

As-Built Inspection Report

Roosevelt Gas Plant Expansion Project

Hiland Partners Holdings LLC

ND PSC Case No. PU-18-277

Prepared for:

North Dakota Public Service Commission
Public Utilities Division
State Capitol
600 East Boulevard – Dept. 408
Bismarck, ND 58505-0480

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As-Built Inspection Report
Keitu Engineers & Consultants, Inc.



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Executive Summary

The State of North Dakota, acting through its North Dakota Public Service Commission (Commission), Division of Public Utilities, has contracted Keitu Engineers & Consultants, Inc. (Keitu) to perform consulting services for an As-Built Siting Inspection. This report addresses the Orders established by the Commission and issues established in Case No. PU-18-277.

Hiland Partners Holdings LLC (Hiland) owns and operates the existing Roosevelt Gas plant located approximately 7.5 miles south of Watford City in McKenzie County, North Dakota. Prior to the expansion of the Project, the facility had a nominal inlet gas capacity of 50 million standard cubic feet per day (MMscfd). The Roosevelt Gas Plant Expansion (Project) consists of the addition of one cryogenic turbo-expander unit with a capacity to process 150 MMscfd of natural gas per day to produce natural gas liquids (NGLs) and residue gas, bringing the total next capacity of the facility to 200 MMscfd. Hiland owns a 38-acre parcel where the existing facility and the expansion are located. The facility including the expansion occupies approximately 30 acres of the 38 acre parcel.

The purpose of the As-Built Inspection was to ensure the Project was constructed in compliance with the siting laws, rules, and the applicable Commission Order for the Project. Prior to the inspection, Keitu reviewed all Project documents to verify any and all aspects requiring site verification.

The site was visually inspected on November 24, 2021 by Keitu staff. The Project was well-maintained, secured, and in good condition. During the As-Built Inspection, the expansion appeared to have been constructed within the existing 38 acre gravel pad and no topsoil or vegetation was disturbed outside the pad during construction. Overall, the Project appeared to be constructed as planned with numerous efforts to minimize impacts and to stay in compliance with the siting laws, siting rules, and Commission Orders.

Introduction

The Project was approved on November 26, 2018 and construction began in November 2019. Construction for the Project was completed in the summer of 2020 and is operated by Hiland. The expansion included the addition and operation of a permanent 150 MMscfd processing train that has the ability to operate independently of the existing facility. Expansion activities included the addition of inlet gas slug catchers, produced concentrate handling, filtration and stabilization, mole sieve dehydration, cryogenic gas cooling for NGL extraction, residue gas compression, NGL pipeline pumps, a flare system and ancillary systems including control, electrical, air and heat transfer systems.

The Plant processes wellhead natural gas gathered from crude oil production wells dedicated to Hiland's gathering system. Once processed, the NGL product extracted from the gas is transferred to the ONEOK pipeline system. Residue gas, largely methane and ethane, will be transferred to the Northern Border pipeline system. The gas processing expansion activities would occur to the east of the existing Plant; all activities will occur within the current Plant fence.

The Project is under the jurisdiction of the North Dakota Public Service Commission, which issued its Certificate of Site Compatibility No. 56 for Case No. PU-18-277 on November 26, 2018.

Purpose and Scope of Inspection

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) authorizes the Public Service 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 welfare of the citizens of North Dakota. Construction Inspections ensure the Project is constructed in compliance with siting laws, rules, and the applicable Commission Order Amending Certificate and Permit (Order).

The Commission retained Keitu Engineers & Consultants, Inc. (Keitu) to complete an As-Built Construction Inspection of the Project. The inspection process included a review of the Consolidated Application for Certificate of Corridor Compatibility and Route Permit (Application), Order, Certification Relating to Order Provisions (Certification), and other applicable documents to determine Project-specific siting and construction requirements; a site visit and inspection of facilities; documentation of compliance; and a report summarizing findings. This report includes, but is not limited to, site visit observations, documentation of compliance deficiencies, and a summary of issues that should be addressed for the Project to be considered complete and in full compliance.

Methods

Keitu reviewed North Dakota siting laws and rules, the Application, Certification, and the Order for the Project to identify what Project-specific documentation was required for compliance.

Keitu then reviewed Project documents in the PSC Online Case Search to identify those siting laws, rules, and Application and Order assertions that already had written verification, those that still required documentation, and those that required physical site verification.

Keitu Staff visited the Project area on November 24, 2021 to visually inspect the site. Digital photographs were taken showing typical Project infrastructure. The Project was in operation at the time of visit.

Orders

The following section includes discussion of a list of components of the Project that were asserted in the Order which could be documented during the As-Built Inspection to verify compliance with siting laws, rules and the Order for the Project, via either written documentation or physical site verification. Included are detailed findings and observations from Keitu personnel involved in the As-Built Inspection for the Project.

On August 22, 2018 the Commission deemed the application complete and issued a Notice of Filings and Notice of Consolidated Hearing, scheduling a public hearing for September 27, 2018 at 10:00 a.m. Central Time at Teddy's Residential Suites, 113 9th Avenue SW, Watford City, North Dakota 58854.

- 1. Certificate of Site Compatibility No. 56 is issued to Hiland Partners Holdings LLC designating a site for the construction, operation, and maintenance of the Roosevelt Gas Plant Expansion Project. For purposes of this Certificate, the designated site is 30 acres of the 38-acre parcel of land located approximately 7.5 miles southeast of Watford City, in the W ½ SE ¼ of Section 30, Township 149 North, Range 98 West, McKenzie County, North Dakota, and as identified on the maps contained in Appendix B of Hearing Exhibit 1.**

On November 26, 2018, the Commission issued a Certificate of Site Compatibility No. 56 to Hiland Partners Holdings LLC. Order #1 is complete.

- 2. The Certification Relating to Order Provisions- Energy Conversion Facility Siting with attached Tree and Shrub Mitigation Specifications executed September 25, 2018, is incorporated by reference and attached to this Order.**

Order #2 is complete.

- 3. To the extent there are any conflicts or inconsistencies between Hiland's application and the Certification, the Certification provisions control.**

Order #3 was followed.

- 4. Hiland shall comply with all conditions stated in the Findings of Fact.**

Order #4 was followed.

- 5. Prior to commencing construction of any portion of the proposed project, Hiland shall obtain all other necessary licenses and permits for construction of such portion, and provide copies to the Commission prior to construction of the portion of the project.**

Order #5 was followed.

- 6. Prior to placing the Roosevelt Plant into service, Hiland shall provide to the Commission the completed noise study, blast radius report, and spill prevention control and countermeasures plan.**

Order #6 was followed.

- 7. If a spill by Hiland requires notification to any other states or federal agency, Hiland will also inform the Commission of such spill within 24 hours of occurrence by leaving a message at the Commission's Toll Free Number, with a follow-up email to the Commission's Executive Secretary.**

Order #7 was followed.

- 8. Hiland is required to comply with all applicable laws, rules, and/or regulations in the event it desires to construct another or difference energy conversion facility that was specified in the Application within the site designated in this proceeding.**

Order #8 was followed.

Certification

The following section includes discussion of relevant items included in the Certification attached by reference to original Order. All certification points relevant to the As-Built Inspection Report are included.

- 1. Company understands and agrees that the Certificate of Site Compatibility will be issued by the Commission subject to the conditions and criteria set forth in Chapter 49-22.1 of the North Dakota Century Code and Chapter 69-06-08 of the North Dakota Administrative Code, and that Company shall be responsible for compliance with this order and conditions and criteria set forth in the applicable laws and rules.**

The Commission issued Certificate of Site Compatibility No. 56 to Hiland Partners LLC on November 26, 2018. Certification Point #1 was followed.

2. **Company agrees to comply with the rules and regulations of all other agencies having jurisdiction over any phase of the proposed energy conversion facility including all city, township, and county zoning regulations.**

Based on available information, it is Keitu’s opinion that Certification Point #2 was followed.

3. **Company understands and agrees that it shall obtain all other necessary licenses and permits, and shall provide copies of all licenses and permits to the Commission prior to construction activity associated with the energy conversion facility that requires said license or permit.**

Based on available information, it is Keitu’s opinion that Certification Point #3 was followed.

4. **Company understands and agrees that the Certificate of Site Compatibility is subject to suspension or revocation and may, in an appropriate and proper case, be suspended or revoked for failure to comply with the Commission’s order, the conditions and criteria of the certificate or subsequent modification, or failure to comply with the applicable statutes, rules, regulations, standards, and permits of other state or federal agencies.**

Certification Point #4 was followed.

5. **Company agrees to maintain records that will demonstrate that it has complied with the requirements of the Commission’s order and the Certificate of Site Compatibility, and that it will preserve these records for Commission inspection at any reasonable time upon reasonable notice.**

Based on available information, it is Keitu’s opinion that Certification Point #5 was followed.

6. **Company understands and agrees that the authorizations granted by the Certificate of Site Compatibility for the energy conversion facility are subject to modification by order of the Commission if deemed necessary to protect further the public or the environment.**

Certification Point #6 as followed.

7. **Company agrees to hold a preconstruction conference prior to commencement of any construction, which must include a Company representative, its construction supervisor, and a representative of Commission Staff, to ensure that Company fully understands the conditions set forth in the Commission’s order.**

Hiland held a preconstruction conference on November 27, 2018 in McKenzie County, North Dakota. Commission Staff, and representative for Hiland were in attendance. Certification Point #7 was followed.

- 8. Company understands and agrees that all cultural resource mitigation plans must be approved by the North Dakota State Historic Preservation Office prior to the start of any fieldwork and construction activity in the affected area.**

On June 19, 2018, ND SHPO notified Hiland representatives and stated that they had received and reviewed **ND SHPO Ref: 18-1030 PSC** documentation for “Kinder Morgan Roosevelt Gas Plant Expansion Project: A Class I and Class III Cultural Resource Investigation in McKenzie County, North Dakota,” and found it acceptable. ND SHPO concurred with a **“No Significant Sites Affected”** determination provided the project is of the nature stated and it takes place in the plotted location provided in the project documentation. Certification Point #8 was followed.

- 9. Company understands and agrees that topsoil removal will begin when the Commission’s third party construction inspector is present at the Project site to observe that topsoil is properly removed and kept segregated from subsoil until replacement occurs. Company shall establish the date and time for the Commission’s third-party construction inspector’s topsoil removal oversight in the preconstruction conference.**

Project construction took place entirely within the existing 38 acre pad and did not require any removal of topsoil; therefore, a topsoil inspection was not required. Certification Point #9 was followed.

- 10. Company agrees to inform the Commission and the Commission’s third-party construction inspector of its intent to start construction on the energy conversion facility prior to the commencement of construction. Once construction has started, Company shall keep the Commission and the Commission’s third-party construction inspector updated of construction activities on a monthly basis.**

The Commission was notified at the November 27, 2018 pre-construction conference that Hiland would like to begin construction as soon as possible and would email the Commission prior to construction commencing. The Commission stated to Hiland that the Commission’s third-party inspector did not need to be notified at the beginning of the project. Monthly construction progress reports were not found on the PSC database. Based on available information, it is Keitu’s opinion that Certification Point #10 was not followed.

- 11. Company agrees to construct and operate the energy conversion facility in accordance with all applicable safety requirements.**

Based on available information, it is Keitu’s opinion that Certification Point #11 was followed.

- 12. Company understands and agrees that it shall bury all underground lines to a depth of at least 48 inches to the top of the lines.**

Based on available information, it is Keitu's opinion that Certification Point #12 was followed.

- 13. Company understands and agrees that topsoil, up to 12 inches, or topsoil to the depth of cultivation, whichever is greater, over and along trench areas, roadways, and locations of associated facilities must be carefully stripped and segregated from the subsoil. Any area on which excavated subsoil will be placed must first be stripped of topsoil. The stripped topsoil must not be stockpiled in natural drainages, and must be protected from water erosion. Care must be taken to protect topsoil from unnecessary compaction by heavy machinery. Unless otherwise approved by the Commission, topsoil must be removed before topsoil freezes in the late fall/early winter to the point that frost inhibits proper soil segregation. After backfilling with subsoil is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must be replaced over areas from which it was stripped only after the subsoil is replaced.**

No topsoil was removed during Project construction. Certification Point #13 was followed.

- 14. Company understands and agrees that all buried facility crossings of graded roads shall be bored unless the responsible governing agency specifically permits Company to open cut the road.**

Based on available information, it is Keitu's opinion that Certification Point #14 was followed.

- 15. Company understands and agrees that staging areas or equipment shall not be located on land owned by a person other than Company unless otherwise negotiated with landowners.**

Based on available information, it is Keitu's opinion that Certification Point #15 was followed.

- 16. Company understands and agrees that if any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, it must be marked, preserved and protected from further disturbances until a professional examination can be made by the State Historical Society, a report of such examination is filed with the Commission.**

Based on available information, it is Keitu's opinion that Certification Point #16 was followed.

17. Company understands and agrees that construction must be suspended when weather conditions are such that construction activities will cause irreparable damage to roads or land, unless adequate protection measures are taken by Company.

Based on available information, it is Keitu’s opinion that Certification Point #17 has been followed.

18. Company understands and agrees that the Commission has authority to stop Project construction activities in the event of a probable violation of the siting laws, siting rules, or applicable Commission Orders if, in the opinion of the Commission, construction activities are likely to result in irreparable or significant harm.

Based on available information, it is Keitu’s opinion that Certification Point #18 has been followed.

19. Company agrees that it shall, as soon as practicable upon the completion of the construction of the energy conversion facility, restore the area affected by the activities to as near as is practicable to the condition as it existed prior to the beginning of construction.

The Project was construction solely within an existing 38 acre pad where the existing gas plant was located and restoration of the area affected was not applicable. Certification Point #19 has been followed.

20. Company understands and agrees that all pre-existing township and county roads and lanes used during construction must be repaired or restored to a condition that is equal to or better than the condition prior to the construction of the energy conversion facility and that will accommodate their previous use, and that areas used as temporary roads or working areas during construction must be restored to their original condition.

Based on available information, it is Keitu’s opinion that Certification Point #20 has been followed.

21. Company understands and agrees that reclamation, fertilization, and reseeding is to be done according to the Natural Resources Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.

No reclamation, fertilization, or reseeding was necessary for the Project as it was constructed on an existing pad. Certification Point #21 has been followed.

22. Company will fulfil its obligation for reclamation and maintenance of the approved site continuing throughout the life of the energy conversion facility.

Based on available information, it is Keitu's opinion that Certification Point #22 was followed.

23. Company will repair all fences and gates removed or damaged during all phases of construction and operation of the proposed energy conversion facility.

Based on available information, it is Keitu's opinion that Certification Point #23 was followed.

24. Company will repair or replace all drainage tile broken or damaged as a result of construction and operation of the proposed energy conversion facility.

Based on available information, it is Keitu's opinion that Certification Point #24 was followed.

25. Company agrees to comply with the Tree and Shrub Mitigation Specifications, attached.

Based on available information, it is Keitu's opinion that Certification Point #25 was followed.

26. Company understands and agrees that it shall work with landowners and residents to mitigate any increase in television and residential radio interference that results from the construction of the energy conversion facility.

Based on available information, it is Keitu's opinion that Certification Point #26 was followed.

27. Company understands and agrees that it shall remove all waste that is a product of construction and operation, restoration, and maintenance of the site, and properly dispose of it on a regular basis.

Based on available information, it is Keitu's opinion that Certification Point #27 was followed.

28. Company understands and agrees that it shall provide any necessary safety measures for traffic control or to restrict public access to the energy conversion facility.

Based on available information, it is Keitu's opinion that Certification Point #28 has been followed.

29. Company agrees to provide the Commission with engineering design drawings showing surveyed structure and collection substation locations prior to construction.

Based on available information, it is Keitu's opinion that Certification Point #29 was followed.

- 30. Company understands and agrees that it shall advise the Commission as soon as reasonably possible of any extraordinary events which take place at the site of the energy conversion facility, including injuries to any person.**

Based on available information, it is Keitu’s opinion that Certification Point #30 was followed.

- 31. Company agrees to report to the Commission, as soon as possible, the presence in or near the approved site of any critical habitat of threatened or endangered species that Company becomes aware of and which were not previously reported to the Commission.**

Based on available information, it is Keitu’s opinion that Certification Point #31 was followed.

- 32. Company agrees to provide the Commission with both an electronic and a paper copy of the site approved by the Commission and the facility design specifications for the construction of the energy conversion facility as built, and will provide this information within 3 months of the completion of the construction. Company also agrees to provide an electronic version of the site approved by the Commission and the facility design specifications for the construction of the energy conversion facility as built that can be imported into ESRI GIS mapping software within 3 months of the completion of the construction. This electronic map data must be referenced to the North Dakota coordinate system of 1983, North and/or South zones US Survey feet (NAD 83) UTM Zone 13N or 14N feet (NAD 83), or geographic coordinate system (WGS 84) feet. The vertical data must be in the appropriate vertical datum for the coordinate system used. All submissions must specify the datum in which the data was developed.**

Based on available information, it is Keitu’s opinion that Certification Point #32 was followed.

- 33. Company shall notify the Commission, as soon as reasonably possible, if any damage, as defined by North Dakota Century Code Chapter 49-23, occurs to underground facilities during construction conducted under the certificate or permit issued in this proceeding. In the event of any damage to underground facilities, Company shall suspend construction in the vicinity of the damage until compliance with One-Call Excavation Notice System requirements under North Dakota Century Code Chapter 49-23 has been determined.**

Based on available information, it is Keitu’s opinion that Certification Point #33 was followed.

34. Company agrees that it shall provide, if requested, educational material for landowners within the site boundaries about the proposed energy conversion facility and any restriction or danger concerning the proposed energy conversion facility.

At the September 27, 2018 public hearing for the Project, public testimony was heard from two landowners whose residences are near the Project. Both landowners expressed concerns with issues related to Project construction and operation. Hiland met with both landowners and mitigated their concerns for the project and implemented processes and procedures to mitigate the negative effects of Project developments. Based on available information, it is Keitu’s opinion that Certification Point #34 was followed.

35. Company understands and agrees that it shall implement a procedure for how complaints concerning the proposed energy conversion facility will be handled by Company.

Based on available information, it is Keitu’s opinion that Certification Point #35 was followed.

36. Before conducting any construction activities for any modification within the designated site, the Company will file the name and contact information for a key contact person for the purposes of notice and communication during the site modification application and will use the following procedures:

- a. Before conducting any construction activities for any modification within the designated site, and such construction activities will not affect any known exclusion or avoidance areas within the designated site, the Company will file certification and supporting documentation:
 - i. Affirming that construction activities will not affect any known exclusion or avoidance areas within the designated site;
 - ii. Including a map meeting the requirements of N.D. Admin. Code § 69-06-04-01(2)(n) identifying the designated site and site modification(s); and
 - iii. Affirming that Company will comply with the Commission’s order, law and rules designating the site.
- b. Before conducting any construction activities for any modification within the designated site, and such construction activities will not affect any known exclusion but may affect an avoidance area within the designated site, the Company will file:
 - i. A specific description of the avoidance area expected to be impacted, including a map meeting the requirements of N.D. Admin. Code § 69-06-04-01(2)(n) identifying:
 - 1. The designated site and the site modification;

2. **All exclusion and avoidance areas within the portion of the designated site containing the site modification.**
 - ii. **Certification and supporting documentation affirming that construction activities will not affect any known exclusion area.**
 - iii. **All field studies performed on the portion of the designated site containing the site modification;**
 - iv. **Specific information about any mitigation measures Company will take within the modification area;**
 - v. **Certification that each owner of real property on which the modification is to be located and any applicable governmental entity with an interest in the same modification area do not oppose the modification;**
 - vi. **Certification that unless the Commission previously authorized the impact to the avoidance area and a reasonable alternative does not exist;**
 - vii. **Certification that Company will comply with the Commission’s order, law and rules designating the site.**

Based on available information, it is Keitu’s opinion that Certification Point #36 has been followed.

37. Company acknowledges and agrees that written authorization from the Commission for impacting the avoidance area is necessary prior to commencement of construction activity.

Certification Point #37 has been followed.

Conclusions

Overall, the Project appeared to be constructed as designed with minimal impacts to the surrounding environment. The Project site was in good condition, well maintained, and appeared to be constructed in compliance with the siting laws, siting rules, and applicable Commission Orders.

Management Review

The services performed by Keitu and its staff for this project have been conducted in a manner consistent with the degree of care and technical skill appropriately exercised by professionals currently practicing in this area under similar time and budget constraints.

Recommendations and findings contained in this report represent our professional judgment and are based upon available information and technically accepted practices at the present time and location. Other than this, no warranty is implied or expressed.

Jaimee Antognazzi, Operations Manager

Report Photo #1: Plant Placard



Report Photo #2: Perimeter View of Expansion



Report Photo #3: Perimeter View of East Side of Expansion



Report Photo #4: Perimeter View of South Side of Expansion



Report Photo #5: Compressor Building and MCC Buildings



☀ 109°E (T) ● 47°41.369'N, 103°16.173'W ±13ft ▲ 2241ft



Report Photo #6: Natural Gas Offload in Northeast Corner of Expansion



☀ 74°E (T) ● 47°41.491'N, 103°16.066'W ±16ft ▲ 2217ft



Report Photo #7: Flare for Gas Plant Expansion



Report Photo #8: Piping in Central Portion of Expansion



Report Photo #9: Tanks and Entrance to South Side of Expansion



Report Photo #10: West Side of Expansion



Project Map:

