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A Phase I Cultural Resources Survey Of The RL01-Mla (Mlv 10A60 To Mlv 20A5) Minor Modifications Project Jim Wells County, Texas

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A PHASE I CULTURAL RESOURCES SURVEY OF THE RL01-MLA (MLV 10A60 TO MLV 20A5) – MINOR MODIFICATIONS PROJECT JIM WELLS COUNTY, TEXAS

Prepared for

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ABSTRACT

Perennial Environmental Services, LLC (Perennial) on behalf of Transcontinental Gas Pipe Line Company, LLC (Transco), a subsidiary of Williams Gas Pipeline, conducted an intensive cultural resources survey of the proposed RL01-MLA (MLV 10A60 to MLV 20A5) – Minor Mods Project (Project) located within Jim Wells County, Texas. The proposed Project includes one temporary workspace, which will be utilized for spoil storage and equipment staging as Transco modifies an existing aboveground facility.

Transco's existing natural gas pipeline system is regulated by the Federal Energy Regulatory Commission (FERC). Consistent with the FERC permitting requirements and in accordance with Section 106 of the National Historic Preservation Act (NHPA), the proposed Project must make a reasonable and good faith effort to identify historic properties within the Project APE and to take into account any direct or indirect impacts that the proposed undertaking could have on properties listed or considered eligible for listing in the *National Register of Historic Places* (NRHP). The overall area of potential effects (APE) for the Project totals 0.43 acres (ac) (0.18 hectares [ha]) with depths of impact (DOI) extending to less than one foot. The Project APE is considered coterminous with the extent of the Project survey area.

Perennial field personnel assessed the entirety of the Project survey area during the course of the Phase I investigation. Heidi Shaw served as the Principal Investigator (PI) for the Project, while field work was completed by staff archaeologist Colene Knaub on October 26, 2017. The Phase I survey was designed to inventory and assess cultural resources across the entirety of the Project APE. Archaeological investigations were conducted in accordance with Section 106 of the NHPA and the THC and Council of Texas Archeologists (CTA) survey standards, which included intensive pedestrian survey augmented by strategic shovel testing within the temporary workspace. No cultural resources were encountered as a result of the survey efforts either on the surface or within the one shovel test excavated within the Project survey area.

Based on the results of the survey efforts, no historic properties will be affected by any construction activities within the Project survey areas. In accordance with Section 106 of the NHPA (36 CFR 800), and the guidelines set forth by the THC and CTA, it is Perennial's opinion that no further cultural resources investigations are warranted for the proposed Project.

Should historic properties and/or human remains be encountered during construction, work in the immediate area will cease and a qualified archaeologist will be called to evaluate the finding(s) and provide recommendations for how to manage the resource under the State Historic Preservation Plan. All findings will be reported to, and activities coordinated with, the appropriate interested parties. In the event that human remains are encountered, all activity that might disturb the remains shall cease, and may not resume until authorized by appropriate law enforcement, and/or the THC.

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INTRODUCTION

Perennial Environmental Services, LLC (Perennial) on behalf of Transcontinental Gas Pipe Line Company, LLC (Transco), a subsidiary of Williams Gas Pipeline, conducted an intensive cultural resources survey of the proposed RL01-MLA (MLV 10A60 to MLV 20A5) – Minor Mods Project (Project) located within Jim Wells County, Texas (TX) (Figure 1). The proposed Project includes one temporary workspace, which will be utilized for spoil storage and equipment staging outside of Transco's right-of-way (ROW) to facilitate modification efforts to an existing facility. As per Transco's 2015-2020 Blanket Agreement with the Texas Heritage Commission (THC), only the temporary workspaces outside of Transco's ROW are included within the Project's Area of Potential Effects (APE); all other Project workspaces are covered under Williams' Categorical Exclusion Agreement (CEs) (Appendix A).

The overall area of potential effect (APE) for the Project totals 0.43 acres (ac) (0.18 hectares [ha]) with depths of impact (DOI) extending to less than 1 foot in temporary workspace areas directly adjacent to the permanent easement. The Project APE is considered coterminous with the extent of the Project survey area.

Transco's existing natural gas pipeline system is regulated by the Federal Energy Regulatory Commission (FERC). Consistent with the FERC permitting requirements and in accordance with Section 106 of the National Historic Preservation Act (NHPA), the proposed Project must make a reasonable and good faith effort to identify historic properties within the Project APE and to take into account any direct or indirect impacts that the proposed undertaking could have on properties listed or considered eligible for listing in the *National Register of Historic Places* (NRHP).

The Phase I survey was designed to inventory and assess cultural resources across the entirety of the Project APE. Archaeological investigations were conducted in accordance with Section 106 of the NHPA and the THC and Council of Texas Archeologists (CTA) survey standards, which included intensive pedestrian surveys augmented by strategic shovel testing of the four temporary workspaces. Heidi Shaw (MSc, RPA) served as the Principal Investigator (PI) for the project, and field investigations were conducted Colene Knaub (B.A.) on October 26, 2017.

The following sections provide information about the project survey area, methodology and results of the background review, methodology and results of the Phase I survey, and further recommendations for the Project.

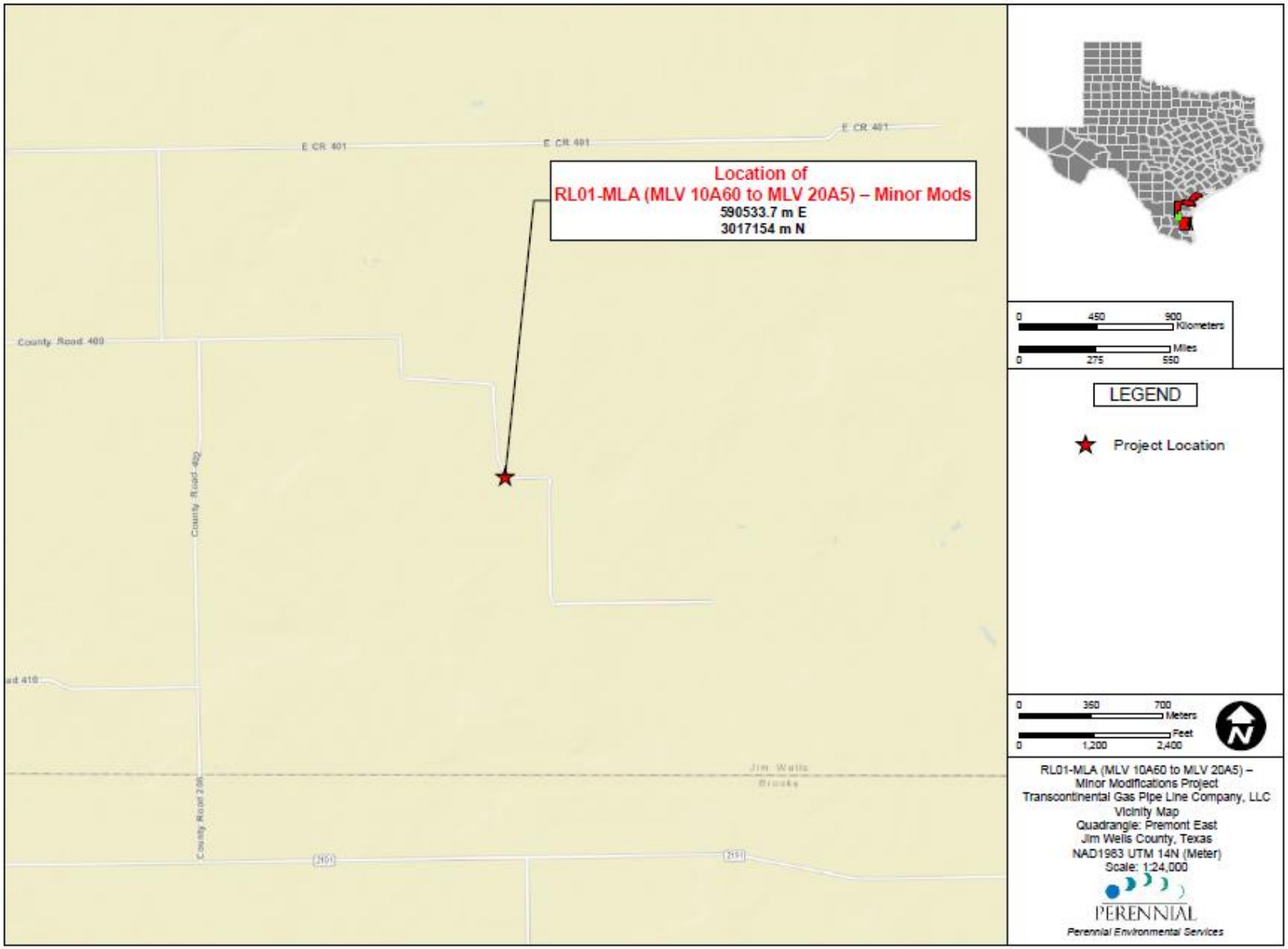

Figure 1. Project vicinity map.

PROJECT SURVEY AREA DESCRIPTION

The Project is located in southern Jim Wells County, 6.43-mi (10.35-km) southeast of the town of Premont, Texas (see Figure 1). The Project survey area shows evidence of previous disturbance from construction and infrastructure installation. The surrounding landscape is mostly pasture and residential development.

Environmental Setting

The environmental setting is primarily characterized by open range. Land use in the area is primarily rangeland and cropland. The project is located within the Coastal Sand Plain of the Western Gulf Coastal Plain ecoregion. This ecoregion is defined as a sand sheet landscape with active and stabilized sand dune deposits. Native vegetation is mostly tall and mid grasses, but large areas have been converted to non-native pasture grasses. (Griffith et al. 2007).

Geology and Soils

Geologically, the Project is underlain by a Holocene-age silt sheet (USGS 2017). This deposit is a thin, discontinuous sheet of silt and fine sand that rests on various Pleistocene deposits. The soil setting for the Project consists of Delfina fine sandy loam (NRCS 2017). The Delfina series consists of very deep moderately well drained eolian soils that are moderately permeable. These deposits form on vegetated sand sheets (Table 1).

Table 1.
Soil Mapping Units Located within the Project Survey Area.

Mapping Unit	Texture and Drainage	General Location	NRCS Hydric Rating
Delfina fine sandy loam, 0 to 2%	The Delfina complex consisted of very deep, moderately well drained soils with slopes ranging from 0 to 5%.	Coastal Sand Plain	Not Hydric

METHODS

Background Review

Perennial conducted a records and literature review of the THC's Texas Archeological Sites Atlas (Atlas) online database and the NRHP database to identify previously recorded cultural resource sites, historic-era structures, properties listed in the NRHP, designated historic-era districts, or State Antiquities Landmarks (SAL) that could potentially be affected by the proposed undertaking. Previously recorded cultural resource site forms, reports of archaeological investigations, general historical documents, and secondary sources concerning the background of the area were reviewed. The records search included a review of all previously recorded site forms, cemetery data, and surveys on file within a 1.0-mi (1.6-km) review area of the Project.

In addition to a records and literature search, Perennial gathered information from secondary sources concerning the prehistoric and historical background of the area. Documents associated with the history of the area were used to model prehistoric and historic settlement patterns in relation to the landscape and terrain characteristics as well as cultural patterns and regional trends. Natural Resources Conservation Service (NRCS) soil data, US Geological Survey (USGS) 7.5-minute topographic quadrangles, aerial photographs, and contemporary geologic and physiographic features were also examined.

Field Methods

Perennial's investigations consisted of an intensive pedestrian survey and shovel testing efforts within the Project survey area. A Perennial archeologist examined the ground surface as well as erosional profiles and exposures for cultural resources. Subsurface investigations involved the excavation of one shovel test within the Project survey area.

The shovel test measured approximately 11.8 inches (in) (30 centimeters [cm]) in diameter and was excavated to a maximum depth of 15.75 in below surface (40-cm below surface). Subsoil was reached at 30 cm below service, and was subsequently terminated. For this shovel test, Perennial recorded the following information on standardized shovel test forms: location, maximum depth, and the number of soil strata. For each soil stratum, thickness, texture, color, and the presence or absence and nature of cultural materials were recorded. During field survey, the archaeologist was equipped with a handheld sub-meter GeoXT Trimble Global Positioning System (GPS) device, topographic maps and aerial photographs of the workspace, a digital camera, as well as shovel test and photographic logs, and daily journal forms.

The Texas State Minimum Archeological Survey Standards (TSMASS) require a minimum of 3 shovel tests per 1 acre for area surveys measuring less than 2 acres (0.81 ha) in size if there is less than 30% ground visibility. Due to significant disturbance and high ground visibility (≥60%), Perennial excavated a total of one shovel test within the Project's 1.08-acre (0.44 ha) area.

RESULTS

Background Review

Background research conducted on the Atlas restricted archaeological and historical sites database revealed that no previously recorded archaeological sites or previously completed surveys have been recorded within a 1.0 mi (1.6-km) radius of the Project (Atlas 2017) (Figure 2). A review of the USGS Premont East, Texas 7.5-minute series topographic quadrangle map (USGS 1963) revealed no historic-era structures, cemeteries, or historic-era resources within the background review area.

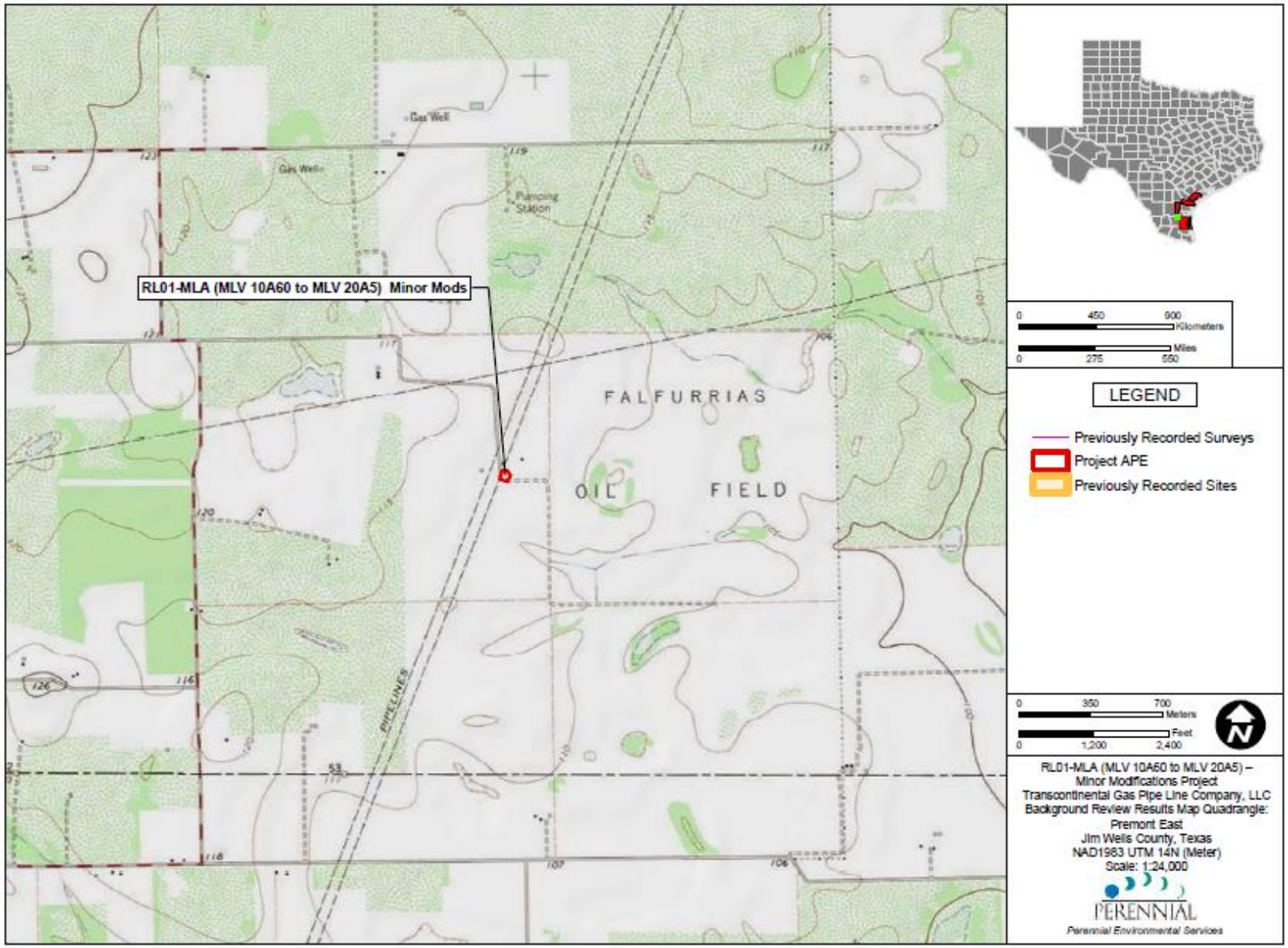

Figure 2. Background Review Results

Field Survey

Perennial field archaeologists Colene Knaub conducted an intensive surface and subsurface cultural resources investigation for the proposed Project on October 26, 2017 (Figure 3). The purpose of the investigation was to identify and evaluate all cultural resources within the Project survey area. Significant ground disturbance was observed during the course of survey in the form of an existing utility corridor running east-west through most of the Project survey area and a large pipeline structure in the western half of the Project survey area. Most of the Project survey area appears to have been graded during construction of the utility line and/or pipeline.

Pedestrian survey was the primary method of investigation across the Project survey area due to the high degree of previous subsurface disturbance. As previously noted, the entire area appeared to have been graded, but one shovel test was excavated within the Project survey area to confirm this. This shovel test was negative for cultural resources, and confirmed disturbance. The soil profile consisted of a brown (10YR 6/8) clay loam (0-9.84 in [0-25 cm] below surface) with large gravels (Table 2). Based upon the NRCS soil survey data, the results of the systematic shovel testing soils across the Project survey area were observed to be significantly disturbed with a low probability for deeply buried deposits. Due to the negative results of the investigation, no adverse effects to historic properties are anticipated.

Table 2.
Shovel Test Data

Shovel Test #	Depth (cmbs)	Positive or Negative	Munsell Color	Soil Texture Description	Description (Area, Vegetation)	Reason for Termination
1026CK15	0-25	Negative	10YR 6/8	Clay loam	Large cow pasture, disturbed by previous ROW; Soil has large gravel inclusions	Terminal Depth/ Subsoil

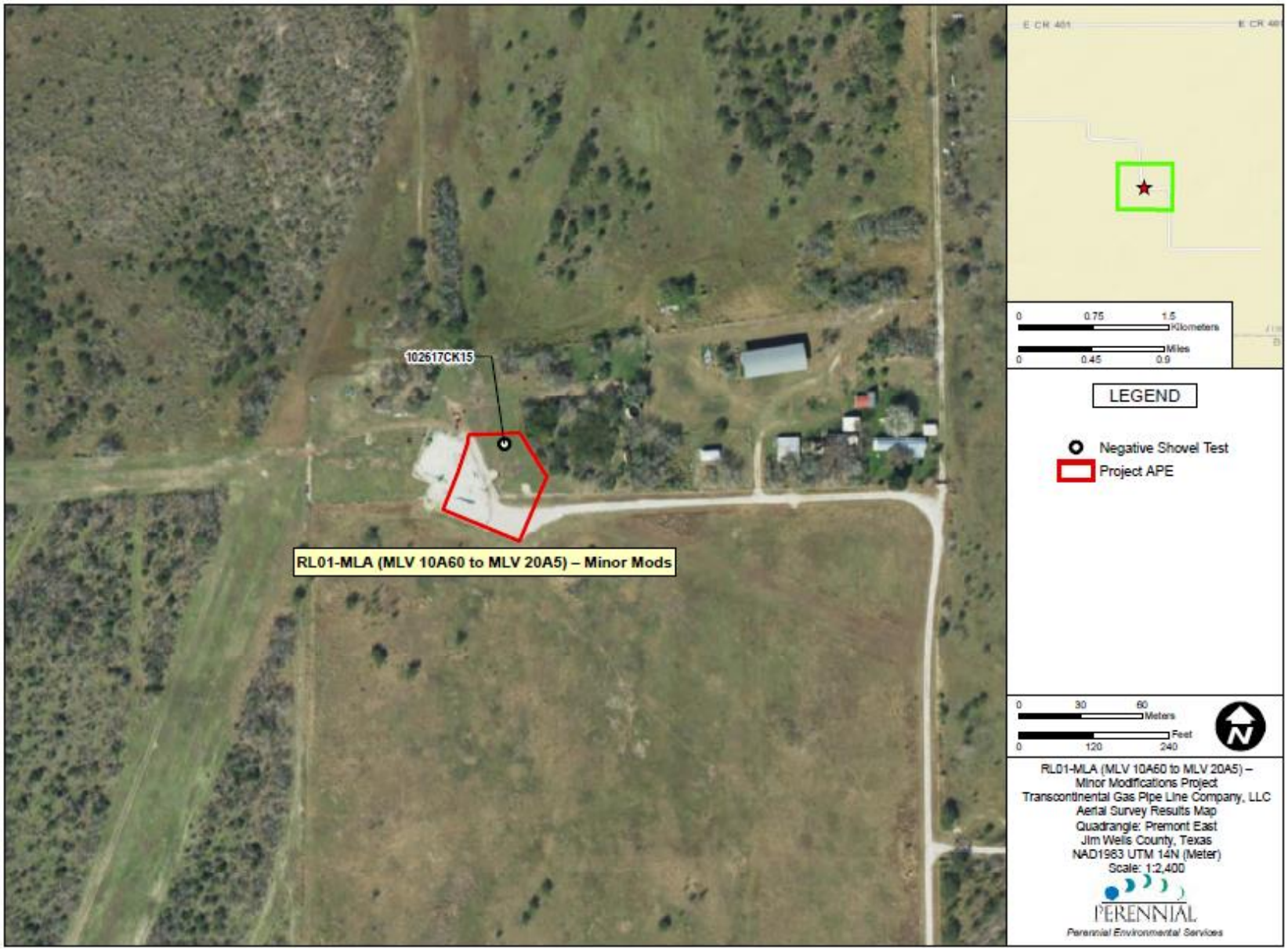

Figure 3. Survey results and shovel test location

CONCLUSIONS AND RECOMMENDATIONS

Perennial, on behalf of Transco, conducted an intensive cultural resources survey of the proposed temporary workspace within Jim Wells County, TX. The Project APE measures ±0.43 ac (0.18 ha) and consists of a temporary workspace that is outside of Transco's existing ROW. The DOI for the Project will be less than one foot. The temporary workspace will be utilized for spoil storage and equipment staging to facilitate modification efforts to an existing facility within Transco's ROW. Only the temporary workspace outside of Transco's ROW was investigated as part of the cultural resources survey effort; all workspaces within Transco's ROW qualify for CEs.

Perennial conducted the intensive Phase I surface and subsurface cultural resources survey of the Project survey area on October 26, 2017. The cultural resources survey was designed to inventory and assess cultural resources across the entirety of the Project APE. Archaeological investigations were conducted in accordance with Section 106 of the NHPA and the THC's survey standards.

Field personnel excavated one shovel test within the Project survey area. The survey efforts resulted in negative findings with no cultural resources observed along the modern ground surface or within the subsurface tests completed within the Project survey area. Based on the negative results of the investigation, it is the professional opinion of the PI that the Project will have no adverse effect on historic properties listed or eligible for listing on the NRHP, and that the Project should be allowed to continue as planned.

Transco's Unanticipated Discovery Plans (UDP) for Texas includes procedures to follow in the event that historic properties and/or human remains are encountered during construction. The procedures identified in the UDP will meet the Procedures for the Protection of Historic Properties (33 CFR 325); the Archaeological and Historic Preservation Act; Policy Statement Regarding Treatment of Burial Sites, Human Remains, and Funerary Objects set forth by the NHPA (PL 89-665), its implementing regulations, "Projection of Historic and Cultural Properties" (36 CFR Part 800); the Native American Grave and Repatriation Act (43 CFR Part 10); and Consultation and Coordination with Indian Tribal Governments (Executive Order 13175); and subject to the provisions of the Texas Administrative Code Title 13, Part 2, Chapter 22, Rule §22.4

In summary, if historic properties and/or human remains are encountered during construction, work in the immediate area will cease and a qualified archaeologist will be called to evaluate the finding(s) and provide recommendations for how to manage the resource under the appropriate state's Historic Preservation Plan. All findings will be reported to, and activities coordinated with, the FERC as well as the State Archaeologist. In the event that human remains are

encountered, all activity that might disturb the remains shall cease, and may not resume until authorized by appropriate law enforcement or the State Archaeologist.

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1963 Premont East, Texas 7.5-minute series topographic quadrangle. United States Department of the Interior, Washington, D.C.

APPENDIX A: TRANSCO'S BLANKET AGREEMENT

Gas Pipeline – Transco
2800 Post Oak Blvd (77056)
P.O. Box 1396
Houston, TX 77251-1396
Office: (713) 215-2508

January 12, 2015

Mark S. Wolfe
State Historic Preservation Officer
Texas Historical Commission
Department of Antiquities Protection
1511 Colorado
Austin, Texas 78701

RE: Williams Gas Pipeline
Categorical Exemption Renewal

Dear Mr. Wolfe:

On January 21, 2010 Williams Gas Pipeline wrote to your office seeking renewal of exemptions of certain project types from National Historic Preservation Act Section 106 review (letter attached). These categorical exemptions were originally sought because the nature and location of the projects was such that significant cultural resources were not likely to be affected.

A period of five years has passed since the renewal referenced above was approved. Five year period have been designated by the Federal Regulatory Commission, the federal agency that reviews our projects, as the longest acceptable time frame for categorical exemptions to be valid. Therefore, Williams Gas Pipeline is writing to your office requesting renewal of our categorical exemption as it was previously approved by your office.

Thank you for your assistance in this matter. Should you have any questions or require additional information regarding the project, please call me at (713) 215-4627 or contact me by email at michael.naeger@williams.com.

Sincerely,

Michael Naeger
Environmental Scientist

WILLIAMS GAS PIPELINE – TRANSCO
CATEGORICAL EXCLUSIONS FOR MAINTNENANCE AND MINOR PROJECTS FROM ROUTINE SECTION 106 REVIEW

1. **Installation, Removal, Replacement, Modification or Maintenance of equipment or pipe within the fence line of existing metering and regulating stations when the proposed actions are no greater in depth or extent than the existing disturbed area and no known cultural or archaeological sites exist.**

   Gas metering and pressure regulating stations are usually located on properties of one acre or less. It is common to install, remove, or replace equipment and pipe at these locations.

2. **Installation, Removal, Replacement, Modification or Maintenance of equipment or pipe within the fence line of existing compressor stations when the proposed actions are no greater in depth or extent than the existing disturbed area and no known cultural or archaeological sites exist.**

   New equipment is added and old equipment removed at existing locations from time to time to increase system capacity and efficiency. Main line compressor stations are on properties that are in the range of 20 – 50 acres. Equipment additions are made to existing equipment, usually in areas that have been disturbed by previous construction. There are four main line Transco compressor stations in Texas, as follows:

Station	Location
20	Refugio, TX
30	El Campo, TX
35	Houston, TX
40	Sour Lake, TX

CONCUR
by _____
for Mark Wolfe
State Historic Preservation Officer
Date 1/26/15
Track# _____

3. **Installation, Removal, Replacement, Modification or Maintenance of equipment or pipe within the fence line of existing gas process plants when the proposed actions are no greater in depth or extent than the existing disturbed area and no known cultural or archaeological sites exist.**

   Gas processing plants remove various substances from natural gas, such as sulfur, water, or light hydrocarbons. These plants are on properties that are in the range of 20 – 50 acres. Equipment additions are made adjacent to existing equipment, usually in areas that have been disturbed by previous construction. There are three Transco gas processing plants in Texas, as follows:

Station	Location
04	Tilden, TX

CONCUR
by _____
for Mark Wolfe
Executive Director, THC
Date 01/25/2010
Track# 201006029

CONCUR
by _____
for F. Lawerence Oaks
State Historic Preservation Officer
Date 2/9/05

14	Falfurris, TX
24	Markham, TX

4. **Purchase and Installation of Sales Taps when planned disturbances are no greater in depth or extent than existing disturbances and no known cultural or archaeological sites exist.**

   It is common to install valves and other equipment on exiting pipelines to receive and deliver natural gas. These valve sites are installed in previously disturbed pipeline rights-of-way with areas of soil disturbance generally less than 100' X 100'. Sales tap sites can include small field compressors.

5. **Pipeline Removal, Maintenance, or Replacement in the original location when the proposed actions are no greater in depth or extent than the existing disturbed area and no known cultural or archaeological sites exist.**

   For these activities, including the placing and replacement of corrosion control devices within the previously disturbed right-of-way, there will be no more soil disturbance than occurred during the original pipe installation. Should pipeline replacement occur in a new offset location, a cultural resources survey will be conducted.

6. **Retirement by abandonment in-place or by removal, of existing pipeline and appurtenant facilities (such as taps and valves) located wholly within Transco's existing right-of-way.**

   Quite often pipe and/or appurtenant facilities become obsolete and for business purposes must be retired. The retirement is accomplished by either removing the pipe and/or appurtenant facilities or by leaving it in-place. Any ground disturbance will be no greater in depth or extent than the existing disturbed area and at which no cultural or archaeological sites are known to exist.

7. **Paved or graveled staging areas on which pipe or construction equipment will be temporarily stored during construction or areas subjected to similar past use as staging areas or storage yards where no new ground disturbance will occur.**

   Whenever possible, Transco attempts to acquire the usage rights to paved or graveled areas for temporary staging areas or storage yards for pipe or equipment. Occasionally Transco is able to utilize land that is not paved or graveled, but which has had prior use as a staging or storage yard. If these site conditions are not obtainable, Transco will conduct cultural resources investigations.

8. **Use of existing access roads to the pipeline right-of-way for which no new ground disturbance (installation or replacement of bridges is not considered**

to be exempt) will occur and any improvements will include adding gravel only.

Whenever possible, Transco attempts to acquire the usage rights to existing roads or lands for gaining access to its pipeline right-of-way. The roads will not be widened, although occasionally they will need to be improved by adding gravel. Bridges may require strengthening, however bridges pre-dating 1950 will be submitted for review, and work associated with installing or replacing bridges will be submitted for review also.

All other projects will be submitted for SHPO review prior to any and all ground disturbing activity. Submissions for review will include a USGS 7.5 minute quadrangle excerpt, a written description of the project and any other pertinent information to assist the SHPO in their review.