



The Cultural Resources Survey of The Pecos Thermal Power Plant Tract Reeves County, Texas

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1 EXECUTIVE SUMMARY

ESE Partners, LLC (ESE) was retained by Edward Torres of Pecos Power Plant, LLC (the client) to conduct a cultural resources survey within the 25-Acre (Ac) (10.1-Hectare [Ha]) Pecos Thermal Power Plant Tract (project area) located in Reeves County, Texas. The client is planning construction of a power plant on private land with private funds. The power plant will be owned and operated by a private firm. The current cultural resources survey was conducted for the purpose of due diligence as no state or federal jurisdiction has been identified at this time. However, the Texas Energy Fund will provide funds through grants and loans for the completion of this project.

On 10 and 11 October 2024, ESE archeologists conducted an intensive pedestrian cultural resources survey of the entire project area (survey area). The survey included a 100 percent transect survey and intensive surface inspection within the survey area. The transect survey met State of Texas Minimum Survey Standards for projects of this size as recommended by the Council of Texas Archeologists (updated April 2024). Prefield archival work included the study of recent aerial orthoimagery, previously documented sites as presented upon the Texas Archeological Sites Atlas (Atlas), and reports of investigations from previous archeological studies conducted in the immediate area. The field investigation was conducted by archeologists Reign Clark, Mason Finley Luna. Reign Clark served as principal investigator and Keith Faz and Clark served as authors for the report and provided archival research. Lucas Strohm provided Geographic Information System (GIS) figures and Jason Binford performed quality control for the report of investigations.

This survey was performed in compliance with the National Historic Preservation Act of 1966 (PL 89-665), as amended in 1974, 1976, 1980, and 1992; the National Environmental Policy Act of 1969 (PL 91-190, 83 Stat. 915 USC 4231, 1970); the Procedures for the Protection of Historic and Cultural Properties (36 CFR 800); the Archeological Resources Protection Act of 1979; Title 54, United States Code, National Park Service and Related Programs; the Texas Historical Commission (Texas Historical Commission 2022) as well as the guidelines set forth by the Council of Texas Archeologists and the Register of Professional Archaeologists (Register of Professional Archaeologist 2020).

Based upon data available on the Atlas, the project area had never been subjected to formal archeological survey. No standing structures of historic age were noted on the survey area. No archeological sites had previously been recorded within the current survey area or in areas immediately adjacent. The intensive survey produced no artifacts, only modern trash from past land use and recent dumping events. Due to the absence of significant cultural artifacts and features, the presence of demonstrably sterile soil deposits, and disturbances tied to past land uses, the probability for significant cultural sites within the survey area is considered extremely low. Based on research results, it is ESE's opinion that no cultural resources will be impacted by the proposed development within the survey area.

2 DESCRIPTION OF STUDY AREA

2.1 Study Area

The 25-Ac (10.1-Ha) Pecos Thermal Power Plant Tract is located in Reeves County about 3.5 miles (5.6 km) south of the city center of Pecos, Texas, just east of the Pecos Airport (**Appendix A, Figure 1**). The project area can be found on the Pecos East, Texas 7.5' United States Geological Survey Topographic Quadrangle (**Figure 2**). The survey area is a currently unused tract at the intersection between County Road 118 and an unnamed dirt road. The eastern portion of the project has a north- south running transmission line. Throughout the project there are also east- west running berms from previous land uses.

Aerial imagery indicated the tract was unoccupied until 1996 when the previously mentioned east-west oriented berms and transmission line appear. By 2003 there are buildings that appear just to the outside of the northwest corner of the project area. Current aerial imagery shows this area as unoccupied, but still shows the remnants of a cantaloupe processing facility (**Figure 3**). (Google Earth Pro 2019).

3 ENVIRONMENTAL CONTEXT

3.1 Introduction

The project area is located within the Trans-Pecos physiographic province (Texas Parks and Wildlife 2022) and the Chihuahuan biotic province as defined by Blair (Blair 1950). The Trans-Pecos physiographic province and Chihuahuan biotic province comprise a broad ecotonal area that occupies all of far west Texas. This area consists of desert valleys, plateaus, mesa uplifts and wooden mountain terrain. Streams are primarily intermittent and flow generally south and southeast toward the Rio Grande. The Edwards Plateau physiographic province and Balconian biotic province border to the east.

3.2 Geologic and Geomorphological Data

The project area consists of quaternary alluvial deposits (Qal) (Bureau of Economic Geology 1976). These deposits consist of clay, silt, and sand, with organic matter abundant locally. It includes formations such as point-bars, natural levees, stream channels, back swamps, coastal marshes, mudflats, and narrow beach deposits. These deposits are found mainly in the Holocene age.

3.3 Soil Classification

Soils mapped within the proposed ROW consisted entirely of Saragosa association, nearly level (37), (Natural Resource Conservation Service 2024). Saragosa soils consist of shallow, poorly drained brown clay loam over very pale brown gypsiferous materials. They are found mainly in depressions and toeslopes. Considering the soils present, there is a low probability for the presence of significant cultural resources within the proposed ROW.

3.4 Climate

Reeves County is a dry, desert climate characterized by warm to hot summers and cool to cold winters (Texas State History Association 1984). Maximum summer temperatures average 96°F (36°C), while minimum winter temperatures average 31°F (-1°C). Annual precipitation averages 13 inches (102 centimeter [cm]).

3.6 Hydrology

The project area is located in a desert landscape where the only major water source is the Pecos River and its numerous intermittent tributaries. Springs were once a major water source in the county but pumping water from wells has stopped most springs from flowing to surface in recent years (Texas State History Association 1984). The project area sheds water 5.6 miles (9 km) to the east- southeast towards Toyah Creek. Toyah Creek then flows into the Pecos River 8.7 miles (14 km) to the northeast. The Pecos River then empties into the Rio Grande 166 miles (267.2 km)

to the southeast, which then empties into the Gulf of Mexico 365 miles (587 km) to the south and east.

4 RESEARCH DESIGN

ESE Partners proposed to conduct a pedestrian survey across the project area for due diligence purposes. The survey included a 100 percent transect survey, and intensive surface inspection within the survey area. The transect survey met State of Texas Minimum Survey Standards for projects of this size as recommended by the Council of Texas Archeologists (Council of Texas Archeologists 2024). If present, any new archeological sites were photo-documented and/or sketched.

Prefield archival work included the study of recent aerial orthoimagery, reviewing previously documented sites as listed on the Texas Archeological Sites Atlas (Atlas), and reports of investigation from previous archeological studies conducted in the immediate area.

The survey included intensive surface inspection at a rate of 15 transects walked 50 feet (15 meters) apart on an east- west axis. If present, cultural manifestations were documented using standard State of Texas site recording forms and plotted by GPS coordinates for entry into the Texas Sites Atlas database. If present, structural remnants uncovered during the survey were hand sketched and photographed and shovel testing was used to ascertain the horizontal and vertical limits of any site or feature discovered within the project area. The field investigation was conducted by archeologists Reign Clark and Mason Finley on 10 and 11 October 2024. This report of archeological investigations follows current CTA reporting standards for short format reports (updated April 2024).

5 RESULTS

5.1 Project Area Cultural Resources

According to the THC Atlas, three archeological sites (41RV228, 41RV249, and 41RV250) located within a 2.5-mile radius of the project area (Texas Historical Commission 2022). The three archeological sites are listed as a historic railroad (41RV250), a historic airfield (41RV249), and a historic trash midden (41RV228). These sites are described in detail below.

Site, 41RV228, is a historic trash midden, located 0.9 miles (1.5 km) northeast of the project area. It was recorded in 2020 for the Pecos Regional Sports Park by Terracon Consultants Inc, (Texas Historical Commission 2022). Cultural features found include push piles and burn piles. Artifacts found include rubber tires, wood, bricks, glass, ceramics, and metal. Impacts to this site include construction, erosion, and future expansions for the park facilities. No further investigations were recommended for this site and was deemed not eligible for listing on the National Register for Historic Places (NRHP), or as a State Antiquities Landmark (SAL).

Site, 41RV249, was documented as the Worsham airfield and is located 2.5 miles (4 km) southwest of the project area. It was recorded in 2023 for the Reeves County Truck Reliever Route Archaeological Survey, (Texas Historical Commission 2022). Cultural features found include an airstrip associated with the former Worsham airfield (1940s-1950s). There are buildings associated with the airfield but are not listed as part of the archaeological site form. Artifacts found include modern trash scatters. Impacts to the site include erosions, bioturbation, construction, and a bypass loop. Archival and deed research is being conducted for the project report. This site was listed as having unknown eligibility for listing on the NRHP and SAL.

Site, 41RV250, is listed as a historic railroad, located 2.5 miles (4 km) southwest of the project area. It was recorded in 2023 for the Bypass Loop project, (Texas Historical Commission 2022). Cultural features found include a railroad and a switching station north of CR 206. Artifacts found include metal railroad spikes, modern glass, metal, and plastics. Impacts to the site include erosion, traffic, and construction of the bypass loop. Archival and deed research is being conducted for the project report. This site was listed as having unknown eligibility for listing on the NRHP and SAL.

The nearest cemetery is the Mount Evergreen Cemetery located 2.9 miles (4.7 km) northwest of the project area and contains 2,045 burials. The first of which belongs to Hezekiah K. Hutcheson in 1880. The cemetery is in use today with the latest burial being that of Zelma “Bunny” Lee Canon in May 2024.

There are no NRHP listed sites within the project area. The nearest NRHP site is the Rig Theater located at 213-215 East Hendricks Boulevard in the town of Wink, Texas, 32.5 miles (52.3 km) northeast of the project area. It was built in 1928 by the Griffith Amusement Company and is an excellent example of early 20th-century commercial property. At the time the files were submitted,

the theater was undergoing restoration to become the Roy Orbison Museum. The theater was listed in 2003 under criterion A (historic events) and C (design/architecture) of the NRHP.

5.2 Survey Results

On 10 and 11 October 2024, ESE archeologists conducted an intensive 100 percent pedestrian cultural resources survey of the 25-Acre (10.1-Ha) survey area. The survey area is approximately 3.5 miles (5.6 km) south of the city center of Pecos, Texas. The survey area is currently an unused tract at the intersection between County Road 118 and an unnamed dirt road (**Appendix B, Photo 1**). The eastern portion of the project has a north- south running transmission line (**Photo 2**). Throughout the project there are also east- west running berms from previous land uses (**Photo 3**). The survey area was traversed generally from east to west at a rate of 15 transects, 50 feet (15 meters) apart to accomplish pedestrian transect survey and intensive surface inspection across the entire parcel.

The survey included a thorough surface inspection conducted within the survey area. The survey area was only sparsely vegetated, and the surface was very dry and dusty during the survey (**Photo 4**). Vegetation consisted of sagebrush, honey mesquite, Mormon Tea, a few creosote, very sparse grasses, and Forbes lizards (**Photo 5**). Vegetation appears to be continually subsiding over the past 35 years judging from available aerial imagery. The tract exhibited very high ground surface visibility at 90 to 100 percent (**Photo 6**). Aerial imagery indicated the tract was unoccupied until 1996 when the previously mentioned east- west berms, and transmission line appear. By 2003 there are buildings that appear just to the outside of the northwest corner of the project area. Current aerial imagery shows this area as currently out of use, but still shows the remnants of the cantaloupe processing facility. Survey verified the presence of these structural remnants, but none encroached onto the tract.

No archeological sites were documented within the project area during the investigation. Based on the total lack of significant artifacts and features encountered, it is the principal investigator's opinion that no additional data can be gleaned from further investigation of the areas surveyed. Therefore, ESE believes no additional survey should be required within the identified survey area.

6 CONCLUSIONS AND RECOMMENDATIONS

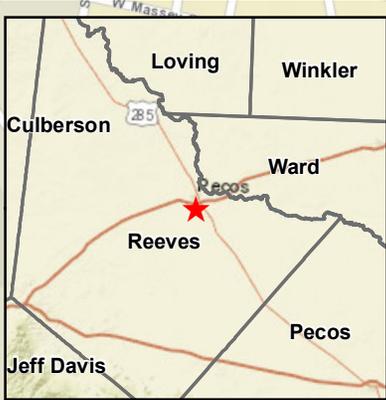
ESE, acting as agent for Edward Torres of Pecos Power Plant, LLC, conducted a cultural resources survey within the Pecos Thermal Power Plant Site in Reeves County, Texas. Based upon data available on the Atlas, the project area had never been subjected to formal archeological survey. Neither standing structures nor historic structural remnants were noted on the survey area. No archeological sites had previously been recorded within the current survey area or in areas immediately adjacent. An intensive pedestrian transect survey, consisting of ground surface investigation, produced no artifacts. Due to the absence of significant cultural artifacts and features, the presence of demonstrably sterile soil deposits, and disturbances tied to past land uses, the probability for significant cultural sites within the survey area is considered extremely low. Based on research results, it is ESE's opinion that no cultural resources will be impacted by the proposed development within the survey area.

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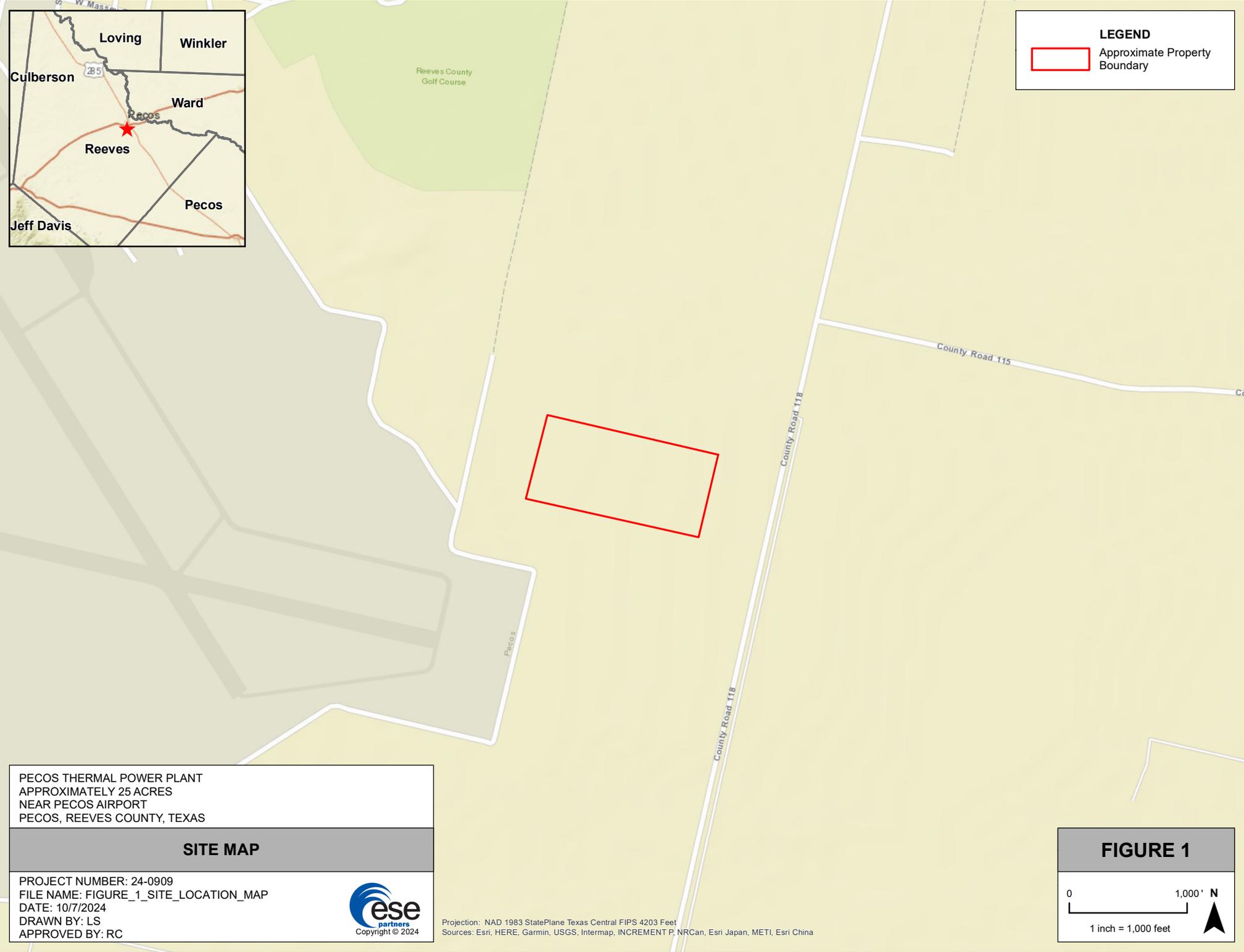
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APPENDIX A
FIGURES



LEGEND

 Approximate Property Boundary



PECOS THERMAL POWER PLANT
APPROXIMATELY 25 ACRES
NEAR PECOS AIRPORT
PECOS, REEVES COUNTY, TEXAS

SITE MAP

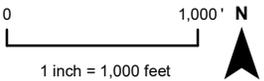
PROJECT NUMBER: 24-0909
FILE NAME: FIGURE_1_SITE_LOCATION_MAP
DATE: 10/7/2024
DRAWN BY: LS
APPROVED BY: RC



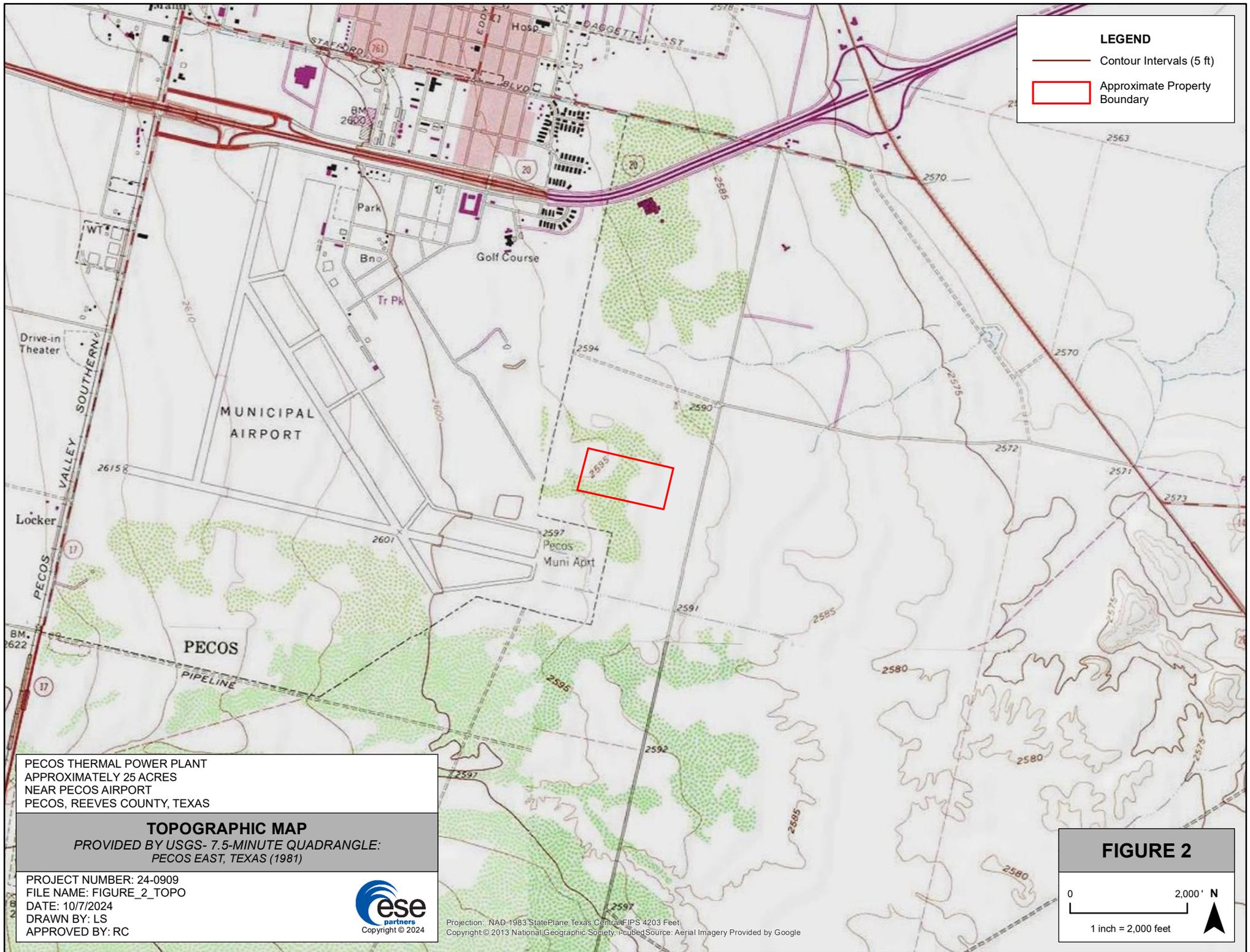
Projection: NAD 1983 StatePlane Texas Central FIPS 4203 Feet
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China

FIGURE 1

0 1,000' N



1 inch = 1,000 feet



LEGEND

- Contour Intervals (5 ft)
- Approximate Property Boundary

PECOS THERMAL POWER PLANT
 APPROXIMATELY 25 ACRES
 NEAR PECOS AIRPORT
 PECOS, REEVES COUNTY, TEXAS

TOPOGRAPHIC MAP
 PROVIDED BY USGS- 7.5-MINUTE QUADRANGLE:
 PECOS EAST, TEXAS (1981)

PROJECT NUMBER: 24-0909
 FILE NAME: FIGURE_2_TOPO
 DATE: 10/7/2024
 DRAWN BY: LS
 APPROVED BY: RC



Projection: NAD 1983 StatePlane Texas Central FIPS 4203 Feet
 Copyright © 2013 National Geographic Society. FootedSource: Aerial Imagery Provided by Google

FIGURE 2

0 2,000' N
 1 inch = 2,000 feet

LEGEND

 Approximate Property Boundary



PECOS THERMAL POWER PLANT
APPROXIMATELY 25 ACRES
NEAR PECOS AIRPORT
PECOS, REEVES COUNTY, TEXAS

AERIAL MAP

PROJECT NUMBER: 24-0909
FILE NAME: FIGURE_3_AERIAL
DATE: 10/7/2024
DRAWN BY: LS
APPROVED BY: RC



Projection: NAD 1983 StatePlane Texas Central FIPS 4203 Feet
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community Source: Aerial Imagery Provided

FIGURE 3

0 400' N

1 inch = 400 feet

APPENDIX B
PROJECT PHOTOGRAPHS

Photo No.: 1	Date: 10/10/2024	
Description: The survey area is currently an unused tract at the intersection between County Road 118 and an unnamed dirt road		
Photo Direction: W		

Photo No.: 2	Date: 10/10/2024	
Description: The eastern portion of the project has a north-south running transmission line		
Photo Direction: E		

Photo No.: 3	Date: 10/10/2024	
Description: Throughout the project there are also east- west running berms from previous land uses		
Photo Direction: E		

Photo No.: 4	Date: 10/10/2024	
Description: The survey area was only sparsely vegetated, and the surface was very dry and dusty during the survey		
Photo Direction: -		

Photo No.: 5	Date: 10/10/2024	
Description: Vegetation consisted of sagebrush, honey mesquite, Mormon Tea, a few creosote, very sparse grasses, and Forbes lizards		
Photo Direction: N		

Photo No.: 6	Date: 10/10/2024	
Description: The tract exhibited very high ground surface visibility at 100 percent		
Photo Direction: -		