INDEX OF TEXAS ARCHAEOLOGY
Open Access Gray Literature from the Lone Star State

Volume 2017 Article 185

2017

Cultural Resource Assessment SEP Water Line Route University Lands Blocks 9 and 58 Reagan County, Texas

Billy D. Turner

Follow this and additional works at: https://scholarworks.sfasu.edu/ita

 Part of the American Material Culture Commons, Archaeological Anthropology Commons, Environmental Studies Commons, Other American Studies Commons, Other Arts and Humanities Commons, Other History of Art, Architecture, and Archaeology Commons, and the United States History Commons

Tell us how this article helped you.

This Article is brought to you for free and open access by the Center for Regional Heritage Research at SFA ScholarWorks. It has been accepted for inclusion in Index of Texas Archaeology: Open Access Gray Literature from the Lone Star State by an authorized editor of SFA ScholarWorks. For more information, please contact cdsscholarworks@sfasu.edu.

Cultural Resource Assessment SEP Water Line Route University Lands Blocks 9 and 58 Reagan County, Texas

Creative Commons License

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License

This article is available in Index of Texas Archaeology: Open Access Gray Literature from the Lone Star State: https://scholarworks.sfasu.edu/ita/vol2017/iss1/185

Cultural Resource Assessment

SEP Water Line Route
University Lands Blocks 9 and 58
Reagan County, Texas

Report prepared for
Sequitur Energy Resources LLC
24 Smith Road Suite 600
Midland, TX 79705
432-218-2001

by

Billy D. Turner
Turpin and Sons Inc.
2047 Lakeshore Drive
Canyon Lake, Texas
512-922-7826

Jeff Turpin, Principal Investigator

Texas Antiquities Permit 7958
Technical Report 332

University Lands
The University of Texas System
March 2017

ABSTRACT

In March of 2017, Turpin and Sons Inc. (TAS) archeologists assessed the cultural resource potential of 9 miles of proposed waterline right-of-way on University Lands in southwest Reagan County, Texas. The right-of-way is 100 ft wide for a total area of effect (APE) of 109.7 acres. The project was sponsored by Sequitur Energy Resources Inc. (Sequitur) and carried out under the authority of Texas Antiquities Permit 7958 issued to Jeff Turpin acting as Principal Investigator. The proposed route extends through University Lands Block 58, Section 24 and Block 9 Sections 3, 4, 12, 14, 21, 22, and 28, crossing Garrison Draw and County Road 113 (Best Lane) north of the abandoned town of Best. The area is highly disturbed from past clearing, leaving little of the original landscape in place. No new evidence of historic or prehistoric occupation or use was observed and no new archeological sites were added to the inventory. The ROW crosses previously recorded site 41RG244, a prehistoric scatter of fire-cracked rock (FCR), located primarily east of the route. The site area was expanded to 240 NW/SE by 150 NE/SW by the scattered lithic debris and FCR in the new survey corridor. The site is located in an area described by the USDA as oil waste land. Scouring of the surface has widely dispersed artifacts and FCR. The site was originally assessed as failing to meet National Register of Historic Places significance criteria and that judgement is reiterated here. Therefore, 41RG244 poses no impediment to the planned construction. No other cultural material was observed in the rest of the project area so installation of this waterline will not affect significant cultural resources.

Table of Contents

List of Figures

Table

INTRODUCTION

In March of 2017, Turpin and Sons Inc. (TAS) archeologists assessed the cultural resource potential of 9 miles of proposed water pipeline northwest of Big Lake and north of the abandoned community of Best (Fig. 1).. The ROW is 100 ft wide for a total area of effect (APE) of 109.7 acres. The route crosses University Lands Block 58 Section 24, and Block 9 Sections 3, 4, 12, 14, 21, 22, and 28 intersecting Garrison Draw and County Road 113 (Best Lane) (Fig. 2). The water line is intended to connect multiple water ponds with a central pond (Fig. 3).

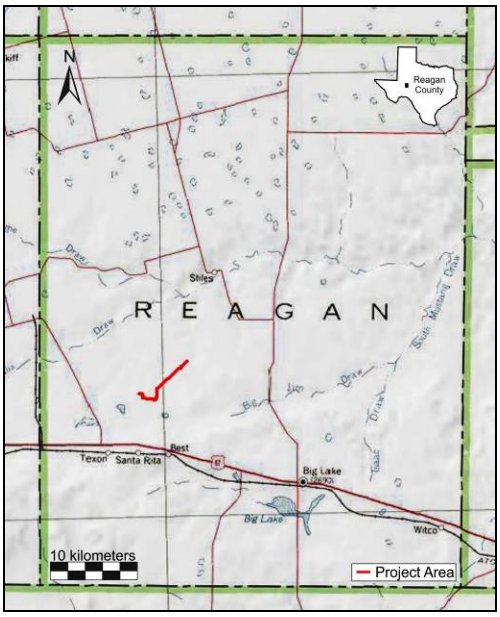

Figure 1. Overview map of project location (source: National Geographic Topo).

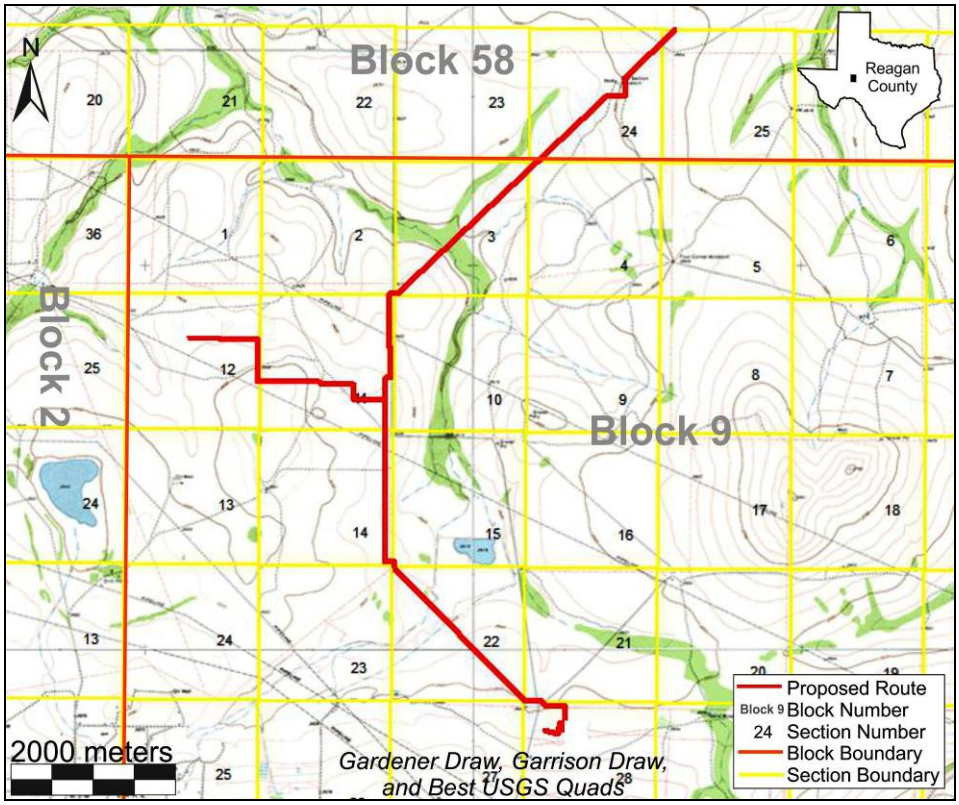

Figure 2. Project Location Map (source: Terrain Navigator).

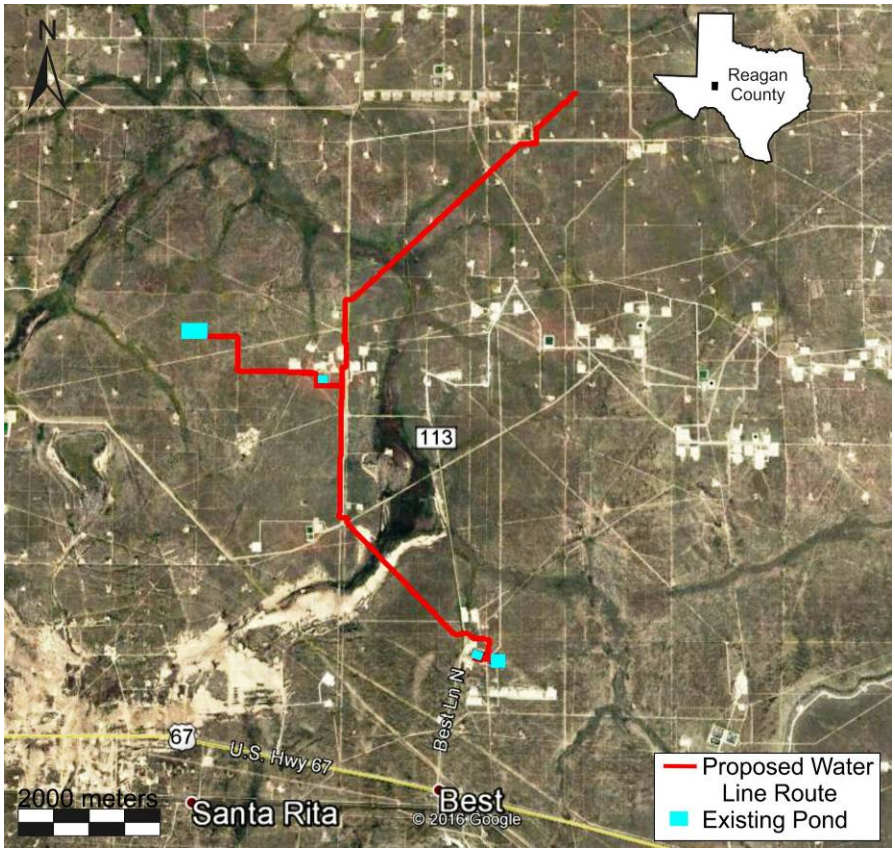

Figure 3. Aerial showing route connecting ponds (source: Google Earth 4/01/16).

The route crosses previously recorded archeological site 41RG244, a scatter of fire-cracked rock (FCR) with minimal lithics and stone tools. The site is located in an area labeled as oil waste land by the NRCS/USDA. The surface has been scoured by wind and water leaving artifacts scattered across a 230 m by 150 m area. The route crosses the southwest portion of the site and will not negatively affect significant cultural resources. No new sites or archeological artifacts were identified during this survey; therefore cultural resources present no impediment to the proposed project.

This cultural resource assessment consisted of an archival search, an intensive pedestrian survey, and preparation of a report suitable for review in accordance with the Texas Historical Commission's Archeological Survey Standards for Texas. The survey was authorized by Texas Antiquities Permit 7958 issued to Sequitur Energy, University Lands, and Dr. Jeff Turpin, Principal Investigator. Field work was conducted by Billy Turner and Carrie Davis. Although there is no Federal involvement, the investigations were designed to comform to the standards set forth in 54 U.S.C. 306108 (commonly known as Section 106 of the National Historic Preservation Act).

ENVIRONMENTAL SETTING

The route crosses typical West Texas gently rolling desert upland and the Garrison Draw floodplain. Poor soil conservation practices and natural erosion have resulted in the depletion of topsoil across much of the region, with exposed bedrock or gravel visible throughout. Surface visibility exceeded 80% in most areas with brown sandy loam and gravel the norm.

The project area is classified as part of the Edwards Plateau Section of the Great Plains Province of the Interior Plains, which is described as mesas, plateaus, and limestone ridges and hills with deep canyons and nearly level to gently sloping valley floors. The Edwards Plateau is an uplifted and elevated region originally formed from marine deposits of sandstone, limestone, shales, and dolomites 100 million years ago during the Cretaceous Period, when this region was covered by an ocean (TPWD). Specifically, the context for prehistoric adaptations in the area crossed by the current ROW is a broad expanse of poorly

watered gently rolling uplands that were previously used as rangeland and have become overgrown with mesquite and broom weed (Fig. 4).

Figure 4. General environment along SEP route.

Hydrology

Hydrology is the dominant factor in prehistoric and early historic settlement patterns in the study area. The proposed ROW crosses gently rolling rocky hills east and west of Garrison Draw, intersecting the draw in the north central portion of the route. Garrison Draw has been channelized and dug out, modifying the original waterway. Garrison Draw originates in southern Reagan County and drains north to join Centralia Draw five miles northwest of the current project. Centralia Draw continues east/northeast to join the Middle Concho River 25 miles to the northeast near the Reagan/Irion County line. The area is arid and prehistoric settlement patterns show a clear propensity for camping near areas where runoff pooled in the bottom of the draws. Intermittent water made it possible for people and animals to exploit the high, dry uplands between the permanent springs, such as Grierson, Flat Rock, Howards Well, and the Pecos River (Brune 1981).

Plants and Animals

Vegetation is sparse and, in years with sufficient precipitation, consists of a plant community of shrubs and short or mid-grasses. The plant community

once included juniper, mesquite, lotebush, live oak, Texas oak, sumac, Texas prickly pear, tasajillo, kidneywood, netleaf hackberry, agarita, yucca, sotol, catclaw, Mexican persimmon, various grammas, threeawn, Texas wintergrass, little bluestem, Halls panicum, buffalo grass, cedar sedge, two-leaved senna, mat euphorbia, rabbit tobacco, and hairy tridens. Scrub mesquite and broom weed have infested most of the project area, to the detriment of the native vegetation.

Deer and rabbit are the dominant wild species in the region today but archeological and historical evidence indicate that the faunal community was large and diverse prior to the introduction of domesticated animals (Wiedenfeld 2003). The bison kill site in the bed of the Big Lake, 9 miles southeast of the study area, testifies to more benign grassland before 8000 years ago, followed by a period of severe drought that would have driven herd animals north to the Plains. Pioneers camping on the shores of the Big Lake mentioned a wide variety of long-gone game, including bears, antelope and bison. Although no faunal studies have been done in the immediate vicinity of the study area, it can be assumed that the composition of the faunal community in general was equally fluid and dependant on the vagaries of climate and rainfall.

Soils

The current route extends across predominantly Reagan loam with pockets of Conger Reagan associated soils (NRCS/USDA). Reagan soils are described as slowly permeable calcareous soils that formed in alluvium and/or eolian deposits derived from limestone. These level-to-gently sloping soils occur on broad flats, or filled valleys and fans (NRCS/USDA). Garrison Draw contains Rioconcho silty clay loams derived from alluvial soils. A southwestern tributary to Garrison draw is designated as oil waste land, meaning that liquid oily wastes, principally saltwater and oil, have been discharged or accumulated. It includes slush pits and adjacent areas affected by the liquid wastes (NRCS/USDA). This area was scoured and almost entirely devoid of vegetation. The remaining survey area contained minimal topsoil, with exposed limestone prevalent.

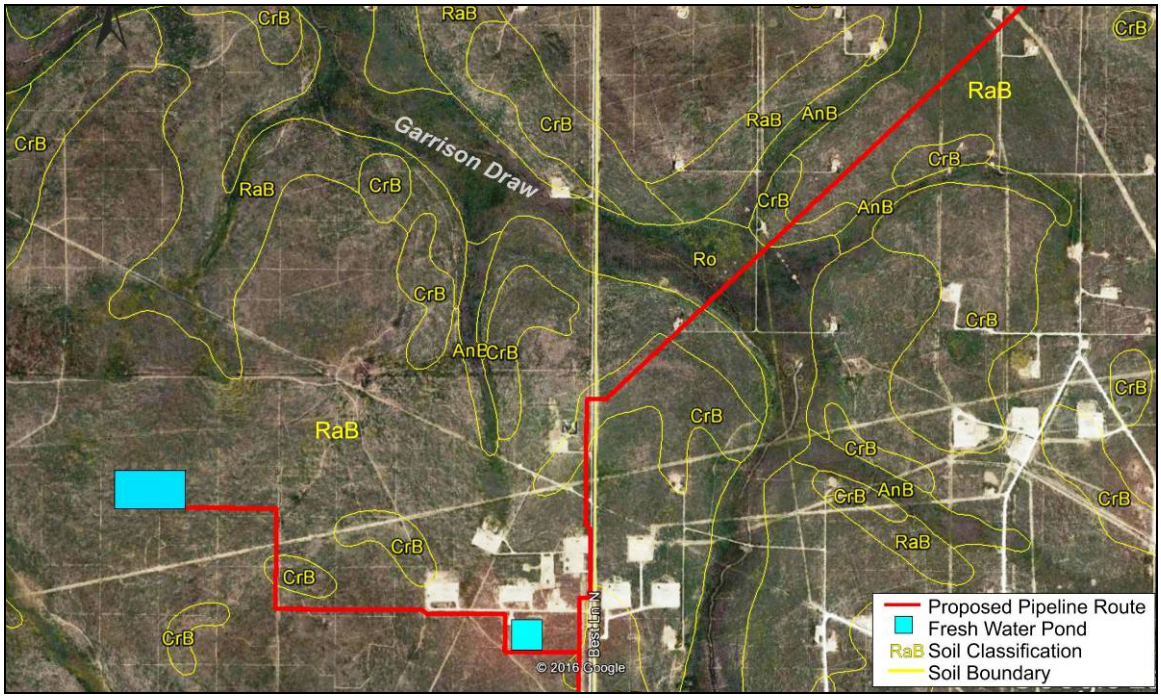

Figure 5. Representative sample of soils crossed (source: NRCS/USDA).

Climate

Temperature ranges can be extreme, from a record low of -8 degrees to a record high of 109 degrees, with an average of 46.2 degrees F in winter and 79.6 degrees F in summer. The average annual total precipitation is about 19.11 inches. Of this, about 14.76 inches, or 77 percent, usually falls in April through October. The region experiences cyclical periods of rain and drought filling and drying Garrison Draw and nearby Big Lake. The high dune face on the northern side of the lake resulted from an extremely long dry spell with constant winds from the south-southwest sometime after about 8000 B.P. and was preceded by yet another undated period of dune accretion that has since stabilized (Turpin et al. 1993, 1997). Many of the semi-buried hearth sites recorded during past block surveys would have been buried by wind-blown sediment during such periods of sparse vegetation and low rainfall.

CULTURAL CONTEXT

Reagan County is in a transitional zone between three defined cultural areas: the Southern Plains on the north, the Eastern Trans-Pecos, and the Lower Pecos to the west and east, respectively. The many studies in Reagan County have shown that the most applicable chronology is that of the Lower Pecos, where radiocarbon analyses have refined the sequence (Table). For the purposes of this report, however, only the major divisions are relevant since no temporal diagnostics were found.

Table. Time periods in prehistory.

Period	Subperiod	Radiocarbon Years (BP)	Trans-Pecos
Paleoindian		<12,000-9,800	<12,000-8500
	Aurora	14,500-11,900	
	Bonfire	10,700-9,800	
Late Paleoindian		9,400-9,000	
	Oriente	9,400-8,800	
Early Archaic		9,000-6,000	8,500-1,000
	Viejo	8,900-6,500	
Middle Archaic		6,000-3,000	
	Eagle Nest	5,500-4,100	
	San Felipe	4,100-3,200	
Late Archaic		3,000-1,000	
	Cibola	3,150-2,300	
	Flanders	2,300??	
	Blue Hills	2,300-1,300	
Late Prehistoric		1,000-350	
	Flecha	1,320-450	
	Infierno (phase)	450-250	
Historic		350-0	

Over 400 sites have been recorded in Reagan County, spanning the entire range of prehistory (Atlas). The Big Lake playa attracted hunters from the Paleoindian through Historic periods. Projectile points in private collections include Folsom, Plainview, Midland, and Milnesand specimens from the western end of the lake, and excavations in the bed of the lake produced the remains of a

small herd of bison driven into the mud and dispatched during the period of downsizing from mega- to modern bison around 8000 years ago (Turpin et al. 1993, 1997). Archaic and Late Prehistoric burned rock middens and hearths line the lake and its major feeder, Big Lake Draw (Turpin 1994). Most of the prehistoric sites in the area cannot be dated but the few with temporally diagnostic projectile points are Middle and Late Archaic in age. The Late Prehistoric presence is evidenced by a large Toyah phase component in the dunes at the western end of Big Lake (41RG26).

The history of the early frontier is represented by the ruins of Camp Grierson (41RG3), a military outpost of Fort Concho built in 1878 around a secluded permanent spring that effectively shortened the road to Fort Lancaster (Riemenschneider and Turpin 1998). The only designated State Antiquity Landmarks in this county are the Reagan County Courthouse in Stiles, Texas and a firing range associated with Camp Grierson on property managed by University Lands (41RG77; Turpin and Riemenschneider 2001). Although none of these sites are near the current project, they demonstrate the long duration of occupation attributable to the draw of the Big Lake.

Previous Investigations

The area surrounding the current project has been previously surveyed by TAS Inc. in 2012 for the Pioneer Block Survey, in 2014 during the Reagan NW Seismic Survey, and again in 2015 as part of the Dixon Talley Pipeline Survey (Atlas; Burgess and Turpin 2011a, 2011b). Two previously recorded sites are located in the vicinity of the current project. 41RG120 is 65 m north of the proposed centerline and consisted of scattered FCR and lithics as well as stone tools and a burned rock hearth. No evidence of the site was observed along the proposed waterline route and it will not be affected by installation of this water line. 41RG244 is located in a barren flat west of Garrison Draw. Examination of the area found additional artifacts and extended the site boundary from 175 m by 50 m to 240 m by 150 m. Only the southwestern portion of the site is crossed by the proposed waterline route and that area contained only scattered FCR that

have been scoured and displaced by erosion. No further damage to the site will be caused by the planned construction.

METHODS

Prior to field work, the county site files and maps on the Texas Historical Commission's (THC) Archeological Site Atlas (Atlas) were searched for previously recorded site locations and references to archeological surveys undertaken in the vicinity of the proposed pipeline. Pedestrian survey was carried out by two archeologists walking single file in alternating transects following a staked centerline. The project consisted of an intensive pedestrian survey of 9 miles of 100 ft wide right-of-way (ROW) for a total APE of 109.7 acres. Over 80% surface visibility and lack of topsoil negated the need to dig shovel tests. .

RESULTS OF THE SURVEY

Survey of 9.05 miles (14,565 m) of proposed 100-ft ROW across University Lands Block 58, Section 24 and Block 9 Sections 3, 4, 12, 14, 21, 22, and 28 revealed open, rocky terrain that has been modified for grazing and intense oilfield activity. The area was once used as rangeland and past clearing is evident in the uniform growth of invasive mesquite, push piles of rock and brush, and exposed limestone bedrock. Two previously recorded archeological sites were approached by this route. 41RG120 was recorded as a FCR and lithic scatter east of Garrison Draw. The site is located 65 m north of the survey area. No evidence of the site was observed along the ROW so this cultural resource will not be affected by the planned construction activity. 41RG244 was recorded as a FCR and lithic scatter in a barren oil wasteland along a southern tributary to Garrison Draw. This survey identified eight dispersed and scoured burned rock hearths west of the proposed ROW (Fig. 6). The dispersed clusters were about 1.5-2 m in diameter and were made up of approximately 30 FCR each. A minimal amount of lithic debitage including low-grade chert flakes and shatter, was scattered across the site. These features and artifacts enlarged the site

area from its original size of 175 m by 50 m to 240 m NW/SE by 150 m NE/SW. The site has been scoured by erosion and oil waste dispersing the artifacts across a large area. The part of the site in the ROW contains only scattered FCR with minimal lithics. The site did not meet significance criteria when it was recorded and the expansion of the site area does not alter that assessment. No evidence of historic or prehistoric use or occupancy was found in the rest of the survey area; thus, installation of the Sequitur water line will not disrupt intact or significant cultural resources.

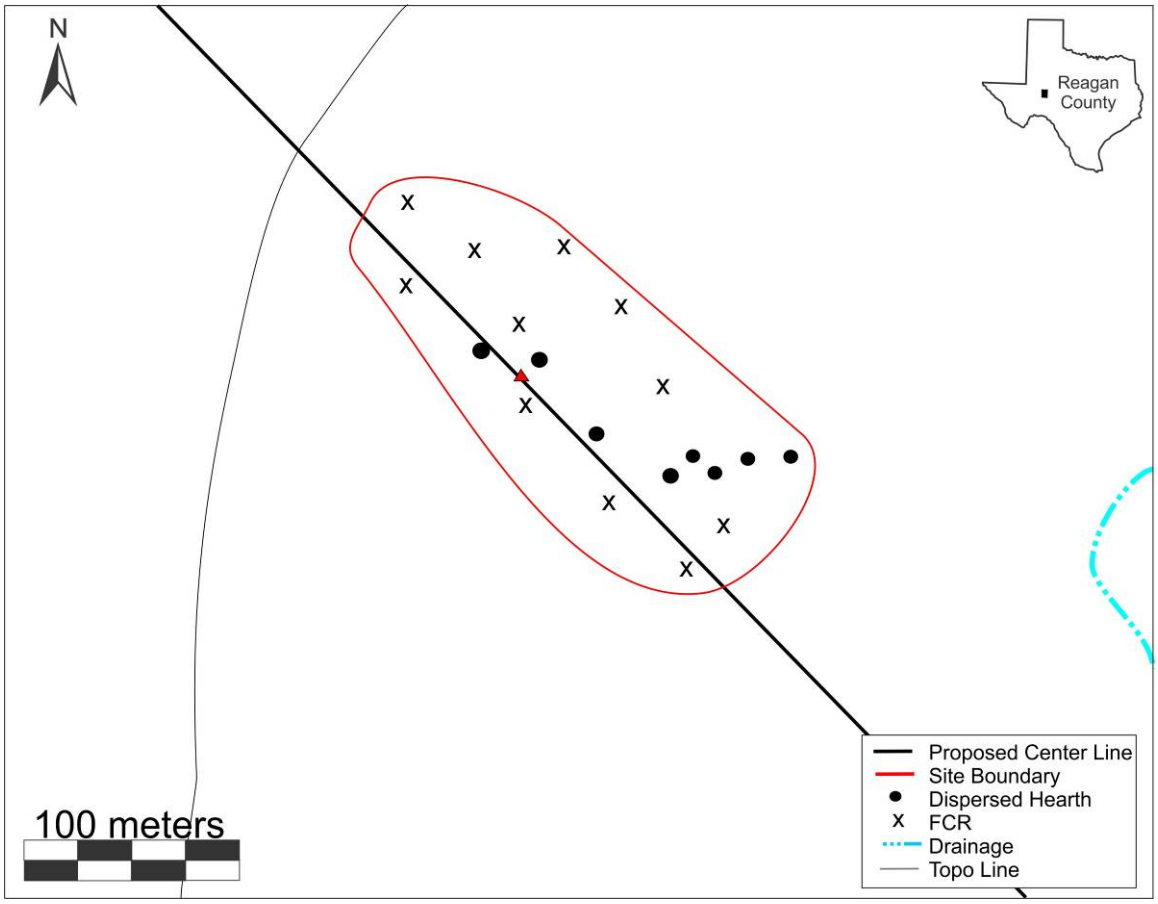

Figure 4. 41RG244 site map.

Figure 5. 41RG244 in oil wasteland.

CONCLUSIONS

Survey of 9 miles (14,565 m) of proposed waterline across University Lands produced no new site recordings. The proposed route comes within 65 m of previously recorded archeological site 41RG120 and crosses the western portion of 41RG244. No indications of 41RG120 were identified along the ROW suggesting that the site will not be affected by the planned water line. 41RG244 is located in a scoured basin that has been altered by massive natural and man made erosion. The area is classified as oil wasteland and is almost devoid of vegetation. Wind and water have dispersed and scattered the artifacts leaving no site integrity. The area crossed by the ROW contained only scattered FCR. Construction of the pipeline through this area will not detrimentally affect intact or significant cultural deposits. No evidence of historic or prehistoric occupation or use was found along the remainder of the survey route indicating that cultural resources present no impediment to the installation of the SEP waterline.

References Cited

Atlas (Texas Archeological Site Data Base)
http://nueces.thc.state.tx.us/. (accessed 03/16/2017).

Atlas-County
2015 Texas Archeological Sites Atlas. "Reagan County"
http://atlas.thc.state.tx.us/shell-county.htm/. (accessed 03/16/2017).

Brune, Gunnar
1981 *Springs of Texas*. Privately Printed.

Burgess, Terry and Solveig A. Turpin
2011a *Cultural Resource Reconnaissance of University Lands Blocks 7, 12, 44-47, 50, 51 Pangea West 3D Seismic Shoot.* Reagan and Crockett Counties, Texas. Texas Antiquities Permit 6037.

Burgess, Terry and Solveig A. Turpin
2011b *A Reconnaissance Survey of University Lands Seismic Development Blocks: Pioneer, East Crockett, Central and South Big Lake. Crockett, Irion, Reagan and Upton Counties, Texas*. Turpin and Sons Cultural Resources Report 35, Canyon Lake, Texas.

Handbook of Texas, on-line
2017 http://www.tshaonline.org/handbook/online/articles/hnb32. (accessed: 03/24/2017)

NRCS/USDA
2017 National Resource Conservation Service/ US Department of Agriculture. http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm.

Riemenschneider, Larry and Solveig A. Turpin
1998 Grierson Springs: A Military Outpost of Fort Concho 1878-1882. *Journal of Big Bend Studies* 10:89-143. Sul Ross State University, Alpine, Texas.

TPWD
Texas Parks and Wildlife Department
http://www.tpwd.state.tx.us/landwater/land/habitats/cross_timbers/ecoregions/edwards_plateau.phtml (accessed 03/27/2017).

Turner, Ellen S. and Thomas R. Hester
1993 *A Field Guide to Stone Artifacts of Texas Indians*. Gulf Publishing Co, Houston.

Turpin, Solveig A.
1994 *A Reconnaissance of Big Lake Draw: Implications for Prehistoric Playa Utilization, Reagan County, Texas*. Texas Archeological Research Laboratory Technical Series 40. The University of Texas at Austin.

2000 *Block 13: Archeological Survey on University Lands, Crockett County, Texas.* Cultural Resources Report 5, Borderlands Archeological Research Unit, The University of Texas at Austin.

2011 The Harris Ranch Petroglyphs of the Eastern Trans-Pecos. *Bulletin of the Texas Archeological Society* 82:333-346.

Turpin, Solveig A. and Larry Riemenschneider

2001 Firing at Blank Range: Cavalry Maneuvers at Grierson's Gulch, 41RG77. *Journal of Big Bend Studies* 13:107-120.

Turpin, Solveig A., Leland C. Bement and Herbert H. Eling, Jr.

1993 Big Lake (41RG13): A Playa Bison Kill in West Texas. *Current Research in the Pleistocene* 9:45-46. Orono, Maine,

1997 (with Leland C. Bement and Herbert H. Eling, Jr.) Stuck In the Muck: A West Texas Playa Bison Kill. *Plains Anthropologist* 42(159), Memoir 29:119-133.

Wiedenfeld, Clarence C.

2003 *Soil Survey of Reagan and Upton Counties, Texas*. Natural Resource Conservation Service, USDA.