Bakken/Three Forks continues at current levels, it is possible that ORM may need to build additional natural gas liquids transportation capacity in Western North Dakota sometime within the five year period.

SECTION I: Proposed Transmission Facilities during the Next Ten-Year Time Period (Electric and Pipeline)

If producer drilling activity in the Bakken/Three Forks continues at current levels, it is possible that ORM may need to build additional natural gas liquids transportation capacity in Western North Dakota sometime within the ten year period.

SECTION J: Regional Coordination

ORM has a significant regional presence in the Williston Basin. In conjunction with the above-mentioned Grasslands Gas Plant, ORM operates approximately 4,600 miles of natural gas gathering lines along with associated compression. There are approximately 189 ORM employees in the Williston Basin at field offices in Grasslands, Belfield and Williston. Due to growth in the Williston Basin, ORM management continually evaluates staffing requirements associated with the forecasted growth and required facilities and will make the appropriate staffing adjustments to safely and efficiently operate these

facilities. These facilities, which are the subject of this plan, would be under the control of these well-qualified people.

ORM has very limited regional coordination with other processors of associated natural gas and NGLs due to confidentiality concerns and potential antitrust issues. ORM does, of course, coordinate with producers in the areas its gathering systems serve by discussing potential connections with planned and existing wells and local gathering systems. ORM is a member of a number of trade associations including the Pipeline Association for Public Awareness, North Dakota Petroleum Council, American Gas Association and the Gas Processors Association.

SECTION K: Environmental Information

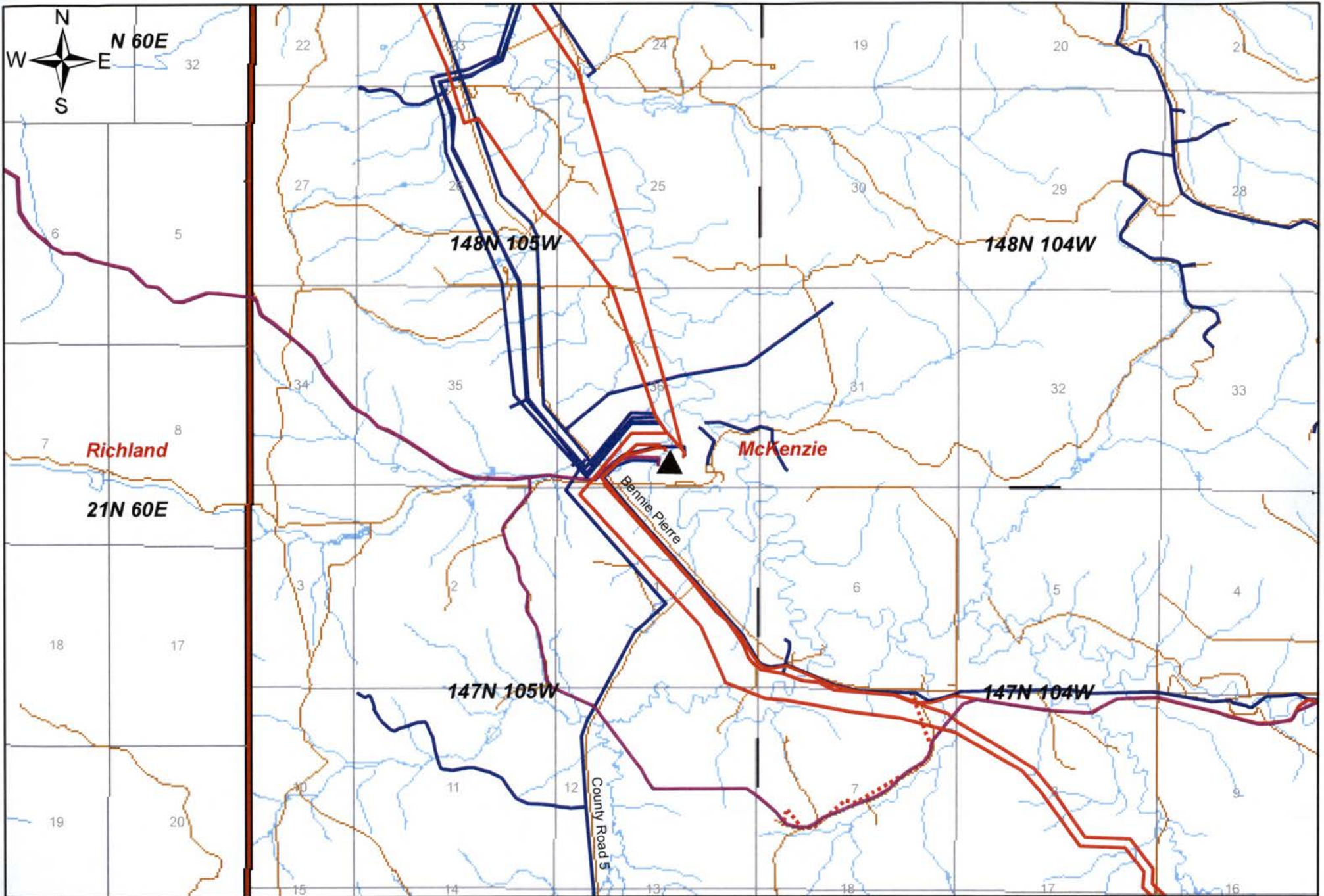
ORM has developed ongoing working relationships with the U.S. Forest Service, the Bureau of Land Management, the North Dakota Public Service Commission, the North Dakota Department of Health and the North Dakota Water Commission, in an effort to ensure regulatory compliance. ORM continues to develop detailed risk collaborations with the Local Emergency Planning Commissions. ORM has established a strong safety record and is well prepared to meet any emergency and mitigate the impact of a pipeline failure.

ORM is also committed to environmental compliance during project execution. ORM has implemented construction Storm Water Pollution Prevention Plans (SWPPP) for its gathering pipelines, the Garden Creek Gas Plant and the Stateline 1 and 2 Gas Plants. The Garden Creek Gas Plant has received its air permit as a synthetic minor source from the North Dakota Department of Health. The Stateline 1 and 2 Gas Plants have received its air permit together as a single minor source. ORM has also adopted an anticipatory findings plan for archeological items that may be discovered during the installation of pipeline or gas plant sites. This has been submitted to the State Historical Preservation Office for approval.

SECTION L: Projected Demand for Service

Drilling activity in three counties where ORM has significant gathering facilities (Dunn, McKenzie, and Williams Counties) has dramatically increased, with the rig count in these counties increasing from 35 rigs in on December 31, 2009 to 215 rigs as of June 29, 2012. Drilling activity in the counties where ORM has significant gathering facilities (Dunn, McKenzie, Golden Valley, Billings, and Williams Counties) has dramatically increased and ORM estimates that gas production associated with the Bakken and Three Forks oil production will increase significantly beyond existing processing capacity. Without additional gathering and processing facilities, the amount of flared gas or curtailed production will increase significantly.

Additional processing plants and/or natural gas liquids pipelines may be necessary if the oil and gas drilling in these counties continues at current levels or increases beyond the current rig activity.

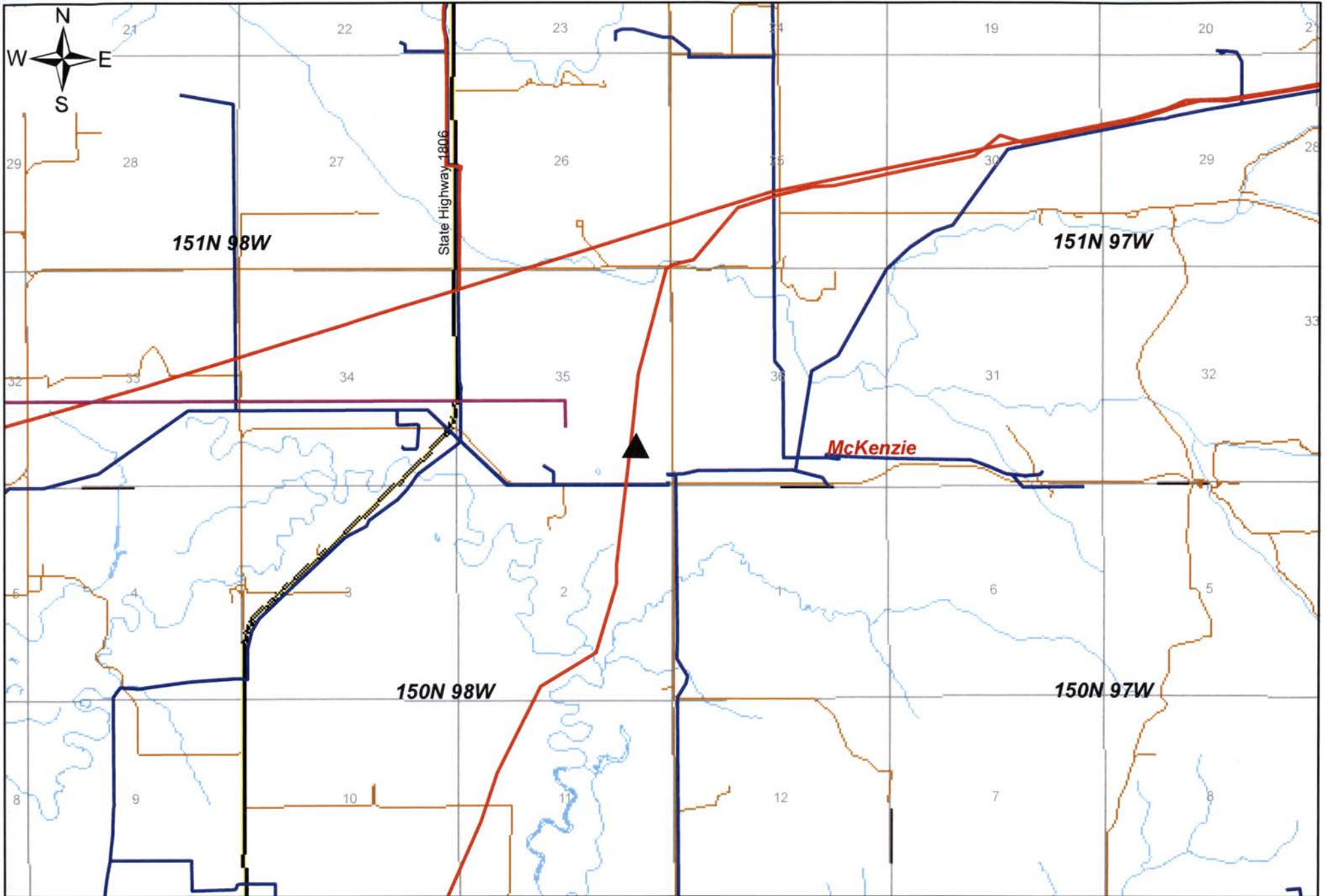


Grasslands Gas Plant

Exhibit "A"



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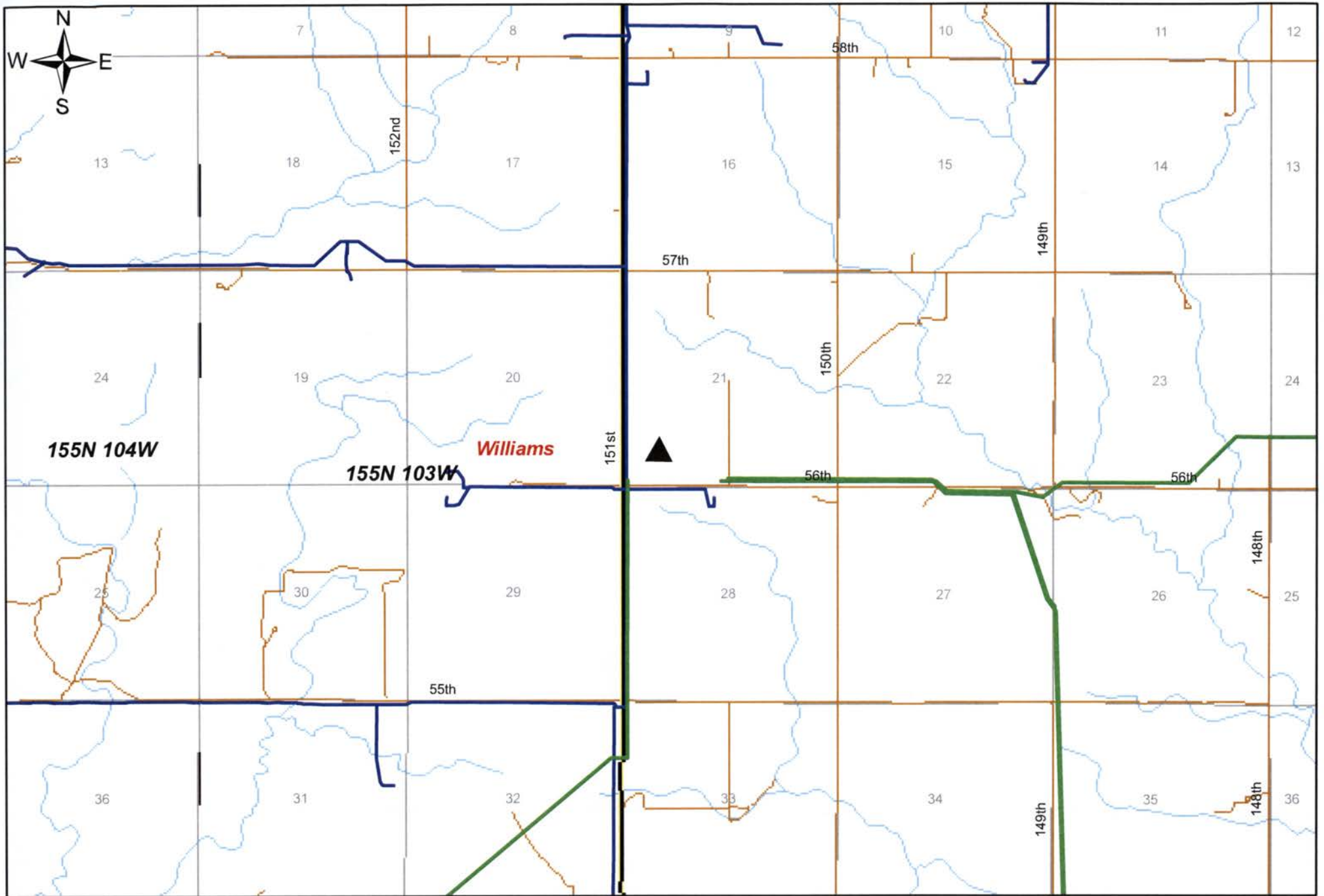


Garden Creek Gas Plant

Exhibit "B"



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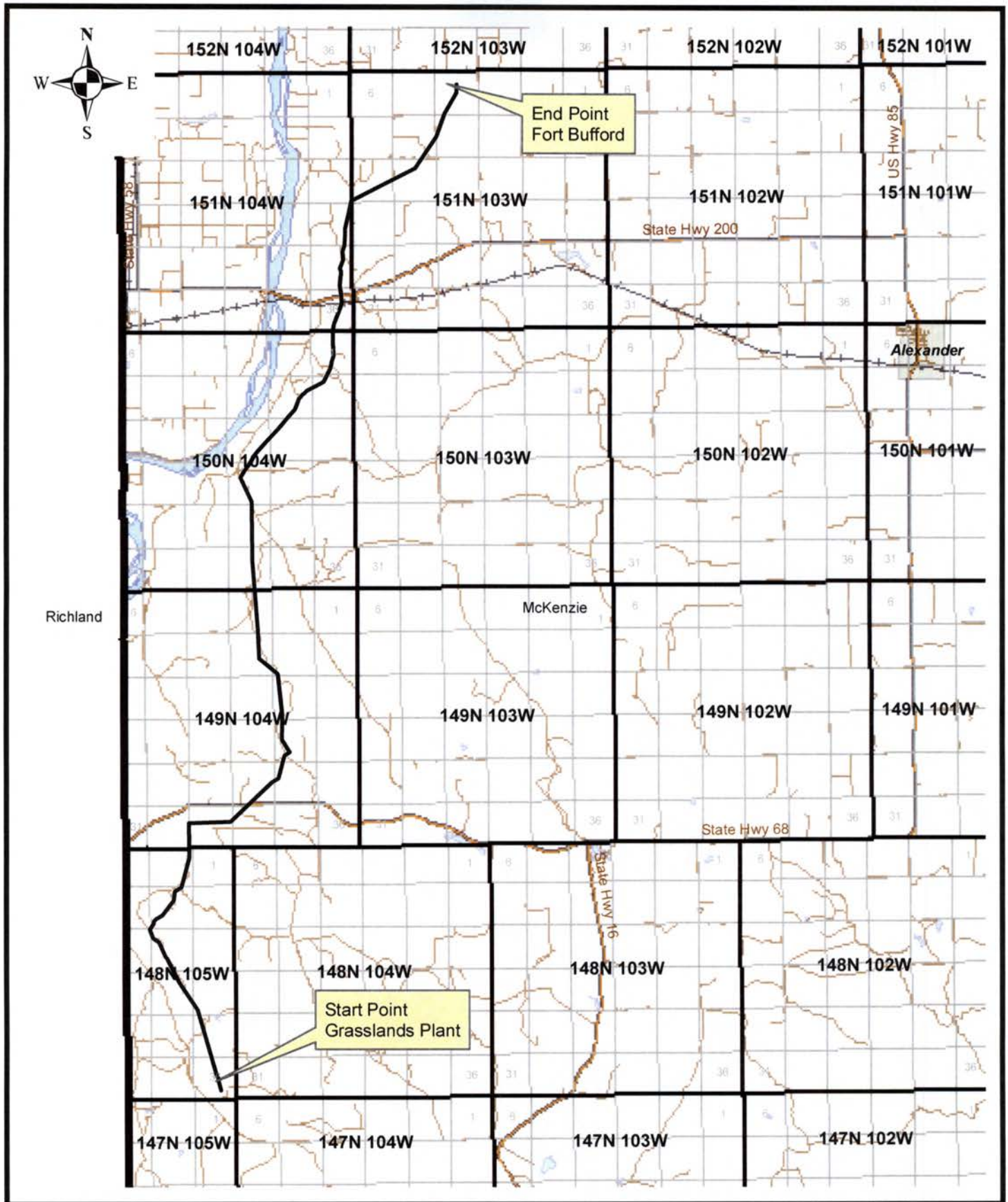


Stateline 1 & 2 Gas Plant

Exhibit "C"



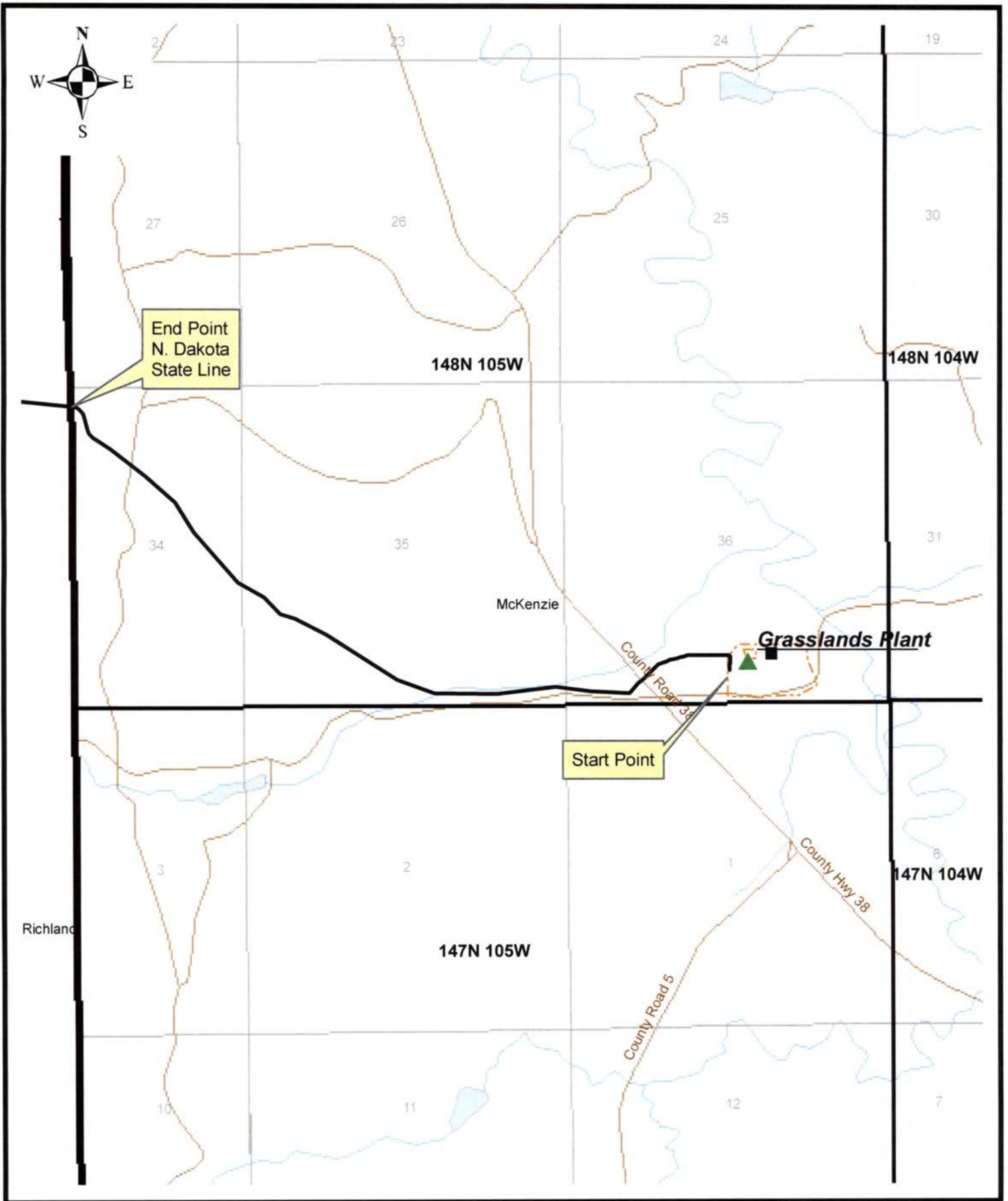
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Fort Bufford Pipeline

Exhibit "D"

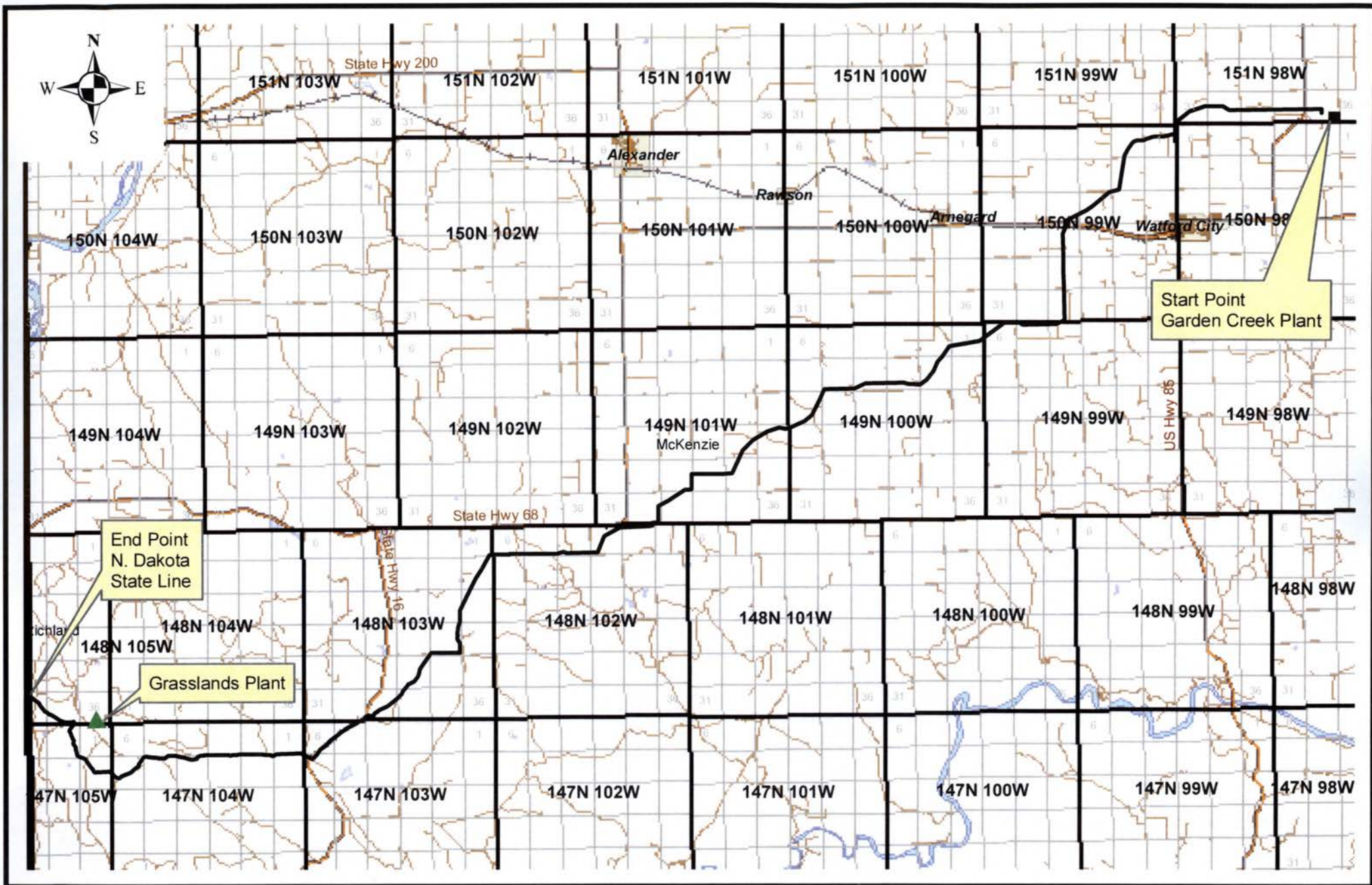




Riverview Pipeline

Exhibit "E"

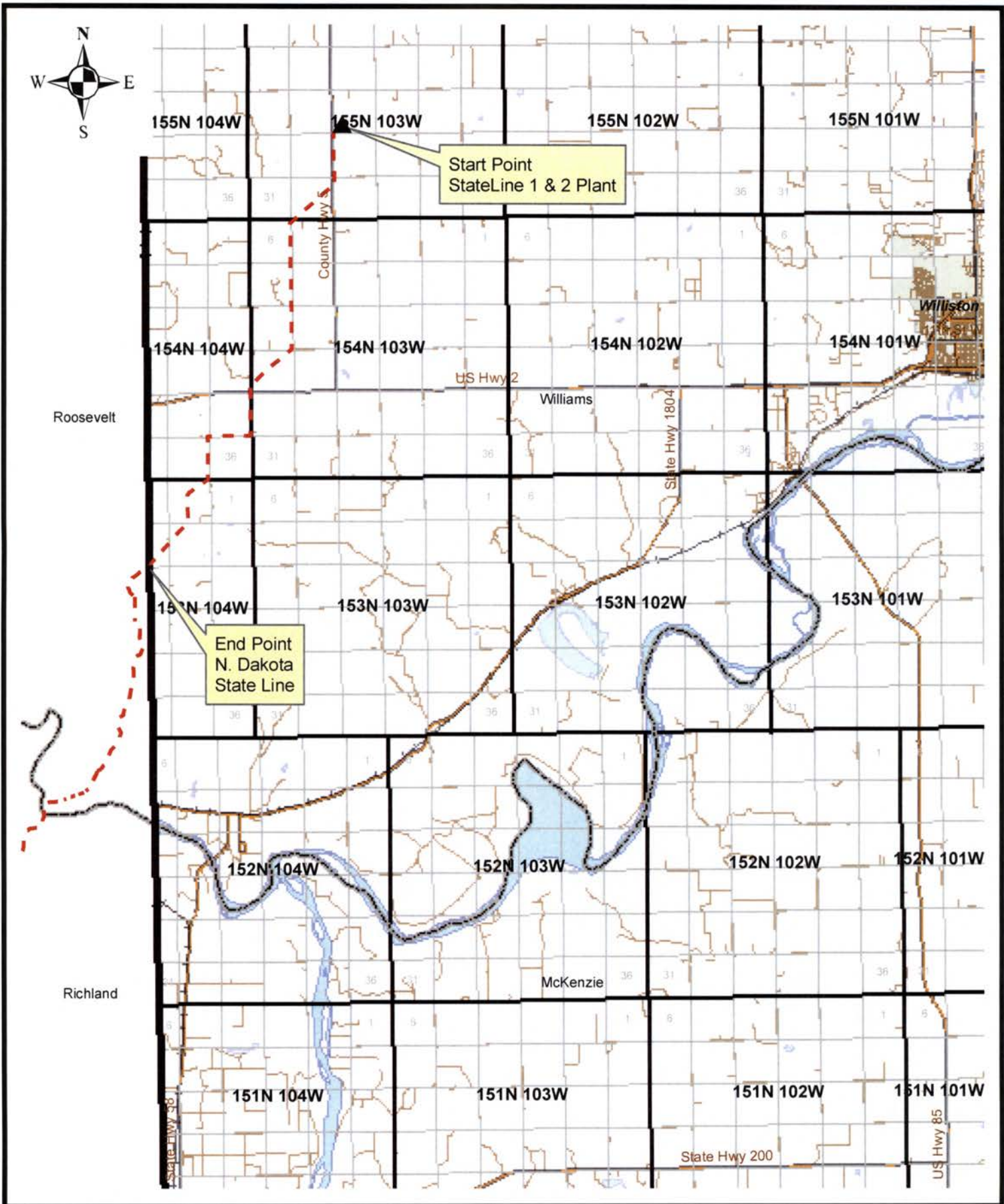




Garden Creek Pipeline

Exhibit "F"





Stateline Pipeline

Exhibit "G"

