

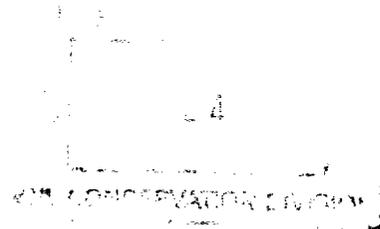


Yolanda Perez  
Regulatory Analyst  
EPNA - Gulf Region  
Lobo/San Juan Asset Unit

Conoco Inc.  
P.O. Box 2197 – DU3066  
Houston, TX 77252  
(281) 293-1613

March 23, 2000

New Mexico Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505



Attention: Michael Stogner

**RE: NMOCD Case 12122 Order R-11139**

Dear Mr. Stogner,

As per your request, I am sending you a more detail explanation of why well locations were moved from what was previously submitted with above-mentioned order.

135E – While performing onsite with the BLM, an existing well pad was discovered and since it was so close to Conoco's planned location BLM asked that we utilize that well pad so that there would be no further surface disturbance.

225E-- Attached please find copy of the Archaeological Report. Page 3 of the report is a topography map, which shows the well pad and references archaeological sites, which were encountered during survey. These referenced sites are explained in detail within the report. This should clearly depict reason for slightly having to move location.

219M – Attached please find copy of the Archaeological Report. Page 3 of the report is a topography map, which shows the well pad and references archaeological sites, which were encountered during survey. These referenced sites are explained in detail within the report. This should clearly depict reason for slightly having to move location.

If any additional information is required, please call me at (281) 293-1613.

Sincerely,

CONOCO INC.

Yolanda Perez  
Regulatory Analyst  
Lobo/San Juan Asset

Cc: Frank Chavez – OCD Aztec

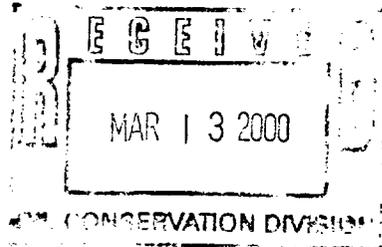


Yolanda Perez  
Regulatory Analyst  
EPNA - Gulf Region  
Lobo/San Juan Asset Unit

Conoco Inc.  
P.O. Box 2197 - DU3066  
Houston, TX 77252  
(281) 293-1613

March 10, 2000

New Mexico Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505



Attention: Michael Stogner

**RE: NMOCD Case 12122 Order R-11139**

Dear Mr. Stogner,

Please find enclosed three amended C-102's. These three wells were included in the 28-7 Unit six well 80 acre Dakota Pilot project as per above-mentioned order. The footages on the six well pilot project were proposed locations and at time of staking these three had to be moved. The amended locations are as follows:

Well Name	Old Footages	New Footages
San Juan 28-7 Unit #225E	1340' FSL & 2020' FEL	1350' FSL & 2330' FEL
San Juan 28-7 Unit #219M	1365' FSL & 690' FWL	1480' FSL & 790' FWL
San Juan 28-7 Unit #135E	1270' FNL & 1850' FWL	1285' FNL & 1845' FWL

Please make changes to the order as referenced above. If any additional information is required, please call me at (281) 293-1613.

Sincerely,

CONOCO INC.

*Yolanda Perez*

Yolanda Perez  
Regulatory Analyst  
Lobo/San Juan Asset

Cc: David Catanach/NMOCD

*March 15, 2000  
Please make changes to the order as referenced above.  
and well were moved  
Thank you  
Michael Stogner*

**CULTURAL RESOURCES SURVEY OF  
CONOCO INCORPORATED'S  
SAN JUAN 28-7 NO. 219M WELL PAD, ACCESS ROAD  
AND  
EL PASO FIELD SERVICES' WELL TIE PIPELINE  
RIO ARriba COUNTY, NEW MEXICO**

LAC REPORT 9840p

by

Steven Fuller

LA PLATA ARCHAEOLOGICAL CONSULTANTS  
26851 COUNTY ROAD P  
DOLORES, COLORADO 81323  
(970) 565-8708

New Mexico Cultural Resource Use permit No. 19-2920-99-Q  
NMCRIS Project Number 64898

June 30, 1999

Prepared For:

Conoco Incorporated  
10 Desta Drive; Suite 430E  
Midland, Texas 79705-4500  
(915) 686-5794

El Paso Field Services  
617 Reilly Avenue  
Farmington, NM 87401  
(505) 599-2177

## ABSTRACT

Between October 14, 1988 and June 18, 1999 La Plata Archaeological Consultants conducted a cultural resources survey for the proposed San Juan 28-7 Number 219M well pad, access road, and well tie pipeline planned by Conoco Incorporated and El Paso Field Services. The survey is located in Rio Arriba County, New Mexico, on lands managed by the Bureau of Land Management, Farmington District Office. The project is located in T28N, R7W, Section 20. Approximately 21.8 acres were surveyed for the well pad, access road, well tie pipeline, and buffer zones.

Four archaeological sites were encountered during the survey. The sites, which are all considered potentially eligible for nomination to the National Register of Historic Places, have been adequately avoided by the proposed project and, given recommendations for site protection, archaeological clearance is recommended.

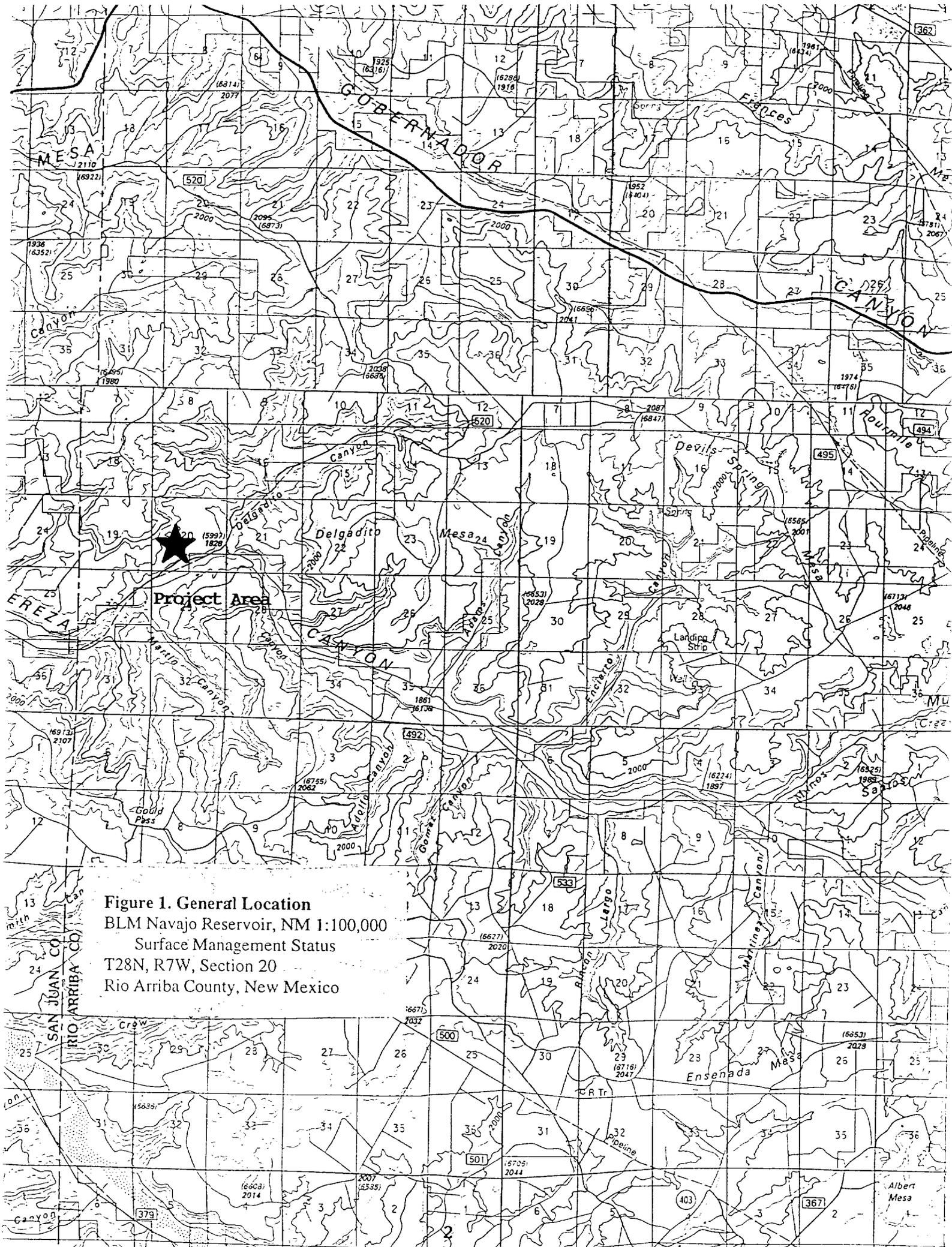
## INTRODUCTION

The archaeological survey of Conoco Inc.'s San Juan 28-7 Number 219M well pad and access road and El Paso Field Services' well tie pipeline was conducted by personnel of La Plata Archaeological Consultants between October 14, 1998 and June 18, 1999. The fieldwork was conducted by Steven Fuller, Deb Silverman, and Paul Stirniman; Fuller also administered the project. The survey was conducted at the request of Mr. Mike L. Mankin of Conoco Incorporated. Personnel of NCE Surveys staked the proposed well location and El Paso Field Services personnel staked the well tie pipeline.

The project is located on lands managed by the Bureau of Land Management, Farmington District Office. The project is within Rio Arriba County, New Mexico, and is located on a bench just north of Carrizo Canyon and just west of Delgadita Canyon (Figures 1 and 2). All work was conducted under the authority of the New Mexico Cultural Resource Use Permit No. 19-2920-99-Q issued to La Plata Archaeological Consultants.

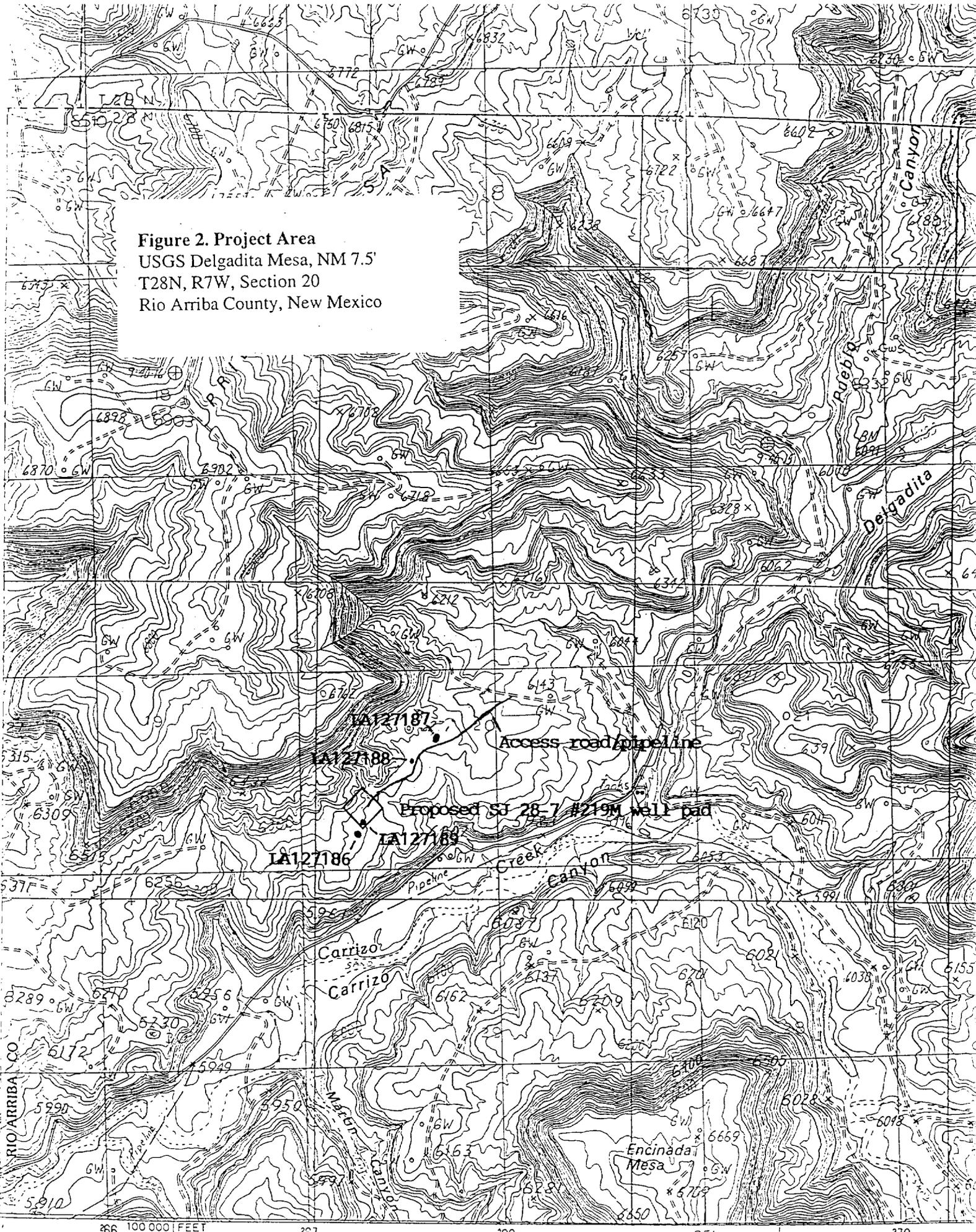
The area was surveyed for a well pad and access road proposed by Conoco Incorporated and an associated well tie pipeline proposed by El Paso Field Services. A total of 21.8 acres was intensively surveyed for this project. A 590 by 525 foot block was surveyed for the well pad which will measure approximately 290 by 225 ft. The well tie pipeline and access road are adjacent and follow the bench to the northeast where they tie into an exiting pipeline and lease road. A 200-ft wide by 3200-ft long corridor was surveyed for the portions of the access road and pipeline that extend beyond the block survey area.

Four archaeological sites were encountered during the survey of the well pad and access road/pipeline. The sites are all considered potentially eligible for nomination to the National Register



**Figure 1. General Location**  
 BLM Navajo Reservoir, NM 1:100,000  
 Surface Management Status  
 T28N, R7W, Section 20  
 Rio Arriba County, New Mexico

**Figure 2. Project Area**  
 USGS Delgadita Mesa, NM 7.5'  
 T28N, R7W, Section 20  
 Rio Arriba County, New Mexico



of Historic Places. Given recommendations for site avoidance and protection, archaeological clearance is recommended for the project.

## **PREFIELD RECORDS SEARCH**

The ARMS database was searched by modem for this project in October, 1998. Also consulted were the records maintained by the BLM, Farmington District Office. There are a total of 11 previously recorded sites within 0.5 miles of the project area, as shown on Figure 3 included in Appendix A with BLM copies of this report. None are within 1500 ft of the proposed project area.

## **FIELD METHODS**

Prior to the survey, the proposed well pad was marked at the center, the four corners, and the four centerline endpoints. A 7.1 acre block (590 by 525 ft) was surveyed at the well location using pedestrian transects spaced no farther apart than 15 meters. This was sufficient to cover the 290 by 225 ft well pad, 50 ft construction zone, and at least a 100 ft buffer for cultural resources. Pedestrian transects were also used to cover the proposed pipeline and access road which are adjacent for the entire length. The surveyed area is illustrated on Figure 2.

## **ENVIRONMENT**

The proposed well pad is located on a bench just north of Carrizo Canyon and just west of the confluence of Carrizo and Delgadita Canyons. Higher benches and Prieta Mesa rise to the north and northwest. The bench is within an old growth pinyon-juniper woodland with an understory of sagebrush, antelope bitterbrush, mountain mahogany, some grass, and cacti. Soils are very thin and formed on residual shale and sandstone deposits. The project area is entirely undisturbed except where the road and pipeline take off from an existing road and pipeline right-of-way.

## **PROJECT LOCATION AND DESCRIPTION**

**Project Name:** Conoco Incorporated's SJ 28-7 No. 219M well pad and access road, and El Paso Field Services' well tie pipeline

**Legal Description:** The well pad is located in T28N, R7W, Section 20, NW¼ SW¼. The actual footage of the location is 1480 FSL, 790 FWL (see well pad plat, Figure 4 and pipeline plat, Figure 5). All project features are in Rio Arriba County, New Mexico.

**Elevation:** 6219 ft

**Map Reference:** USGS Delgadita Mesa, New Mexico, 7.5' (1985 Provisional Edition)

CONOCO, INC. SAN JAN 28-7 UNIT #219M  
 1480' FSL, 790' FWL, SECTION 20, T28N, R7W, NMPM  
 RIO ARRIBA COUNTY, NEW MEXICO  
 GROUND ELEVATION: 6219'

LATITUDE: 36°38'38"  
 LONGITUDE: 107°36'02"

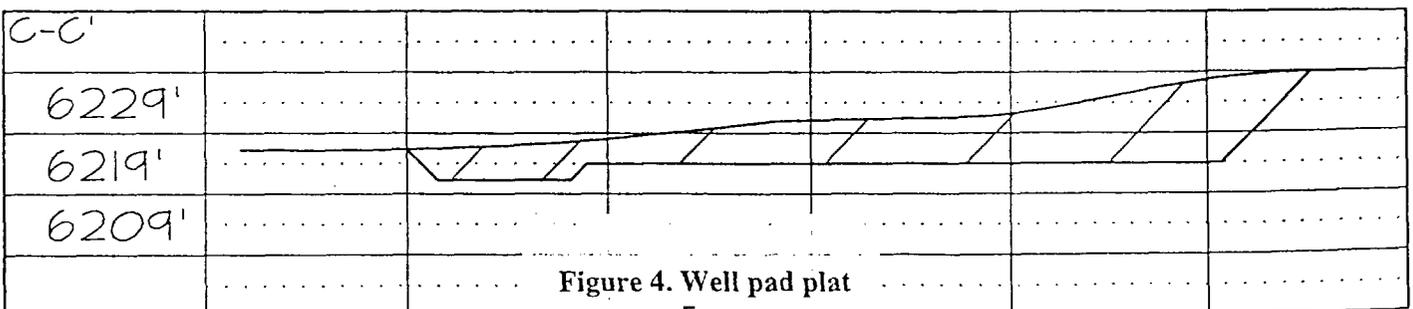
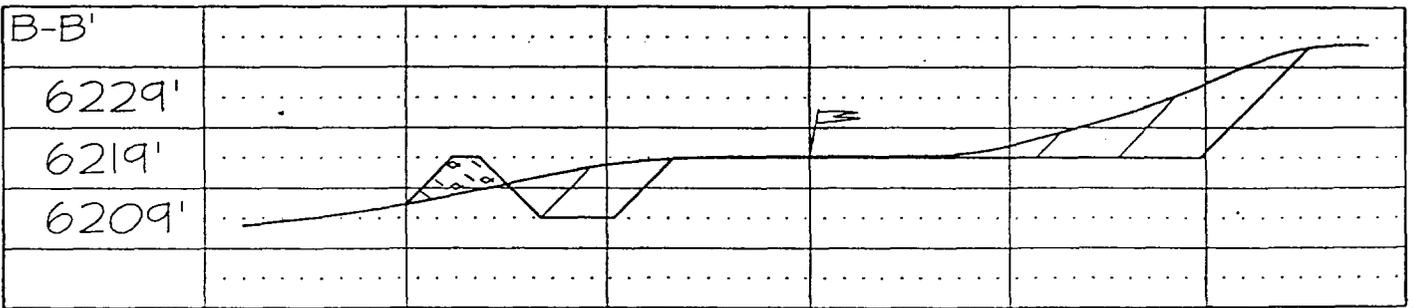
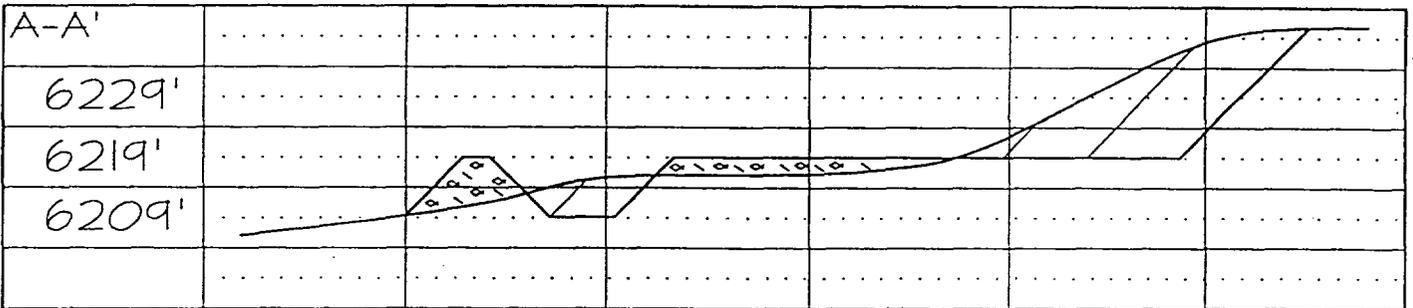
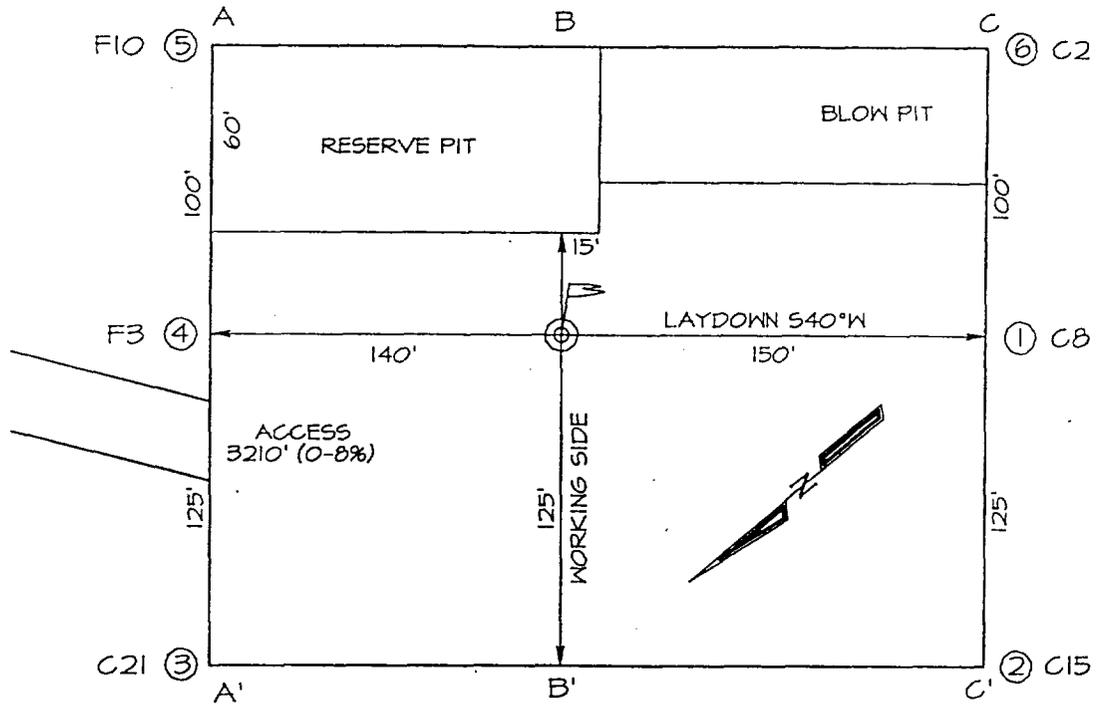


Figure 4. Well pad plat

LINE CONOCO MESA OPERATION CO. - SAN JUAN 28-7 UNIT No. 219M

WO NO. 11370

FROM 0+00 = 3+10.79 ON CONOCO MESA OPERATING CO. - SAN JUAN NO 28-7 No. 219E

RW NO. 9970005

(BTC-182-1, R/W No. 801677) (MC. #94096)

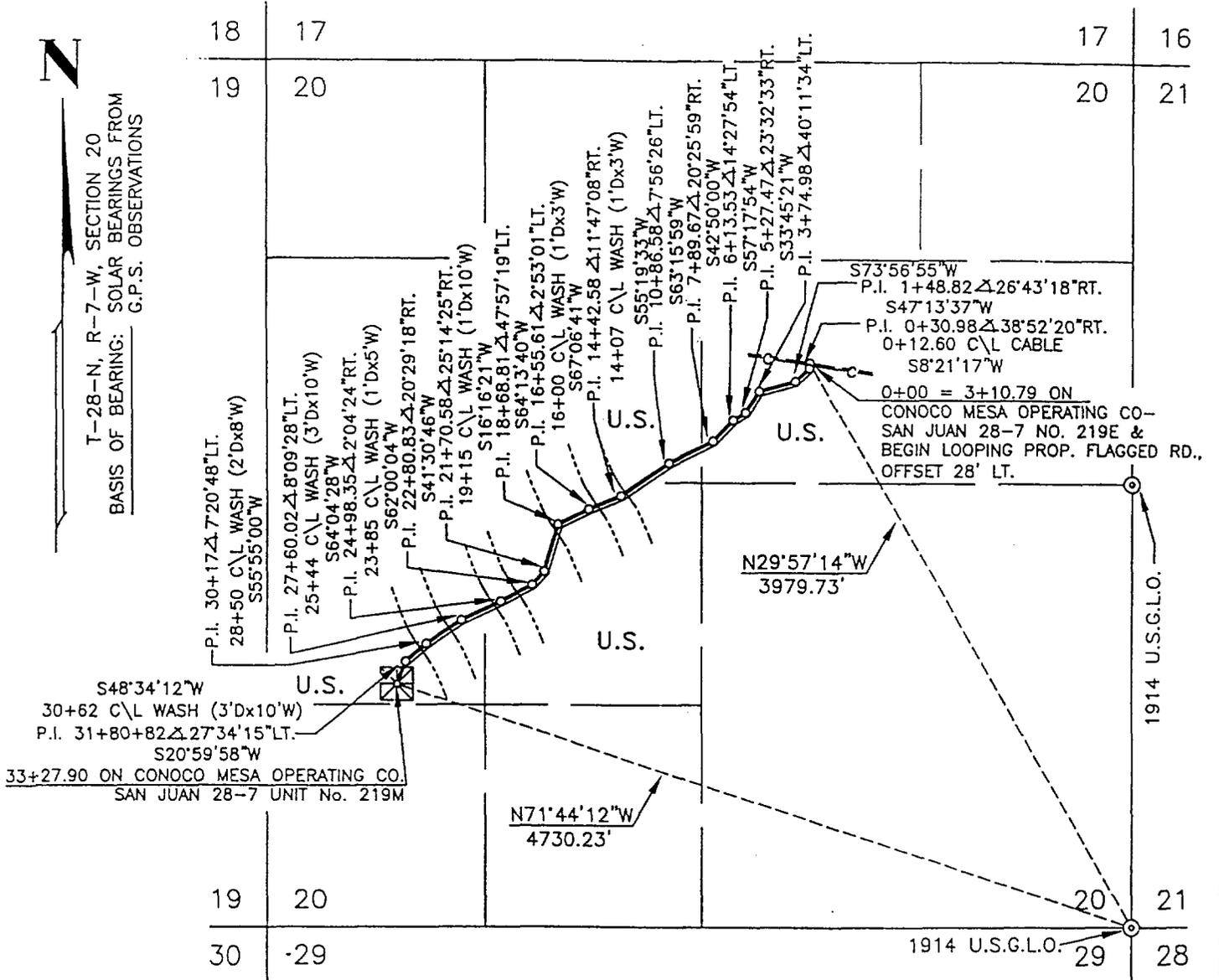
DATE 2/13/99

SCALE 1" = 1000'

SURVEYED 2/1/99

COUNTY RIO ARRIBA STATE NEW MEXICO SECTION 20 TOWNSHIP 28-N

RANGE 07-W, N.M.P.M.



DWN. BY EPG CONSTR. COMMENCED \_\_\_\_\_ APPL. DWG. \_\_\_\_\_ SLACK CHAIN \_\_\_\_\_  
 CKD. BY LM CONSTR. COMPLETED \_\_\_\_\_ DATE \_\_\_\_\_ PIPE SIZE 4.50" O.D.

PRINT RECORD	PIPE DATA	METER STA. NO.	MV/DK
1 R/W 3/17/99			
1 R/W 4/07/99			

NOTE: EXISTING WELL FLAG & SURVEY FOLLOWS C\L PROPOSED FLAGGED ROAD & LOCATION NOT BUILT

SUBDIVISION	OWNER	LESSEE	METER(S)	RODS	ACRE(S)
N1/2 & SW1/4 SEC. 20	U.S.A.	MANUEL PACHECO ESTATE		201.691	

REV. "1" - CORRECTED MISPELLED WORDS  
 Figure 5. Pipeline plat  
 6

FM24 (Rev. 1/99)  
 C2591

Land Jurisdiction: BLM, Farmington District

Project Area: The well pad will measure about 290 by 225 ft and will directly affect an area of about 1.4 acres. Access will be from an existing lease road that is about 3200 ft to the northeast. The well tie pipeline will connect to an existing pipeline located along the existing lease road will extend a total of 3327 ft.

Surveyed Area: The survey included a 590 by 525 ft block (7.1 acres) for well pad, 50-ft construction zone, and 100-ft buffer zone. Also surveyed was about 3200 feet of combined access road/pipeline corridor. A 200-ft wide corridor was examined (14.7 acres). Total area surveyed includes 21.8 acres.

Results: Four archaeological sites (LA127186 through LA127189) were encountered during the survey. Completed site forms are included in Appendix B. The sites are described below.

## CULTURAL RESOURCES

Four archaeological sites were encountered within the surveyed area. The four sites all represent early Navajo habitations, though one also exhibits a small early Anasazi component (LA127187). The sites are all considered potentially eligible for nomination to the National Register of Historic Places. The sites are more fully described as follows:

**Site No.** LA127186

**Description:** This Gobernador Phase Navajo site (Figure 6) is on the slopes of a low, northwest-southeast-trending ridge, within the interior of a bench just to the north of Carrizo Canyon. The site consists of a collapsed hogan (Feature 1), a midden (Feature 2), and an extramural feature (Feature 3). Feature 1 (the hogan), on the southwest portion of the site, consists of 7-m-diameter scatter of artifacts and fire-cracked rock, three post butts, ash staining, and two upright sandstone slabs. The slabs are 40 to 60 cm long by 3 to 5 cm thick and probably form the west corner of a milling bin. Several Gobernador Polychrome sherds, chert flakes, and burned sandstone and quartzite cobbles were observed in Feature 1. Feature 2 is a midden (10 x 6 m) that abuts the eastern edge of Feature 1. It is evident as a C-shaped ash stain with a low-density of sandstone and artifacts. The central portion of the midden is eroded. The midden artifacts include about 15 each Dinetah Gray and Gobernador Polychrome sherds and nearly 30 chert and quartzite reduction flakes. In addition, a collectors pile (PL 1) on the southeast edge of Feature 2 has 10 Dinetah Gray and 20 Gobernador Polychrome sherds. Feature 3 is situated 10 m northeast of the hogan and measures 1-m-diameter. It includes an upright juniper post or stump, burned sandstone, and artifacts. Three Gobernador Polychrome sherds, one tertiary and one secondary silicified wood flake, and several cracked quartzite cobbles are present. As this Navajo residence contains intact subsurface

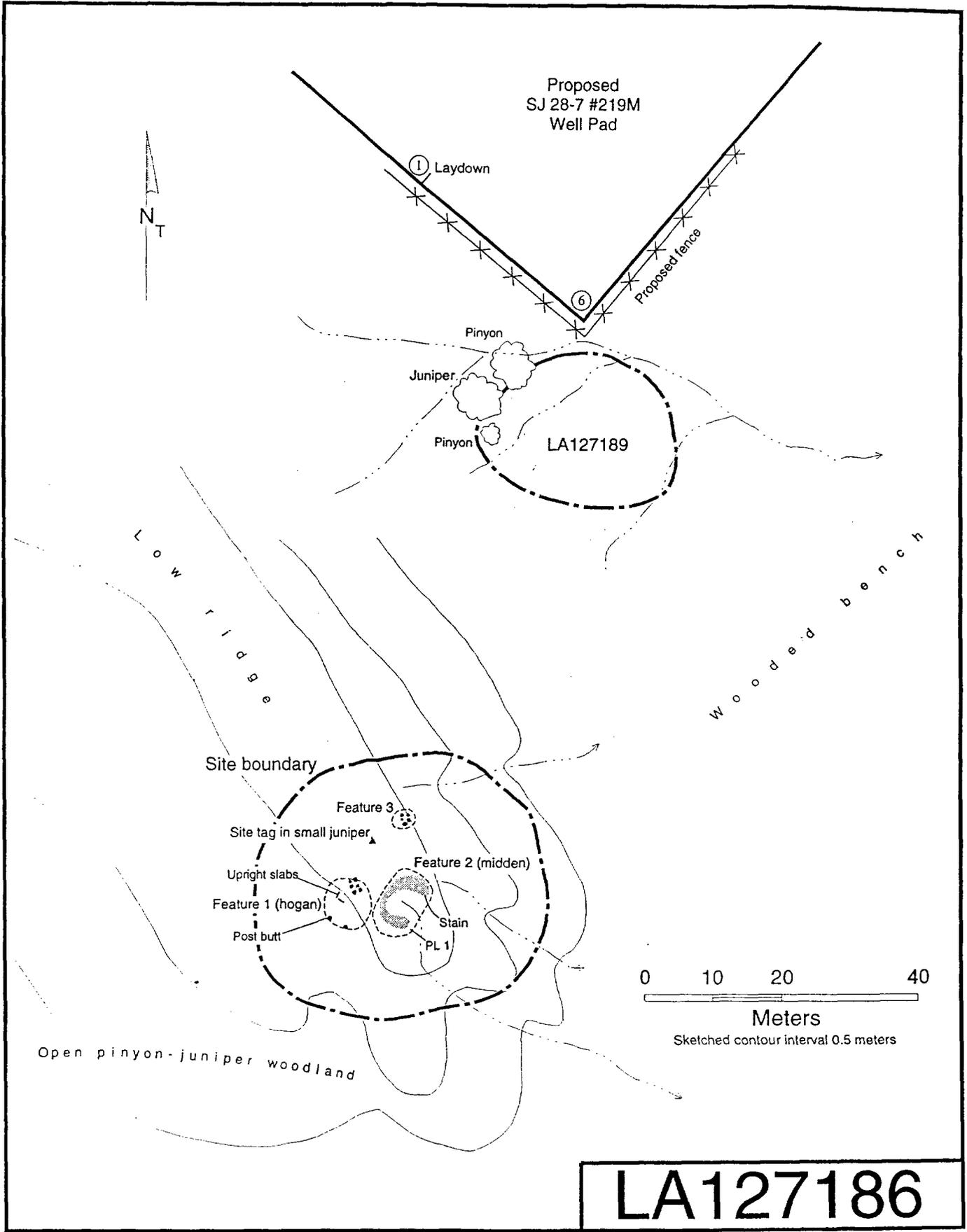


Figure 6. Site plan: LA127186

cultural deposits that are both datable and could yield information of feature use, it should be considered eligible for the NRHP.

Site No. LA127187

**Description:** This multiple component site (Figure 7) is located on a southeast-facing low rise on a bench just to the north of Carrizo Canyon and just to the west of the confluence between Carrizo Canyon and Delgadita Canyon. The site appears to contain a small Anasazi Pueblo I artifact scatter and a possible Navajo Gobernador phase habitation component. Three features are present, including one (Feature 4) assigned to the Anasazi component and three (Features 1-3) assigned to the early Navajo component. Feature 4 is an artifact concentration within the center of the site. Present are about 20 Anasazi gray body sherds, all probably Arboles Gray. No processing features or structures appear to be associated with the Anasazi component and it is possible that this represents only an Anasazi potdrop.

Feature 1 is an extensive artifact scatter with a few pieces of burned sandstone that extends north from Feature 4 up a slight slope to the top of a small clay knoll. Present are about 20 Dinetah Gray body sherds and one Gobernador Polychrome sherd. The lithic observed in Feature 1 include a cluster of seven obsidian flakes and four chert flakes. Feature 2 is also assigned to the early Navajo component and possibly represents a burned hogan. Beneath pinyon and juniper duff are two small burned butt ends, several burned juniper fragments, some oxidized sandstone spalls and a few sandstone blocks. A soil stain extends to the south and southwest of the juniper fragments and an ashy stain appears to extend beneath the duff deposit. There are about 10 Dinetah Gray and one Gobernador Polychrome sherds within or near Feature 2. Two obsidian flakes and seven petrified wood reduction flakes were also noted. Feature 3 is a small sandstone and artifact scatter located in a small wash to the west of Feature 1. Feature 3 is apparent as a 5- by 2-m burned sandstone scatter with four Dinetah Gray sherds. Throughout the remainder of the site, one Gobernador Polychrome and several Dinetah Gray sherds, three tested quartzite and chert cobbles, and one quartzite cobble pecking stone were observed.

The site mostly represents an Early Navajo Gobernador Phase habitation site, containing one probable burned hogan and several artifact concentrations that may represent refuse deposits. The Anasazi component is difficult to evaluate and may simply represent a potdrop or an ephemeral activity locus. The site should be considered eligible for the NRHP because of its prehistoric and historic temporal affinity and research potential.

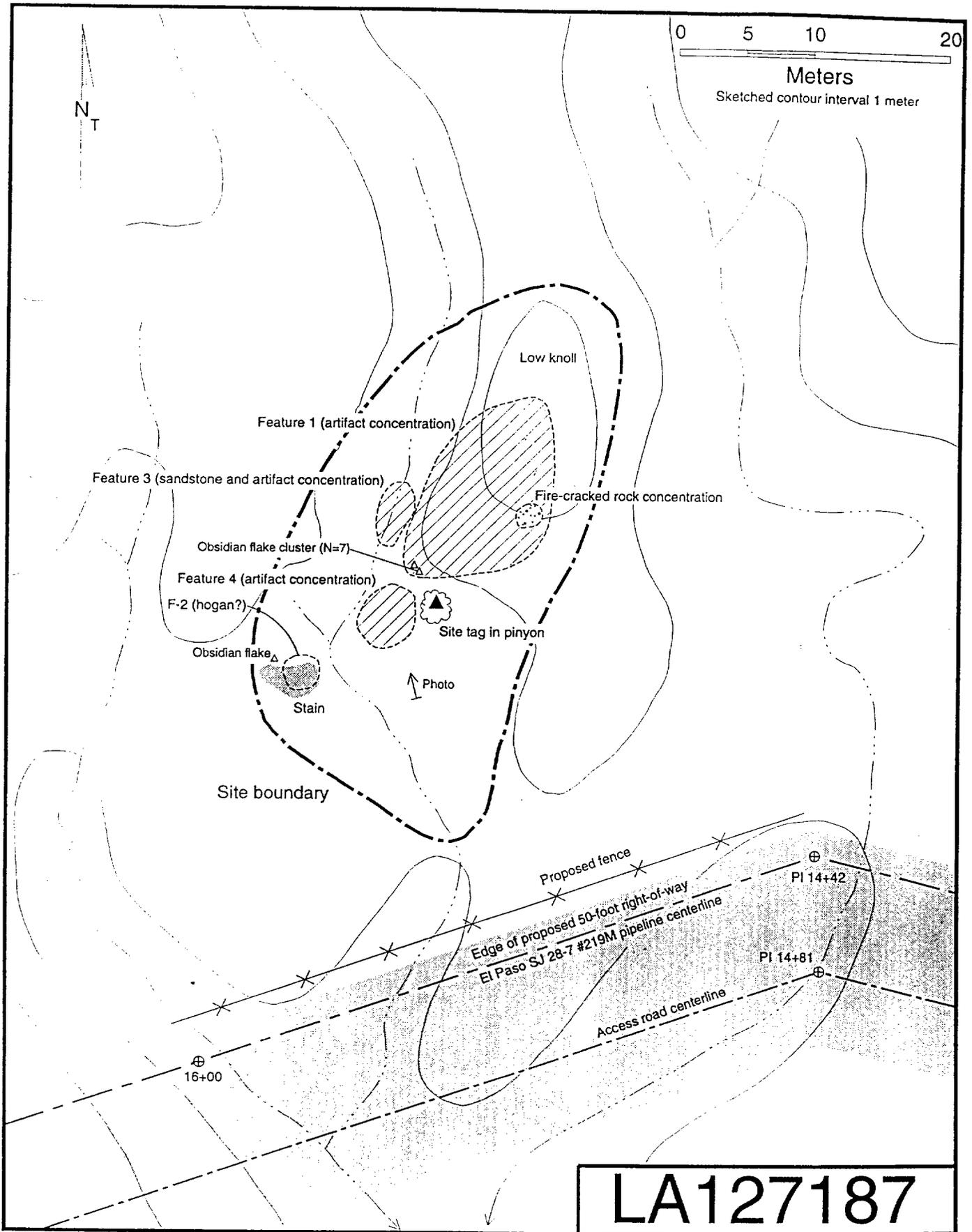


Figure 7. Site plan: LA127187

Site No. LA127188

**Description:** This Gobernador Phase Navajo residence (Figure 8) is on a spur of a low, southwest-northeast-trending ridge within a bench area to the north of Carrizo Canyon. The site consists of a collapsed hogan (Feature 1), an artifact concentration or midden (or even a second hogan) (Feature 2), a midden (Feature 3), and a surrounding sparse-low-density artifact scatter. Water erosion from two small drainages has carried fill and artifacts downslope to the east and southeast. A moderate-sized wash is located 15 m to the north.

Feature 1 consists of a scatter of small juniper splits and burned sandstone, a pocket of staining, and three Gobernador Polychrome sherds. The structural elements encompass a 6-m-diameter area on the western edge of the site. A trowel test in the northern portion of the probable hogan revealed 5 cm of stained fill. Feature 2 is a 4- by 2-m area of artifacts, scattered fire-cracked sandstone, and a lens of staining along a small drainage, 3 m downslope of the hogan. Artifacts include about 20 Dinetah Gray, 5 Gobernador Polychrome sherds, and 5 silicified wood and quartzite flakes. Feature 2 might have washed downslope from either Features 1 or 3 or may represent a small midden or even a second hogan that is mostly buried. The midden (Feature 3) measures 8- by 6-m and is located about 3 m east of the hogan (Feature 1). The midden is evident as a lightly stained area with an estimated 40 surface artifacts. The artifact assemblage includes about 20 Dinetah Gray and 15 Gobernador Polychrome sherds, and about 5 chert and orthoquartzite flakes. The remaining portion of the site yielded approximately 10 Dinetah Gray, 10 Gobernador Polychrome sherds, and 10 additional flakes

As this Navajo residence contains intact subsurface cultural deposits that are both datable and could yield information of feature use, it should be considered eligible for the NRHP.

Site No. LA127189

**Description:** This early Navajo residence (Figure 9) is on a relatively flat bench that is to the north of the inner portion of Delgadita Canyon. The site consists of a probable burned hogan (Feature 1) and a probable midden (Feature 2). Feature 1 is manifest as a 4 by 2 m charcoal rich soil stain with at least 10 burned juniper fragments scattered throughout and just outside of the feature. The feature is slightly eroded and has been damaged to some degree by burrowing activities. Five Dinetah sherds were found in association with Feature 1, which is interpreted to be the remains of a burned hogan.

Feature 2 is located 10 m down the slight slope to the east and is a soil stain and artifact concentration. Within about a 5 m diameter area are 12 Dinetah

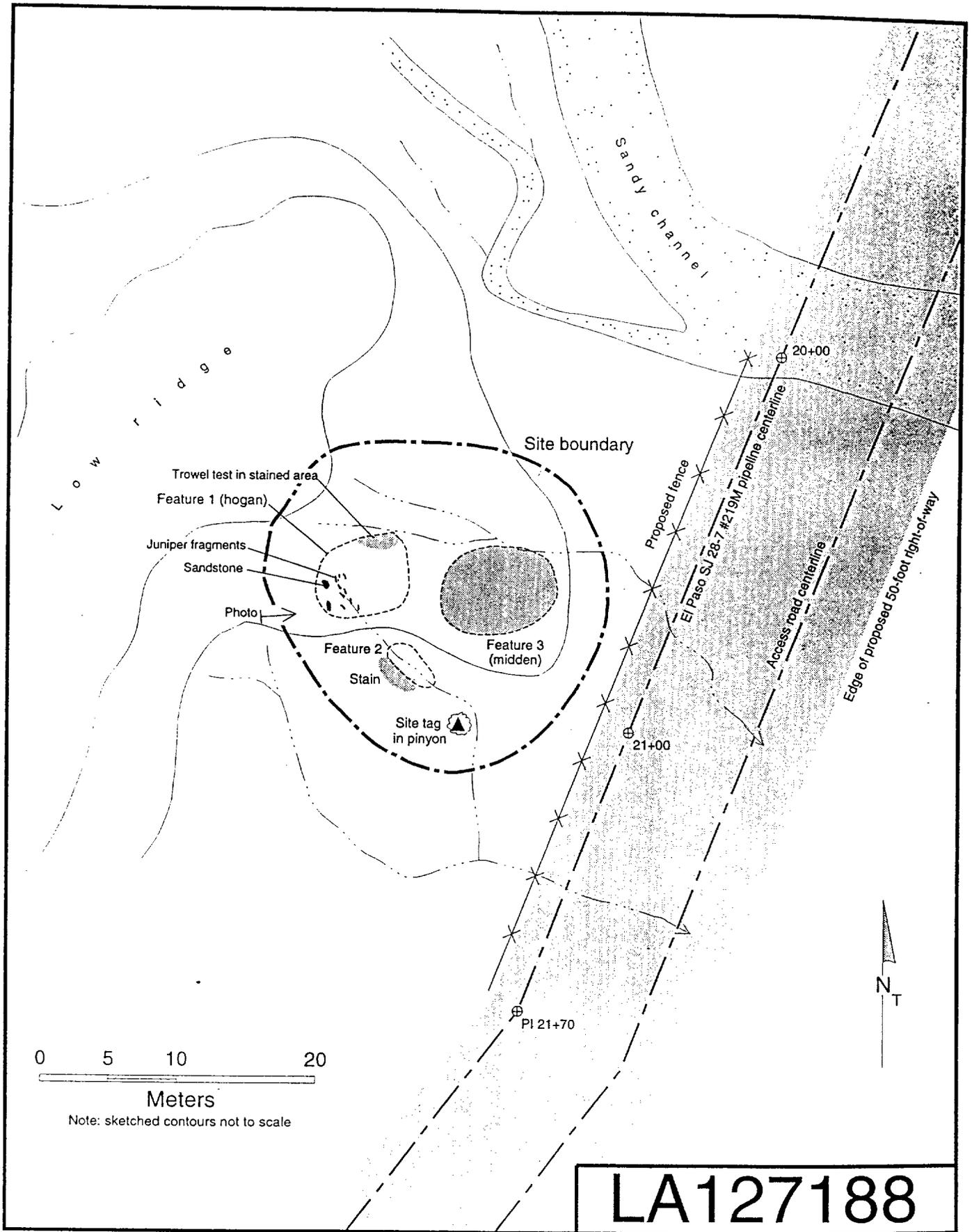


Figure 8. Site plan: LA127188

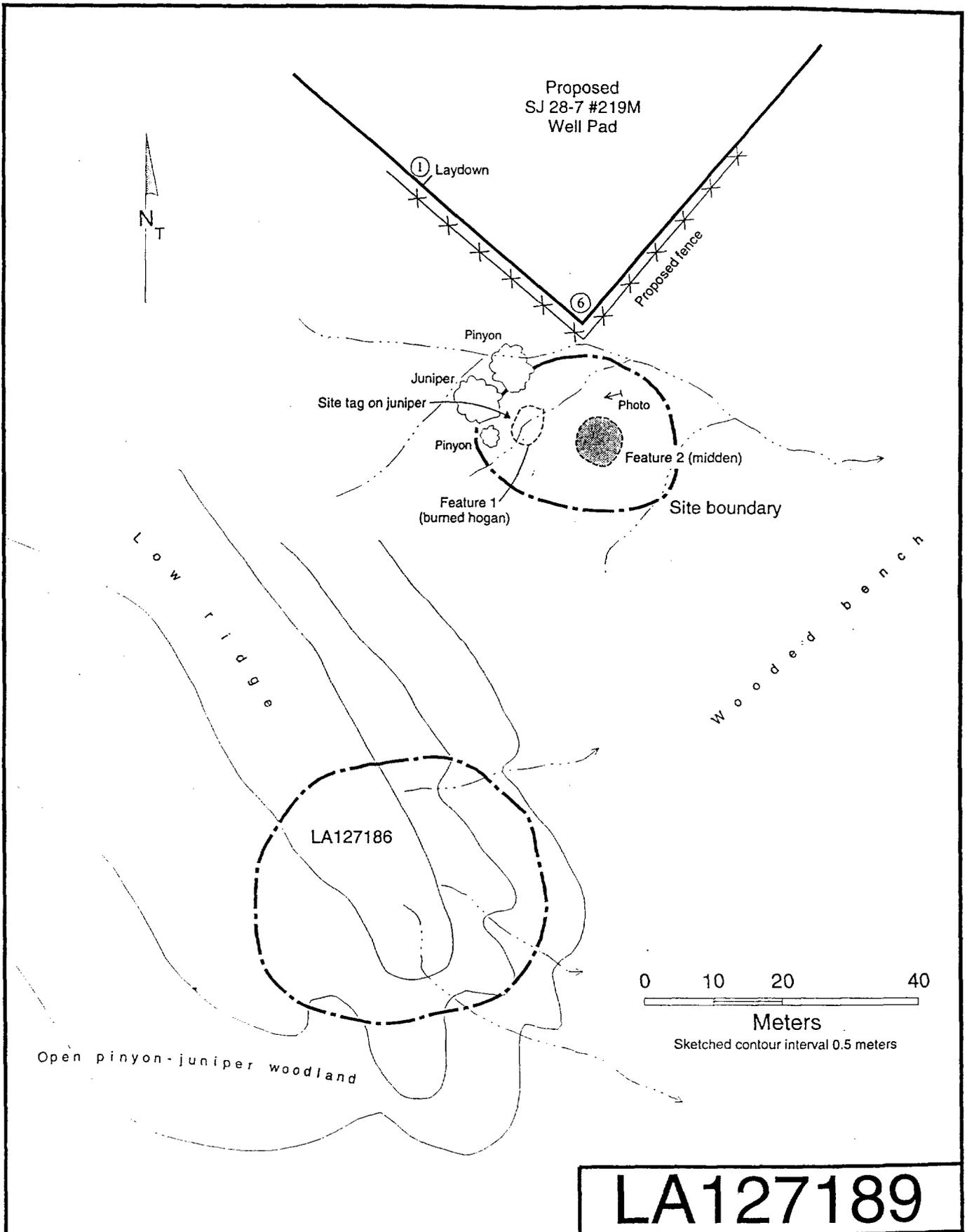


Figure 9. Site plan: LA127189

Gray sherds, a white chert bifacial cutting tool, and five petrified wood flakes or pieces of shatter.

The site contains only Dinetah Gray sherds, though many sites in the locale date to the Gobernador Phase, suggesting that this site also dates after A.D. 1650. However, without further evidence related to site dating, LA127189 is interpreted to represent a Dinetah or Gobernador Phase early Navajo habitation. The site should be considered eligible for nomination to the National Register of Historic Places.

## RECOMMENDATIONS

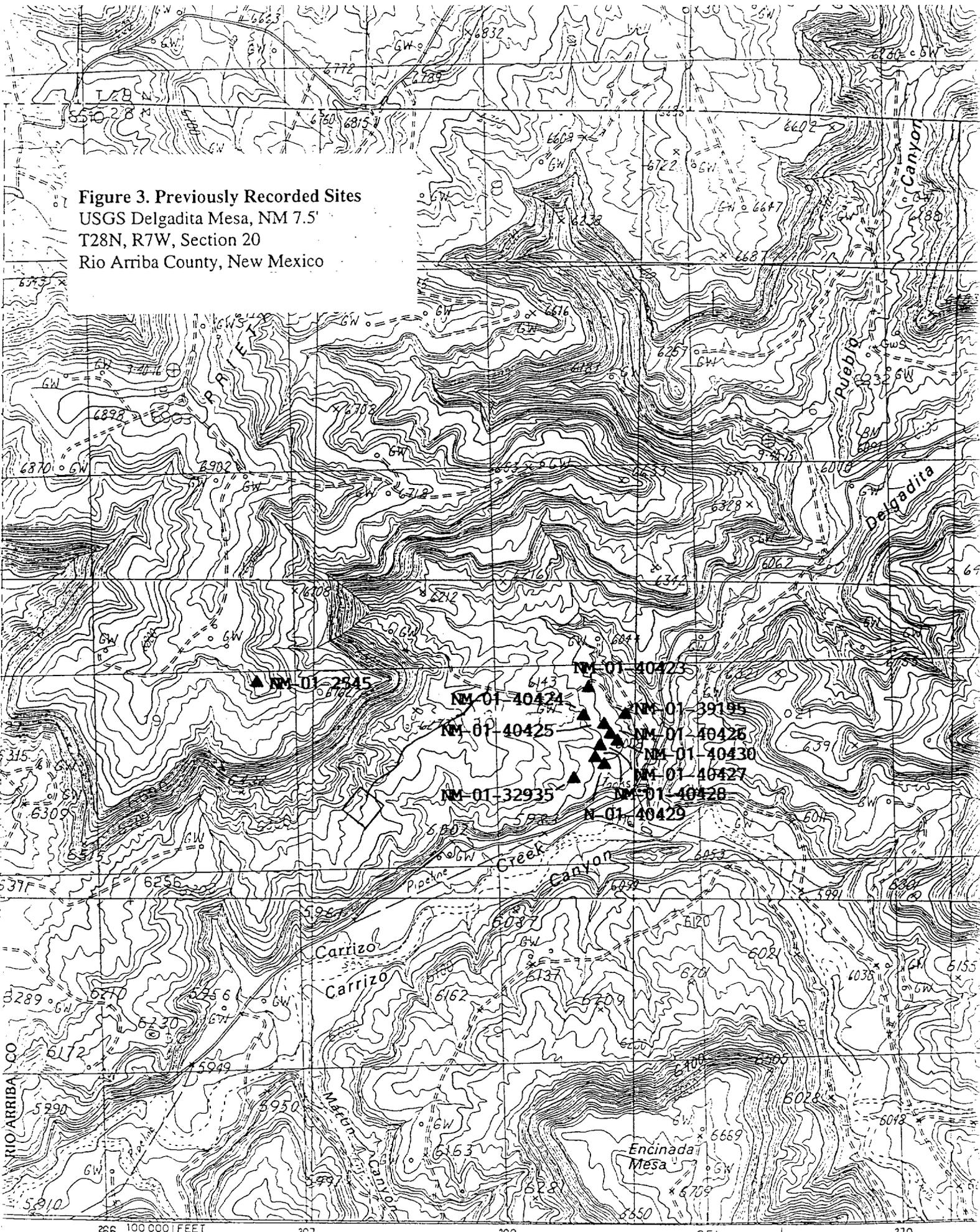
During the survey for Conoco Incorporated's San Juan 28-7 Unit Number 219M well pad and access road and El Paso Field Services' well tie pipeline, three potential National Register eligible archaeological sites were encountered. Recommendations for avoiding and protecting the sites are presented below:

- LA127186:** This site is situated about 200 ft southwest of the proposed well pad (Figure 6) and should not require any further protection.
- LA127187:** This site is situated about 20 ft north of the access road/pipeline right-of-way. The site can be protected during access road and pipeline construction by placing a protective fence along the north edge of the right-of-way between ES 14+50 and 16+00, as shown on Figure 7.
- LA127188** This site is situated just northwest of the access road/pipeline right-of-way. The site can be protected during access road and pipeline construction by placing a protective fence along the north edge of the right-of-way between ES 20+00 and 21+70, as shown on Figure 8
- LA127189:** This site is situated just southwest of the proposed well pad, as shown on Figure 9. A temporary fence should be placed as shown on Figure 9 prior to well pad construction.

Given these recommendations for site protection and avoidance, archaeological clearance is recommended for the project.

**APPENDIX A**  
**PREVIOUSLY RECORDED SITES**

**Figure 3. Previously Recorded Sites**  
 USGS Delgadita Mesa, NM 7.5'  
 T28N, R7W, Section 20  
 Rio Arriba County, New Mexico



**APPENDIX B**

**SITE FORMS: LA127186, LA127187, LA127188, AND LA127189**

**CULTURAL RESOURCES SURVEY OF  
CONOCO INCORPORATED'S  
SAN JUAN 28-7 NO. 225E WELL PAD, ACCESS ROAD  
AND  
CATHODIC PROTECTION LINE AND  
EL PASO FIELD SERVICES' WELL TIE PIPELINE  
RIO ARRIBA COUNTY, NEW MEXICO**

**LAC REPORT 9840i**

by

Steven Fuller

LA PLATA ARCHAEOLOGICAL CONSULTANTS  
26851 COUNTY ROAD P  
DOLORES, COLORADO 81323  
(970) 565-8708

New Mexico Cultural Resource Use permit No. 19-2920-98-P  
NMCRIS Project Number 63851

March 10, 1999

Prepared For:

Conoco Incorporated  
10 Desta Drive; Suite 430E  
Midland, Texas 79705-4500  
(915) 686-5794

El Paso Field Services  
617 Reilly Avenue  
Farmington, NM 87401  
(505) 599-2177

## ABSTRACT

Between October 20, 1998 and January 12, 1999 La Plata Archaeological Consultants conducted a cultural resources survey for the proposed San Juan 28-7 Number 225E well pad, access road cathodic protection line, and well tie pipeline planned by Conoco Incorporated and El Paso Field Services. The survey is located in Rio Arriba County, New Mexico, on lands managed by the Bureau of Land Management, Farmington District Office. The project is located in T28N, R7W, Section 34. Approximately 12.6 acres were surveyed for the well pad, access road, cathodic protection line and well tie pipeline, and buffer zones.

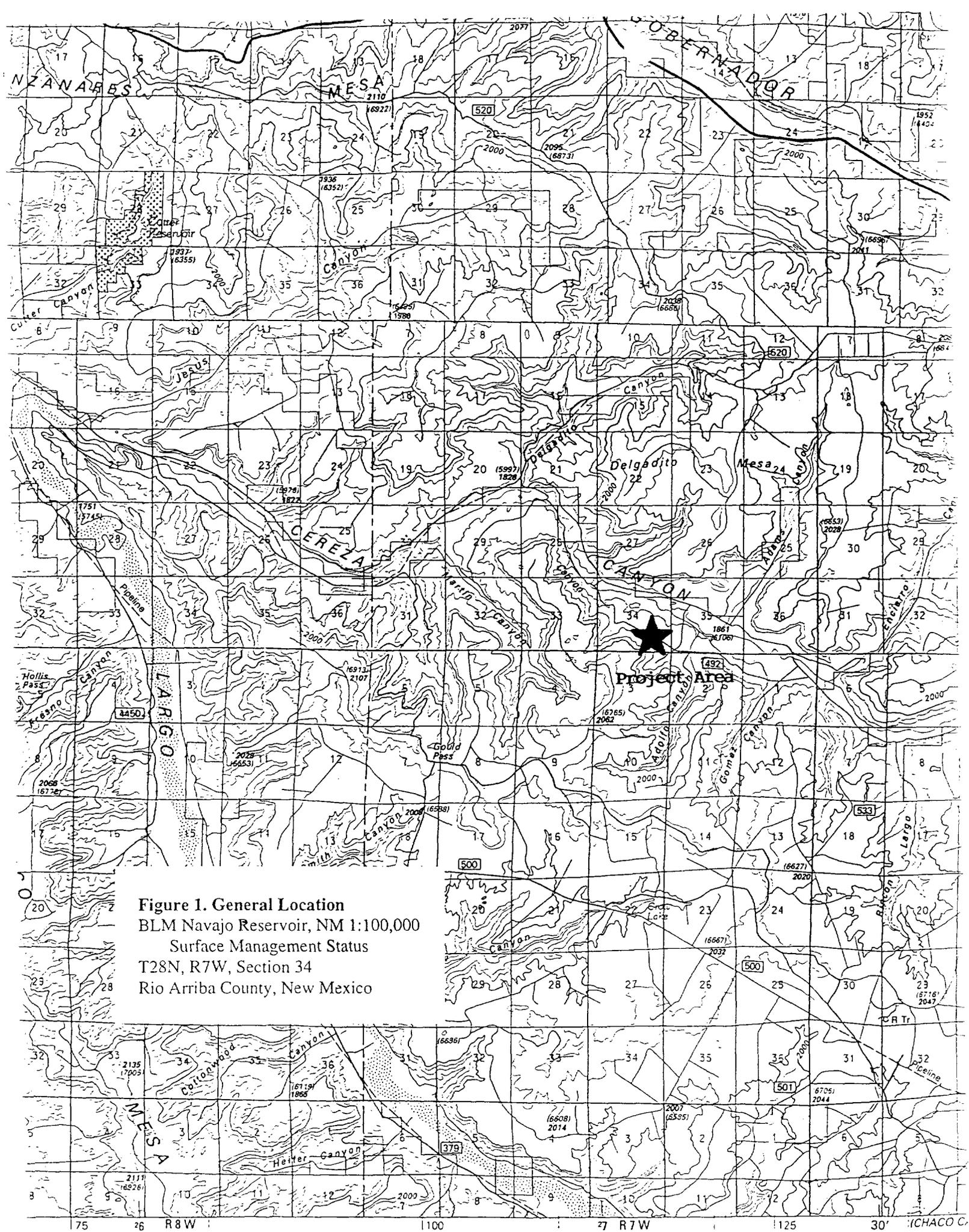
Four new archaeological sites and one previously recorded archaeological site were encountered during the survey. The sites, all of which are considered eligible or potentially eligible for nomination to the National Register of Historic Places, are adequately avoided by the proposed project and can be protected during project construction. Archaeological clearance is recommended for the project.

## INTRODUCTION

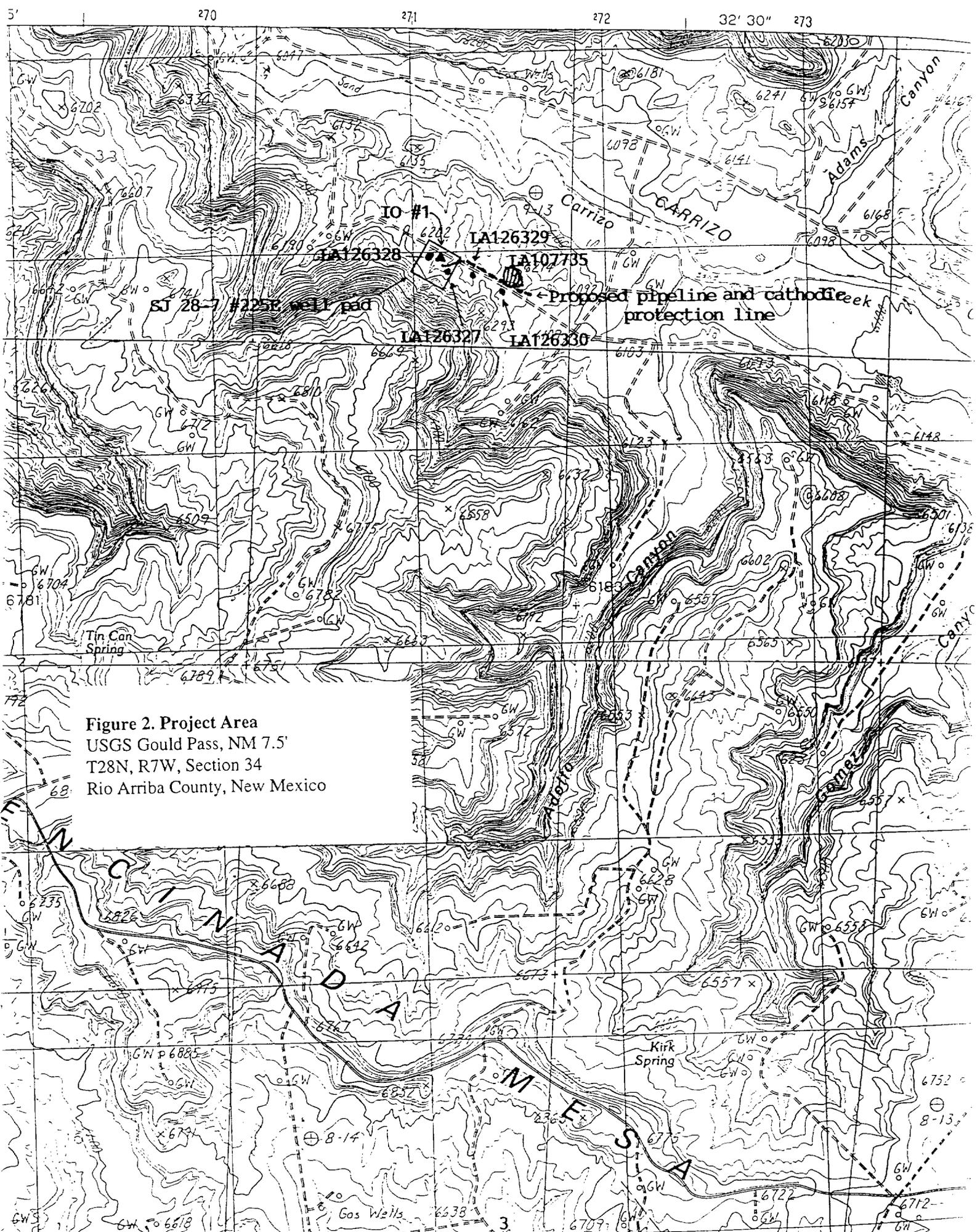
The archaeological survey of Conoco Inc.'s San Juan 28-7 Number 225E well pad, access road and cathodic protection line and El Paso Field Services' well tie pipeline was conducted by personnel of La Plata Archaeological Consultants between October 20, 1998 and January 12, 1999. The fieldwork was conducted by Steven Fuller, Deb Silverman, and Paul Stirniman; Fuller also administered the project. The survey was conducted at the request of Mr. Mike L. Mankin of Conoco Incorporated. Personnel of NCE Surveys staked the proposed well location and El Paso Field Services personnel staked the well tie pipeline.

The project is located on lands managed by the Bureau of Land Management, Farmington District Office. The project is within Rio Arriba County, New Mexico, and is located in Carrizo Canyon, on a bench to the south of the main wash (Figures 1 and 2). All work was conducted under the authority of the New Mexico Cultural Resource Use Permit No. 19-2920-98-P issued to La Plata Archaeological Consultants.

The area was surveyed for a well pad, access road and cathodic protection line planned by Conoco Incorporated and an associated well tie pipeline proposed by El Paso Field Services. A total of 12.6 acres was intensively surveyed for this project. A 600 by 525 foot block was surveyed for the well pad which will measure approximately 300 by 225 ft. An access road extends about 300 feet to the northeast to tie into an existing road. The well tie pipeline and cathodic protection line will follow the new access road and then follow an existing road for another 1300 feet to the southeast to an existing Conoco well (SJ 28-7 #225M) where they will connect to an existing pipeline and AC line.



**Figure 1. General Location**  
 BLM Navajo Reservoir, NM 1:100,000  
 Surface Management Status  
 T28N, R7W, Section 34  
 Rio Arriba County, New Mexico



**Figure 2. Project Area**  
 USGS Gould Pass, NM 7.5'  
 T28N, R7W, Section 34  
 Rio Arriba County, New Mexico

Five archaeological sites were encountered during the survey, one of which was previously recorded. Also encountered and recorded was one isolated occurrence. The sites are all considered eligible or potentially eligible for nomination to the National Register of Historic Places. Two of the sites are located in proximity to the well pad (LA126327 and LA126328). The other three sites (LA126329, LA126330, and LA107735) are all located along the proposed pipeline/cathodic protection line corridor. Given recommendations for site avoidance and protection, archaeological clearance is recommended for the project.

## **PREFIELD RECORDS SEARCH**

The ARMS database was searched by modem for this project in October, 1998. Also consulted were the records maintained by the BLM, Farmington District Office. There are only two previously recorded sites within 0.5 miles of the project area. One of these sites (LA107735) was found to be within the proposed pipeline right-of-way and was rerecorded. Site NM-01-39747 is located about 400 ft southeast of the east end of the proposed pipeline/cathodic protection line corridor, as shown on Figure 3, located in Appendix A.

## **FIELD METHODS**

Prior to the survey, the proposed well pad was marked at the center, the four corners, and the four centerline endpoints. A 7.2 acre block (600 by 525 ft) was surveyed at the well location using pedestrian transects spaced no farther apart than 15 meters. This was sufficient to cover the 300 by 225 ft well pad, 50 ft construction zone, and at least a 100 ft buffer for cultural resources. For the short section of access road/pipeline corridor, pedestrian transects were used to cover a 200 ft long by 200 ft wide corridor. For the section of pipeline and cathodic protection line that extend beyond the access road, a corridor 150-ft wide by about 1300 ft long was surveyed to cover the right-of-way and two 50 ft wide buffer zones. The surveyed area is illustrated on Figure 2.

## **ENVIRONMENT**

The proposed well pad is located on a bench to the south of the bottom of Carrizo Canyon, just west of the confluence with Adolfo Canyon. The well pad area is at the base of Ensenada Mesa with eroding shale sediments exposed throughout the area. The pipeline/cathodic protection line corridor extends southeast towards Adolfo Canyon, crossing many small tributaries to Carrizo Wash. Vegetation throughout the project area consists mainly of pinyon and juniper with a few open patches of sagebrush.

## PROJECT LOCATION AND DESCRIPTION

- Project Name:** Conoco Incorporated's SJ 28-7 No. 225E well pad, access road, cathodic protection line, and El Paso Field Services' well tie pipeline
- Legal Description:** The well pad, access road, cathodic protection line and well tie pipeline are located in T28N, R7W, Section 34, SE¼. The actual footage of the location is 1350 FSL, 2330 FEL. (See well pad plat, Figure 4 and pipeline plat, Figure 5). All project features are in Rio Arriba County, New Mexico.
- Elevation:** 6190 ft
- Map Reference:** USGS Gould Pass, New Mexico, 7.5' (1985 Provisional Edition)
- Land Jurisdiction:** BLM, Farmington District
- Project Area:** The well pad will measure about 300 by 225 ft and will directly affect an area of about 1.5 acres. Access will be along a new road that will extend about 300 ft from the well pad to an existing road. The well tie pipeline and cathodic protection line will be placed along or in the new access road and then extend another 1300 ft to the southeast to tie into existing facilities on Conoco's existing SJ 28-7 #225M well pad.
- Surveyed Area:** The survey included a 600 by 525 ft block (7.2 acres) for well pad, 50-ft construction zone, and 100-ft buffer zone. For the access road/pipeline corridor, a corridor measuring about 200 ft in length by 200 ft in width (0.9 acre) was examined for the portion that extends beyond the block survey area. For the pipeline/cathodic protection line corridor that extends beyond the new access road, a 1300 by 150 ft corridor was examined (4.45 acres). A total of 12.6 acres was examined for this project.
- Results:** Four new archaeological sites (LA126327-LA126330) and one previously recorded archaeological site (LA107735) were encountered during the survey. Complete site forms are included in Appendix B. The sites are described below. An isolated find was also encountered and recorded.

## CULTURAL RESOURCES

Four new and one previously recorded archaeological sites were encountered within the surveyed area. The sites include two early Navajo habitations, one early Navajo sweatlodge, one early Navajo artifact scatter, and one medium-large Anasazi Pueblo I habitation. All of the sites are considered eligible or potentially eligible for nomination to the National Register of Historic Places. One Isolated Occurrence was also recorded in the well pad buffer zone. The sites and IO are more fully described as follows:

CONOCO, INC. SAN JUAN 28-7 UNIT #225E  
 1350' FSL & 2330' FEL, SEC. ON 34, T28N, R7W, NMPM,  
 RIO ARriba COUNTY, NEW MEXICO  
 GROUND ELEVATION: 6190'

LATITUDE: 36°36'52"  
 LONGITUDE: 107°33'34"

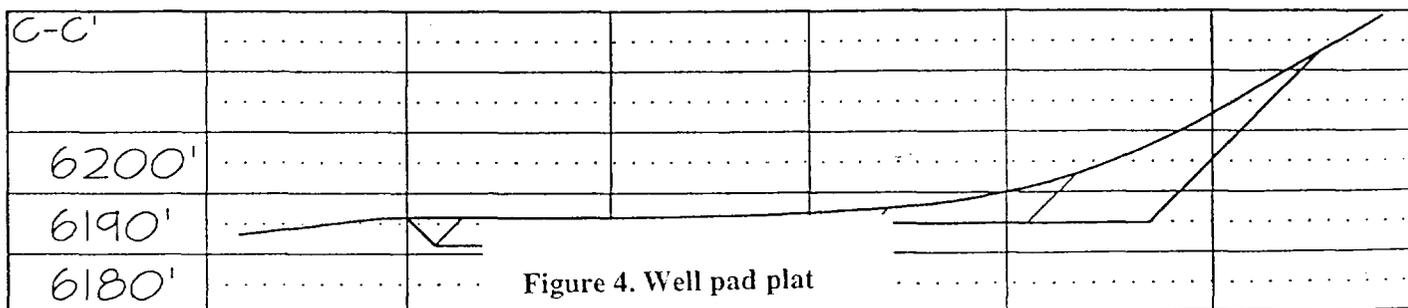
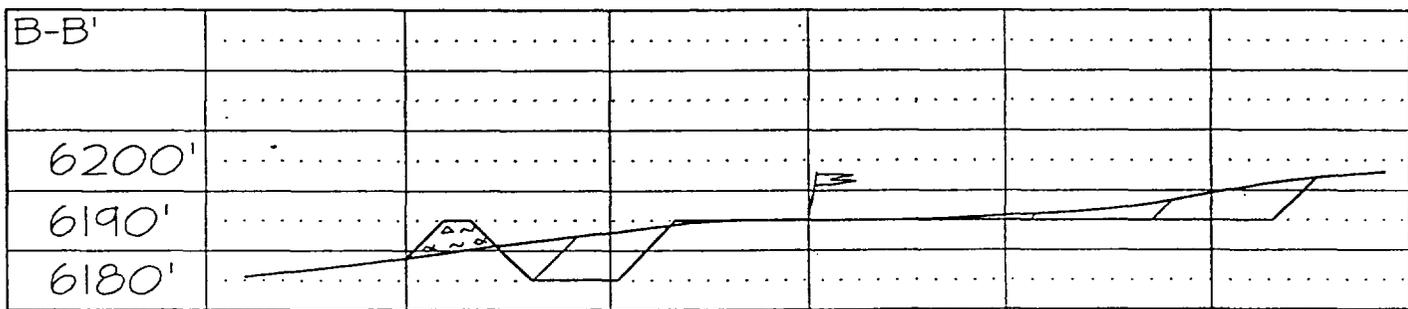
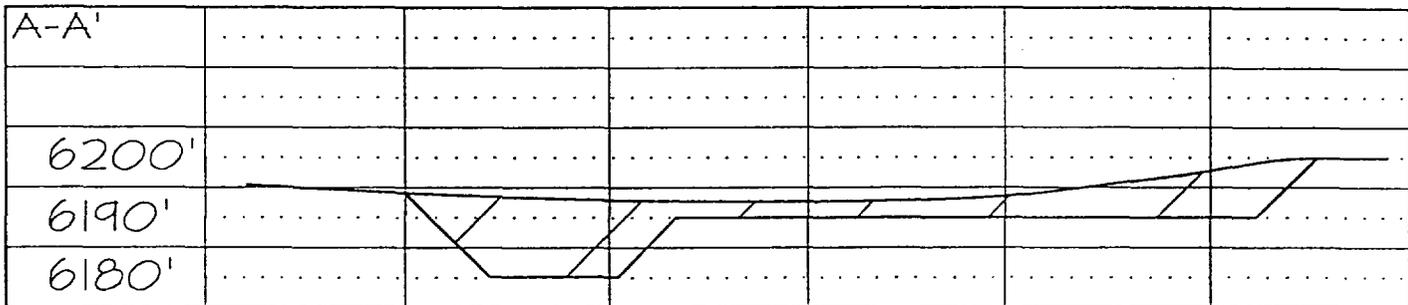
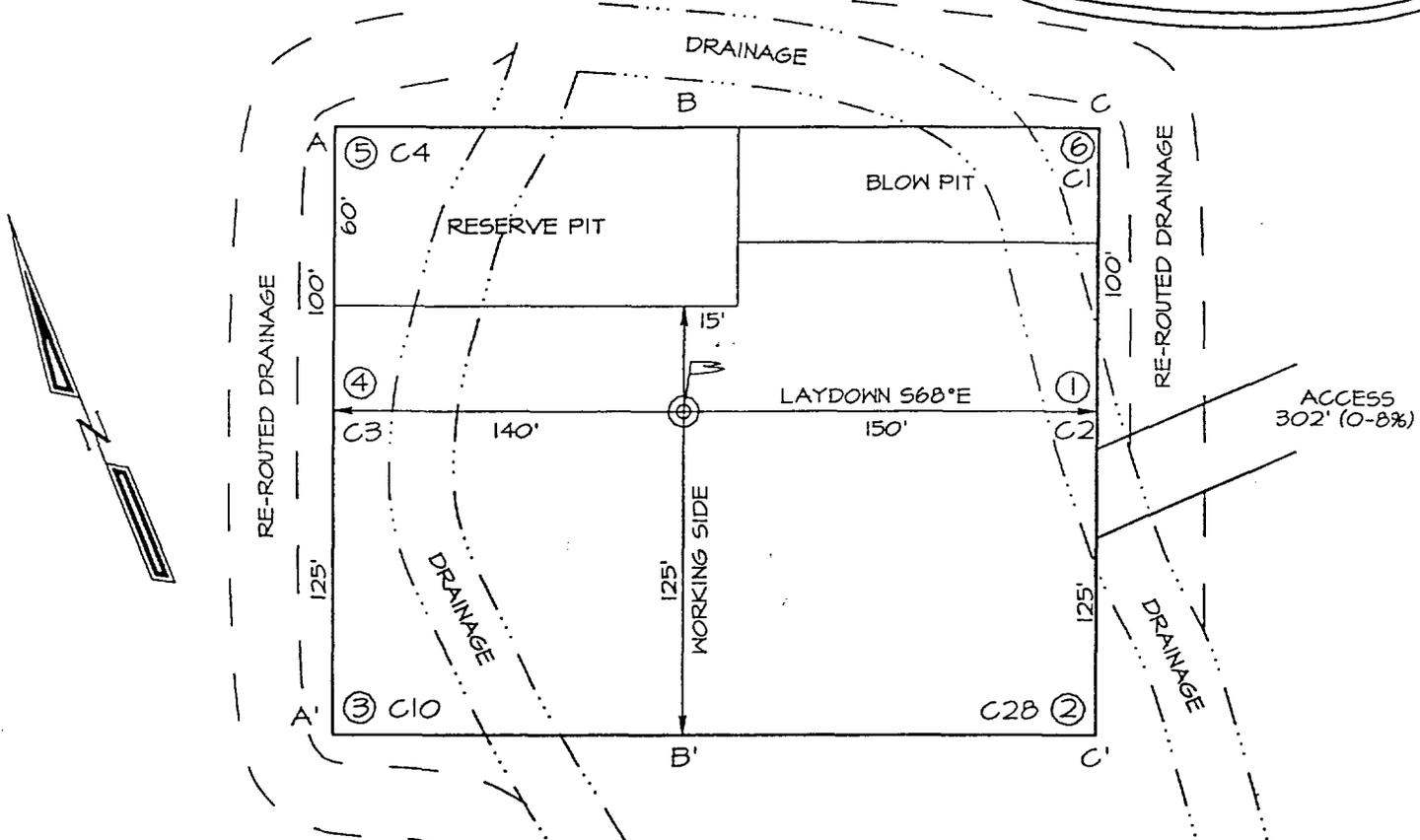


Figure 4. Well pad plat

LINE CONOCO, INC - SAN JUAN 28-7 UNIT NO. 225E

WO NO. 11371

FROM 0+00 = 9+84.7 ON CONOCO, INC - SAN JUAN 28-7 UNIT NO. 225M

RW NO. 9970006

(BLC9-104-1, R/W NO. 967116) (MC NO. 99334)

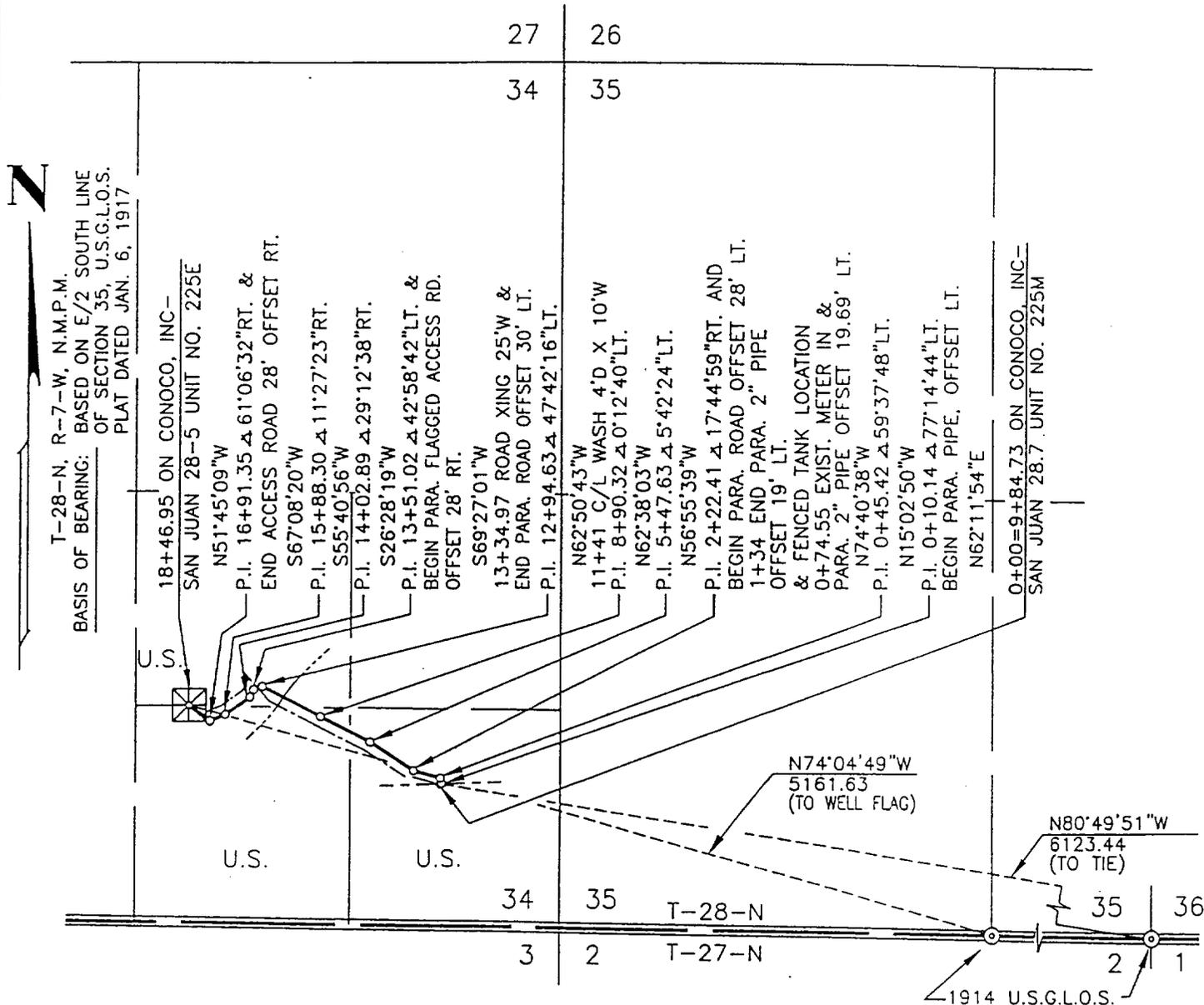
DATE 2/04/99

SCALE 1" = 1000'

COUNTY RIO ARRIBA STATE NEW MEXICO SECTION 34 TOWNSHIP 28-N

SURVEYED 11/19/98

RANGE 7-W, N.M.P.M.



DWN. BY DPC CONSTR. COMMENCED \_\_\_\_\_ APPL. DWG. \_\_\_\_\_ SLACK CHAIN \_\_\_\_\_  
 CKD. BY LM/MD CONSTR. COMPLETED \_\_\_\_\_ DATE \_\_\_\_\_ PIPE SIZE 4.50" O.D.

PRINT RECORD PIPE DATA METER STA. NO. MV/DK

1	R/W-PREL	2/11/99
8	SJ DIST.	

NOTE: WELL FLAG

**PRELIMINARY**

OWNER	SUBDIVISION	OWNER	LESSEE	METER(S)	RODS	ACRE(S)
	SE/4 SEC. 34	UNITED STATES	PACHECO RANCHES		111.936	1.696

Figure 5. Pipeline plat

FM24 (Rev. 1/99)

BLC91211

Site No. LA107735

**Description:** The site was previously recorded in 1994 for Conoco's SJ 28-7 #225M well pad which is located just southeast of the site. When the site was revisited and rerecorded in 1999, it was found to be as previously recorded, with one exception, noted below.

Original 1994 Site Description

The site is located the more elevated portion of a ridge on a bench setting on the south side of Carrizo Canyon. The majority of the site is on a gentle northeast-aspect, sagebrush-covered meadow. The most prominent site features are two dense midden deposits (Features 4 and 5). Abundant grayware body sherds, neckbanded sherds, redwares make up the ceramic assemblage. Lithic debitage is all stages of reduction was noted, as well as cores. Quartzite was the most common material represented. Burned rock fragments were present in large quantities. All these materials were in a matrix of black charcoal stained soils. One relatively well defined pitstructure depression and two other possible depressions (Features 1, 2 and 3, respectively) were noted on the sagebrush-covered slope that comprises the main part of the site. No clear evidence of roomblocks were present. The site is a Pueblo I habitation with multiple structures. Because of the presence of a large artifact assemblage associated with intact subsurface cultural deposits, the site is considered significant and eligible for nomination to the National Register of Historic Places.

1999 Update

The site boundary was moved slightly to the south and reexamined in 1999. One the steep, eroding shale slope that extends south of the main site area, it was noted that a few sherds extend to the edge of the road and the site boundary was extended south for about 10 m further south. The area represents slope washed materials which obviously originate from the exposed midden deposits along the escarpment on the south edge of the main site area. The few artifacts at the south end of this slope are exposed on decomposing and slope washed shale deposits and there is no likelihood that any buried deposits or features exist in this portion of the site.

Site No. LA126327

**Description:** This site is a Dinetah or Gobernador Phase early Navajo habitation (Figure 7) that consists of a collapsed hogan remnant (Feature 1) and a surrounding sparse-density artifact scatter. The site is located on the dissected western slope of a low, south-southwest-north-northeast-trending residual ridge. Cultural deposits are being washed downslope to the west. Feature 1 measures approximately 4 m-diameter and is visible as a scatter of small juniper splits, one possible juniper post butt, and several pieces of burned sandstone. The structure is poorly preserved and difficult to distinguish. No organic staining or artifacts were observed in the feature. Two Dinetah Gray pot drops (PL 1 and 2) lie to the east and southeast of the hogan. The remaining artifacts consist of a chalcedony core fragment, one chert hammerstone, two secondary and one primary orthoquartzite flakes, and a sandstone pecking stone. Based on the

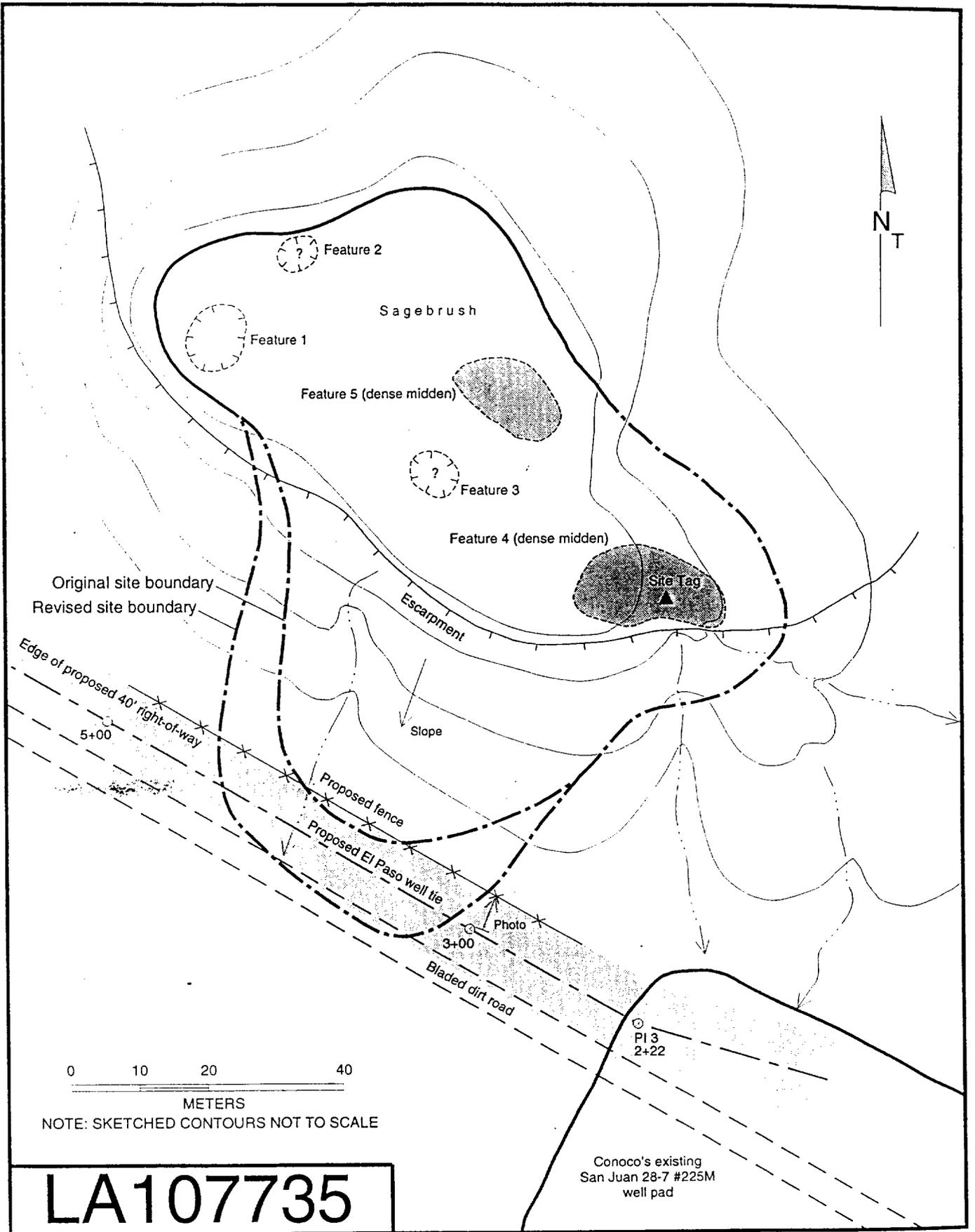


Figure 6. Site plan: LA107735

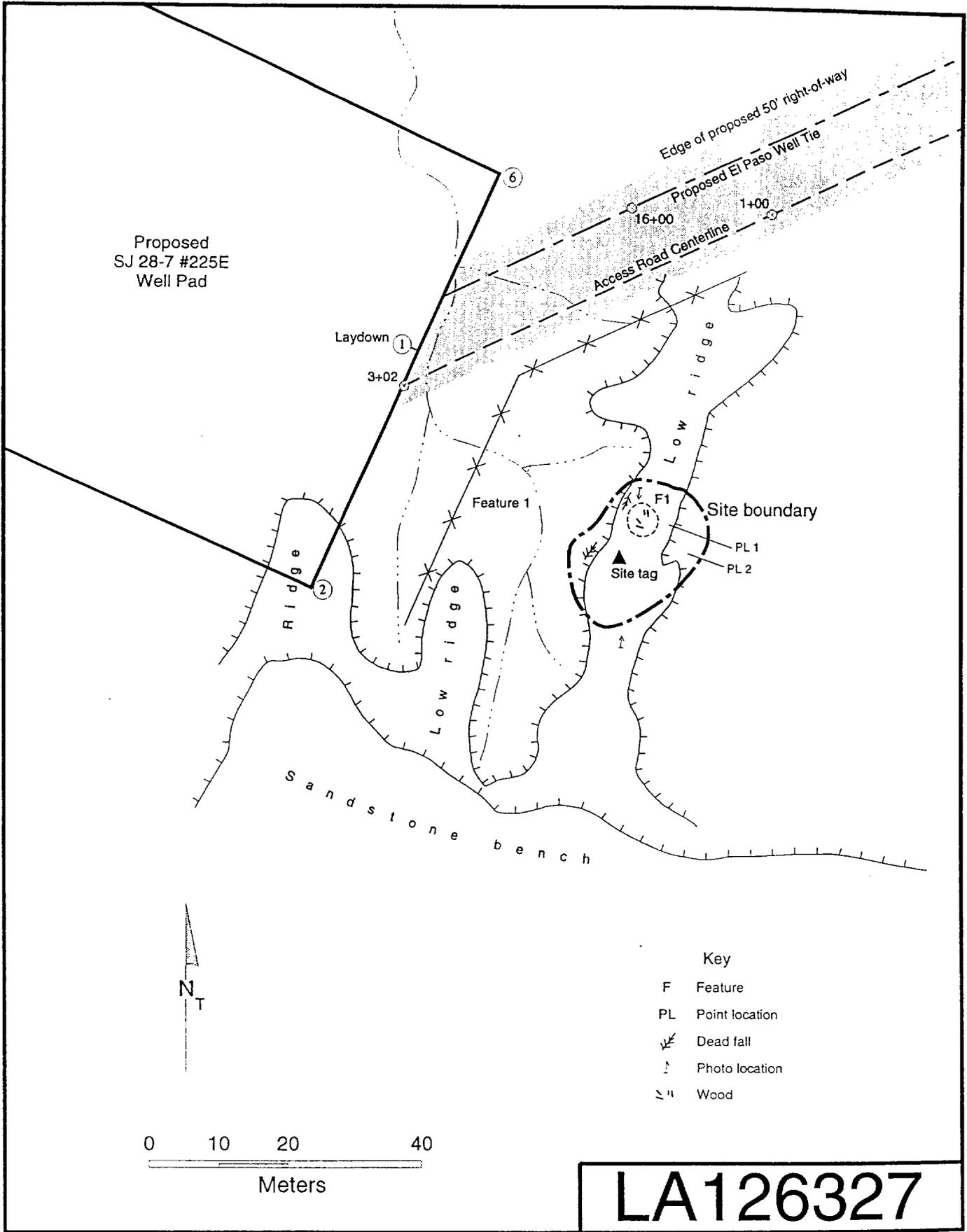


Figure 7. Site plan: LA126327

presence of a partially intact structure and research potential, this site should be considered eligible for National Register nomination.

Site No. LA126328

**Description:** This single unit Gobernador Phase early Navajo habitation (Figure 8) consists of a collapsed hogan (Feature 1), an eroded midden (Feature 2), a sandstone concentration (Feature 3), an ash stain (Feature 4), an axe-cut stump, and surrounding sparse-density artifact scatter. It lies on the northwestern slope of a low, south-southwest-north-northeast-trending ridge. The hogan and midden fill are being washed downslope into a small drainage.

Feature 1 is apparent as a scatter of small juniper splits (.20-.70 m long), two upright sandstone slabs (one burned), a collapsed burned slab, two possible post butts, and a scatter of burned and unburned sandstone and artifacts. The upright slabs measure about .25 m long by .03-.10 m thick and form one corner of a probable mealing bin. Artifacts observed in Feature 1 include nine Dinetah Gray and three Gobernador Polychrome sherds. The Feature 2 midden is located downslope to the north of the hogan. It measures 3.0- by 2.5-m and ash-stained fill is visible east of the drainage. An estimated 40 artifacts, including over 20 Dinetah Gray sherds, 10 Gobernador Polychrome sherds, and several tertiary chalcedony and silicified wood flakes. Scattered pieces of burned and unburned sandstone are also present. A trowel test in the ash stain exposed approximately .05 m of subsurface fill. Feature 3 is a 1.0- by 1.5-m sandstone concentration 5 m northeast of the midden. The rocks range from .10-.40 m in diameter. Over 50 percent of the sandstone is burned; however, no ash staining or artifacts were observed in the vicinity. Feature 3 might be processing feature of unknown function. A 1.5 m-diameter ash stain (Feature 4) is visible 15 m south-southeast of the hogan. One piece of burned sandstone rests in the feature and one Gobernador polychrome sherd is present 1 m to the northeast. A trowel test revealed 10-15 cm of burned fill. Feature 4 could be an ash dump or the remnant of a more complex feature.

The presence of intact buried cultural deposits features and a structure make this Gobernador Phase Navajo residence eligible for the NRHP.

Site No. LA126329

**Description:** LA126329 is a Dinetah or Gobernador Phase Navajo sweat lodge (Figure 9) location. It is located on a dissected slope overlooking a moderate-sized drainage to the northeast. Feature 1 is apparent as a 9- by 7-m low-moderate-density burned rock concentration. The rock consists of mainly sandstone with a few quartzite cobbles. Ash staining is visible in the northeast portion of the feature where a trowel test revealed 10-20 cm of dark fill. A sparse-density of artifacts is present in Feature 1 except for a probable pot drop (PL 1) along the eastern edge. Several fragmentary pieces of eroded juniper are present 4 m west of Feature 1. These could be remnants of the sweat lodge. Feature 2 is a probable firepit located near the center of Feature

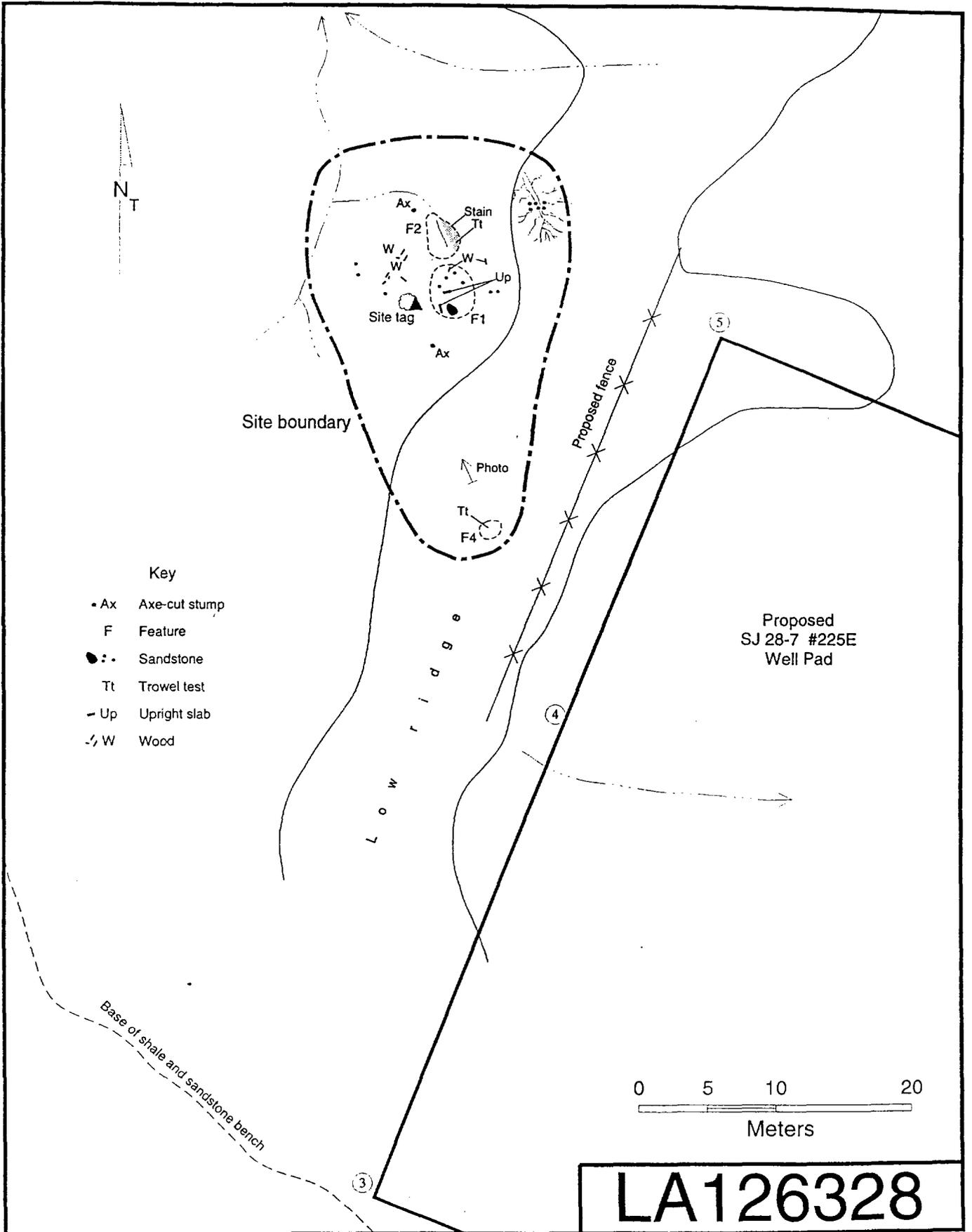


Figure 8. Site plan: LA126328

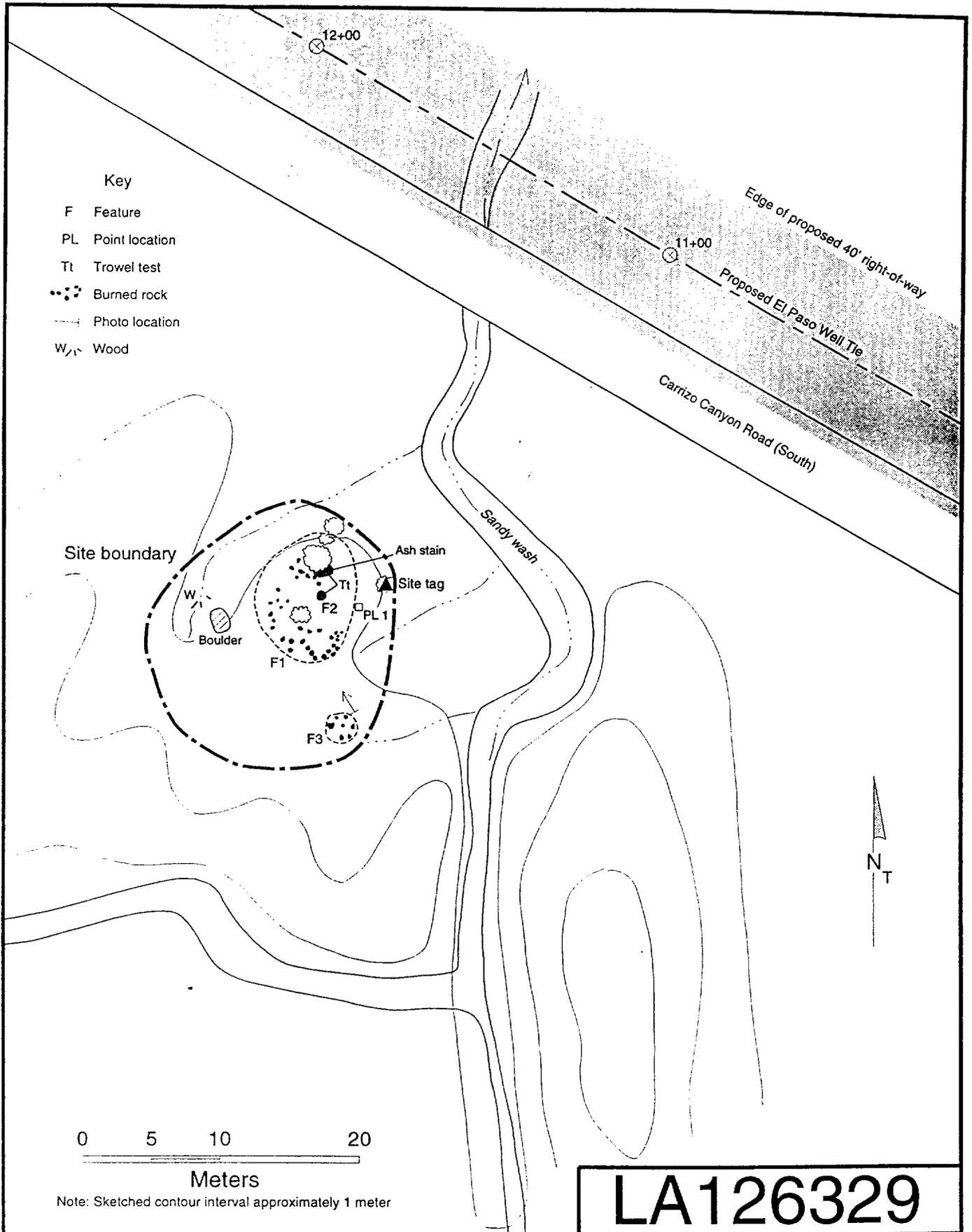


Figure 9. Site plan: LA126329

1. It is visible as an ash and charcoal concentration (50 cm-diameter). A trowel test exposed about 5 cm of ash-stained fill with abundant charcoal pieces and partially-burned wood fragments. Located 4 m southeast of Feature 1, Feature 3 is a 2.5 m-diameter low-density burned sandstone scatter. The scatter might be additional sweat lodge refuse. Artifacts observed throughout the site consist of a concentration of about 15 Dinetah Gray sherds (PL 1), 2 additional Dinetah Gray sherds, 1 secondary chalcedony flake, and 1 secondary and 4 tertiary chert flakes. This sweat lodge location has three features, including a sweat lodge midden, a possible fire pit, and a possible extramural feature, all of which contain intact cultural deposits. The presence of Dinetah Gray sherds indicate that the site dates to the Dinetah or Gobernador Phase Navajo. The research potential and historic age of the site make it eligible for the NRHP.

**Site No.** LA126330

**Description:** This Gobernador Phase Navajo artifact scatter (Figure 10) lies along the eastern edge of a low, southwest-northeast-trending shale ridgeline. It overlooks a dissected drainage system to the east. Site LA107735, a large Pueblo I habitation, is located less than 50 m to the northeast. The low-moderate-density artifact scatter consists of about 40 artifacts in a 28- by 20-m area. These include approximately 20 Dinetah Gray sherds, 8 Gobernador Polychrome sherds, 4 primary and secondary orthoquartzite flakes, 1 large primary quartzite flake, a primary flake of silicified wood, 1 tertiary chert flake, and 2 pieces of burned sandstone. No artifact concentrations, staining, or features were observed. This site might lack substantial subsurface cultural deposits. The site should be considered potentially eligible for National Register nomination pending further evaluation of the site's research potential.

### **Isolated Occurrence 1**

**Description:** This IO consists of a small cluster of lithic debitage located on an east-facing slope overlooking a moderate sized drainage to the east. The IO is in the buffer zone to the north of the proposed well pad. Within a 5 m diameter, a total of 12 flakes were noted. All of the flakes are petrified wood or chert, representing two separate material types. The flakes include primary, secondary, and tertiary flakes with no sign of modification or use.

## **RECOMMENDATIONS**

During the survey for Conoco Incorporated's San Juan 28-7 Unit Number 225E well pad, access road and cathodic protection line and El Paso Field Services' well tie pipeline, five National Register potentially eligible archaeological sites were encountered. Recommendations for site protection are as follows:

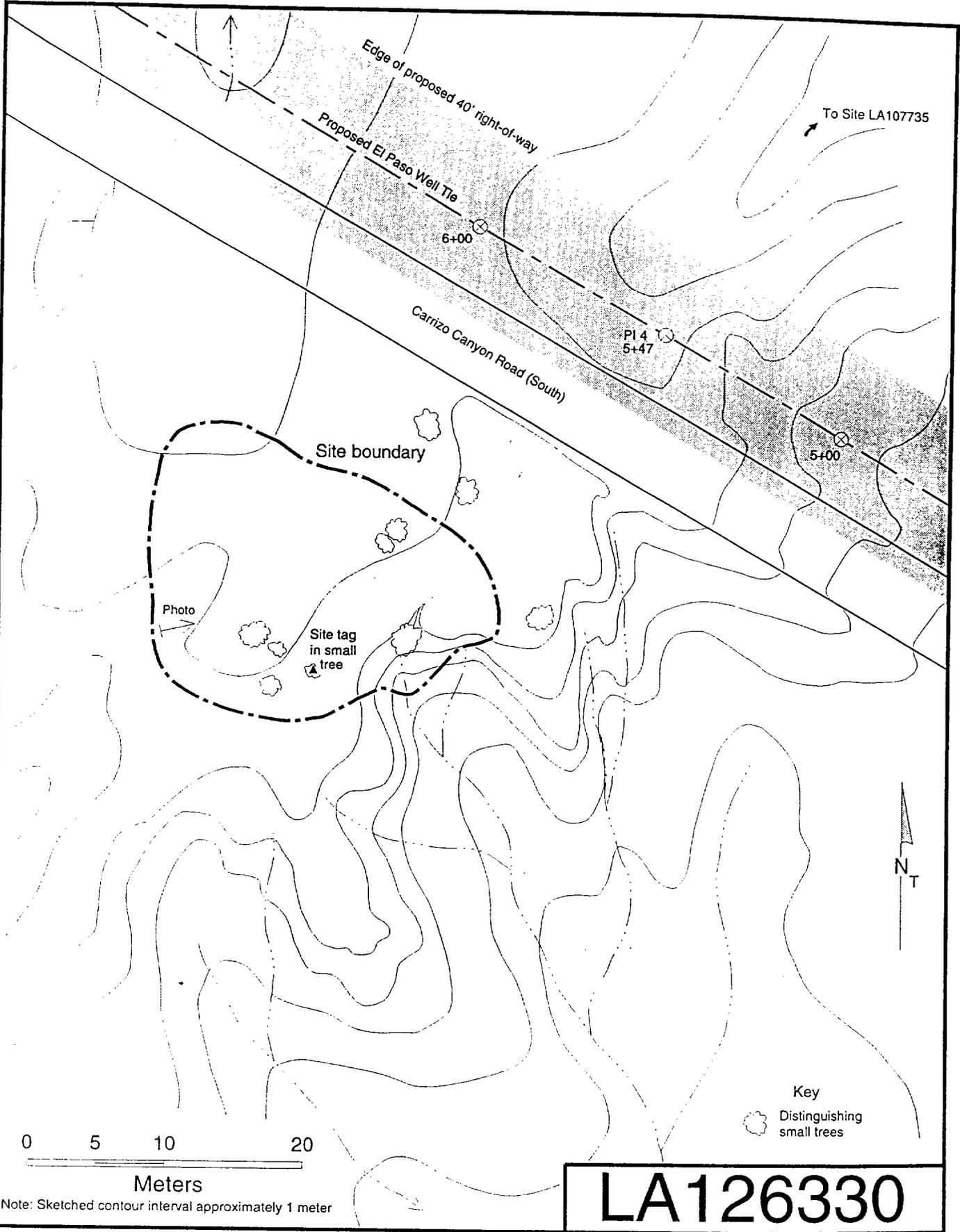


Figure 10. Site plan: LA126330

- LA107735:** This site is located on a small mesa to the north of the proposed El Paso pipeline (Figure 6). The main site area is confined to the flat mesatop which is about 120 ft north of El Paso's centerline. The midden on the site is exposed on the mesa escarpment and a light artifact scatter is eroding down the slope to the south and into the proposed El Paso right-of-way. The artifacts in the right-of-way are obviously on an eroding shale slope and have been displaced through erosion. there is no likelihood that buried cultural deposits or features exist in the proposed right-of-way. To protect the important portions of the site, a temporary fence should be placed along the north edge of the right-of-way between ES 2+50 and 5+00, as shown on Figure 6.
- LA126327:** This small site is located over 100 ft east of the proposed well pad and almost 100 ft southeast of the proposed access/pipeline corridor (Figure 7). A protective fence can be placed to the south of the proposed access/pipeline corridor and to the east of the well pad as shown on Figure 7.
- LA126328:** This site is located about 30 ft west of the proposed well pad (Figure 8). The construction zone can be limited to the west of the location and a protective fence can be placed as shown on Figure 8.
- LA126329:** This small site is located approximately 60 ft south of an existing bladed road (Figure 9). The proposed El Paso pipeline is staked about 15 ft north of the road. The site is within a woodland setting and there should not be any need to provide any special protective measures during well tie construction.
- LA126330:** This small site is located approximately 30 ft south of an existing bladed road (Figure 10). The proposed El Paso pipeline is staked about 15 ft north of the road. The site is within a woodland setting and there should not be any need to provide any special protective measures during well tie construction.

Given these recommendations for protecting these five sites, archaeological clearance is recommended for the project.

**APPENDIX A**  
**PREVIOUSLY RECORDED SITES**



**APPENDIX B**

**SITE FORMS: LA107735, LA126327, LA126328, LA126329, LA126330**