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A Cultural Resources Investigation For The Ramsey North Residue Line Project, Reeves And Culberson Counties, Texas

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A CULTURAL RESOURCES INVESTIGATION FOR THE RAMSEY NORTH RESIDUE LINE PROJECT, REEVES AND CULBERSON COUNTIES, TEXAS

Prepared for

Sound Environmental Solutions, Inc.

Prepared by

SWCA Environmental Consultants

July 2015

A CULTURAL RESOURCES INVESTIGATION FOR THE RAMSEY NORTH RESIDUE LINE PROJECT, REEVES AND CULBERSON COUNTIES, TEXAS

Prepared for

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Texas Historic Commission Antiquities Permit #7262

SWCA Project Number 31353
SWCA Cultural Resources Report No. 15-108

July 2, 2015

ABSTRACT

This report details the results of an intensive archaeological survey by SWCA Environmental Consultants (SWCA) for the proposed Ramsey North Residue Line (Residue Line). The 51-cm-diameter (20-inch-diameter) Residue Line will be located in Reeves and Culberson Counties, Texas (2.35 and 7.21 km [1.46 and 4.48 miles], respectively) and Eddy County, New Mexico (4.83 km [3.0 miles]). The line will start at the Ramsey Gas Plant in Reeves County, Texas, and then run northwest for approximately 14.5 km (9 miles), largely following existing rights-of-way (ROWs). The Residue Line will be constructed in a 15-m-wide (50-foot-wide) ROW. The 15-m (50-foot) ROW in Texas and New Mexico will consist of 6 m (20 feet) of temporary ROW to be used only during construction and 9 m (30 feet) of permanent ROW. The pipeline will be strung along the pipeline route as it arrives at the site, so there will be no additional staging areas needed. Five horizontal direction drills (HDDs) are anticipated at two county road crossings, the crossing of the Delaware River, crossing an historic ditch, and at an abandoned railroad grade. In addition to proposed pipeline, there is also a proposed surface facility that will be located on a 61 × 61–m (200 × 200–foot) (approximately 1-acre) site with a short (75 m; 245 feet) access road. The surface facility will include a coalesce separator, a measuring station that will meter the gas prior to the tie-in with the KM lines, and a temporary diesel generator until a permanent power source is available. This report includes the findings of the cultural resources investigations within the Texas portion of the project.

Sound Environmental Solutions, Inc. selected SWCA to conduct an intensive pedestrian archaeological survey of the area of potential effect (APE) to aid in complying with Section 106 of the National Historic Preservation Act. The fieldwork was completed between February 11 and 19, 2015. The Texas portion of the project is entirely on private lands with the exception of one small segment that crosses state lands. The project will be permitted by the Federal Energy Regulatory Commission (FERC) as well as the Texas Historical Commission (THC) (Antiquities Permit #7262), which is mandated by the inclusion of public lands within the project APE.

The SWCA archaeological investigations were conducted within a 45.7-m-wide (150-foot-wide) corridor totaling approximately 9.56 km (5.94 miles) of the overall project length within Texas. The Texas portion of the project area is depicted on the Red Bluff and Screw Bean Draw NE U.S. Geological Survey 7.5-minute topographic quadrangles. The survey in Texas recorded one newly discovered archaeological site (41CU804). The site is an abandoned railroad grade with an associated historic assemblage and is recommended undetermined for the National Register of Historic Places. The site will be avoided by boring under the site, and there will be no impact to the site. No further management is recommended for this site associated with this project.

In accordance with 33 Code of Federal Regulations (CFR) 325, Appendix C, and Section 106 of the National Historic Preservation Act (36 CFR 800.4), SWCA has made a reasonable and good faith effort to identify historic properties within the proposed project area. Based on the results of the current effort, it is SWCA's opinion that the proposed Texas portion of the project would have no adverse effect on significant cultural resources within the investigated project area. As such, SWCA recommends no further archaeological investigations within the investigated project area and that the project be allowed to proceed.

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MANAGEMENT SUMMARY

Report Title. A Cultural Resources Investigation of the Ramsey North Residue Line Project, Reeves and Culberson Counties, Texas

Report Date. May 19, 2015

SWCA Project Number. 31353

Agency Name. Federal Energy Regulatory Commission

Permit No. N/A

Project Description. SWCA Environmental Consultants (SWCA) conducted an archaeological background review and intensive pedestrian survey of the proposed Ramsey North Residue Line to determine whether the undertaking will impact any significant archaeological resources.

Project Location. Residue Line will be located in Reeves and Culberson Counties, Texas (2.35 and 7.21 km [1.46 and 4.48 miles], respectively) and Eddy County, New Mexico (4.83 km [3.0 miles]). This report covers the Texas portion; a separate report will be completed for the New Mexico portion.

Number of Acres Surveyed. 116.3 acres of cultural resources survey area within the State of Texas (out of a total 179.8 acres for the entire project including New Mexico)

Principal Investigator. Cherie K. Walth, M.A.

Dates of Work. February 11–19 and April 23, 2015

Purpose of Work. DBM Pipeline, LLC, proposes to construct, own, and operate the Ramsey North Residue Line. The purpose of the line is to transport processed natural gas from the Ramsey Gas Plant to Kinder Morgan lines.

Number of Sites. One site and 13 isolated manifestations were identified during the Texas portion of this survey.

Eligibility of Sites. One eligible site was identified and recorded.

Curation. No artifacts were collected.

Comments. One eligible site was recorded and will be avoided by boring under the site. There will be no impact to this site from this project.

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1 DEFINITION OF STUDY AREA

This report details the results of an intensive archaeological survey by SWCA Environmental Consultants (SWCA) for the proposed Ramsey North Residue Line (Residue Line). The 20-inch-diameter Residue Line will be located in Reeves and Culberson Counties, Texas (2.35 and 7.21 km [1.46 and 4.48 miles], respectively) and Eddy County, New Mexico (4.83 km [3.0 miles]). (Figure 1.1–Figure 1.4). The line will start at the Ramsey Gas Plant in Reeves County, Texas, and then run north-northwest for approximately 14.5 km (9 miles), largely following existing rights-of-way (ROWs). The Residue Line will be constructed in a 15-m-wide (50-foot-wide) ROW. Five horizontal direction drills (HDDs) are anticipated at county road crossings, the crossing of the Delaware River, crossing an historic ditch, and at an abandoned railroad grade. This report includes the findings of the cultural resources investigations within the Texas portion of the project.

Sound Environmental Solutions, Inc. (SES) selected SWCA Environmental Consultants (SWCA) to conduct an intensive pedestrian archaeological survey of the area of potential effect (APE) to aid in complying with Section 106 of the National Historic Preservation Act. The fieldwork was completed between February 11 and 19 and April 23, 2015. The Texas portion of the project is entirely on private lands with the exception of one small segment that crosses state lands (Figure 1.5). The project will be permitted by the Federal Energy Regulatory Commission (FERC) as well as the Texas Historical Commission (Antiquities Permit #7262), which is mandated by the inclusion of public lands within the project APE.

DBM Pipeline, LLC (DBM), proposes to construct, own, and operate the Residue Line, which will transport processed natural gas from the Ramsey Gas Plant to a Kinder Morgan line. The equipment required to construct the pipeline would include vehicles, trenchers, trackhoes, sidebooms, other tractors, cranes, and flatbed trailers. DBM is requesting a 15-m-wide (50-foot-wide) construction ROW during the installation of the proposed pipeline. The 15-m (50-foot) ROW in Texas and New Mexico will consist of 6 m (20 feet) of temporary ROW to be used only during construction and 9 m (30 feet) of permanent ROW. The pipeline will be strung along the pipeline route as it arrives at the site, so there will be no additional staging areas needed.

In addition to proposed pipeline, there is also a proposed surface facility that will be located on a 61 × 61–m (200 × 200–foot) (approximately 1-acre) site with a short (75 m; 245 feet) access road. The surface facility will include a coalesce separator, a measuring station that will meter the gas prior to the tie-in with the KM lines, and a temporary diesel generator until a permanent power source is available. The legal descriptions for the proposed Residue Line and associated facilities are given in Table 1.1, and is based on the survey corridor width of 150 feet and 1 acre block areas for the surface facility and HDD locations.

Table 1.1. Land Ownership and Legal Description of Proposed Residue Line and Associated Facilities

Name	Acreage	Legal Description
Private land	21.31	T&P RR CO, 58 T1S, 3
	18.29	T&P RR CO, 58 T1S, 10, JENNINGS, E C
	18.91	T&P RR CO, 58 T1S, 15
	2.24	T&P RR CO, 58 T1S, 22, EZELL, C A
	26.45	T&P RR CO, 58 T1S, 23
	19.78	T&P RR CO, 58 T1S, 25
	3.19	T&P RR CO, 58 T1S, 36, EZELL, C A
State land	3.77	T&P RR CO, 58 T1S, 26
Total	**116.27**	

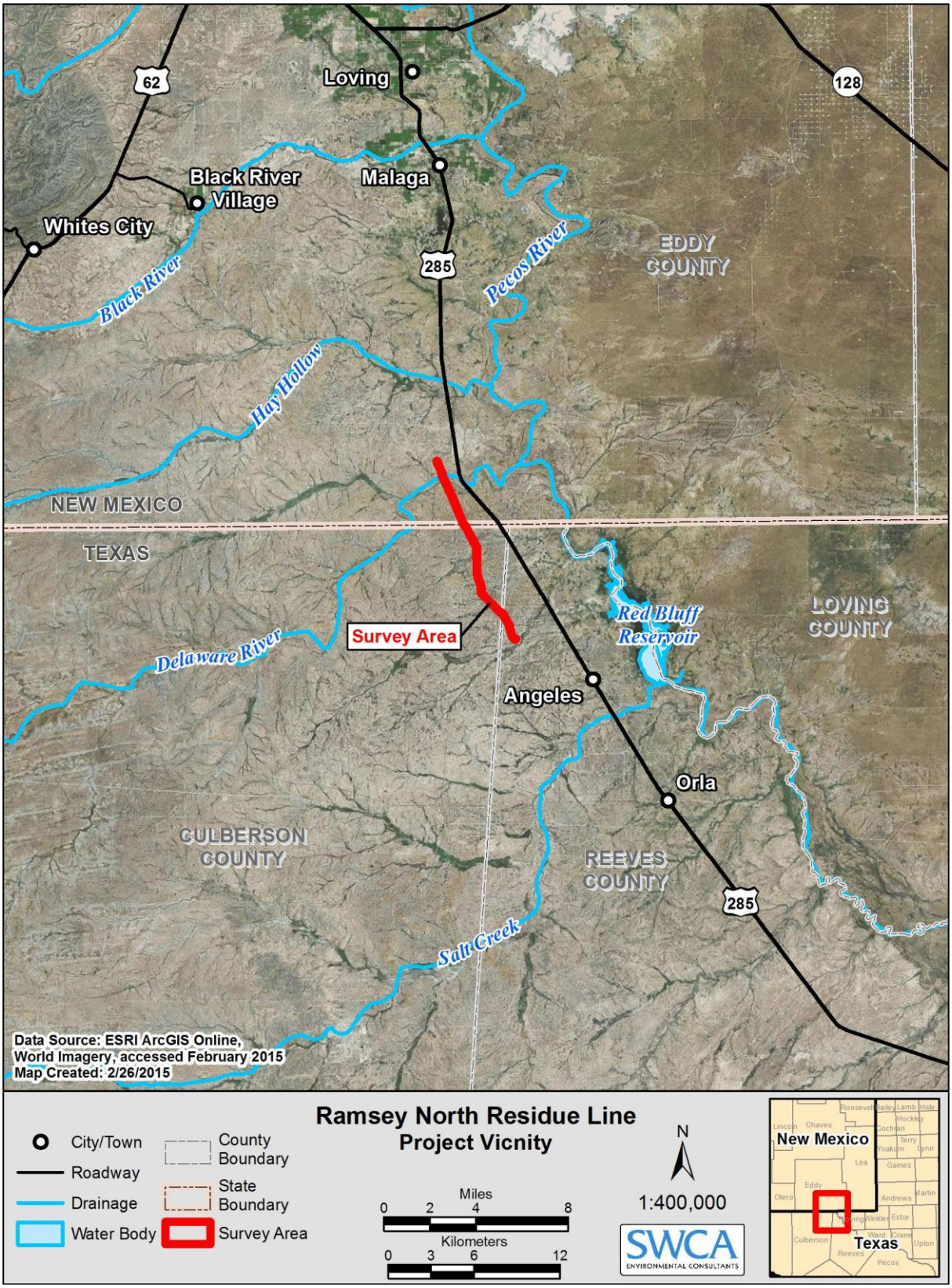

Figure 1.1. Project vicinity of the proposed Ramsey North Residue Line in New Mexico and Texas.

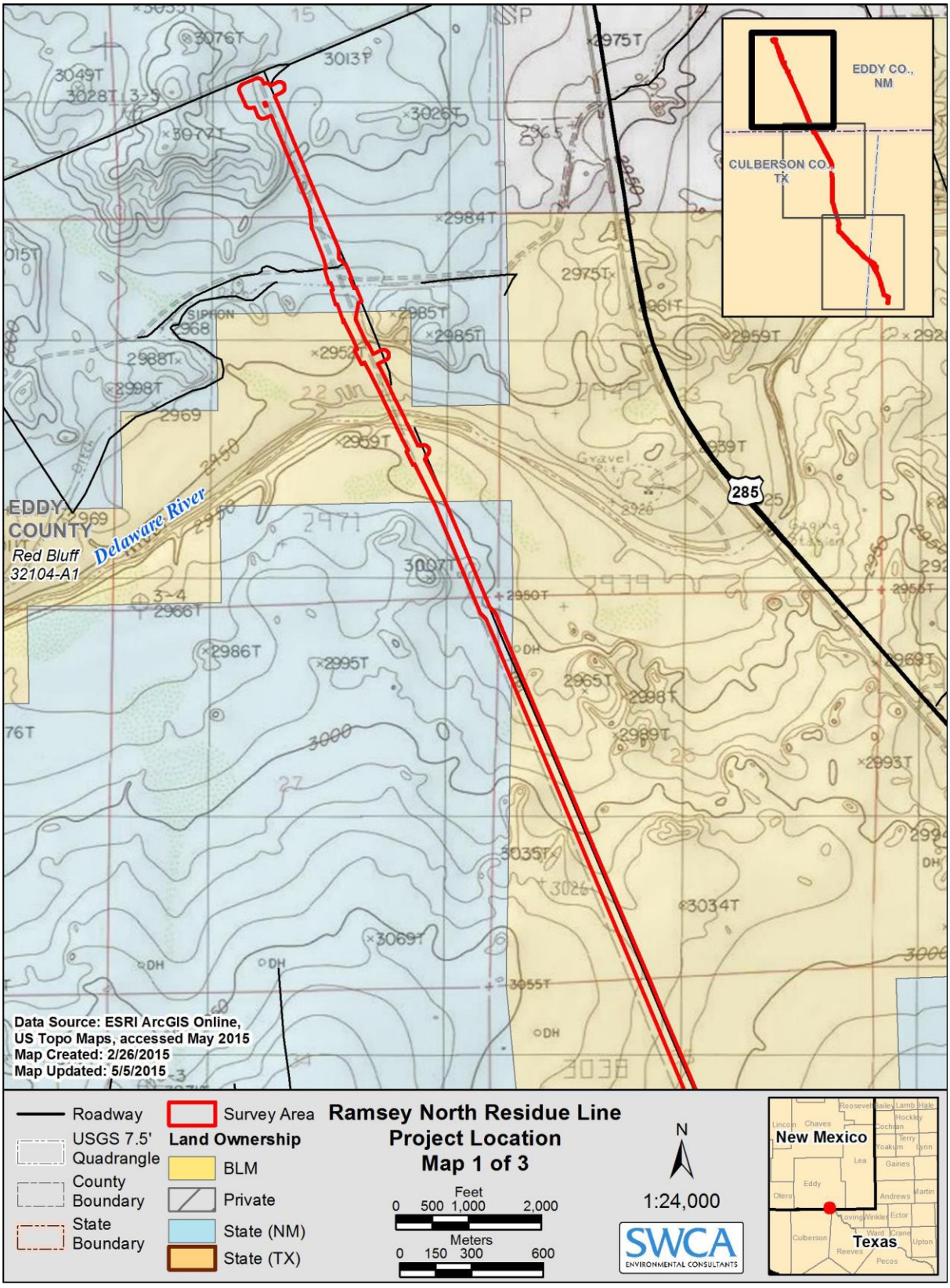

Figure 1.2. Project location of the proposed Ramsey North Residue Line, map 1 of 3.

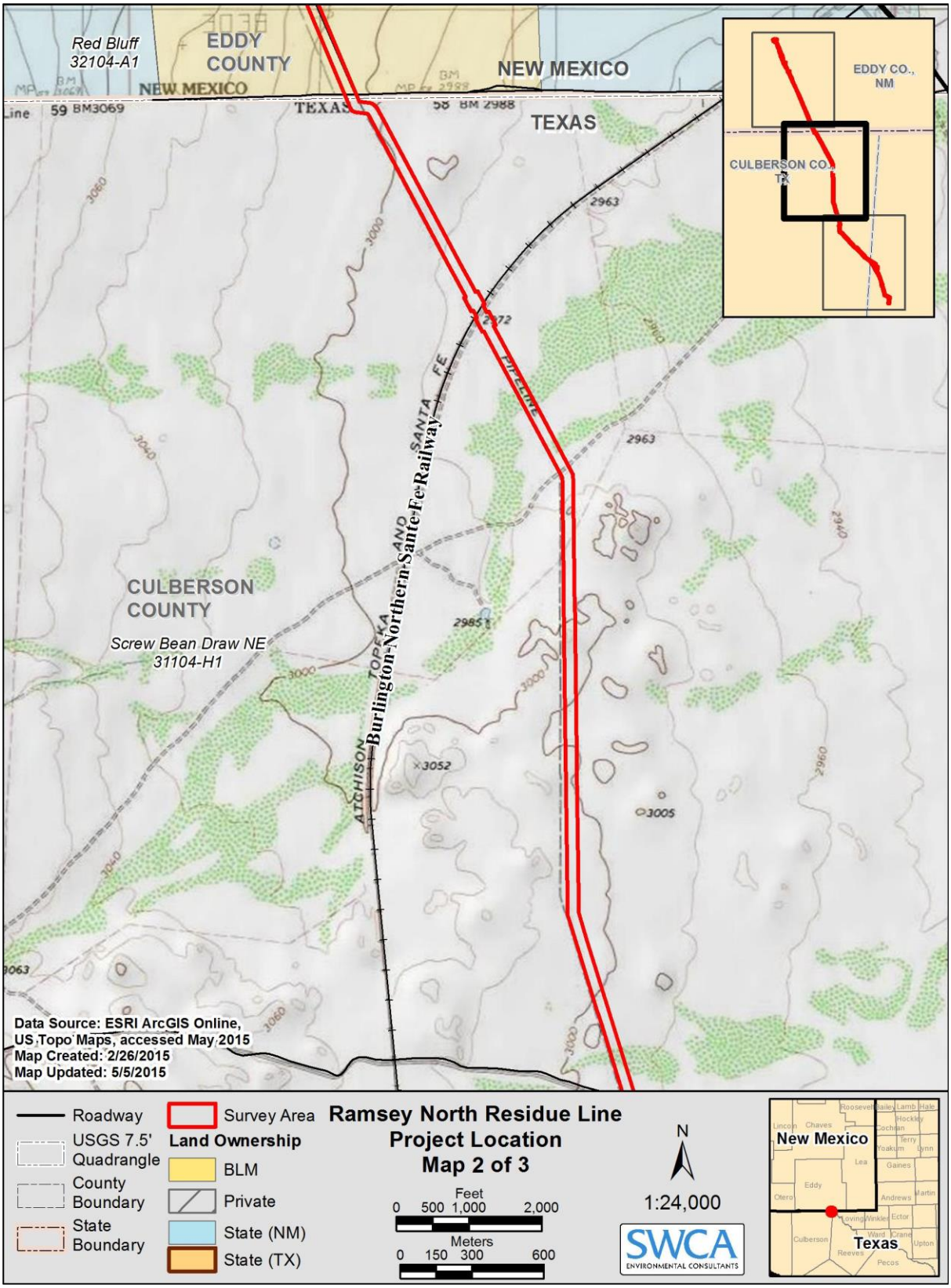

Figure 1.3. Project location of the proposed Ramsey North Residue Line, map 2 of 3.

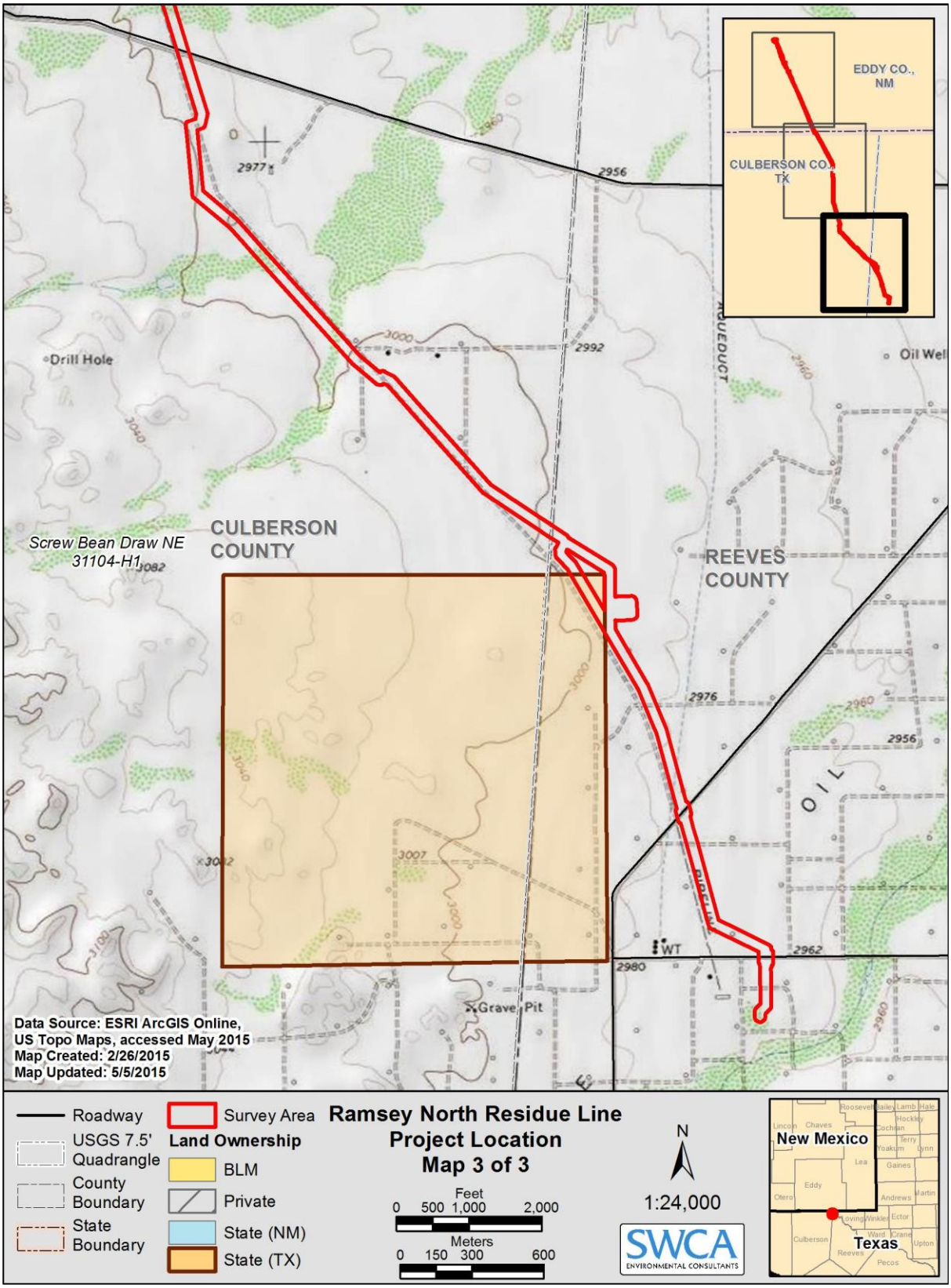

Figure 1.4. Project location of the proposed Ramsey North Residue Line, map 3 of 3.

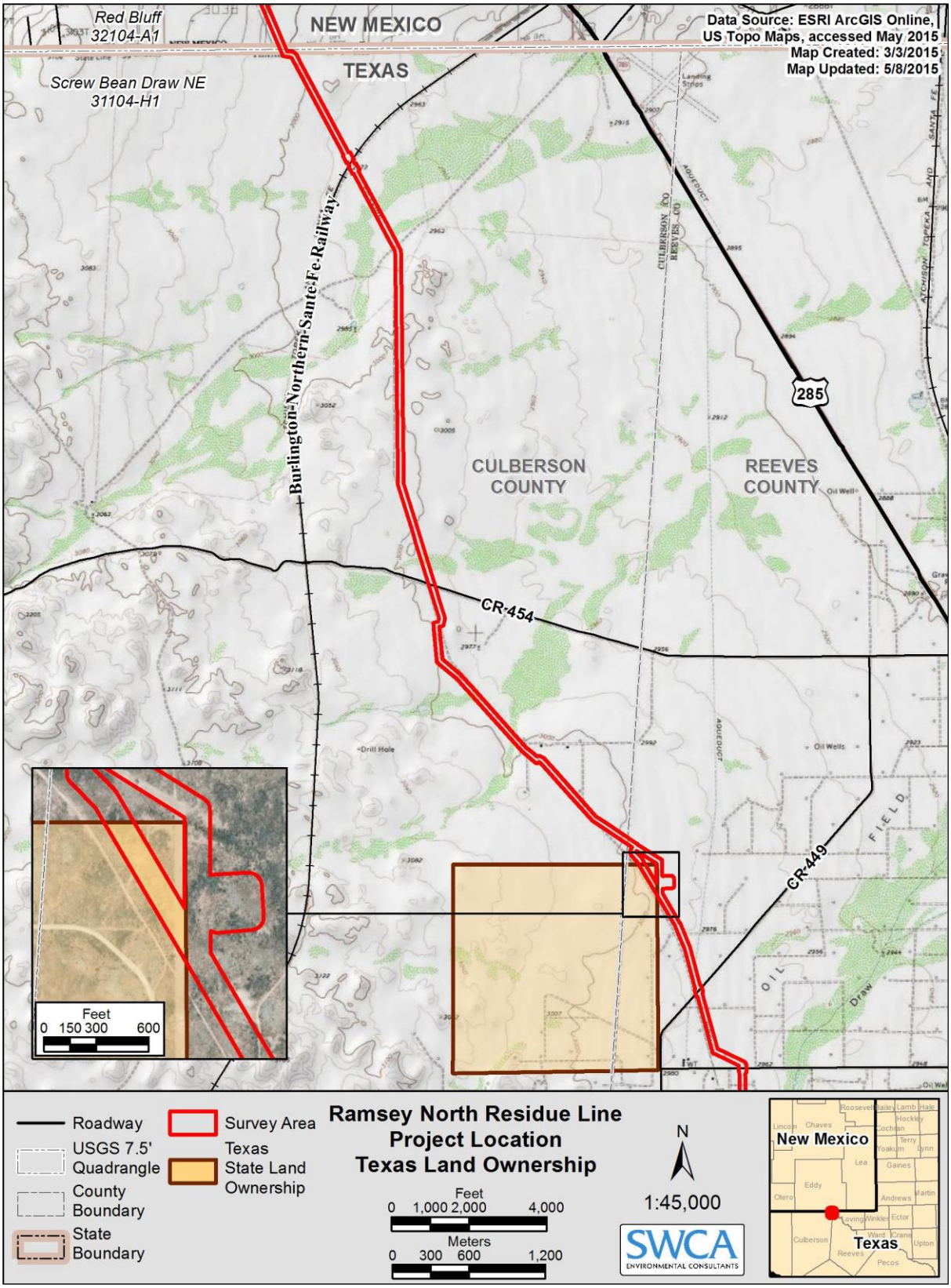

Figure 1.5. Project vicinity of the proposed Ramsey North Residue Line in Texas, with land ownership.

2 ENVIRONMENTAL CONTEXT

The project area occurs within the U.S. Environmental Protection Agency Chihuahuan Basins and Playas (24a) ecoregion (Griffith et al. 2004). The Chihuahuan Basins and Playas ecoregion includes alluvial fans, internally drained basins, and river valleys mostly below 1,372 m (4,500 feet). These low elevation areas are some of the hottest and most arid habitats in the state. The playas and basin floors have saline or alkaline soils and areas of salt flats, dunes, and windblown sand. The elevation of the project area ranges from approximately 907 to 927 m (2,975–3,040 feet) above mean sea level. The terrain is nearly flat at the south end of the area and becomes gently rolling at the north end, particularly just north and south of the Delaware River. Climate for this area, based on the climatic records for Carlsbad National Park, New Mexico, has an average annual maximum temperature of 25.4 degrees Celsius (°C) (77.8 degrees Fahrenheit [°F]), with an average annual minimum temperature of 9.3°C (48.7°F). The average annual precipitation is 30.58 cm (12.04 inches) with the majority occurring between May and October, while the average annual total snowfall is 16.26 cm (6.4 inches), which largely occurs between December and February. The weather during the surveys was cool, breezy and partly sunny to overcast.

2.1 FLORA AND FAUNA

The project is located in Chihuahuan Desert scrub habitat (Brown 1994). The project area is primarily in an area dominated by creosotebush and honey mesquite shrubs with a sparse understory of grasses and forbs. The ROW passes through an extensive series of areas that are playa-like: slightly depressed areas that collect water after a significant precipitation event. These areas have larger and denser shrub cover, including American tarwort (or tarbush) and a dense understory of tobosagrass, vine mesquite, and other grasses. Other shrub species include catclaw acacia, whitethorn acacia, soaptree yucca, purple pricklypear, and fourwing saltbush. Forb species include copper globemallow, stemless Townsend daisy, bladderpod, broom snakeweed, dwarf desertpeony, and Dakota mock vervain. Additional grass species are purple threeawn, Texas dropseed, and blue grama. There are also patches of gypsum soil that have gypsophilic plant cover, including hairy crinklemat and gypsum grama.

The most common animals found in the region are mule deer and coyote. Also typical to the area are bobcat, gopher, jackrabbit, peccary, various species of field mice, striped skunk, and pack rat (Biota Information System of New Mexico 2014). There are a variety of birds, including mourning doves and hawks; numerous lizards and snakes are also in the project area. Lizards were the most commonly observed animal during the survey. Prehistorically, bison were in the region in at least some periods. Bison, antelope, deer, and rabbit were important food resources for the prehistoric inhabitants.

2.2 GEOLOGY

The project area is in the Interior Plain Geologic Province. The U.S. Geological Survey (USGS) reports that

> The Interior Plains is a vast region that spreads across the stable core (craton) of North America. This area had formed when several small continents collided and

welded together well over a billion years ago, during the Precambrian. Precambrian metamorphic and igneous rocks now form the basement of the Interior Plains and make up the stable nucleus of North America. With the exception of the Black Hills of South Dakota, the entire region has low relief, reflecting more than 500 million years of relative tectonic stability. (USGS 2015)

2.3 SOILS

There are nine principal soil types in the project area, which are described in Table 2.1 with acres and percentages based on the surveyed ROW width of 150 feet and 1 acre each for the surface facility and HDD locations. Dellahunt silt loam is found on 0 to 5 percent slopes and occasionally floods. It is typically found on alluvial flats and is composed of loamy alluvium derived from rock gypsum and/or sandstone. Depth to a restrictive feature (bedrock or water table) is more than 203.2 cm (80 inches), and it is a well-drained class of soil. The land capability class (non-irrigated) is severely restricted, primarily due to dry climate.

Table 2.1. Soil Types in the Texas Portion of the Project Route by Series

Soil Type	Map Unit Name	Acreage	Percent of Project Area
Dellahunt silt loam	DEB	31.03	26.7%
Dellahunt-Neimahr-Joberanch complex	DNB	21.12	18.2%
Elcor-Dellahunt-Pokorny complex	EPA	28.08	24.1
Bissett-Rock outcrop complex	BID	2.18	1.9%
Reaker association	32	16.26	14.0
Holloman-Reeves association	20	17.74	15.1
Total		**116.27**	**100**

The Dellahunt-Neimahr-Joberanch complex is found on 1 to 3 percent slopes on alluvial flats. Neimahr is a shallow soil, only 20.3 to 50.8 cm (8–20 inches) to bedrock. It is well drained and the soil capability class is severely restricted due to shallowness, drought and/or stony character. Joberanch is also a shallow soil, 25.4 to 45.7 cm (10–18 inches) over a petrogypsic restrictive layer. It is well drained and restricted in the same manner as Neimahr.

The Elcor-Dellahunt-Pokorny complex is found on 0 to 2 percent slopes. Elcor is a residuum weathered from rock gypsum and is shallow, 15.2 to 50.8 cm (6–20 inches) to lithic bedrock, found on hilly terrain. It is well drained and the depth to the water table is greater than 203.2 cm (80 inches). The land capability class (non-irrigated) is extremely limited due to shallowness, drought, and/or stony character. Pokorny is generally located on alluvial flats and terraces and is composed of gypsiferous alluvium. It is also shallow, 10.2 to 50.8 cm (4–20 inches) to a petrogypsic restrictive layer. Its land capability is severely restricted in the same manner as Elcor. These three soil groups are located in the Culberson County area.

In Reeves County there are two principal soil types. The Holloman-Reeves association is found on hill slopes in gently undulating terrain. This is a shallow, well-drained soil with a gypsiferous component. Depth to paralithic bedrock in the Holloman is 5.1 to 50.8 cm (2–20 inches). In the Reeves component, depth extends more than 203.2 cm (80 inches) to a restrictive feature (bedrock or water table). Land capability (non-irrigated) is extremely limited, primarily due to erosion, shallowness, drought, and/or stony character. The Reaker association is found in nearly

level terrain at the south end of the project area. It is composed of loam and clay loam, is well drained, and the depth to restrictive layer is more than 203.2 cm (80 inches). Land capability (non-irrigated) is extremely limited due to erosion.

Regarding previous disturbances, much of the area has been moderately to severely adversely impacted by years of construction, infrastructure, and development primarily from the oil and gas industry. Areas of the project area have also had animal grazing for decades.

3 RESEARCH DESIGN

Based on a review of the project area soils, geology, recorded archaeological sites, and the results of previously conducted surveys in the vicinity of the project area, SWCA proposed to conduct an intensive pedestrian survey within the project area. The goal of the work was to locate all prehistoric and historic archeological sites in the APE, establish vertical and horizontal site boundaries as appropriate with regard to the APE, and evaluate the significance and eligibility of any site recorded in the APE for listing in the National Register of Historic Places (NRHP) and designation as a State Archeological Landmark (SAL). All work was done in accordance with the standards and guidelines of the Antiquities Code of Texas (13 Texas Administrative Code [TAC] 26.20), Texas Historical Commission (THC) policy, and the National Historic Preservation Act. The overall approach ensures that all project-related impacts are investigated thoroughly for their potential to affect cultural resources.

If an archaeological site was encountered in the proposed project area during the investigation, it would be explored as much as possible with consideration to land access constraints. Any discovered sites would be assessed in regards to potential significance so that recommendations can be made for proper management (avoidance, non-avoidance, or further work). Additionally, shovel tests would be completed per THC standards at any discovered sites to define horizontal and vertical boundaries and to aid in eligibility determinations. Appropriate State of Texas Archaeological Site Data Forms would be filled out for each site discovered during the investigations. A detailed plan map of each site would be produced and locations plotted on USGS 7.5-minute topographic quadrangles and relevant project maps. SWCA proposed a non-collection survey. Artifacts would be tabulated, analyzed, and documented in the field, but not collected. Temporally diagnostic artifacts would be described in detail and photographed in the field.

3.1 ANTICIPATED RESULTS

Considering the setting of the APE, there was generally a low probability that intact, buried prehistoric cultural resources sites would be encountered within the project area. Extensive previously constructed pipelines within and adjacent to the proposed project area suggested a low probability of identifying any new cultural resources.

3.2 ANALYSIS, REPORT PREPARATION, AND CURATION

Once the archaeological survey has been completed, SWCA will analyze the field data and produce a report of the investigations. A no-collection survey would be completed and no artifacts would require curation. Analysis of field data will include mapping, the production of official State of Texas site forms for all documented sites and the acquisition of trinomials from the Texas Archaeological Research Laboratory (TARL), analysis and tabulation of shovel tests and results, and the review, organization, and assessment of field notes. Once this is complete, SWCA will prepare a report of the investigations. The report will be in compliance with reporting standards of 13 TAC 26.24, as well as Council of Texas Archeologists reporting guidelines. The archaeological report will document previous investigations in the area, background cultural settings, the methodology used in the investigations, the presence and

condition of any previously recorded sites revealed in the records review, the general nature and extent of cultural resources encountered during the archaeological survey, the ownership of the land for each site location, recommendations on the need for further work, and the potential significance of the cultural resources in regards to future development and eligibility for listing as an SAL or on the NRHP. The report will contain recommendations for further work, if necessary, on the project with appropriate justifications based on the requirements of 13 TAC 26.20 and defined in 13 TAC 26.5.

Draft copies of the report will be submitted to SES for review and comment. Once this has been accomplished, any appropriate edits will be made and SES will submit copies of the report to FERC. SWCA will submit copies to THC, and any other relevant agencies. Once the reporting process is complete, two paper copies of the final report and one electronic copy (CDs with the electronic document in tagged PDF format) will be submitted to THC. An additional 10 hard copies of the final report will be sent to various designated repositories throughout the state, as required by the Texas Historical Commission (Antiquities Permit #7262).

4 PREVIOUS RESEARCH

4.1 BACKGROUND REVIEW

SWCA performed a cultural resources file records review on February 11, 2015, to determine whether the project area has been previously surveyed for cultural resources and whether any archaeological sites have been recorded in or near the project area. To conduct this review, SWCA archaeologist Greg Mastropietro reviewed the USGS Red Bluff and Screw Bean Draw NE, Texas/New Mexico 7.5-minute quadrangles at the TARL and searched the THC Texas Archeological Sites Atlas (Atlas) database and site files at TARL. These sources provide information on the nature and location of previously conducted archaeological surveys, previously recorded cultural resource sites, locations of NRHP properties, sites designated as SALs, Official Texas Historical Markers, Registered Texas Historic Landmarks, cemeteries, and local neighborhood surveys. No previous survey investigations have been conducted in the project area and no previously recorded sites were located within the project area.

5 RESULTS

SWCA archaeologists Greg Mastropietro conducted an online records search of the TARL database, which revealed no previously recorded sites or previously conducted archaeological surveys within 1.6 km (1 mile) of the project area in the Texas portion of the proposed project.

5.1 NEWLY RECORDED CULTURAL RESOURCES

The goal of the archaeological survey was to locate all prehistoric and historic archaeological sites in the defined APE, establish vertical and horizontal site boundaries as appropriate, and evaluate the significance and eligibility of any sites recorded for designation as an SAL. An Antiquities Permit was obtained (#7262). SWCA conducted an intensive 100 percent ground coverage archaeological field survey of the proposed project area. The survey was of sufficient intensity to determine the nature, extent, and, significance of cultural resources located within the proposed project area. An additional 15-m (50-foot) buffer was added to the survey. This buffer was also a part of the intensive survey. The survey was conducted at 15-m (50-foot) intervals in parallel transects within the project area. Temporally diagnostic artifacts, if present, were to be described in detail and photographed in the field. Only especially rare artifacts or discoveries were to be collected.

On February 11 through 19, 2015, SWCA archaeologists Greg Mastropietro and Nina Williams conducted an intensive pedestrian survey of the project area. Proposed reroutes and additional work areas were surveyed by Greg Mastropietro on April 23, 2015. Two new archaeological sites, four previously-identified archaeological sites, and 19 isolated manifestations were identified during both the New Mexico and Texas portions of the survey. The intensive pedestrian field survey consisted of SWCA archaeologists walking over the proposed project area. The 116.3 acres in the Texas portion of the project area were intensively surveyed. SWCA assumed that the surface-visibility percentage would be high enough that no shovel tests would be necessary. One archaeological site and 13 isolated manifestations were newly recorded in the Texas portion of this project.

5.1.1 41CU804

Additional Site Numbers: 31353-GM-1
USGS: Screw Bean Draw NE (31104-H1)
County: Culberson
Elevation: 906 m (2,972 feet)
Landowner: Private
Cultural Affiliation and Age: Late Statehood period (1865–1900)
Site Type: Historic
Size: 687.9 m^2 (7,404.5 square feet)
NRHP Eligibility Recommendation: This site has potential to be listed to the NRHP under Criterion A. The site is currently recommended undetermined.
Management Recommendations: The proposed pipeline will be bored under the railroad grade, and no impact will occur to the site. Therefore, no further management is recommended for this site related to this project.

Site Description

This archaeological site is an abandoned railroad grade and bed with associated artifacts (Figure 5.1). The portion recorded as 41CU804 is a small portion of a much longer linear site. Its proximity to the original alignment of the Pecos Valley Railroad, completed in 1891 connecting Pecos, Texas, to Eddy, New Mexico, suggests this site is a spur. The site, within the survey corridor, measures 58 m (northeast-southwest) × 24 m (northwest-southeast) (190 × 79 feet) (Figure 5.2). The site itself has 100 percent ground visibility; however, vegetation surrounding the site includes mesquite, creosotebush, and other low-lying grasses and forbs. The site is estimated to be 75 percent intact; major sources of site disturbance include a previously placed pipeline, use as a two-track road, and bioturbation. Based on the nature of the site, no subsurface cultural deposits are likely.

Figure 5.1. Site overview of 41CU804, facing northeast (Roll 31353, Frame T9-8095).

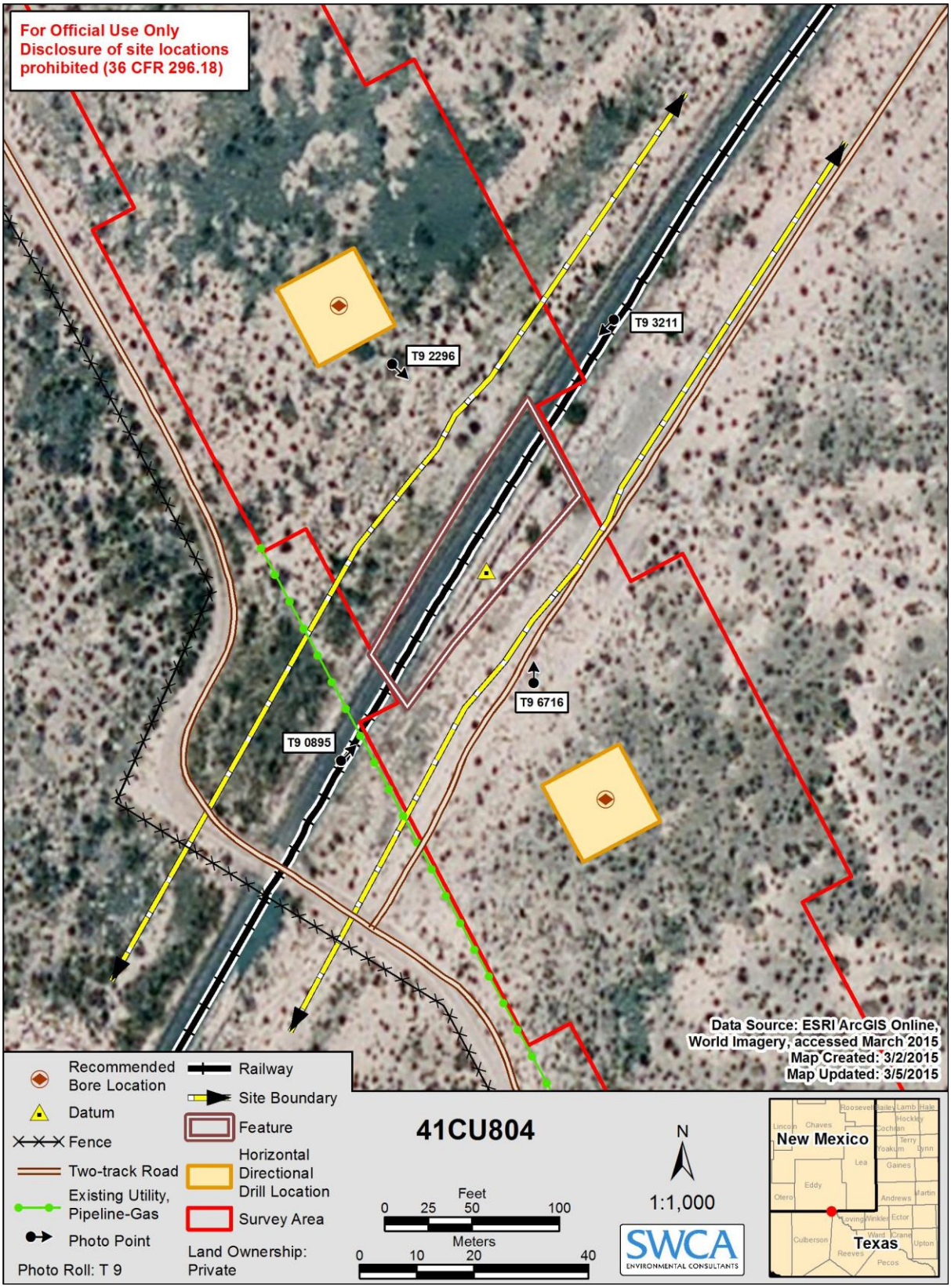

Figure 5.2. Site map of 41CU804.

Features

Feature 1 consists of the railroad grade, bed, and berms, which are constructed of a mixture of red, black, and gray rocks. The railroad bed measures 9 to 10 feet wide with a short berm that measures from 25 to 45 inches wide on both sides. This feature is currently being utilized as a two-track road.

Material Identified

In total, 56 artifacts were documented. They are all associated with the construction and eventual disassembling of the railroad. Descriptions of the artifacts can be found in Table 5.1.

Table 5.1. All Historic Artifacts Observed at 41CU804

Type	Number	Dimensions	Description / Comments
Milled lumber fragments/railroad tie fragments	29	–	–
Railroad hardware	11	8 4/16” L × 1 6/16” W × 7/16” T	Flat iron with hook on one end
Iron railroad spikes	15	Body: 6 6/16” L × 12/16” W × 8/16” T	Head: 1 12/16” L × 1 4/16” W × 8/16” T
Railroad hardware	1	3 15/16” L × 3 8/16” W × 7/16” T	Flat iron, triangular shaped, square in one corner measuring 1” squared, snapped off rod on one end

Site Chronology

A historic Late Statehood (A.D. 1865–1900) was assigned to this site due to the history of the construction of the Pecos Valley Railroad, located approximately 1.6 km (1 mile) east of the site.

Site Interpretation and Summary

Construction of the Pecos Valley Railroad was completed in 1891. This railroad ran from Pecos, Texas, to Eddy, New Mexico. Due to its proximity and its intersection with the main grade to the northeast, this site is likely a spur.

Eligibility Recommendations

Further research is needed to determine when this spur was built and if it was part of the Pecos Valley Railroad. The integrity that remains with this site lies in its contribution to the history of the railroad and settlement of the area around the Delaware River. Until further research can be conducted to determine the importance of this spur to the construction of the Pecos Valley Railroad and the development of the Delaware River area, this site has potential to be listed in the NRHP under Criterion A. The eligibility is currently recommended as undetermined.

Management Recommendations

The proposed pipeline will be bored under the railroad grade, and no impact will occur to the site. Therefore, no further management is recommended for this site related to this project.

5.2 ISOLATED MANIFESTATIONS

Thirteen isolated manifestations were recorded during this investigation, reflecting both prehistoric and historic cultural activities (Table 5.2, Figure 5.3–Figure 5.10). Isolated Manifestations 10 through 13, 18, and 19 were recorded in New Mexico portions of the project.

Table 5.2. Isolated Manifestations

IM Number	Texas Isolated Manifestation Description
1	One brown chert Tularosa Corner Notched base with corner notching, random flaking pattern, and a medial snap fracture. It also exhibits bifacial pressuring flaking on both lateral edges. The entire fragment measures 2.7 × 2.6 × .5 cm, from tang to tang it measures 2.9 cm. The base measures 1 × 1.6 cm (Justice 2002:216–219, image-28.9).
2	One hole-in-top can. It is highly oxidized and crushed, so no measurements can be determined.
3	One gray orthoquartzite proximal flake fragment. It has a cortical platform and medial snap fracture, with edge modification along one lateral side. There is <50% cortex present, size class 4–5.
4	One proximal flake fragment that has been taken from the non-ground, medial section of a brown silicified ground stone artifact. The fragment measures 6.7 × 4.2 × 1.8 cm, is lacking cortex, and possesses a plain platform. The ground side of the fragment is flat, well ground, with light striations. IM-4 may be a metate fragment.
5	One silicified sandstone edge modified complete flake. Bifacial pressure flaking on two lateral edges It measures 6.5 × 4.6 × 1.3 cm and lacks any cortex.
6	One brown chert edge modified complete flake. Unifacial edge modification is present on one lateral edge and the platform. The platform modification is indicative of a possible scrapper preform. The flake possesses <50% cortex and measures 4.3 × 3.3 × 0.5 cm.
7	One tool is a silicified sandstone uniface, with parallel striations in one focused area, possibly caused by plant, food, or material processing. The uniface measures 8.1 × 6 × 1.2 cm. One is a rectangular burnt limestone cobble that has been parallel flaked on one lateral edge. The cobble measures 4.8 × 2.9 × 0.7 cm.
8	One brown quartzite flake with a plain platform and 0% cortex that has calcium carbonate buildup on its dorsal side; size class 3–4. One white quartzite flake with one utilized lateral edge. The platform appears crushed and it possesses <50% cortex; size class 3–4.
9	One silicified sandstone medial flake fragment with two snap fractures and calcium carbonate buildup on 80% of its dorsal surface; size class 9–10. One silicified sandstone flake with plain platform and <50% cortex; size class 5–6.
14	One red translucent chalcedony flake with a cortical platform, >50 percent cortex; size class 3–4.
15	One white chalcedony medial flake fragment with two snap fractures, >50% cortex; size class 2–3.
16	One white translucent chalcedony projectile point measuring 3.1 × 2.6 × .5 cm in size, with a base that measures 1.3 × 1.2 cm. It appears as though the base was once flat, but a small snap fracture is now present on one corner, disfiguring the base's original form. Random retouching flakes are also visible surrounding one tang. This reworking caused the tangs to be asymmetrical. All other edges have flaking present. The projectile point appears to be a reworked San Pedro or Tularosa Corner Notched point. One gray chalcedony flake fragment, missing both lateral edges by means of snap fractures. It has a cortical platform, <50% cortex, size class 3–4 cm.
17	One brown quartzite chopping/scraping tool with unifacially working on one lateral margin and four large parallel flakes trending at a 40 degree angle on the obverse side. The worked edge has slight battering present. The tool possesses 80% cortex and measures 8 × 7.5 × 4 cm.

Figure 5.3. IM-1, brown chert Tularosa Corner Notched base, obverse, reverse and cross-section (Roll 31353, Frames T9-7578, T9-2266 and T9-7329).

Figure 5.4. IM-4, brown silicified sandstone ground stone fragment, showing ground (left) and flaked (right) sides (Roll 31353, Frames T9-0452, T9-5233)

Figure 5.5. IM-5, edge modified brown silicified sandstone flake, ventral, dorsal, cross-section (Roll 31353, Frames T9-7387, T9-5630, T9-6863).

Figure 5.6. IM-6, edge modified brown chert flake/scraper, front, cross-section (Roll 31353, Frames T9-2406, T9-5714).

Figure 5.7. IM-7, brown silicified sandstone uniface, front and cross-section (Roll 31353, Frames T9-9546, T9-9125).

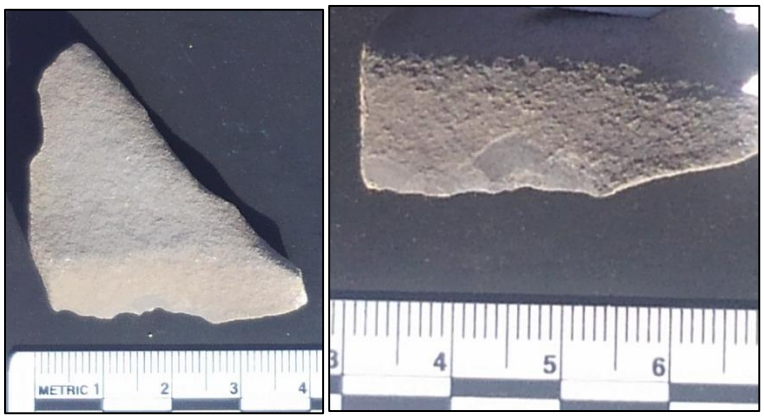

Figure 5.8. IM-7, burnt limestone cobble with edge modification, front and cross-section (Roll 31353, Frames T9-8074, T9-6739).

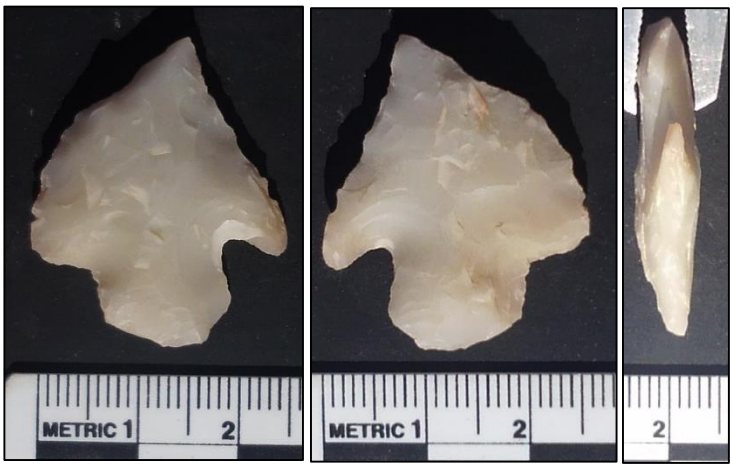

Figure 5.9. IM-16, white translucent, reworked San Pedro point, obverse, reverse and cross-section (Roll 31353, Frames T9-1573, T9-4452, T9-2181).

Figure 5.10. IM-17, brown quartzite chopper/scraper, front and modified edge (Roll 31353, Frames T9-9646, T9-1131).

6 SUMMARY OF ELIGIBILITY AND MANAGEMENT RECOMMENDATIONS

SES selected SWCA to conduct an intensive pedestrian archaeological survey of the APE for the proposed Residue Line to aid in complying with Section 106 of the National Historic Preservation Act (16 United States Code 470) and its implementing regulations (36 CFR 800). The work was performed to determine whether the proposed use of the area would affect significant cultural resources. The archaeological investigation included an archaeological background records review and an intensive pedestrian survey.

The background literature review determined that no previously recorded sites were located in the project area and no previous surveys had been conducted in the project area. During the SWCA field investigation, one new archaeological site and 13 isolated manifestations were encountered within the Texas segment of the project area. Because the proposed pipeline will be bored under the railroad grade making up site 41CU804, no impact will occur to the site. Therefore, no further management is recommended for this site and SWCA recommends a finding of no historic properties affected for the project. No further archaeological work is recommended for the project area. However, if previously undocumented buried cultural resources are identified during ground-disturbing activities, all work in the immediate vicinity of the discovery should stop until the find can be evaluated by a professional archaeologist.

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