

A PRELIMINARY ARCHAEOLOGICAL AND HISTORICAL ASSESSMENT
OF THE PROPOSED TENNECO PIPELINE
HIDALGO TO VICTORIA COUNTIES, TEXAS

Edited by

Thomas R. Hester

with contributions by

Thomas C. Kelly, Elizabeth Frkuska,

A. Joachim McGraw and Fred Valdez, Jr.

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Mr. B. N. Duckett, District 9 Superintendent, and Mr. T. Elledge, District 1 Superintendent, showed their interest in the success of the survey, made valuable suggestions and provided their most experienced men as guides to the more difficult sections of their districts. Herb Narum, Rube Coggans, Irwin Hensal, Jim Gault and F. A. Schubert each spent one or more days with Thomas C. Kelly in the field. Their detailed knowledge of the terrain insured a better preliminary survey in a minimum amount of time.

Anne A. Fox provided excellent guidance and references to source material for the historical survey.

PREFACE

This report constitutes a preliminary assessment of the archaeological and historical resources along the proposed route of the natural gas pipeline being planned by Tenneco, Inc. The report is submitted in partial fulfillment of a contract between Tennessee Gas Pipeline (Division of Tenneco, Inc., Houston) and The University of Texas at San Antonio, Center for Archaeological Research. Submitted separately to Tennessee Gas Pipeline is a large strip map showing the location of the proposed pipeline; on this map are plotted all historic and prehistoric sites known to exist at the time of the completion of this preliminary assessment. As the text of this report indicates, a number of areas remain to be intensively surveyed and investigated.

The research reported here followed guidelines set forth in a letter from Mr. William Such (Tennessee Gas Pipeline) of August 1, 1977. The scope of work outlined in his letter has been fulfilled. Known archaeological and historical resources have been assembled, limited field inspections have been made, and recommendations are contained herein for future archaeological and historical work. It is our present belief that the problem areas identified in this report will not necessitate the development of plans for any alternate pipeline routes.

I served as Project Director during this assessment. Thomas C. Kelly conducted the field inspections and collaborated on the general archaeological assessment. Studies of known archaeological resources were done by A. Joachim McGraw and Fred Valdez, Jr. Elizabeth Cantu Frkuska prepared the historical sections. Research bibliographies also accompany this report, prepared by Valdez (pre-history) and Frkuska (history).

Thomas R. Hester

I. ARCHAEOLOGICAL SUMMARY OF PREVIOUSLY RECORDED

SITES IN THE PROPOSED PIPELINE ROUTE

A. Joachim McGraw and Fred Valdez, Jr.

A preliminary archaeological and historical assessment of the projected Tennessee Atlantic Pipeline route from Hidalgo to Victoria Counties (Fig. 1) was undertaken during September-October 1977 by researchers from the Center for Archaeological Research, The University of Texas at San Antonio. Complemented by field visits, Center personnel carried out a thorough literature search and review for known historical and archaeological resources. This has resulted in an extensive bibliography and a preliminary identification and assessment of all known sites along the pipeline route. The results of the literature search, field visits and other activities of the project team are presented here. In conducting this research, Center personnel have followed the guidelines for archaeological research required by state and federal statutes and have utilized standard archaeological fieldwork procedures (cf. Hester, Heizer and Graham 1975).

Archaeological resources along the southern portion of the proposed pipeline route in Texas were examined from the proposed route center line at the Rio Grande to Station 9 at Victoria. Although all affected counties along the 214.09 mile route were archaeologically assessed, the Center's research activity concentrated on a one-mile corridor along the length of the pipeline.

The proposed pipeline route in the study area extends from a meter station in the Mexican state of Tamaulipas (across the Rio Grande) into Hidalgo County, Texas, and then northward through the counties of Brooks, Kleberg, Jim Wells, Nueces, San Patricio, Refugio, and lastly, to Station 9 in Victoria County.

Identification of previously documented sites was based on a correlation of United States Geological Survey topographic maps with published and unpublished literature, files from the Texas Archeological Research Laboratory at Austin, the Center for Archaeological Research, and various other agencies, as well as interviews with local historians and amateur archaeologists.

In addition to site identification, through both survey and file research, each archaeological locality was assigned a priority rating from 1 to 3 according to the following scale: Priority 1: a known or suspected site that will require extensive testing to determine its archaeological importance; Priority 2: a locality that suggests limited potential requiring precautionary further field testing or examination; and, Priority 3: sites requiring no further work, as recommended by field observations and/or site survey reports.

Testing activity or further research may require a variety of methods dependent upon individual site conditions, but generally will include a series of hand-excavated pits using small shovels and trowels. Individual pits are not usually over 50 cm² or 1 m² in size. Testing operations in general determine not only the depth and frequency of cultural materials but also their relationship to natural geologic stratigraphy. All materials recovered from excavated areas are screened through 1/4-inch or 1/8-inch mesh to recover the largest possible sample of cultural materials. A series of test pits throughout a site enables archaeologists to assess the horizontal distribution and vertical extent of prehistoric activities in a given area.

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redacted because it
contains restricted
information.

Controlled surface collection, another Priority 1 or 2 activity, may also include a variety of methods, but generally follows a systematic form of sampling in which a grid or some other systematic collecting scheme is utilized at the site. Areas for total artifact collection are chosen to determine specific areas of aboriginal intra-site patterning. The ultimate goal of the recommended testing and intensive surface collection program would be to evaluate sites in terms of their potential for nomination to the National Register of Historic Places.

The archaeological sites found within the eight counties of the study area fall within four major time periods: the *Paleo-Indian* (ca. 9200-6000 B.C.); the *Archaic* (ca. 6000 B.C.-A.D. 1000); the *Late Prehistoric/Neo-American* (ca. A.D. 1200-1500); and the *Historic* (post-European contact). Most archaeological sites in the pipeline project area are assigned to the Archaic category; these localities contain an abundance of chipped stone artifacts including stemmed and triangular dart points and specific kinds of stone tools known as *Guadalupe* and *Clear Fork*. Sites identified by earlier work include occupation sites (campsites), burned rock scatters, shell middens, chert quarries, lithic workshops, and temporary campsites.

Because of the extensive area covered by the pipeline route, a brief county-by-county summary of archaeological resources is presented as well as specific identifications of sites falling within a one mile corridor along the pipeline. This information, as well as site priorities, is summarized in Table 1. Zones of high archaeological potential are identified in Table 2. Although no recorded sites are located in these limited areas (primarily due to the lack of previous research), ecological conditions such as dependable sources of fresh water and related habitats suggest attractive resources for prehistoric cultures.

Hidalgo County

Thirty-three sites have been recorded in Hidalgo County but only one is identified as a National Register site. More than half the sites in the county are the result of a survey by an amateur archaeologist in 1966. One site contains the burials of over 40 individuals and has twice been the focus of archaeological research (Hester 1969). Two other prehistoric cemeteries are located within this county (Collins, Hester and Weir 1969). Six archaeological sites are situated within one mile of the pipeline and they are listed below.

<u>Site #</u>	<u>Priority</u>	<u>Milepost</u>
A-1 (41 HI 6)	2	31.15
A-2 (41 HI 23)	2	39.25
A-3 (41 HI 3)	2	39.30
A-4 (41 HI 24)	2	39.80
A-5 (41 HI 9)	2	40.30
A-6 (41 HI 20)	2	40.60

TABLE 1. ARCHAEOLOGICAL SITES PREVIOUSLY KNOWN AND RECORDED DURING SURVEY,
PROPOSED PIPELINE ROUTE

(Hidalgo to Victoria Counties)

Site Number	Priority	Description	Milepost Number	Distance from Pipeline (Miles)
Hidalgo County				
A-1 (41 HI 6)	2	Cardenas Site	31.15	.5
A-2 (41 HI 23)	2	Vela Site Number 2	39.25	.6
A-3 (41 HI 3)	2	Prehistoric Indian Site	39.30	.5
A-4 (41 HI 24)	2	Prehistoric Indian Site	39.80	.5
A-5 (41 HI 9)	2	Prehistoric Indian Site	40.30	.7
A-6 (41 HI 20)	2	Vela Site Number 18	40.60	.7
Brooks County				
A-7 (41 BK 2)	2	Sand Dunes Site	80.85	.05
A-8 (41 BK 3)	3	Prehistoric Lithic Scatter, Possible Occupation	82.80	.8
A-9 (41 BK 4)	3	Prehistoric Lithic Scatter, Possible Occupation	83.27	1.0
Nueces County				
A-10 (41 NU 74)	2	Burial	132.20	.7
A-11 (41 NU 12)	2	Banquete Site	132.24	.1
A-12 (41 NU 44)	2	Prehistoric Site	133.60	.2
A-13 (41 NU 56)	3	Mud Bridge Site	133.70	.1
A-14 (41 NU 73)	2	Possible Burial	133.70	.8
A-15 (41 NU 63)	2	Possible Burial	133.80	.05
San Patricio County				
A-18 (41 SP 111)	2	Prehistoric Occupation	143.95	.1
A-19 (41 SP 74)	2	Roadway Site	146.23	.9
A-20 (41 SP 83)	2	Touchstone Site	152.50	.4
A-21 (41 SP 68)	2	Extensive Campsite	152.90	.8
A-22 (41 SP 79)	2	Paleo-Indian Site	153.00	1.0
A-23 (41 SP 76)	3	Chandler's BH 02	153.20	.8
A-24 (41 SP 85)	3	Light Occupation Site	155.00	1.0
A-25 (41 SP 96)	3	Heavily Eroded Indian Campsite	156.10	.6
A-27 (41 SP 110)	3	Prehistoric Occupation Site	164.00	.5
Refugio County				
A-36 (41 RF 12)	2	Sharps Lake Prehistoric Site	194.66	intersects
A-37 (41 RF 15)	1	Prehistoric/Early Historic Site	197.98	1.0
Victoria County				
A-32 (41 VT 64)	3	Prehistoric Campsite	208.00	1.0
A-33 (41 VT 9)	2	Prehistoric Campsite	208.00	.45
A-34 (41 VT 9)	2	Prehistoric Campsite	208.55	.9

TABLE 2. ARCHAEOLOGICALLY SENSITIVE ZONES ALONG THE PROPOSED PIPELINE ROUTE
IN TEXAS

(Hidalgo to Victoria Counties)

Zone Number	Description	Milepost Number	Distance from Pipeline (Miles)
A-16	Potential Lithic Procurement Area	140.50	.05
A-17	Nueces River	142.60	intersects
A-26	Chiltipin Creek	157.80	intersects
A-28	Aransas River	164.80	intersects
A-29	Medio Creek	179.14	intersects
A-30	Blanco Creek	179.40	intersects
A-31	San Antonio River	199.98	intersects
A-35	Guadalupe River	211.28	intersects

Brooks County

Presently, only five sites are recorded for Brooks County and none are listed on the National Register of Historic Places. The first sites located in the county were discovered by an amateur working in the area and by A. T. Jackson with The University of Texas in 1932. Three recorded sites are located within one mile of the pipe and they are listed below.

<u>Site #</u>	<u>Priority</u>	<u>Milepost</u>
A-7 (41 BK 2)	2	80.85
A-8 (41 BK 3)	1	82.7
A-9 (41 BK 4)	3	83.27

Jim Wells County

Only scattered archaeological reconnaissance has been conducted in Jim Wells County and eight sites are on file, six of which have been recorded since 1967 (Hester and Bass 1975; Patterson 1974). A professional, limited excavation of 41 JW 8 has been conducted by the Center (Hester 1977). No recorded archaeological sites are located within one mile of the pipeline corridor.

Kleberg County

Seventy archaeological sites are presently on record for Kleberg County including two National Register sites. The county has been the focus of four professional archaeological surveys, the first of which was conducted by G. Arnold (unpublished notes) and The University of Texas. In 1964, a survey of a portion of Padre Island added 12 sites to the county file and in 1967, 12 more sites were located during a survey near Baffin Bay (Briggs 1971). The latest professional work was done by Hester (1969, 1971) during which 40 prehistoric sites were identified in the vicinity of the Cayo Del Grullo. Hester (1973) has also reported site 41 KL 54. No recorded archaeological sites are located within one mile of the proposed pipeline.

Nueces County

A total of 156 archaeological sites has been recorded for Nueces County but only one is a National Register site. Amateur surveys by members of the Coastal Bend Archaeological Society (Corpus Christi) have resulted in the location of almost one-fourth of the total sites. A professional survey of Padre Island by Campbell (1964) has located three sites within Nueces County (see also Scurlock *et al.* 1974). Other professional surveys have led to the documentation of 34 sites along Oso Creek, 47 sites along Petronila Creek, and 46 other prehistoric sites within the Oso Creek Floodwater Control Project area (Patterson and Ford 1974). Several sites have been tested or excavated, including two sites on the Callo de Oso (Martin 1930). Woolsey, working with The University of Texas, tested two sites in 1936, and Campbell (1956) reported Nueces County

sites in the Laguna Madre (see additional discussion in Briggs 1971). Six archaeological sites are located within one mile of the pipeline in Nueces County and they are listed below.

<u>Site #</u>	<u>Priority</u>	<u>Milepost</u>
A-10 (41 NU 74)	2	132.20
A-11 (41 NU 12)	2	132.24
A-12 (41 NU 44)	2	133.60
A-13 (41 NU 56)	1	133.70
A-14 (41 NU 73)	2	133.70
A-15 (41 NU 63)	2	133.80

San Patricio County

Professional and amateur surveys have recorded most of the 116 sites presently known in San Patricio County. Sixteen prehistoric sites were located in the vicinity of Corpus Christi Bay by Corbin (1963; see also Story 1968) and later, 18 sites were recorded by Holliday and Grombacher (1973) along Chiltipin Creek. Most other sites were discovered by members of the Coastal Bend Archaeological Society. Martin and Potter (n.d.) also worked in this region from 1927-29. The only resource on the National Register of Historic Places is located outside of the pipeline study area. Nine recorded sites are located within one mile of the pipeline and they are listed below.

<u>Site #</u>	<u>Priority</u>	<u>Milepost</u>
A-18 (41 SP 111)	2	143.95
A-19 (41 SP 74)	2	146.23
A-20 (41 SP 83)	2	152.50
A-21 (41 SP 68)	2	152.90
A-22 (41 SP 79)	2	153.00
A-23 (41 SP 76)	1	153.20
A-24 (41 SP 85)	1	155.00
A-25 (41 SP 96)	1	156.10
A-27 (41 SP 110)	1	164.00

Refugio County

At present, 18 archaeological sites are recorded for the county. An archaeological survey by Martin and Potter (n.d.) in 1927-29 located five sites, and the rest have been discovered since the 1960s. No testing or excavations have been conducted in this county. Two recorded archaeological sites are located within one mile of the pipeline, and several archaeologically sensitive zones are identified in Table 2 (A-28 thru A-32).

<u>Site #</u>	<u>Priority</u>	<u>Milepost</u>
A-36 (41 RF 12)	2	194.66
A-37 (41 RF 15)	1	197.98

Victoria County

To date, 59 prehistoric sites have been recorded for the county, including many open campsites and burials. Only one professional survey has been conducted (Fox and Hester 1976), along portions of Coletto Creek. Useful site surveys have also been conducted by local amateur archaeologists. Three professionally-run excavations have taken place: in 1938-40, The University of Texas excavated the Morhiss Site (41 VT 1; Campbell 1962; and in Fox and Hester 1976); the Texas Memorial Museum tested the proposed site of LaSalle's Fort St. Louis on Garcitas Creek in 1950 and 1967 (Gilmore 1973); and the Texas Archeological Society carried out testing of the proposed second site of the Presidio Loreto north of Victoria. The Victoria Archaeological Society has also carried out a number of test excavations at local sites. There have been two submissions to the National Register of Historic Places. These are Fort St. Louis and 41 VT 16 (Willeke Site), both outside the study area. Three recorded archaeological sites are located within one mile of the pipeline corridor and they are listed below.

<u>Site #</u>	<u>Priority</u>	<u>Milepost</u>
A-32 (41 VT 64)	3	208.00
A-33 (41 VT 9)	2	208.00
A-34 (41 VT 9)	2	208.55

II. RESULTS OF FIELD INSPECTION OF PIPELINE ROUTE

Thomas C. Kelly

Limited field inspection of the pipeline route was performed by Thomas C. Kelly, Research Associate, UTSA, often assisted by the Tenneco people listed in the Acknowledgment section.

Objective

The primary objective of the field inspection was to locate critical areas containing cultural resources (historical and archaeological sites) that might affect the pipeline route. Part of our contract was also to provide the necessary field data to make recommendations, if necessary, for alternate pipeline routes.

Procedure

High potential areas were marked for survey from a detailed map study before the first field trip. These were mostly ridges and stream crossings within one mile of the pipeline centerline. Previously recorded sites on record at the Texas Archeological Research Laboratory at Austin were plotted along the route to provide further guidance. The areas were reached by pickup and examined on foot. All open areas, such as ant beds, unimproved road tracks, and eroding ridges or gulleys, were carefully inspected. When sites were found, they were recorded on standard Center for Archaeological Research site survey forms, photographed, and a representative sample was collected for laboratory analysis.

A Tenneco helicopter was utilized for two days to check the pipeline and adjacent areas from District 9 at Victoria to the Mexican border east of McAllen. This was the first such use of aerial survey by the Center for Archaeological Research. The 214 miles of pipeline were covered from altitudes of from 1 to 50 feet, with one-mile excursions either side of the pipeline at every creek and river crossing. Four of the eight prehistoric sites, and all four of the potential historic sites, were originally located and photographed from the helicopter.

Possibly the greatest value of the helicopter in this particular survey was to better evaluate numerous and extensive areas of low site discovery potential. Such areas exist where there is very dense ground cover; or, as in the Rio Grande flood plain, where man has extensively altered the surface by intensive irrigation, cultivation and citrus groves. The first 81 pipeline miles were so inspected, and it was predicted that few cultural resources would be found. To check the efficacy of the aerial survey, a 26-mile stretch between Mile 39.7 (FM 1017) and Mile 66 (Encino) was later walked out. The net results of the long walk were three isolated flakes and a heatstroke. Thus, the helicopter would seem to be a great aid in large scale archaeological surveys, especially in open areas, if the expense factor can be accommodated.

Bias Factor

The entire survey was severely handicapped by unusually dense ground cover of grass and brush resulting from a wet spring. Heavy rains from Hurricane Anita further complicated inspection of portions of the route. Twenty-five days of field work produced eight new archaeological sites, a very low number for a region that, in certain areas, has abundant archaeological resources. Even so, the two new sites in Brooks County doubled the previously reported sites!

Field Inspection Results

Pipeline Milepost

- 0 The Tenneco pipeline beginning at the Rio Grande snakes through many small, intensively cultivated, flat tracts of farm land and citrus groves. The route is difficult to follow from the air because all the surface has been altered since the pipeline was built. It straightens out at mile 27 (near plant 409) but continues through very flat cultivated land and small pastures to mile 41.50 north of Linn, Texas. The archaeological potential to this point appears to be practically nil. Fig. 2 (MP 41, looking south) shows this dividing line at the edge of the Rio Grande flood plain.*

The land north is apparently unaltered King Ranch rangeland (Fig. 3, MP 63) which is flat with very low sandy hills that must blow and drift during drought periods. Three days were spent walking from MP 39.7 at Linn to MP 66 at Encino just to verify the observation made from the helicopter that the area had very low archaeological potential. Not a single archaeological site was found.

- 51.40 A potential historical site was found by helicopter and photographed (Fig. 4). It consisted of tumbled bricks at the edge of a small depression and is possibly associated with the Southern Pacific Railroad. The site was not ground-checked because of a heatstroke that incapacitated the surveyor. Survey and a literary search are recommended.
- 66

There are no perceptible changes in terrain until MP 82. There are no creeks, streams or natural lakes, and this country was not successfully opened for cattle grazing until the advent of the windmill. It is possible that prehistoric people largely avoided the area, a theory that needs confirmation by field examination.

- 82 The archaeological potential becomes greater because of Baluarte and Palo Blanco Creeks, and the Laguna Salada into which they empty, east of the pipeline.
- 82.70 A Late Prehistoric site (Tenneco A-8; 41 BK 3) was found from the helicopter on a ridge overlooking the Laguna Salada between the two

*MP: Milepost, on pipeline route.

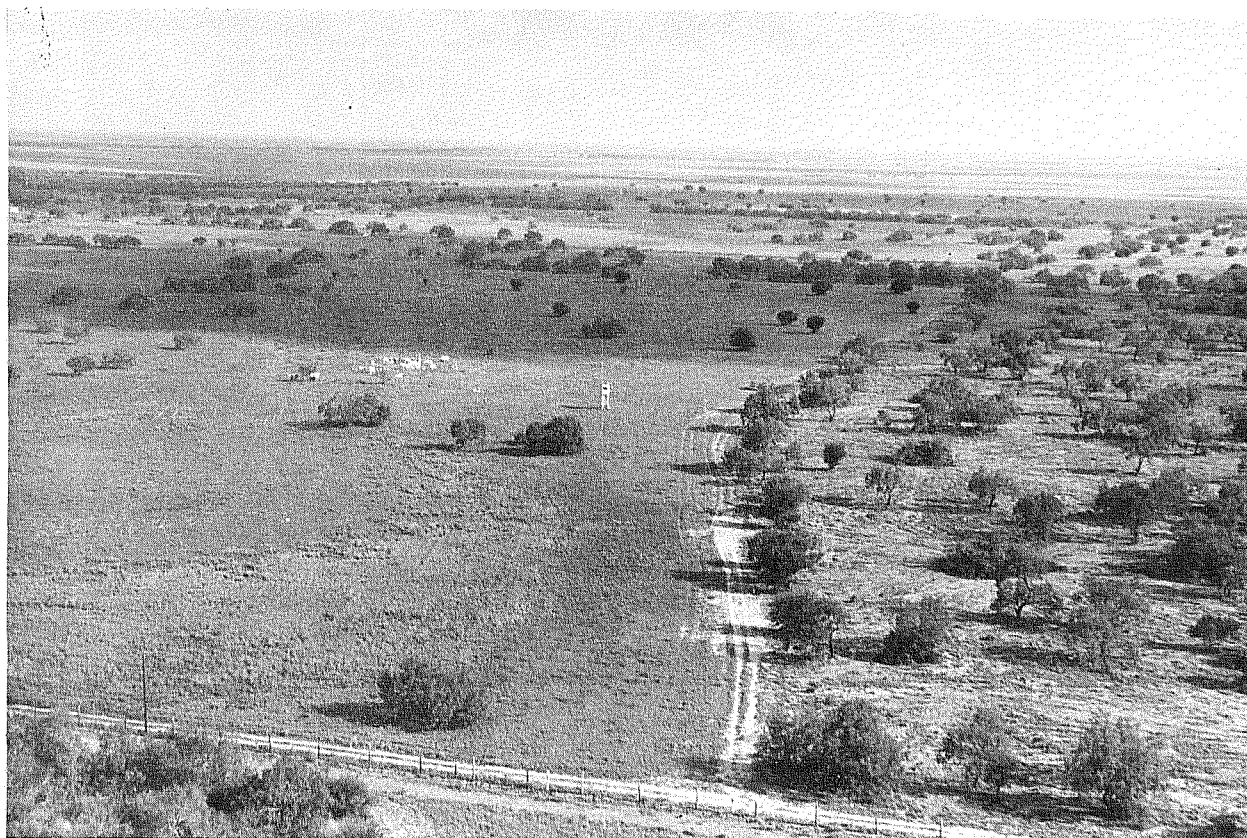


Figure 2. *Tenneco MP 41, Looking South.* Tennessee Gas Pipeline Right-of-Way, beginning of Rio Grande floodplain, Hidalgo County. Helicopter view.



Figure 3. *Tenneco MP 63.* Typical view of Tennessee Gas Pipeline Right-of-Way, King Ranch, Hidalgo County. Helicopter view.

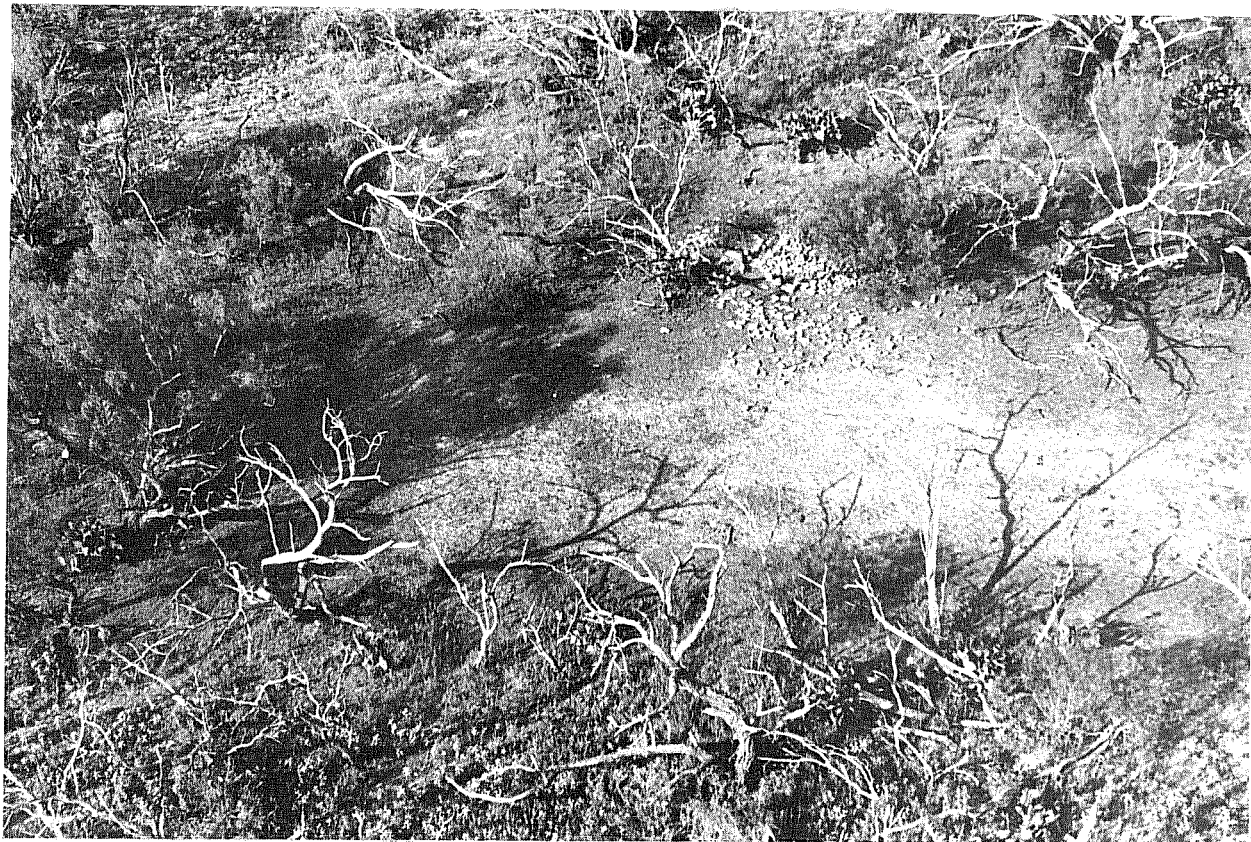


Figure 4. *Tenneco* MP 51.4. Potential historic site, possibly associated with Southern Pacific Railroad (Site H-17). Hidalgo County. Helicopter view.



Figure 5. *Tenneco* MP 82.70 *Laguna Salada*. Site A-8 (41 BK 3); one of the few openings along the 600-meter ridge. Helicopter view.



Figure 8. *Tenneco MP 83.27*. Site A-9 (41 BK 4) is on ridge across Laguna Salada; looking northeast. Brooks County.



Figure 9. *Potential Archaeological Site*. Island in Laguna Salada. Brooks County.

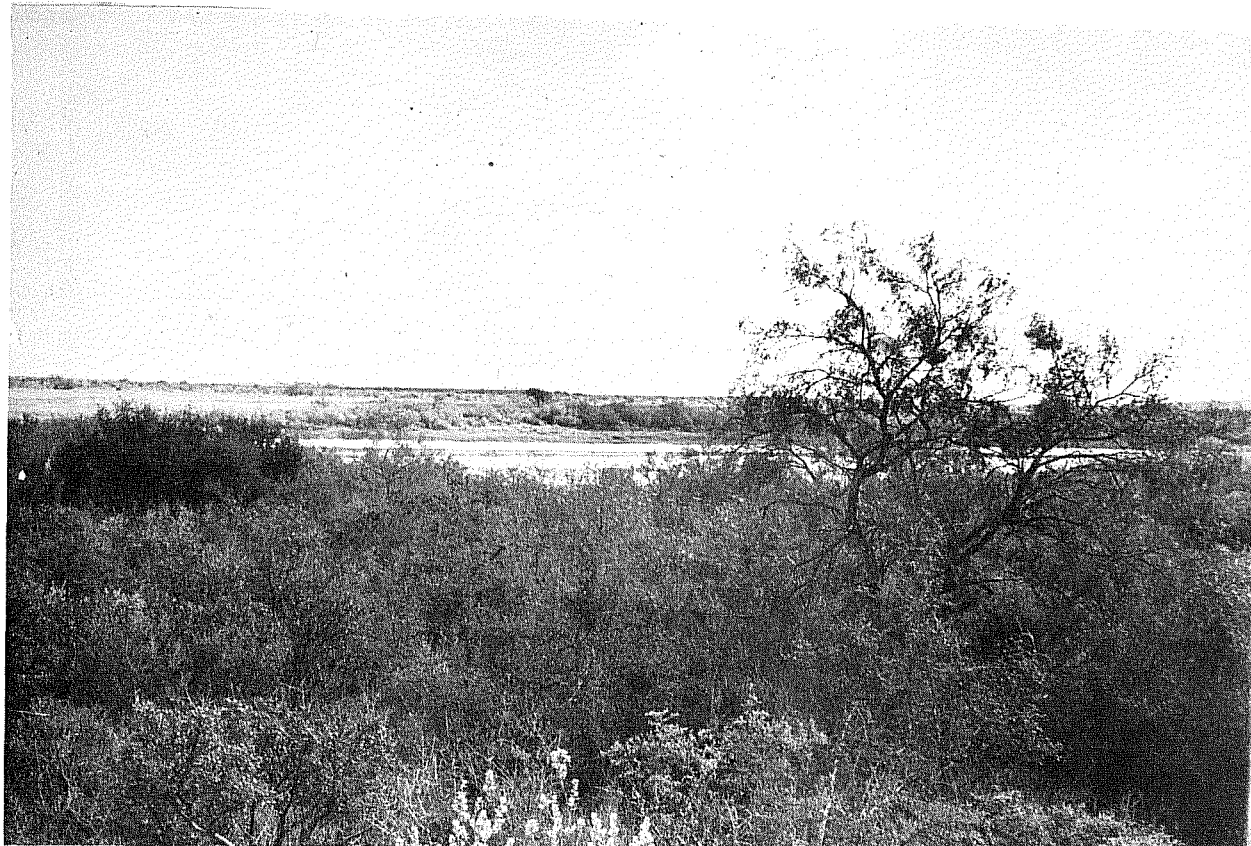


Figure 6. *Tenneco* MP 82.70. Site A-8 (41 BK 3); Laguna Salada, looking north across Palo Blanco section (helicopter view). Brooks County.



Figure 7. *Tenneco* MP 82.70. Typical Brooks County vegetation, vicinity of Site A-8 (41 BK 3), Laguna Salada; helicopter view.

creeks. Snail shells were observed in one of the openings along the ridge (Fig. 5). Fig. 6 illustrates the dense vegetation and overlook view of the north arm of the Laguna from the ridge. A day was later spent in walking as much of the ridge as was possible, in which the surveyor was greatly assisted by Mr. Jim Gault from Station 9. The dense brush (Fig. 7) permitted only a limited look at the ridge, but chert flakes, bifaces, finely-made end-of-blade scrapers, plainware pottery, shell and snails were collected.

- 83 The entire area between MP 81 and 83, including the small Laguna Salada west of the pipeline, is recommended for intensive survey as a potentially important archaeological zone.

- 83.27 The north side of the Laguna Salada was surveyed on foot (again with the assistance of Mr. Gault) and another Late Prehistoric site (Tenneco A-9; 41 BK 4) was found exposed by a road on the western part of the ridge overlooking the north shore of the Laguna (Fig. 8). A projectile point, a finely-made end-of-blade scraper and flakes were found over an approximate 10 meter area. Extremely dense buffalo grass to the east probably obscures other sites. It is also probable that a series of small sites could be found around the Laguna.

- 82.50 An island photographed from the helicopter (Fig. 9) in the Laguna Salada is a potential archaeological site and is recommended for survey.

- 92 Paisano Creek was covered with heavy vegetation and the banks were too poorly defined to warrant more than a cursory walk, and nothing was found.

- 103.50 Derramadero de Machos Creek was so poorly defined and hidden that it could not be seen from the helicopter. It has not yet been checked on foot.

- 87.40 Escondido Creek and Los Olmos Creeks have archaeological potential
106 and it is recommended that they be surveyed at a time of less vegetational cover.

- 132.40 Agua Dulce Creek near the pipeline is a veritable jungle and swamp (Fig. 10) and was impossible to survey on foot. Upstream, 4.4 miles to the northwest, is the historic marker commemorating the deaths of a group of Texans at the hands of General Jose Urrea on March 2, 1836. A mile of the creek on each side of the pipeline crossing was surveyed, and traces of prehistoric activity were found only on the west side. No further action is recommended until brush is cleared along the pipeline at the Agua Dulce Creek crossing.

- 133.95 Banquete Creek has high archaeological potential as sites have been previously reported along it. Brush and grass were too heavy to permit survey. We recommend an intensive survey.



Figure 10. *Tenneco MP 132.4. Agua Dulce Creek; helicopter view. Nueces County.*



Figure 11. *North Bank of Nueces River. View of Zone A-17; helicopter view. San Patricio County. MP 142.60*

- 140.50 The ridges on the south bank of the Nueces River and the gravel quarries closer to the river appear from the air to be potential archaeological zones and are recommended for intensive survey.
- 142.60 Zone of potential archaeological significance, designated A-17 (Figs. 11, 12), was found on the north bank of the Nueces River.
- 143 A potential site was located by helicopter on the ridge north of the Nueces River one mile west of the pipeline (Fig. 13), and we recommend an intensive survey.
- 143.95 Tenneco A-18 (41 SP 111) is a small eroding site in the bank of a sandy gully in the east edge of the right-of-way. Not enough material was recovered to identify the time period of occupation. Intensive survey and limited testing are recommended in this area. The Nueces River was flown almost at water level for five miles either side of the route, and, as is common with the other rivers, no sites were seen on the river banks of the present stream.
- 153.54 Chiltipin Creek is another high potential archaeological area based on previously reported sites. One is reported on either side of the pipeline, and considerable effort was made to either find the old sites or new ones without any result other than one exhausted core and a chert flake. We recommend intensive survey in time of less brush cover.
- 164.00 Tenneco A-27 (41 SP 110) is a prehistoric site consisting of a small mussel shell concentration eroding near the top of the steep west upland bank of the Aransas River. A biface and a few chert flakes were associated with the deposit, but not enough material was found to identify the time period. Four miles of walking in the river bottom produced absolutely nothing. The west ridge north of the pipeline should be a high potential area, and further survey along the ridge and its eroding banks is recommended.
- 167 Sous Creek has both cultivated fields and shallow banks overgrown with vegetation. A three-mile walk from Highway 77 to the pipeline provided no evidence of any ancient inhabitants. The creek appears to have no archaeological potential.
- 167 The pipeline was walked from mile 167 to 168 and Devil's Run Creek three miles back to Highway 77 with no archaeological evidence found.
- 179.14 Medio Creek had reasonable ground visibility, but if there are any sites in the vicinity of the pipeline, they are buried under the loose sand in the area.
- 179.40 Blanco Creek should also have been a potential archaeological area as well as the area where the two creeks join, but no archaeological evidence was found in about four miles of walking.



Figure 12. *View of Zone A-17. Looking west across floodplain to Nueces River; San Patricio County. MP 142.60*



Figure 13. *Tenneco MP 143. Potential archaeological site. Ridgeline of Nueces River, one mile west of Tennessee Gas Pipeline. Helicopter view; San Patricio County*

- 186.36 Melon Creek has plenty of open, eroding areas, but only two pieces of chert were found in a two-mile search on either side of the pipeline. No further action is recommended in this area.
- 189.5 A wooden cabin with a large brick chimney was observed from the helicopter in the south side of the route. We recommend investigation as a potential historical site, possibly a line cabin.
- 194.66 Tenneco A-36 (41 RF 12) is a prehistoric knapping station and campsite with possible burials. It is in the route and consists (at the time of the field visit) of scattered chert over a 50 meter area. Unfortunately, no diagnostic artifacts were recovered. Men at Tenneco Station 9 recall digging up human bones while repairing a leak in that area about 1948. Sharps Lake was a prehistoric water source and one of the localities picked from map study as having high potential. An intensive survey and testing is recommended for this site.
- 197.98 Tenneco A-37 (41 RF 15) is an archaeological site with both prehistoric and late 19th century historic material. It is exposed by a ranch road on a sandy ridge that was a former south bank of the San Antonio River, now two miles south of the present river course. Over 15 meters of the road contain chert and historic material, undoubtedly derived from higher up on the ridge. The ridge was in dense feed grain and could not be explored. The John White Bower historical monument is located on the same ridge approximately 450 meters northwest. This ridge was walked from 41 RF 15 to the pipeline, but the ground cover was too heavy for careful examination. We recommend intensive survey of this area when there is no grass or feed grain.
- 199.98 A two-story frame house with gingerbread trim was located and photographed from the helicopter as a potential historical site. It is the old Urban family home and, though weatherbeaten, appears to be in good shape. The garbage dump southwest of the house is still being used by someone and is being covered up periodically by bulldozer. There is a possibility that early refuse is thus preserved. We recommend an on-site inspection and records search (Tenneco A-31; see Table 2).
- 200.34 The tumbled chimney of the De La Garza (?) homestead is visible at 0.1 mile southeast of the pipeline. We recommend intensive survey of this potential historic site after proper contact is made with the landowner.
- 200.72 The De La Garza cemetery is in the south edge of the route.
- 208 Tenneco A-32 (41 VT 64) is a multipurpose prehistoric campsite 0.45 miles northwest of the pipeline on a high ridge overlooking the west Guadalupe River flood plain, two miles west of the present course of

the river. The site is exposed, in a bulldozed farm road, over a 10 meter area. Not enough material was recovered to establish the time period of the site. The ridge is a potential archaeological zone and should be intensively surveyed under conditions of less grass cover.

- 208 Tenneco A-33, A-34 (41 VT 9) is a multipurpose Late Prehistoric campsite located southeast of the pipeline. Tenneco A-33 is on a hill overlooking McDonald Bayou; Tenneco A-34 adjoins A-33 northeast of the hill in a marshy area where two swamp roads intersect. Flakes, bifaces and a finely made end-of-blade scraper were found associated with snail shells, turtle carapace and a few bones. These ridges west of the Guadalupe River are certainly high potential archaeological zones and it is recommended that an intensive survey be conducted at a better period of ground visibility.
- 211.28 The Guadalupe River flood plain was checked out on both sides of the river, involving approximately five miles of often difficult walking. Nothing was found, but there are beautiful natural sections in the sheer banks of the river that record one flood deposition on top of another. Any prehistoric sites that were located on the river banks would be deeply buried. The only hope for finding sites would seem to be in these steep sections of the area in which erosion is taking place (Tenneco A-35; see Table 2).
- 212.3 The east ridge was walked wherever possible, but the Victoria Barge Canal, Turning Basin and a series of commercial gravel and sand quarries have effectively spoiled any possible chance of finding archaeological sites. These pits contain Uvalde Gravels which are probably the source of the prehistoric chert industry in the area.

Our recommendations are summarized in Tables 1 and 2.

Illustrations of Selected Artifacts

During the course of the preliminary survey, a few artifacts were collected. In general, however, no extensive artifact collections were made. A selection of specimens found at sites along or near the pipeline route is shown in Fig. 14.

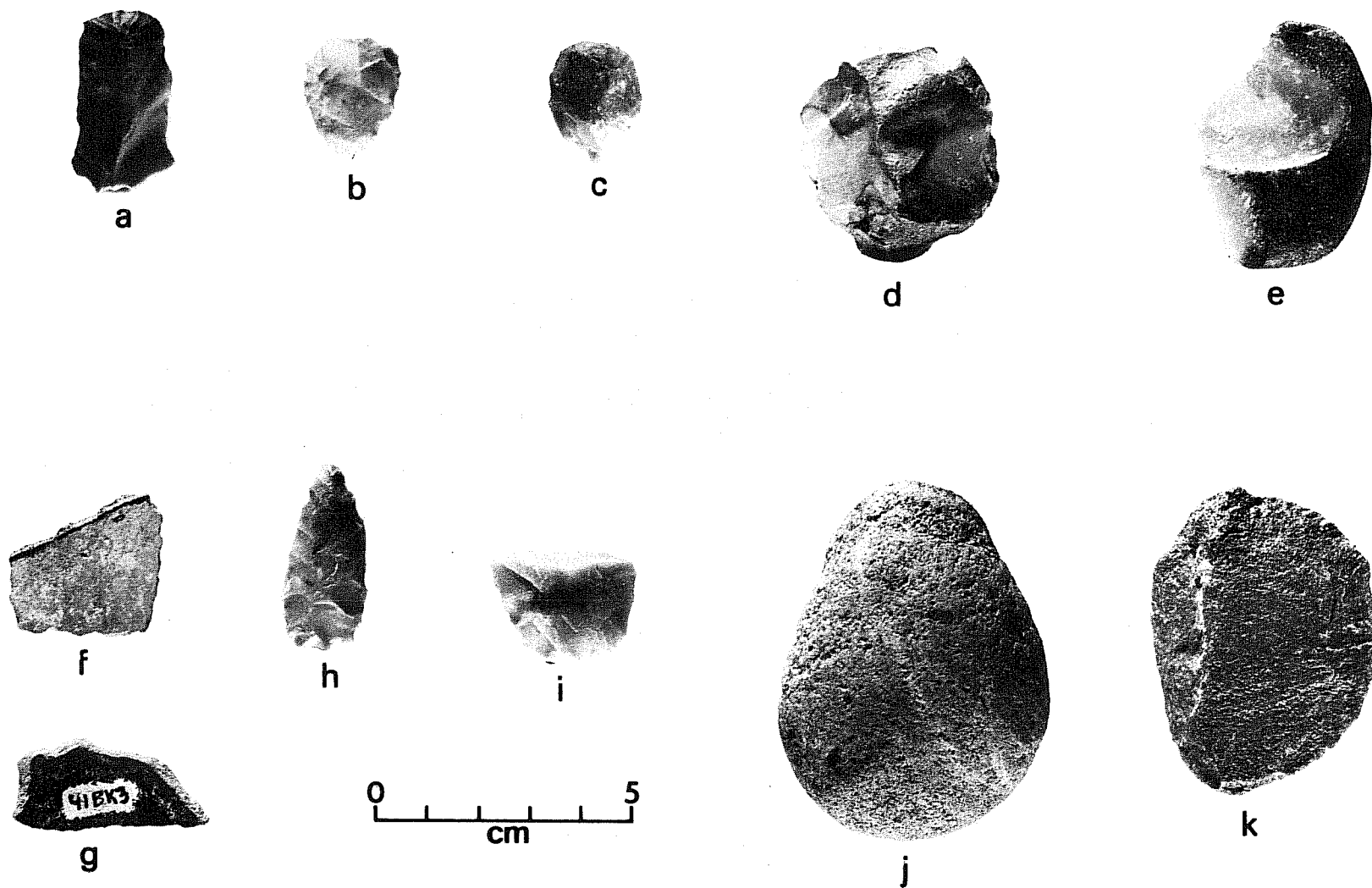


Figure 14. *Selected Artifacts*. a, 41 VT 9, end scraper; b-c, 41 BK 3, scrapers (c, end scraper); d-e, 41 BK 3, exhausted cores; f-g, 41 BK 3, bone-tempered potsherds; h, 41 BK 3, arrow point preform; i, 41 BK 3, biface fragment; j, 41 VT 9, quartzite hammerstone; k, 41 RF 12, quartzite hammerstone.

III. RESEARCH BIBLIOGRAPHY: PREHISTORIC AND HISTORIC ABORIGINAL CULTURES

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Abbreviations Used

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N-HAS	Newsletter, Houston Archeological Society
TA	Texas Archeology (Newsletter, Texas Archeological Society)
TJS	Texas Journal of Science
UTSA-CAR	University of Texas at San Antonio, Center for Archaeological Research
-ASR	Archaeological Survey Report
-SR	Special Report

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IV. HISTORICAL ASSESSMENT OF THE PROPOSED PIPELINE ROUTE

Elizabeth Cantu Frkuska

The preliminary historical assessment of the projected pipeline route through Hidalgo, Brooks, Jim Wells, Kleberg, Nueces, San Patricio, Refugio and Victoria Counties revealed 52 historic sites and locations and areas of potential historic importance (see Tables 3-10). Other kinds of historical data likely to be encountered in or near the pipeline are: 1) foundations of Spanish houses and associated farm structures, and from later European settlement and ranching/farming activities; 2) Spanish missions and presidios; 3) abandoned transportation routes and associated camps or relay stations (i.e., cart roads, stage-lines, railroad).

Brief county summaries are found in this section. Tables 3-10 provide a comprehensive listing of the presently available historic data. A lengthy historical research bibliography is also provided in this report (see Section V).

Hidalgo County

Hidalgo County was created from portions of Starr and Cameron Counties in 1852 and named after Miguel Hidalgo Costilla, a Mexican patriot (Jones 1958). Historically the area was explored as early as 1638 by Juanta Garcia de Sepulveda. By 1750 the Hidalgo County area was being colonized by Jose de Escondon. He established Indian missions such as San Joaquin Del Monte a Vista near the town of Hidalgo, which is a "historically sensitive" area (see Table 3). Farming increased the Anglo-American population in the area in approximately 1883 (Chatfield 1893). The majority of towns and cities in proximity of the pipeline were established in the early 1900s as stations or stops along the St. Louis, Brownsville and Mexico Railroad (Allhands 1960). Linn, Texas, however, in the pipeline right-of-way, was established in 1927 as a station on the Texas and New Orleans Railroad (Webb 1952).

See Table 3 for historical information relating to the pipeline route.

Brooks County

Brooks County was formed in 1911 from sections of Hidalgo, Starr and Live Oak Counties (Webb 1952). The historical marker commemorating this county seat is in the pipeline right-of-way (see Table 4). The county acquired its name from James Abijah Brooks, Captain of the Texas Rangers and a member of the Texas Legislature (Jones 1958). Prior to 1883, the area was inhabited by Mexican colonists who were predominantly "vaqueros" herding wild cattle. The earliest established settlement in Brooks County was that of Falfurrias in 1883 (Webb 1952). The only other organized settlements in the county are the towns of Encino founded in 1903 and Rachal founded in 1913. Both towns are on the Texas-New Orleans Railroad and in the pipeline right-of-way.

See Table 4 for historical information relating to the pipeline route.

Jim Wells County

In 1911 Jim Wells County was formed from a section of Nueces County and named after James B. Wells (Webb 1952). As early as 1867 individuals investing in large quantities of land were creating cattle industries. Among these large cattle ranches are Tecolote-1867, Ventana Ranch-1867 and Leona Ranch-1875 (Texas Family Land Heritage Registry 1974). One of the last stagelines in Texas (from Alice to Brownsville) crossed Jim Wells County until 1904 (Carter 1972).

See Table 5 for historical information relating to the pipeline route.

Kleberg County

Kleberg County was named in honor of Robert Justus Kleberg and created in 1913 with Kingsville being the county seat (Webb 1952). Three and one-half centuries earlier Cabeza de Vaca and his followers roamed through the area (Baskett 1907). The hostile Indians and the territorial disputes between Texas and Mexico limited the settlements in the area for some time. Captain Richard King established the King Ranch in 1852. It now occupies four-fifths of Kleberg County with its headquarters centered in the Kingsville area (Lea 1957). Between the years 1840 and 1880, hide and tallow plants sprang up throughout the area with main industries centered along the coastal area (see Table 6; Webb 1952). The St. Louis, Brownsville and Mexico Railroad (later the Missouri Pacific) in 1904 came to the Kingsville area on its way across the county.

See Table 6 for historical information relating to the pipeline route.

Nueces County

Nueces County was named after the Nueces River which derived its name when in 1689 Alonso de Leon saw so many pecan trees along its banks (Jones 1958). The county was organized in 1846 with Corpus Christi as the county seat. In 1519, Alonso Alvarez de Pineda entered through Corpus Christi Bay and claimed the land for the Spanish Crown (Webb 1952). José de Escandon began the first attempt for a permanent settlement on the lower Nueces near present-day Corpus Christi. In the early 1800s the Mexican soldiers constructed Fort Lipantitlan near what is now present-day San Patricio (see Table 7). In an attempt to "Mexicanize" Texas, several forts were established in the early 1830s (Briggs 1971). The Agua Dulce battle site along Agua Dulce Creek near San Patricio commemorates the Texas volunteers killed in 1836 (Jones 1958). In 1903, the junction of the Texas-Mexico and the Brownsville and Mexican Railroad had established the town of Robstown, named after Robert Driscoll.

See Table 7 for historical information relating to the pipeline route.

San Patricio County

San Patricio County was organized in 1837 and the town of San Patricio was named the county seat (see Table 8). Later in 1893, the town of Sinton became the county seat (Webb 1952). It is thought that parts of the county were traveled as early as 1535 by Cabeza de Vaca. In the mid-eighteenth century, the coastal

areas of the county were being explored, and by the early nineteenth century James McGloin and John McMullen were settling predominantly Irish families in the coastal bay area (Webb 1952). When the San Antonio-Aransas Pass Railroad was constructed through the county in 1885, the town of Sinton became a station stop. In 1904, the town of Odem was built on the St. Louis, Brownsville and Mexico Railroad and named after David Odem, county sheriff (Webb 1952). The town later became a shipping center.

See Table 8 for historical information relating to the pipeline route.

Refugio County

Refugio County was one of the original counties formed in the Republic of Texas in 1836. Between 1841 and 1871 sections of Refugio County were split off to form Goliad, Calhoun, San Patricio, Victoria, Bee, Nueces and Aransas Counties, thereby reducing the original county area. Cabeza de Vaca in the early sixteenth century is thought to have traversed the area (Pool 1975). It was not until the late eighteenth century that a Spanish outpost was developed near the present-day town of Refugio (Webb 1952). The Indian mission, Nuestra Señora del Refugio (see Table 9), was constructed in 1793 at the confluence of the San Antonio and Guadalupe Rivers at a time when all other missions were ceasing to exist (Webb 1952; Heusinger 1936). The mission was not successful at its original location and was moved at least once; it is now located on the Mission River in Victoria County. It was not until 1836 that Anglo-Americans began to populate the area, and the majority of these were Irish Catholic settlers. The colony was known as the Power and Heweston Colony and was established at the ruins of Mission Nuestra Señora del Refugio.

By 1842 the population of Refugio County had been greatly reduced due to the Texas Revolution, the Battle of Refugio and Mexican raids. Slowly the town of Refugio was rebuilt and became a center for hide and tallow factories (Webb 1952).

In 1850 when John White Bower, an early Texas statesman, died, a memorial grave marker and cemetery were named in honor of him (Jones 1958). This monument and the John White Bower homestead are both in the pipeline right-of-way (see Table 9).

See Table 9 for historical information relating to the pipeline route.

Victoria County (southwestern part)

Victoria County was created in 1836 with Victoria being chosen as the county seat. The first European settlement in Texas was built by the French in 1865 along Garcitas Creek and was used as a base for defenses against the Indians and a base for exploration (Gilmore 1973). Between the years of 1722 and 1726 a Spanish presidio and mission of Espiritu Santo were established nearby. The mission was moved from its original location near the fort to an area near the Guadalupe River in 1726 (Briggs 1971). In the middle 1800s the De La Garza family began using a plot of land which is in the pipeline right-of-way (see Table 10). Bloomington was settled in 1907 as a station on the Missouri Pacific Railroad. The territory originally was a part of the Traylor Ranch in southeastern Victoria County (Webb 1952).

See Table 10 for historical information relating to the pipeline route.

TABLE 3. HISTORICAL SITES IN HIDALGO COUNTY+

Site Number*	Description	Type***	Milepost	Distance from Pipeline (Miles)
H-1	Town of Hidalgo-City Park 1852.	1	.70	1.10 NW
H-2	John Closner Home Young and 13th Streets	1	.70	1.10 NW
H-3	Old Hidalgo County Courthouse 1303 McAllen Street	1	.70	1.10 NW
H-4	Old Hidalgo Post Office Building Northeast corner of 13th and McAllen Streets	1	.70	1.10 NW
H-5	Mission San Joaquin del Monte a Vista-City Park, 13th Street and Old Military Road Established in 1749	1	1.34	1.18 NW
H-6	San Juan, Texas-1909 on the Missouri Pacific Railroad	4	12.01	3.4 W
H-7	Alamo, Texas-on the Missouri Pacific Railroad	4	12.01	1.00 W
H-8	San Juan Plantation Head- quarters	1	1.72	1.0 NW
H-9	Edinburg, Texas-1890	4	20.51	5.00 W
H-10	Hidalgo County-Courthouse Grounds	1	20.51	5.00 W
H-11	El Sal de Rey, C.S.A.-Civil War Marker	1	20.51	5.00 W
H-12	Hidalgo County Jail-107 E. McIntyre	1	20.51	5.00 W
H-13	Laguna Seca Ranch	1	30.16	2.50 W
H-14	Old La Coma Ranch Headquarters	1	35.16	.24**
H-15	El Sal del Rey	1	39.03	3.00 E

Table 3. (continued)

Site Number*	Description	Type***	Milepost	Distance from Pipeline (Miles)
H-16	Linn, Texas-1927 Station on the Texas-New Orleans Railroad	4	39.76	.25**
H-17	Collapsed Brick Structure-Possible Station on Southern Pacific Railroad	4	51.40	**

Total Pipeline Mileage in Hidalgo County - 55.31

Total Number of Official Historic Markers - 26

Total Number of National Register Historic Districts - 1

+ Within eight miles any direction, paralleling the proposed pipeline route

* Tenneco Map Designation

** In Pipeline Route

*** Type: (1) Official Historical Marker, (2) National Register Historic District, (3) Newly Discovered Historic Site, (4) Potential Historic Site or Area

TABLE 4. HISTORICAL SITES IN BROOKS COUNTY[†]

Site Number*	Description	Type***	Milepost	Distance from Pipeline (Miles)
H-18	Rachal, Texas-1913, a stop on the Texas-New Orleans Railroad	4	62.76	.40**
H-19	Encino, Texas-1903 on the Texas-New Orleans Railroad	4	66.24	.15**
H-20	Brooks County-March 11, 1911 formed from Hidalgo, Starr and Zapata Counties	1	75.43	.07**
H-21	Flowella	1	86.62	1.81 E
H-22	City of Falfurrias-Pioneer Park	1	86.62	2.82 W
H-23	Captain J. A. Brooks-Falfurrias Cemetery	1	86.62	2.66 WNW
H-24	Don Pedro Jaramillo Shrine	1	88.40	1.43 W

Total Pipeline Mileage in Brooks County - 33.93

Total Number of Official Historic Markers - 5

Total Number of National Register Historic Districts - 0

[†]Within eight miles paralleling the proposed pipeline route

*Tenneco Map Designation

**In Pipeline Route

***Type: (1) Official Historical Marker, (2) National Register Historic District, (3) Newly Discovered Historic Site, (4) Potential Historic Site or Area

TABLE 5. HISTORICAL SITES IN JIM WELLS COUNTY[†]

Site Number*	Description	Type**	Milepost	Distance from Pipeline (Miles)
H-25	Premont, Texas-on the Texas-New Orleans Railroad	4	96.62	3.16W

Total Pipeline Mileage in Jim Wells County - 15.46

Total Number of Official Historic Markers - 3

Total Number of National Register Historic Districts - 0

[†] Within eight miles paralleling the proposed pipeline route

* Tenneco Map Designation

** Type: (1) Official Historical Marker, (2) National Register Historic District, (3) Newly Discovered Historic Site, (4) Potential Historic Site or Area

TABLE 6. HISTORICAL SITES IN KLEBERG COUNTY[†]

Site Number*	Description	Type**	Milepost	Distance from Pipeline (Miles)
H-26	Hide and Tallow Plant	1	111.19	.40**
H-27	King Ranch-Entrance	2	111.19	1.70 E

Total Pipeline Mileage in Kleberg County - 13.80

Total Number of Official Historic Markers - 18

Total Number of National Register Historic Districts - 2

[†] Within eight miles paralleling the proposed pipeline route

* Tenneco Map Designation

** In Pipeline Route

*** Type: (1) Official Historical Marker, (2) National Register Historic District, (3) Newly Discovered Historic Site, (4) Potential Historic Site or Area

TABLE 7. HISTORICAL SITES IN NUECES COUNTY[†]

Site Number*	Description	Type***	Milepost	Distance from Pipeline (Miles)
H-28	King Ranch - 1853	2		
H-29	Agua Dulce, Texas-on the Texas-Mexican Railroad	4	129.88	4.85 W
H-30	Banquete, C.S.A.-Civil War Marker	1	133.32	.80**W
H-31	Agua Dulce Battlesite-Texas volunteers killed in fight with General Jose Urrea's Mexican Cavalry, March 2, 1836	1	133.32	4.57 NW (east part of Aqua Dulce)
H-32	Fort Lipantitlan-early 1830s	1	137.10	8.12 NW (west bank of Nueces River)
H-33	Robstown-1903; junction of the Texas-Mexican and Brownsville-Mexican Railroads	4	138.42	5.75 SE

Total Pipeline Mileage in Nueces County - 24.30

Total Number of Historic Markers - 21

Total Number of National Register Historic Districts - 1

[†] Within eight miles paralleling the proposed pipeline route

* Tenneco Map Designation

** In Pipeline Route

*** Type: (1) Official Historical Marker, (2) National Register Historic District, (3) Newly Discovered Historic Site, (4) Potential Historic Site or Area

TABLE 8. HISTORICAL SITES IN SAN PATRICIO COUNTY[†]

Site Number*	Description	Type**	Milepost	Distance from Pipeline (Miles)
H-34	Odem, Texas-1904 townsite on the St. Louis, Brownsville and Mexico Railroad	4	149.13	3.2 SE
H-35	Sinton, Texas-1885 station on the San Antonio-Aransas Pass Railroad	4	157.75	3.0 SE
H-36	San Patricio County-Courthouse Grounds	1	157.75	3.0 SE

Total Pipeline Mileage in San Patricio County - 22.22

Total Number of Official Historic Markers - 7

Total Number of National Register Historic Districts - 1

[†] Within eight miles paralleling the proposed pipeline

* Tenneco Map Designation

** Type: (1) Official Historical Marker, (2) National Register Historic District, (3) Newly Discovered Historic Site, (4) Potential Historic Site or Area

TABLE 9. HISTORICAL SITES IN REFUGIO COUNTY†

Site Number*	Description	Type***	Milepost	Distance from Pipeline (Miles)
H-37	Sally Scull-intersection of U.S. 183 and SH 202	1	180.88	1.4 E
H-38	Amon B. King-King's Park 1836	1	180.88	3.0 SE
H-39	King's Men Monument-Mount Calvary Cemetery	1	180.88	3.0 SE
H-40	Refugio County-Courthouse Grounds - 1837	1	180.88	3.0 SE
H-41	Site of Home of Captain Ira Westover-608 Commerce Street 1835	1	180.88	3.0 SE
H-42	Colonel A. M. Hobby-Court-house Grounds	1	180.88	3.0 SE
H-43	Mission Nuestra Señora del Refugio-Grounds of Our Lady of Refuge Church, S. Alamo Street	1	180.88	3.5 SE
H-44	Line Shack-(1890s) possible Welder Homestead	4	191.66	.03**
H-45	Tenneco Number 8-19th century pottery from Ohio-possible homestead	3	197.98	1.0* SE
H-46	Monument-Memorial Grave Marker	3	197.98	.83* SE
H-47	Urban House	3	199.98	.85* NW
H-48	John White Bower-Bower Cemetery, died 1850	1	199.98	.20**
H-49	John White Bower Homestead	1	199.98	.07**

Total Pipeline Mileage in Refugio County - 35.16

Total Number of Official Historic Markers - 12

Total Number of National Register Historic Districts - 1

† Within eight miles paralleling the proposed pipeline route

* Tenneco Map Designation

** In Pipeline Route

*** Type: (1) Official Historical Marker, (2) National Register Historic District, (3) Newly Discovered Historic Site, (4) Potential Historic Site or Area

TABLE 10. HISTORICAL SITES IN VICTORIA COUNTY[†]

Site Number*	Description	Type***	Milepost	Distance from Pipeline (Miles)
H-50	De La Garza Homestead and Dump	4	200.73	.10**
H-51	De La Garza Cemetery-1850	4	200.73	.05**
H-52	Homestead	4	208.00	.50**

Total Pipeline Mileage in Victoria County - 14.11

Total Number of Official Historic Markers - 57

Total Number of National Register Historic Districts - 0

[†] Within eight miles paralleling the proposed pipeline route

* Tenneco Map Designation

** In Pipeline Route

*** Type: (1) Official Historical Marker, (2) National Register Historic District, (3) Newly Discovered Historic Site, (4) Potential Historic Site or Area

V. RESEARCH BIBLIOGRAPHY: HISTORY

Elizabeth Cantu Frkuska

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- UTSA-CAR* The University of Texas at San Antonio, Center for Archaeological Research
- ASR Archaeological Survey Report

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