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May 13, 2002

Jock Whitworth
Superintendent
Padre Island National Seashore
P.O. Box 181300
20301 Park Road 22
Corpus Christi, Texas 78480-1300

Re: Lemon/Lemon Seed No. 1 Drilling Pad, Access Road and Flowline Route

Dear Mr. Whitworth:

Enclosed are two copies of our final report entitled *A Cultural Resources Survey of the Proposed Lemon/Lemon Seed No. 1 Drilling Pad, Access Road and Flowline Route, Padre Island National Seashore, Kenedy County, Texas* for your files. If you have any questions regarding this project please do not hesitate to contact James E. Warren or myself.

Sincerely,



William E. Moore

cc James E. Warren

ARCHAEOLOGY CONSULTANTS, INC.
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GEORGE WEST, TEXAS 78022
(361) 449-1039

May 13, 2002

Debra L. Beene
Archeology Division
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711

Re: Lemon/Lemon Seed No. 1 Drilling Pad, Access Road and Flowline Route

Dear Ms. Beene:

Enclosed are the final reports entitled *A Cultural Resources Survey of the Proposed Lemon/Lemon Seed No. 1 Drilling Pad, Access Road and Flowline Route, Padre Island National Seashore, Kenedy County, Texas* for your files. If you have any questions regarding this project please do not hesitate to contact James E. Warren or myself.

Sincerely,

William E. Moore

cc Jock Whitworth; James E. Warren

NPS

Final

A
Cultural Resources Survey
of the
Proposed Lemon/Lemon Seed No. 1 Drilling Pad,
Access Road and Flowline Route
Padre Island National Seashore
Kenedy County
Texas

by
William E. Moore and James E. Warren

Prepared for
Belair Environmental, Inc.
Rockport, Texas

Report No. 560

December 2001

Principal Investigator
William E. Moore

Abstract

Reported are the results of a cultural resources survey of a proposed 3.5 acre drilling pad, 700 feet of access road and 3/4 of a mile of flowline RoW on Padre Island National Seashore (PINS) in Kenedy County, Texas. A 100% pedestrian survey and 53 shovel tests failed to identify cultural resources within the project area.

As presently proposed, the project should be considered as having "no effect" on properties eligible for inclusion in the National Register of Historic Places (NRHP) or listing as a State Archeological Landmark.

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Introduction

On November 7, 2001 Archaeology Consultants, Inc. (ACI) was contacted by Charlie Belair of Belair Environmental, Inc. (BEI) concerning the need for a cultural resources survey of a 3.5 acre petroleum drilling pad, 700 feet of access road (1.6ac.) and 3/4 mile of flowline RoW (9.1ac.) associated with the proposed Lemon/Lemon Seed No. 1 well. The total acreage involved is approximately 14.2 acres. The project is located on Padre Island National Seashore (PINS) in Kenedy County, Texas (Figs 1, 2). Permission to proceed was granted by the National Parks Service (NPS) on November 24, 2001, the maps were received on November 27 and the survey was accomplished between November 27 and December 6, 2001. No evidence of previous occupation in the project area was found other than modern debris. There will be no impact by the project upon any significant cultural resources. The ACI crew consisted of William E. Moore, Principal Investigator, Jim Warren, Art Romine and Bobbie Jemison.

Acknowledgement

Greatly Appreciated are the efforts of the following for their assistance in planning, coordinating and accomplishing this project.

Charlie Belair, BEI
Jeff Nelson, BEI
Ken McMullen, NPS
Arlene Wimer, NPS
Jim Bradford, NPS
Jim Warren, ACI
Art Romine, ACI
Bobbie Jemison, ACI

Environmental Setting

Padre Island is but one of a series of barrier islands unique to the Texas portion of the Gulf Coast (Figs. 1, 2). Geologically it is of the Cenozoic Era, Quaternary System and the Holocene Series (Renfro, n.d.). Physiographically these barrier islands are listed as such by Kier (1977) and described as elongate, low, sandy islands parallel to and along the trend of the coast. They are characterized by complex natural environments which include beaches, berms, tidal flats, vegetated barrier flats, dunes, marshes and washovers (Kier, et al. 1977).

The soils in this project are classified as Mustang fine sands with areas of tidal flats and coastal dunes (Franki, et al. 1965). The vegetational habitats of barrier islands are classified as Beach, Foredunes, Grasslands Plains-Low Coastal Sands, Ponds and marshes, Active Dune Fields, Wind-Tidal Flats and The Laguna Madre. Types of grasses and forbs vary mostly in salt tolerance. Some of the more common species are: glasswort, sea purslane, seashore dropseed, beach morningglory, railroad vine, gulf croton, gulfdune paspalum, seashore saltgrass, sea oats and marsh hay cordgrass (Padre Vegetation, nd).

The faunal inventory on the islands includes (besides marine species) such mammals as ground squirrels, kangaroo rats, pocket gophers, coyotes, whitetailed deer, jackrabbits, Mexican free-tailed bats, marsh rats and raccoons (Rabalais, 1975).

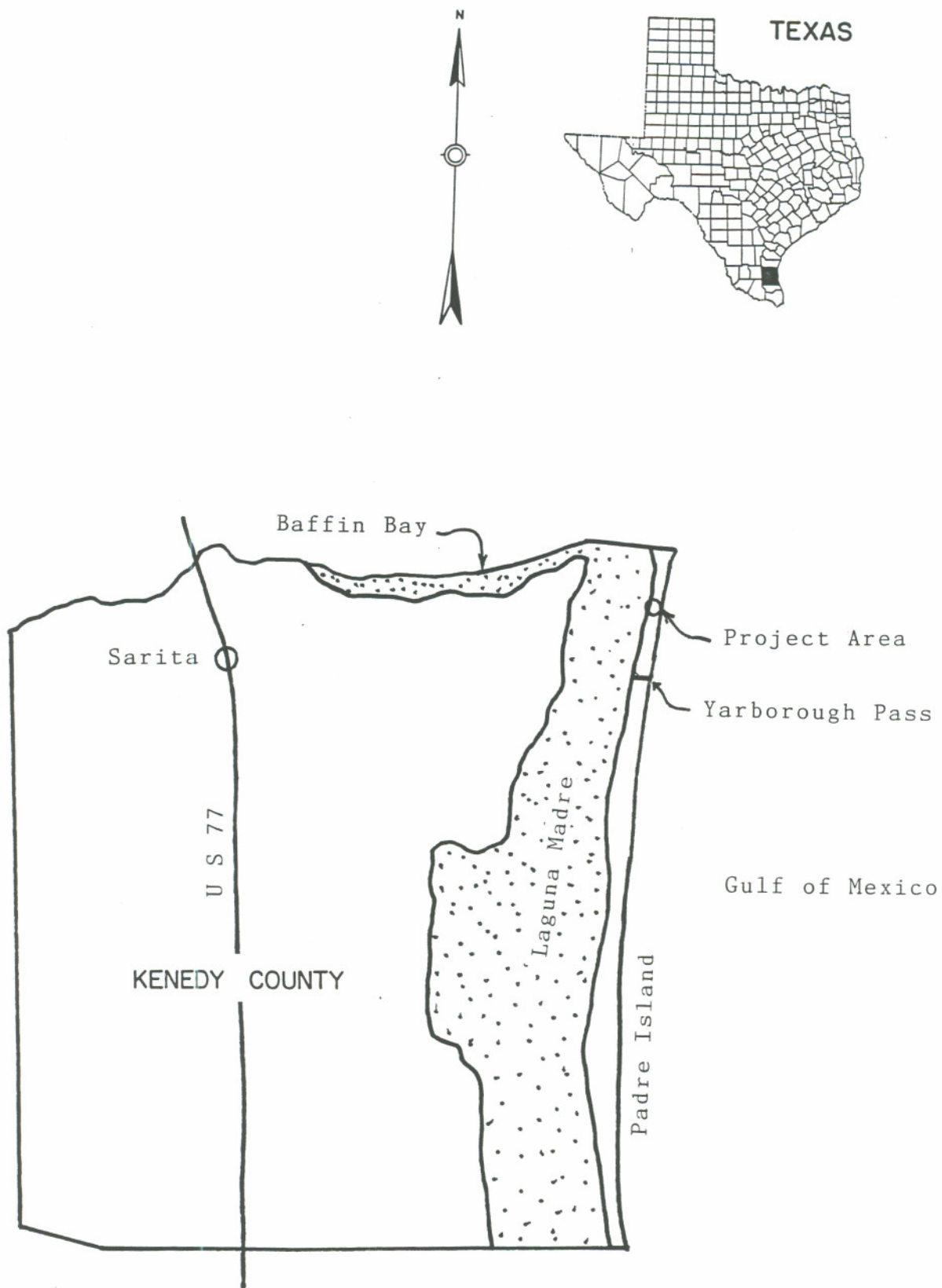
The climate is humid and subtropical with mild, dry winters. Periodic droughts occur and have been known to change the entire surface of the islands and depth of water in the Laguna Madre by movement of windblown sand. Periodic hurricanes also greatly affect the topography opening and closing various channels across the islands. Average annual rainfall is 28 inches and the average temperature is 70 degrees F. (Scurlock, et al. 1974)

Historical Background

Recorded history of the Texas Gulf Coast begins in 1519 when Francisco Garay, the Spanish governor of Jamaica sent Alonzo Alvarez de Pineda on a mapping expedition of the coast of "Las Floridas" from Vera Cruz to present Pensacola. Garay was interested in establishing a colony in the New World as near to Hernando Cortez' armies as possible in order to share in the riches that Cortez had found in Mexico. Also on Garay's mind was the possibility that he might discover the fabled Strait of Ainan which was supposed to be a direct waterway through the North American Continent to China (Scurlock 1974, 17).

Upon de Pineda's return Garay sent a group of colonists under the command of Diego de Camargo to settle near the mouth of Rio de las Palmas (Rio Grande). The group set sail in the summer of 1520, arriving safely at

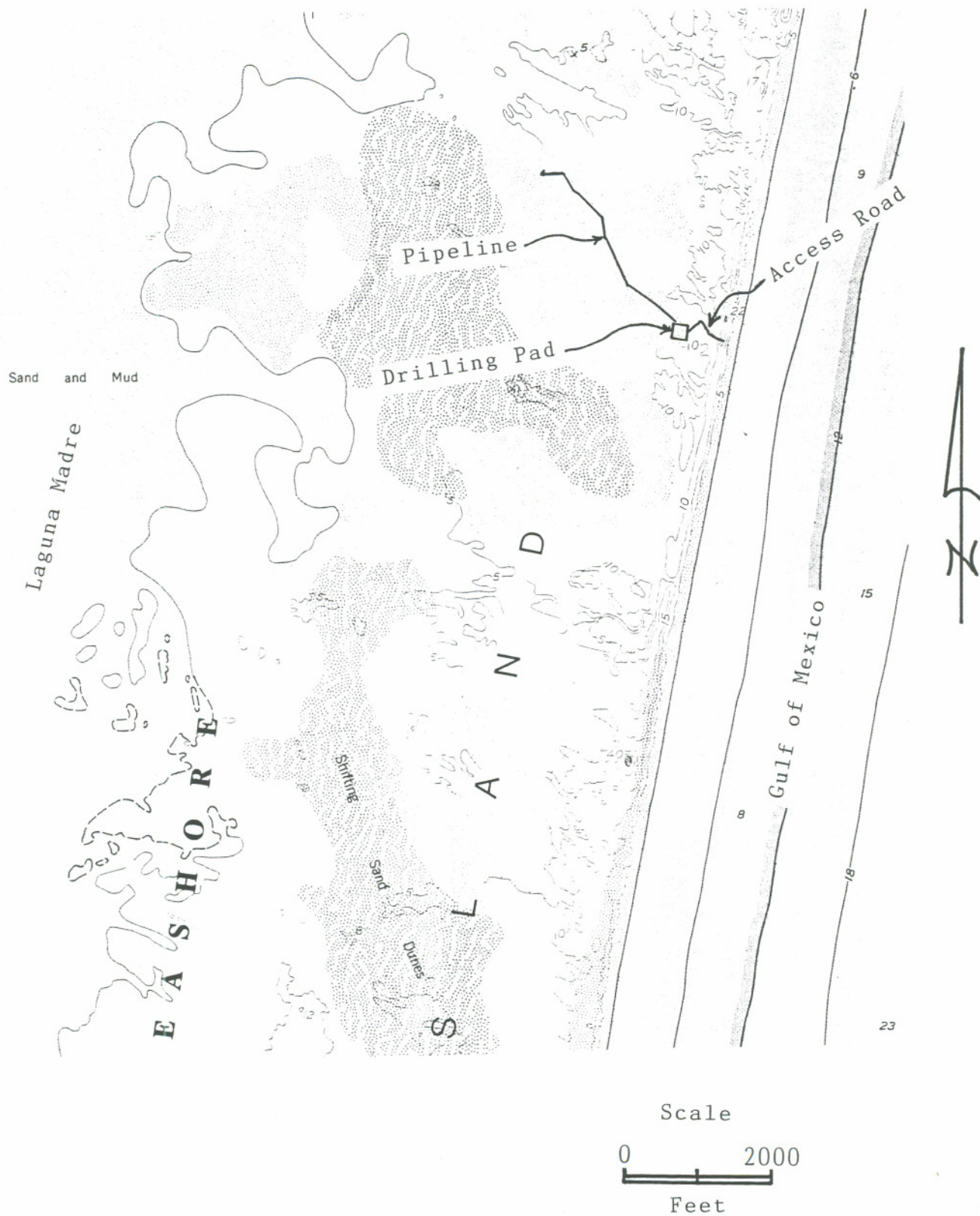
Figure 1. Vicinity Map.



NPS DOCUMENT # 547

Not to Scale

Figure 2. USGS Yarborough Pass, TX.



their destination. However, they were met with resistance by the local natives and left the area in peril of life and limb. They eventually arrived in Vera Cruz and were permitted to settle with Cortez in Mexico (ibid).

Garay, not at all pleased with this turn of events had petitioned the Spanish crown and received a grant to colonize in the area from the Rio Panuco (Tampico) to the West Coast of Florida (the area called Amichel). On June 26, 1523 Garay himself sailed away from Jamaica with a flotilla of 16 ships. His destination was certainly not the West Coast of Florida which was many hundreds of leagues north of Cortez's fabulous holdings in Mexico. The expedition made straight for Rio de Las Palmas where Garay sent Gonzalo de Ocampo on a scouting mission in the area. After receiving an unfavorable report from Ocampo the flotilla put to sea again and eventually arrived at Rio Panuco. Cortez would have none of this encroachment on his territory and quickly subdued Garay, effectively putting an end to his search for fame and fortune (ibid).

Garay's ill fortune did nothing to cool the gold fever that was infecting Spain at this time. An old rival of Cortez' was next to try for a share of his New World plunder. Panfilo de Narvaez, on November 17, 1526 left Santiago de Cuba with a royal charter to settle a colony at Rio de las Palmas. The Narvaez expedition had much worse luck than that of Garay. After more than two years of hardship, including landfall in Florida (instead of southern Texas), the survivors were marooned on the Texas coast in November, 1528. All were either killed by Indians or died except the Treasurer of the expedition, Alvar Nunez Cabeza de Vaca, and three others (Alonzo de Castillo, Andres Dorantes and a Moor named Estevanico). This group, during their six year sojourn with the coastal Indians are very likely to have set foot on Mustang and Padre Islands. Cabeza de Vaca and his companions eventually managed to escape and make their way across the Southwest to arrive safely at the West Coast settlement of Culiacan in May of 1536 (ibid:16).

The next recorded event in our area of endeavor is the wreck of the Spanish Plate Fleet on Padre Island in 1554. At least three ships of this fleet were cast ashore during a Gulf Storm. of the more than 1000 persons aboard only 1/3 made it to shore and only two of these lived to tell their story. Fray Marcos de Mena was the only survivor of the ill-fated group which was decimated by Indians as they tried to walk back to Rio Panuco, and Francisco Vasquez elected to return to the shipwreck site where he was rescued by the salvage expedition commanded by Captain Angel de Villafana (ibid).

The French were next upon the scene when Henri Joutel, chronicler of the expedition of Rene Robert Cavalier, Sieur, de La Salle, records their presence in the latitude of Mustang and Padre Islands in January 1687 (Writers 1950:51). When word of the French incursions into Texas reached Mexico the Spanish rose to the occasion

sending five expeditions between 1686 and 1690, under command of Alonso de Leon, into Texas in search of the French with orders to dispel them. The last of these excursions resulted in the burning of the French Fort Saint Louis (which was already abandoned) and the establishment of the Spanish Mission of San Francisco de los Tejas in charge of Fr. Damian Massanet (Webb 1952; I:483-484).

Still suspicious of intervention by other countries the Viceroy of Spain set up a watch on the Bar of San Miguel (probably Mustang Island) and Spanish soldiers patrolled the coastal islands (Writer's 1950:52). About the same time the English got into the picture when Antonio Gil y Barbo, a Spanish official in East Texas discovered an abandoned English vessel near the mouth of Sabine River with a load of bricks, lumber and farming implements (Bolton 1980:425).

In 1766 this same fear of intrusion prompted the Governor of Coahuila, Diego Ortiz Parilla to lead an expedition from San Juan Bautista on the Rio Grande up to La Bahia and then down the coast to the Rio Grande. Resulting from this mission were the first detailed descriptions of St. Joseph, Mustang and Padre Islands and the naming of Corpus Christi Bay (Webb 1952, II:341-342). One writer (Writer's 1950:52) states that Parrilla's party surveyed a road down Padre Island from Corpus Christi Pass to Santiago Point marking important leagues with metal plates fastened to mahogany driftwood posts. Offshore, along the coast, Jose de Evia sailed in 1786 on a mapping expedition from Tampico to western Florida (Bolton 1970:133). Evidently he was refining the de Pineda map of 1519 since he covered the same territory.

In 1828 the era of lasting settlement was ushered into the local area when James Power and Dr. James T. Hewetson were granted an impresario contract from the Mexican government of Coahuila and Texas. As well as an enormous onshore block of land. The grant also included Mustang, St. Joseph and part of Matagorda Islands (Wood 1979:11,12). Also during this period (1824-36) the coastal islands were used as veritable highways for pack trains and oxcarts carrying goods to and from Mexico (Writer's 1950:53).

In 1863 Gen. Nathaniel P. Banks who had just recently captured Brownsville arrived at Corpus Christi Pass (which divides Mustang from Padre Island) with the capture of Corpus Christi in mind. Finding the pass too shallow for his troopships he detailed a contingent of 500 men under Brig. Gen. T. C. G. Ransom to proceed up Mustang Island to attack the confederates who controlled the northern tip of the island. He then proceeded up the coast by ship and landed another force to assist Gen. Ransom. After this he sailed through Aransas Pass and laid siege to the City of Corpus Christi (Wood 1979:82). The outnumbered confederates were forced to evacuate leaving the old Mexican fort and control of Aransas Pass to the Federals

for a time (Edwards 1983:V:11C).

The first bridge over Corpus Christi Pass, linking Mustang and Padre Islands, was built by Sam Robertson in the mid 1920's. Robertson had great plans to make Padre and Mustang Islands into another Miami Beach, but was thwarted by the Great Depression of that era and the ravages of periodic hurricanes (ibid., VIII:19C). Up to the present Padre Island has been mostly associated with ranching, petroleum and recreational activities. At this writing there are numerous beach-side condominiums on the island. A large area in the central portion is included in the Padre Island National Seashore.

Previous Archeology

The earliest professional archeological efforts on Padre Island were generally devoted to assessing cultural evidence which had been reported by local artifact collectors (Campbell 1964). Dr. Campbell recorded 15 sites during his survey. Later, during development of the Padre Island National Seashore, more assessments of recorded sites and surveys for unreported sites were performed (Scurlock 1974). Due to the lack of precise plotting methods and movement of the island topography only one of the previously recorded sites (41KL60) was located. Before establishment of PINS the island was overgrazed by livestock. In this condition the surface was very mobile, moving around with each hurricane and each period of dry weather. Now most of the dunes are stabilized and very seldom change except during very strong storm surges.

Archeological investigations in the immediate survey area have been confined to surface surveys and collections by local artifact collectors and infrequent visits by professional archeologists. No records of formal testing or excavations are contained in the files of the Texas Archeological Research Laboratory in Austin (TARL) in the immediate vicinity of this project.

Prewitt and Associates (1984) surveyed the proposed locations of two drilling pads about 2km south of the project with negative results. Several other surveys on Padre Island in the past (Warren 1988a, 1988b, 1993, 1994; [Warren] UTSA/CAR 1984, 1985) have all reported similar negative results.

One other survey (Warren 1984b) recorded an aboriginal occupation site (41NU219) at the extreme north end of Padre Island adjacent to Packery Channel. The site was discovered by the visible presence of flint flakes, ceramic sherds, mammal bone and shells on the surfaces of pocket gopher mounds. Further testing at the site (Warren 1984c) revealed cultural evidence to a depth of 90cm associated with Rockport pottery and *Perdiz* arrow points.

A survey of Packery Channel, in preparation for its re-opening (Warren 1988c), encountered several magnetometer "hits", but excavations revealed only modern

metal objects such as 55 gallon drums, lengths of wire rope and a buried automobile.

Two recent surveys at the Dunn/Murdock No. 1 drilling pad location (Moore and Warren 2001, 2001a) encountered no significant cultural resources in the project area.

Project Methods

1. The files of the Texas Archeological Research Laboratory (TARL) in Austin were searched to locate any previously recorded archeological sites in or near the project.

2. Permission was obtained from NPS to perform the survey. The NPS representative recommended shovel tests at 30m intervals in lieu of backhoe trenches along the flowline right-of-way (RoW). Depth of shovel tests was to be at least 70cm.

3. The NPS representatives at PINS were notified before proceeding down the beach to the project area and again upon completing the round trip and survey.

4. The proposed pad location was subjected to a 100% pedestrian survey. Survey transects were at five meter intervals. The access road and flowline route surveys consisted of corridors 15m wide.

5. All matrix from the shovel tests was screened through 1/4 inch mesh. Test units were 30x50cm in size and 70 to 80cm deep.

6. This report is prepared in draft form and circulated for comments. After addressing all comments the final report will be published and sent to BEI for distribution to pertinent entities.

The Survey

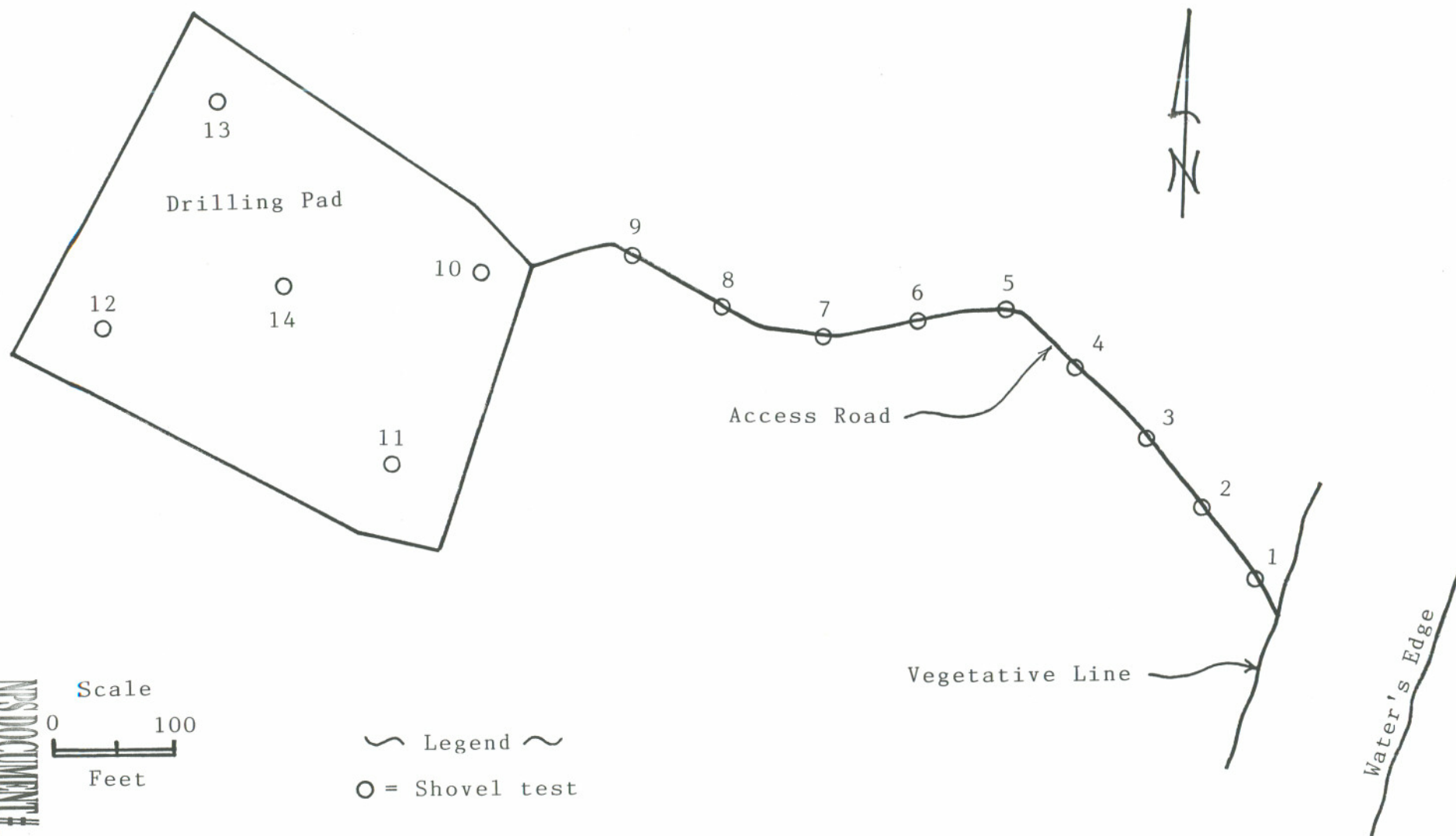
The File Search

No previously recorded archeological sites were found in or near the project area during the TARL records search.

The Surface Survey

The entire area of the proposed drilling pad, flowline route and access road was covered by the field crew (Figs. 3, 4). Vegetation was extremely heavy so the surfaces of every gopher mound were observed looking for cultural evidence. Past surveys on the island have revealed that the resident gophers on the gulf barrier islands are very adept at bringing artifacts to the

Figure 3. Plan of Pad and Road.



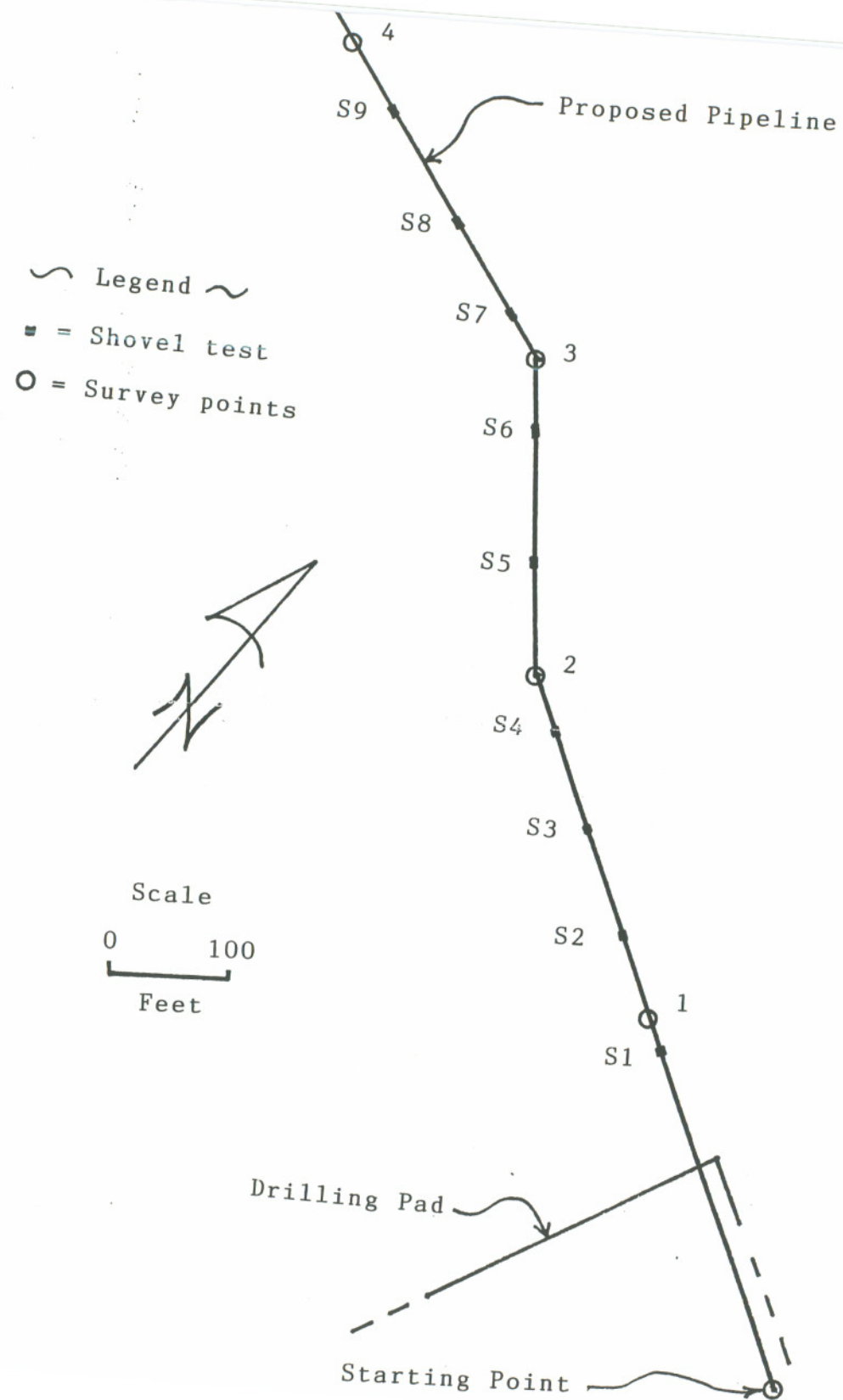
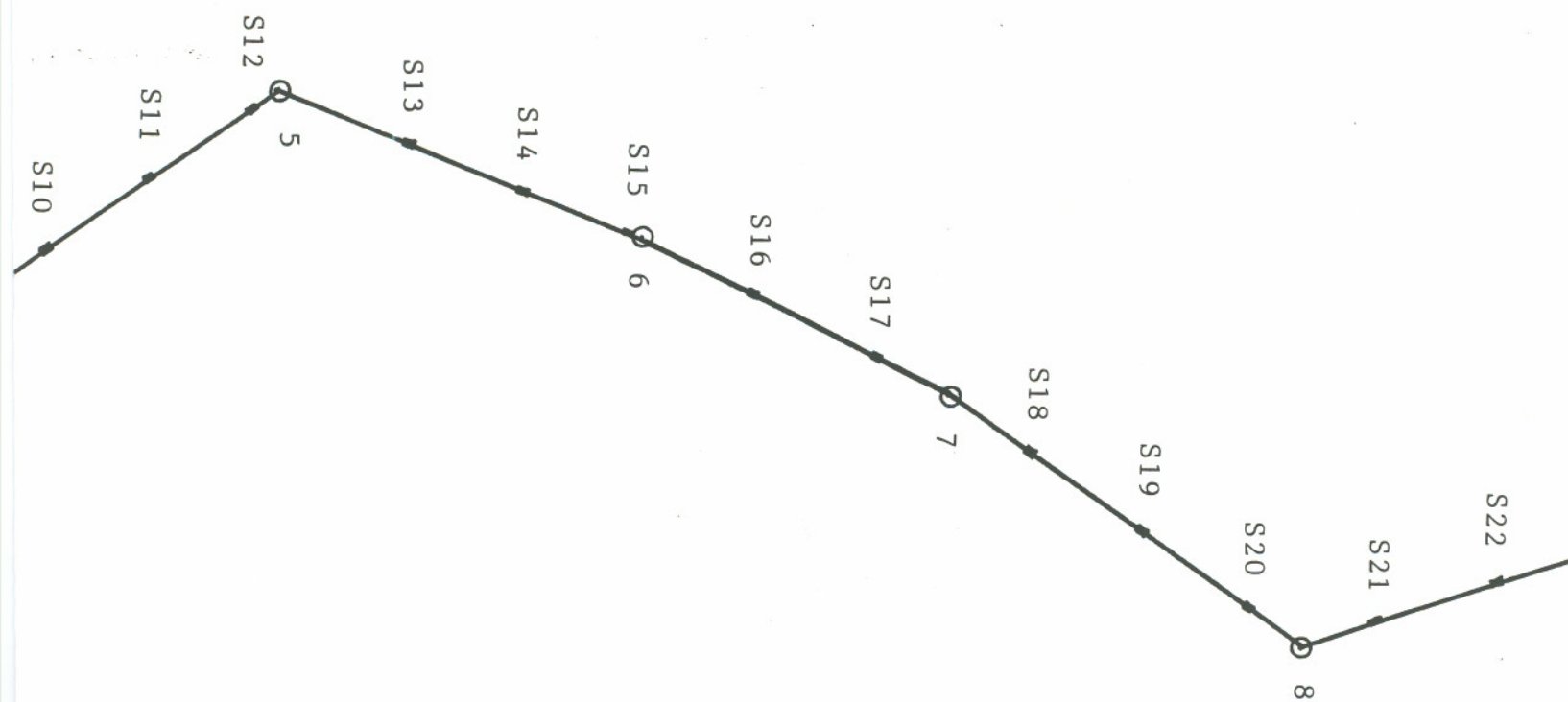


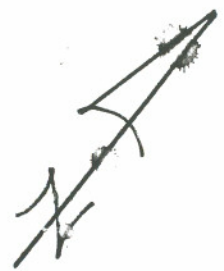
Figure 4. Pipeline Plan.



~ Legend ~

• = Shovel test

○ = Survey points

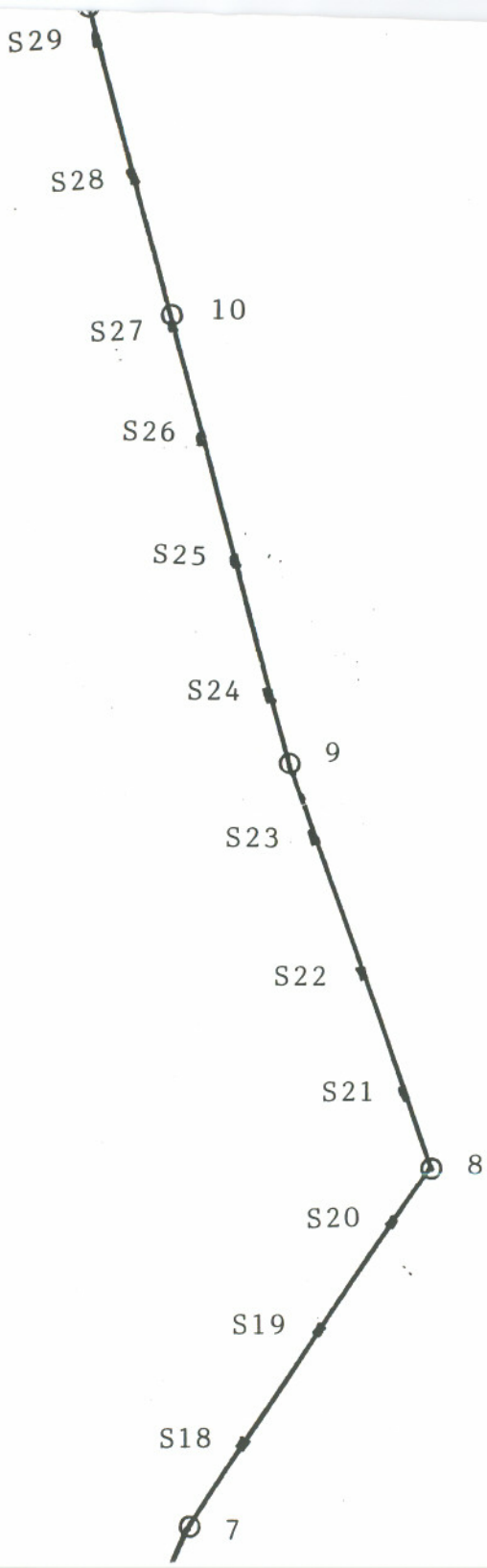


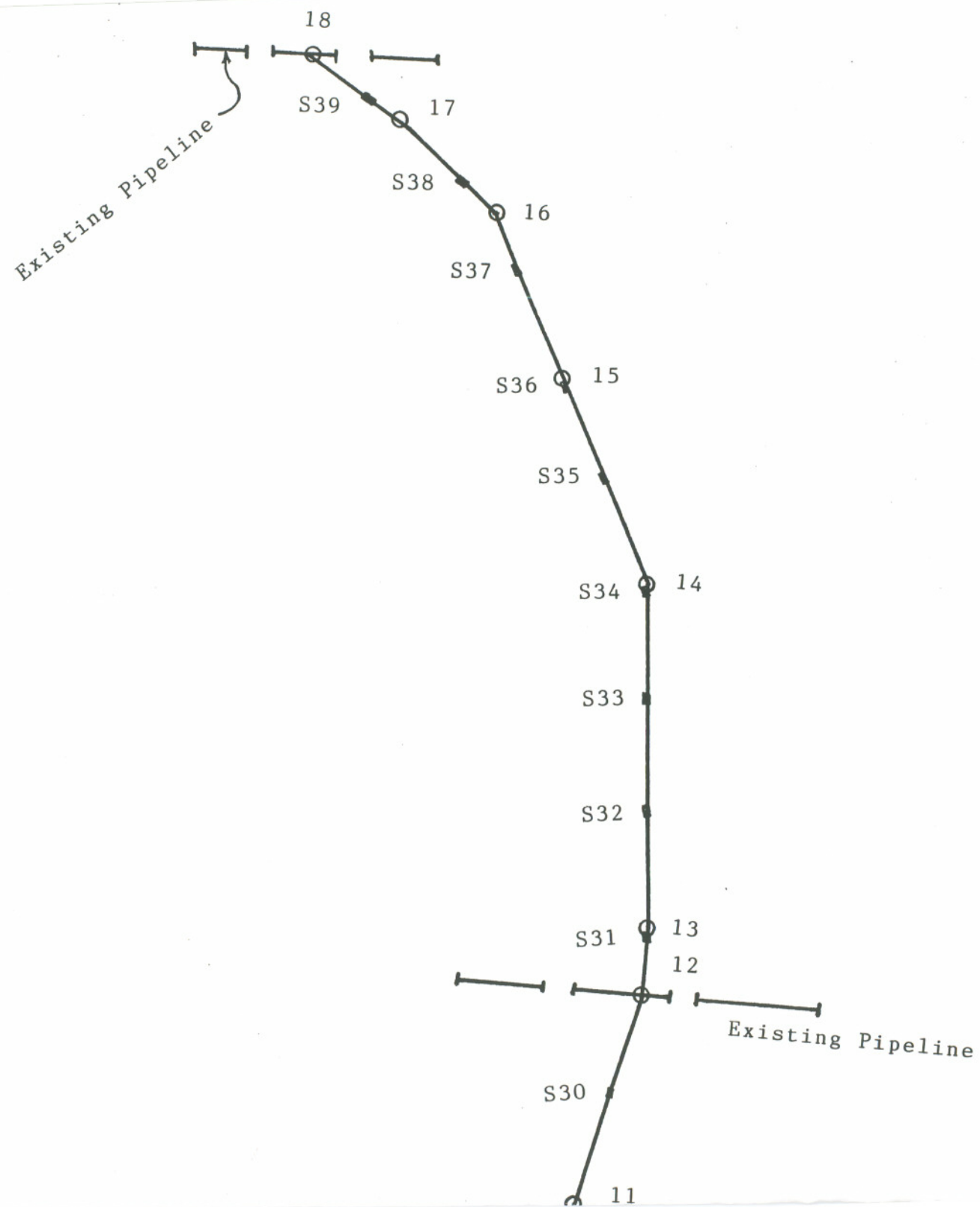
Scale

0 100

Feet

Figure 5. Pipeline Plan.





surface and casting them upon the mounds that protect their entrance/exit openings. After a few days of exposure to the elements (especially if it rains) the loose soil on the mounds recedes somewhat and turns a bright white color leaving flint flakes, bone, shell and ceramic sherds readily observable on the surface.

The survey area included mostly stabilized dunes because the Engineers had staked the project to avoid wetlands as much as possible. The vegetation did not vary across the project since it was staked on vegetated dunes.

The Shovel Tests

The Access Road:

Nine shovel tests were employed along the centerline of the proposed access road (Fig. 3).

The Drilling Pad:

Five shovel tests were employed, one near each corner and one near the center of the pad (Fig. 3).

The Flowline Route:

Thirty-nine shovel tests were employed along the centerline of the proposed flowline route (Fig. 4).

Results and Discussion

The Surface Survey

The only cultural evidence located on the surface was modern trash which has probably washed over the foredunes during hurricanes. Such evidence consisted of wood, plastic and glass debris. No aboriginal or pre-20th century evidence was observed.

The Shovel Tests

No cultural evidence was recovered from any of the shovel tests. The tests were 30x50cm in size and were dug to at least 70cm except for about a dozen which encountered ground water at 30 to 40cms. The matrix revealed sterile sand and a mixture of sand and shell hash. The shovel test log is not included in the report since no cultural evidence was encountered and the unit profiles were all alike as noted above. The soils on the island are usually damp due to a high water table. This keeps the walls of pits fairly stable to depths of 90-100cm in most cases. When water is encountered, however, sloughing of the walls is immediate. Shovel testing, regardless of soil types, is considered necessary on the island because of the heavy vegetation and the fact that soils have moved so much in the past that sites may be found almost anywhere and can only be identified by tests or gopher mound evidence.

Recommendations

Since no significant cultural resources were encountered in the project area it is recommended that the project should proceed as presently planned by the project sponsor. The project should be considered as having "no effect" on any properties considered eligible for inclusion in the National Register of Historic Places or listing as a State Archeological Landmark.

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