



# Topsoil Removal Inspection Report of Xcel Energy Minot Load Serving Project

Section 2, T154N R82W, 5th P.M.

Ward County, North Dakota

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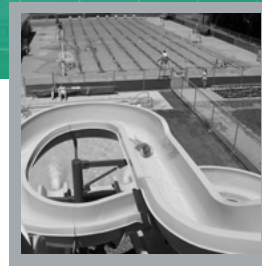
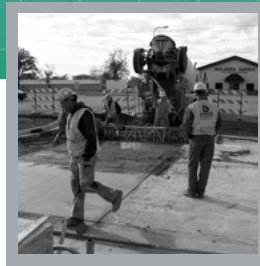
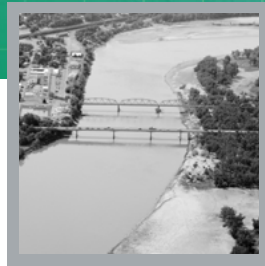
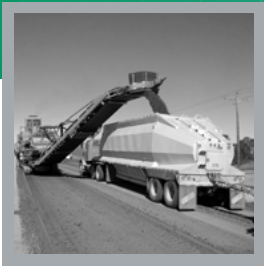
Section 2, T152N R80W, 5th P.M.

McHenry County, North Dakota

Prepared By:



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# 1. EXECUTIVE SUMMARY

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The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) authorizes the Public Service Commission (Commission) to determine that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and the welfare of the citizens of North Dakota. Commission construction inspections ensure that energy projects are constructed in compliance with the siting laws (North Dakota Century Code Chapter 49-22), rules (North Dakota Administrative Code Article 69-06) and applicable Commission Orders.

The Commission retained Interstate Engineering, Inc. (Interstate) to complete construction inspections of the Northern States Power Company, doing business as Xcel Energy, Minot Load Serving Project, Case No. PU-17-102, which is currently under construction in McHenry and Ward Counties in North Dakota. The Project involves the construction of a new substation, called the Magic City Substation, and an approximately 20.5 mile-long 230 kilovolt (kV) transmission line connecting the new substation to an existing substation, the McHenry Substation, near the City of Velva.

Construction of the Project commenced on October 9, 2017. Interstate conducted the Topsoil Removal Inspection from October 9, 2017 to October 10, 2017. Interstate prepared this report to document the topsoil removal inspection and to provide a summary of compliance with the Commission Orders.

The purpose of the Topsoil Removal Inspection was to observe the topsoil removal phase to verify that topsoil has been properly removed and kept segregated from subsoil until replacement occurs. The inspection continued until the inspector determined that the equipment operators had demonstrated proficiency concerning topsoil removal, in accordance with the Certification Relating to Order Provisions for Case PU-17-102. Photographs taken during the site inspection are included in Appendix B. The inspector took photos of the grading activities to document that the subsoil piles are separated from the topsoil piles.

Prior to the construction inspection, Interstate reviewed Project documents and filings from the North Dakota Public Service Commission Hearing held on August 18, 2017 in Minot, North Dakota. Overall, the topsoil removal activities were satisfactory and the inspector determined that the equipment operators had demonstrated proficiency concerning topsoil removal in compliance with the Commission's Order.

# 2. BACKGROUND & SCOPE

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On March 10, 2017, Xcel Energy filed a Consolidated Application for a Waiver or Reduction of Procedures and Time Schedules and Certificate of Corridor Compatibility and Transmission Facility Route Permit in Case No. PU-17-102 for the Minot Load Serving Project. The Project consists of a new substation, called the Magic City Substation, and an approximately 20.5-mile-long 230 kilovolt (kV) transmission line connecting the new substation to an existing substation, the McHenry Substation, near the City of Velva. The project is proposed to be designed and constructed to meet or exceed the standards of the National Electrical Safety Code (NESC) and the North Dakota Energy Conversion and Transmission Facility Siting Act (Siting Act). The Commission issued a decision approving a corridor and a route on October 4, 2017 in accordance with the Commission's Findings of Fact, Conclusions of Law and Order.

The Commission retained Interstate to complete construction inspections for the Project, which is currently under construction in McHenry and Ward Counties, North Dakota. The purpose of the first inspection (Topsoil Removal Inspection) was to observe the topsoil removal phase to verify that topsoil has been properly removed and kept segregated from subsoil until replacement occurs. The inspection continued until the inspector determined that the equipment operators had demonstrated proficiency concerning topsoil removal, in accordance with Certification Relating to Order Provisions for Case PU-17-102.

According to Xcel Energy, the purpose of the Project is to construct a new 230 kV transmission line from the existing McHenry Substation to a new 230/115 kV substation (Magic City) as well as reconfiguring and upgrading existing infrastructure at the McHenry Substation. This Project is needed to meet the growing demand for electricity in the Minot area and to reinforce the reliability of the region's transmission system.

Xcel Energy selected the project route after addressing the factors identified in NDCC § 49-22-09 and pursuant to the criteria in NDAC § 69-06-08-02. Xcel Energy proposes to construct a new 230 kV transmission line on double circuit structures. Most of the Project is parallel to Xcel Energy's existing 115 kV transmission line.

### 3. TOPSOIL REMOVAL INSPECTION

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On October 9, 2017, Ms. Veronica Meyer, working under Mr. Damon DeVillers, Project Manager at Interstate, conducted the topsoil removal inspection at the McHenry Substation site. Ms. Meyer met Mr. Mike Muellenbach, Great River Energy's on site representative and Mr. Joe Warner, Foreman from U.S. SiteWork (construction contractor) at the work site to discuss construction details, topsoil removal methods and restoration procedures. The discussion included many construction-related items such as communication of topsoil removal procedures with the equipment operators, width and depth of topsoil removal, and specific areas of topsoil removal.

Mr. Warner explained that he will remove all of the topsoil and stockpile most of it in the southwest corner of the site. The topsoil on the north side of the site will be stockpiled along the northwest edge of the site if he deems there to be enough room between the silt fence and the project limits. Mr. Muellenbach, Mr. Warner and Ms. Meyer performed a field inspection while discussing the project.

Observations were made of the topsoil removal process at the McHenry Substation Site on October 9-10, 2017. The topsoil removal process consisted of a bulldozer removing the topsoil by pushing it to the appropriate stockpile areas. Pictures were taken observing the process and depth of topsoil. Depth of topsoil was typically 7-8 inches with a few areas with as little as 2 inches and as much as 16 inches. Overall, the topsoil removal activities were satisfactory and the inspector determine that the equipment operators had demonstrated proficiency concerning topsoil removal in compliance with the Commission's Order.

On October 10, 2017, Ms. Meyer conducted the topsoil removal inspection at the Magic City Substation site. Ms. Meyer met Mr. Joe Sabo, Superintendent from Carl Bolander & Sons Co. (construction contractor) at the work site to discuss construction details, topsoil removal methods and restoration procedures. The discussion included many construction-related items such as communication of topsoil removal procedures with the equipment operators, width and depth of topsoil removal, and specific areas of topsoil removal.

Mr. Sabo explained that he will remove all of the topsoil and stockpile it in the southwest corner of the site. Braun Intertec had been on site and indicated most of the site had 6-8 inches of topsoil, but the center of the site had none. Only a thin layer of vegetation existed in the center of the site.

Observations were made of the topsoil removal process at the Magic City Substation Site on October 10, 2017. The topsoil removal process consisted of a bulldozer and excavator removing the topsoil by pushing it to the appropriate areas and loading it into haul trucks. The trucks hauled the topsoil to the stockpile located in the southwest corner of the site. Pictures were taken observing the process and depth of topsoil. Depth of topsoil was typically 10-12 inches with areas with as much as 20 inches. Overall, the topsoil removal activities were satisfactory and the inspector determine that the equipment operators had demonstrated proficiency concerning topsoil removal in compliance with the Commission's Order.

## 4. CONCERNS AND CORRECTIVE ACTIONS

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During the topsoil removal inspection, no concerns were observed at either substation site. Therefore, no corrective actions were needed.

## 5. CONCLUSION

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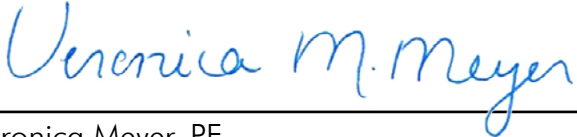
Generally, the topsoil removal within the sites appeared to be satisfactory and consistent with the Commission's Order. Based on the field observations and photographs, the Interstate Inspector (Ms. Meyer) determined that equipment operators demonstrated proficiency concerning topsoil removal in compliance with the Commission's Order.

## 6. SIGNATURE

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Observations and findings contained in this report are based on available information, daily field reports and photographs in a generally accepted technically practice at the present time.

Project Manager Damon K. DeVillers, PE, President.

  
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Veronica Meyer, PE  
Interstate Engineering, Inc.

11/22/2017  
Date

  
\_\_\_\_\_  
Damon K. DeVillers, PE, President  
Interstate Engineering, Inc.

11/22/2017  
Date

## 7. REFERENCES

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Joe Warner, Foreman for U.S. SiteWorks  
11040 183rd Circle NW, Suite B, Elk River, MN 55330, October 2017

Joe Sabo, Superintendent for Carl Bolander & Sons  
251 Starkey Street, St. Paul, MN 55107, October 2017

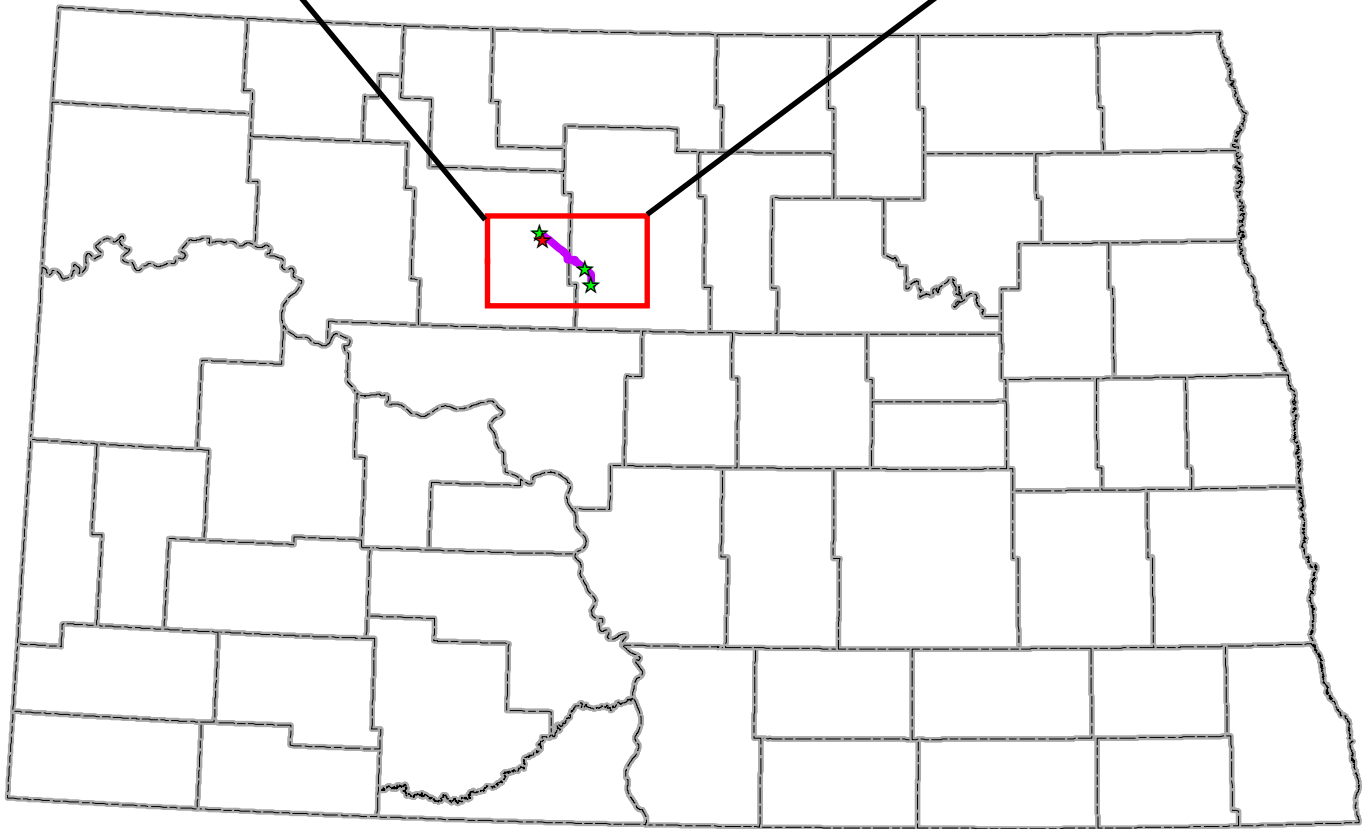
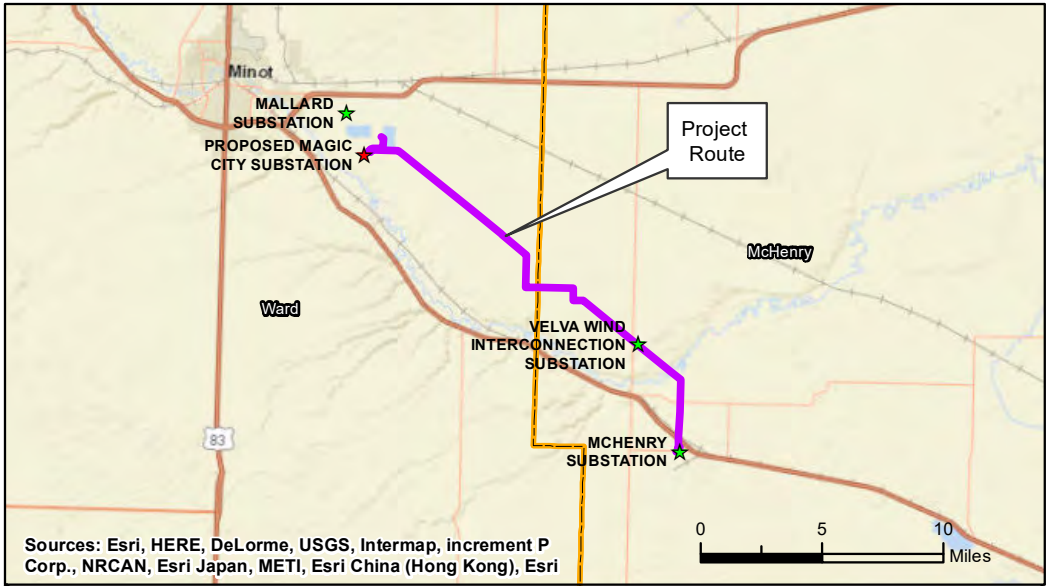
North Dakota Public Service Commission (NDPSC) Online Case Search. Available from [http://www.psc.nd.gov/database/docket\\_file\\_list.php](http://www.psc.nd.gov/database/docket_file_list.php) (Accessed May 2017)



# APPENDIX A

Field Inspection Map

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North Dakota

**Legend**

- Project Route
- ★ Proposed Substation
- ★ Substation



**Minot Load Serving Project**  
McHenry and Ward Counties, North Dakota

**Figure 1**  
**Project Location Map**  
March 2017

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■ APPENDIX B

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Photographs

*Photographs taken on October 9-10, 2017, at the McHenry Substation Site*



Photo 1 - Topsoil removal process



Photo 2 - 3" topsoil depth on the hill south of the southwest fence corner



Photo 3 - 7" topsoil depth western edge of the hill located south of the existing pad



Photo 4 - Topsoil removal process looking at southwest corner of site



Photo 5 - 8" topsoil depth on south hill south of southwest fence corner

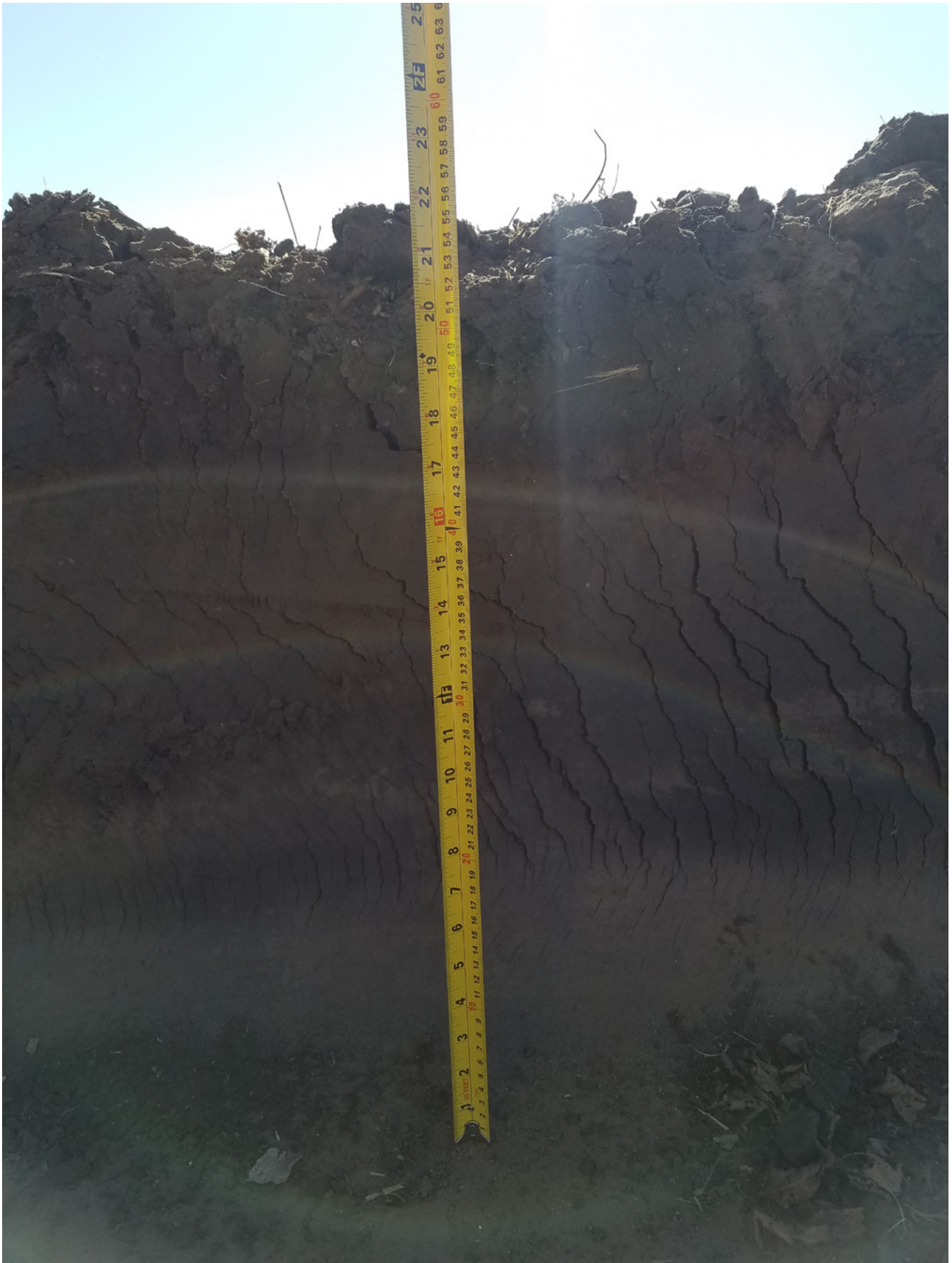


Photo 6 - 22" topsoil depth looking east on the north side of the approach on the west edge of concrete pad



Photo 7 - 9" topsoil depth looking west by existing power pole north of approach



Photo 8 - Topsoil stockpile on north edge of the site looking north



Photo 9 - Topsoil removal process on north side of approach looking northeast



Photo 10 - Topsoil stockpile on south edge of site looking south



Photo 11 - 12" topsoil depth on access road looking west



Photo 12 - Topsoil removal process at northeast corner of pad looking north



Photo 13 - Topsoil removal process looking west along north edge of pad



Photo 14 - 12" topsoil depth looking north along the north edge of the pad



Photo 15 - 10" topsoil depth looking north along north edge at northwest pad corner



Photo 16 - Topsoil stockpile at southwest corner of site looking southwest

