RESULTS OF RESURVEY AND EVALUATION OF ARCHAEOLOGICAL SITES IN THE DAWSON ARROYO SEGMENT OF THE LA PLATA HIGHWAY PROJECT

by
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ADMINISTRATIVE SUMMARY

The La Plata Highway (New Mexico State Road 170) travels north along the La Plata River from the San Juan River just west of Farmington to the Colorado-New Mexico state line in San Juan and La Plata counties. From the state line it continues as Colorado State Road 140 where it ends at the highway between Durango and Cortez, near where the river emerges from the La Plata Mountains. The New Mexico State Highway and Transportation Department is pursuing a four stage project to improve the New Mexico portion of the highway. The project involves existing right-of-way and lands owned by the Bureau of Land Management (BLM), the Southern Ute Reservation, and by private concerns. The New Mexico State Highway and Transportation Department has contracted with the Office of Archaeological Studies (formerly the Research Section) of the Museum of New Mexico to conduct the archaeological aspects of the project.

Most of the fieldwork took place from September 4 through 8, 1989, and on September 20-21, 1989. During this time W. Toll worked by himself or was joined by C. Hannaford; a total of nine person-days were expended, including landowner contacts and project review with representatives of the New Mexico State Highway and Transportation Department. Toll also spent half of November 1, 1989, surveying lands of the Southern Ute Indian Tribe, accompanied by a representative of the Southern Ute Indian Tribe.

This report is a re-evaluation of the fourth and final segment of the project, covering the 5 miles (8 km) from the town of La Plata, New Mexico to 550 ft (170 m) inside Colorado. Including construction areas, the area of the proposed right-of-way is around 90 acres (4.98 miles at 150 ft wide; width ranges from 120 to 230 ft). This 90 acres is distributed approximately as follows: Southern Ute, 1 acre; Colorado Department of Highways, 2 acres; Bureau of Land Management (includes existing right-of-way), 23 acres; New Mexico State Highway and Transportation Department (existing right-of-way), 32 acres; private landowners, 32 acres. A total of 23 sites are within some portion of the proposed project; of these 9 were not previously recorded and the rest had been previously reported by highway and other archaeological surveys. The sites are predominantly Anasazi, though historic Anglo and Navajo components are also present. This report describes the resources within the proposed right-of-way and makes recommendations for the next phase of work.

MNM Project No. 41.471
NMSHTD Project RS-1331(7)
State of New Mexico Permit #SP-056
Southern Ute Indian Tribe Permit 89-107, expires 9/19/90
State of Colorado Permit 89-41, expires 2/28/90
Bureau of Land Management Permit 21-2920-88-J
Bureau of Indian Affairs Permit CRSA 88-13, expires 1/1/90

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INTRODUCTION

The La Plata Highway (MN State Road 170) is in more or less the same location as the road that has run the length of the valley since the late 1800s. Some of the valley residents can remember rough, long, muddy trips down the road prior to paving in the 1940s. Since then, the volume of traffic on the highway has steadily increased. In the early 1980s, the New Mexico State Highway and Transportation Department (NMSHTD) began working toward reconstructing and realigning the highway. Occupation of the La Plata Valley, however, extends much farther back in time than the 1800s. The highway passes through a large number of sizable prehistoric pueblo settlements ranging in age from the A.D. 500s to the 1300s, as well as several remnants of the early historic period. The presence of these archaeological remains has played a significant role in the process of improving the highway.

Highway construction was planned in four stages, beginning at the southern end near Farmington. In 1981 through 1983 archaeological survey and testing were performed, with a total of 53 sites recorded for the full length of the highway. In 1985 construction of the first phase was begun. During utility placement, a site buried by modern earth moving was encountered, and required substantial emergency excavation (LA 50337, Vierra and Anschuetz 1987). In hopes of avoiding similar events, the NMSHTD decided to have the NM 170 corridor resurveyed. This precaution proved to be a wise one, in that the number of sites recorded was about doubled in each of the second (Jackson Lake) and third (Barker Arroyo) segments. The survey reported here is the fourth and final segment of the highway (Fig. 1). It was requested by the NMSHTD in August of 1989, and carried out mostly in September 1989. For a relatively short survey (5 miles), it covered a large number of land-owning agencies: numerous private owners, the Bureau of Land Management, the Colorado Department of Highways, the Southern Ute Indian Tribe, and the NMSHTD. Much of the field work was carried out by H. W. Toll working alone, but for most of the actual walking and for some of the recording he was joined by C. A. Hannaford. This work took place during the time when excavations were taking place in the Barker Arroyo segment.

The sites in the Dawson Arroyo segment follow the pattern of the three preceding segments in being dominated by Anasazi remains, which occur in clusters, but there are some differences. There are more indications for pre-A.D. 900s occupation in the surface material in this segment, including some indications for Pueblo I (A.D. 700-900), which were lacking to the south. There is also an increase in historic sites over the previous segments. Large clusterings of Anasazi features occur in two locations in the Dawson Arroyo segment: one in the area of the La Plata Mine haul road overpass (sites LA 37609-37610 and LA 58106), and the other across from Morris Site 41 (sites LA 37611-37616). Although earlier materials are more evident in this segment, the large clusterings of features visible from the surface again fall into the PII and PIII periods (A.D. 1000-1300). This resurvey visited a total of 27 sites, including 10 newly recorded ones. Should the project proceed, it is recommended that 7 sites be excavated without further testing and 13 be tested. Of the remaining 7 sites, 2 are completely outside the proposed right-of-way (LA 37617, LA 73937), and 5 are thought not to contain cultural materials likely to yield important information within the project limits (LA 31619, LA 37620, LA 37624, LA 61810, LA 73938).
Figure 1
Project vicinity map

Adapted from NMGIS Farmington Quad NAD 1987
ENVIRONMENTAL SETTING

The La Plata River rises in the La Plata Mountains in Colorado. It is fed by a number of large drainage basins including Barker and McDermott arroyos, but within New Mexico only the river itself is a perennial watercourse. The area is relatively arid, receiving between 8 and 12 inches (20-30 cm) of precipitation per year, and the La Plata River does occasionally go dry (Roybal et al. 1983:12-13, 26-27). Precipitation is noticeably greater in the area near the state line than it is in the vicinity of the confluence of the La Plata River with the San Juan River. Morris (1939) noted that in the area below his Site #41 (about a mile south of the state line) there were springs that kept flowing even in the driest years. Within the current project area the valley floor varies considerably in width, from less than half a mile to about a mile and half wide (.7-2.4 km) with a broad floodplain and low first terrace mostly on the west side of the river. Sandstone cliffs are present along parts of the east side of the river, while high gravel terraces are more prevalent on the west side. Bedrock exposures through the Pleistocene gravels on the west side are late Cretaceous Kirtland and Fruitland Formations (Dane and Bachman 1965). These exposures consist of friable sandstones, clays, and shales; the formations are present in much of the northern San Juan Basin, and frequently form badlands.

Much of the floodplain is currently irrigated and cultivated; the primary crop is alfalfa hay, though corn and some other crops are also grown. Near the river and irrigation ditches willow, large cottonwoods, tamarisk, Russian olive, squawbush, Gambel oak, and tall sage are abundant. The lower terrace is characterized by sage, saltbush, greasewood, grasses; disturbed soil plants such as Russian thistle and Russian knapweed are very common along the highway and field edges. The upper slopes and terraces have stands of piñon and juniper interspersed with low sage and grasses. Piñon-juniper is found much closer to the valley floor within this project segment than it is to the south (see also Roybal et al. 1983:14-15). The area has a large deer population as is clear from the high mortality rate evident within the proposed right-of-way. More complete faunal and floral listings for the region may be found in Schmitt (1976), J. Cully (1985), Reith (1986), and A. Cully (1985).
Evidence for human use of northwestern New Mexico includes occasional Paleoindian projectile points, suggesting occupation of the area from 10,000 years ago. Far more abundant in the area, however, are remains from a period termed the Archaic, during which inhabitants are thought to have depended on a mobile strategy of hunting and collecting wild plant resources. This period is thought to last from around 6000 B.C. to early in the Christian era. There has been increasing evidence for the use of maize in the latter Archaic, perhaps by around 1000 B.C. During the period from A.D. 1 to A.D. 700 reliance on cultigens, sedentism, more permanent structures, and settlement size all increased, and pottery came into use. This period is the first part of the Anasazi sequence, termed Basketmaker. Basketmaker sites are well represented in the La Plata and surrounding valleys. At around A.D. 700, with increased use of surface structures in addition to the excavated structures established in Basketmaker time, the pueblo phases of the Anasazi sequence begin. From 700 through the early 1300s a series of developments take place including changes in architectural forms and ceramics, increases in structure size, and differentiation of structures within settlements and settlements within the region. During this time a complex regional system apparently focusing on Chaco Canyon developed between 900 and 1150; sites relating to this system are present in the La Plata, San Juan, and Animas valleys. Late in the period the focus of the system appears to have shifted to this northern area, as activity in the Chaco area diminished. Sites from this entire 700-1300 time span are present in large numbers in the valleys, though large numbers have been destroyed during the historic period. By around 1300 permanent habitation in the area seems to have ceased, and it appears that the main use of the area was occasional visits from surrounding areas, until Navajo movement into the region in the 1500s.

Navajo occupation of the area has continued until today except for interruptions caused by relocations at the hands of the U.S. government. Historic use of the area includes passage through by several Spanish expeditions, and occupation of some areas by refugee Pueblo Indians after the Revolt of 1680. Land ownership of the valley after the Treaty of Guadalupe Hidalgo is complex. From 1874 through 1876 it was withdrawn from the public domain to be the Jicarilla Apache Reservation; in 1883 it was declared to belong to the Southern Ute Tribe, but that status was revoked in 1898. During the last quarter of the nineteenth century several claims to homesteads were entered, but few were patented. It seems unlikely that Indian possession ever took place, in spite of the official status.

Intensive American use of the area began in the latter 1800s. The primary use of the river valleys was agricultural, though mining of coal and other minerals occurred in surrounding areas and several small coal mines are present adjacent to the current project. As noted, continued development and use of irrigable lands has had a serious impact on survival of archaeological sites. Developments associated with the recently passed energy boom have accelerated this process. A portion of the Ute Mountain Ute Indian Reservation is directly to the west of the La Plata Valley. Historic accounts of Ute use of the valley include Ute farms that were worked by Navajos within the project area (Dykeman and Langenfeld 1987:134, 125-126). Utes gather squawbush berries (Rhus trilobata) in the valley today. Identification of Ute sites is difficult, however. Lacking diagnostic points or pottery, earlier Ute sites would be similar to Archaic sites or Anasazi lithic sites; without other documentation later Ute sites are hard to separate from
Navajo sites, even when pottery is present.

The vast majority of known archaeological remains in the valley are Anasazi. There is no doubt that Archaic peoples used the valley, as well as perhaps Paleoindians, but the intensity of Anasazi and historic use militate against survival of earlier remains and especially their identification from surface remains. There are a great number and variety of Anasazi remains in the valley, including large settlements with large public structures apparently relating to the "Chaco Phenomenon" (Morris Sites 39 and 41 and the Holmes Group) and a great many smaller structures from Basketmaker through Pueblo III. Homesteading and other historic period use took place in the valley, and a number of sites in this project segment relate to that early Anglo presence in the valley.
PAST AND PRESENT ARCHAEOLOGICAL WORK

The abundance of archaeological remains in La Plata Valley have been formally reported sporadically since the nineteenth century (Holmes 1878; Morris 1939). Nickens (1978), Ware (1986), and Dykeman and Langenfeld (1987) give more thorough accountings of archaeological work in the La Plata area, and only excerpts relevant to this segment of the valley will be covered here. Powers and Watson (n.d.) have also provided a narrative summary of human use of the valley.

Previous Archaeology

Earl Morris conducted excavations in the valley and its vicinity from 1915 through 1930 including a prolonged period at Aztec Ruin (Lister and Lister 1968; Morris 1939). Morris’s volume Archaeological Studies in the La Plata District contains an extensive treatment of sites and material from the region; adjacent portions of New Mexico and Colorado are covered, including the Barker Dome area to the west, sites in the Mancos River drainage, as well as sites in the La Plata Valley itself. This report contains information from Basketmaker III through Pueblo III sites, and a detailed technological study of La Plata ceramics by Anna Shepard. Within the current project area, Morris conducted major excavations at his Site #41, near the entrance of Dawson Arroyo. Morris also excavated an eroded pit structure on the edge of the proposed right-of-way (Morris #42, LA 3293), and worked at a large Pueblo I site (#34–see LA 73936). Working in association with Morris in 1935, Deric Nusbaum made an inventory of sites in the Four Corners area, including a number in the La Plata Valley. Nusbaum’s site locations are such that it is not now possible to confidently assign his numbers and collections to specific sites, although tentative guesses can be made.

The San Juan Valley Archaeological Project conducted collection survey and testing in the Jackson Lake area in 1977-1978, testing at Morris 39 and 41 in 1974, and some survey in 1972 (McKenna 1976; Whalley 1980). Whalley used this material in her thesis (1980) to seriate sites on the basis of "local" ceramics, determined typologically. The primary thrust of her analysis was to determine if nonlocal ceramics are more common at Chaco outliers, which, she finds, seems to be the case. Whalley’s thesis gives only general site locations, but the Eastern New Mexico University site numbers 5098, 5300, 7567, 7575, 7577, and 7581 are all in the vicinity of Morris #41. Whalley’s seriation places various components from the area in all her temporal groups, from pre-1050 until 1200.

The Shell high pressure CO₂ pipeline parallels the current project on and within the west edge of the new right-of-way from the state line for about 1 ½ miles (2 km). This long cut was monitored for archaeological remains within the valley and recording and testing were done at three locations adjacent to the project (Hammack 1983). One of these locations contains intact prehistoric structures, while the other two were judged to contain minimal information.

Archaeological work for the La Plata Mine (see Hancock et al. 1988; Reed and Horn 1987) is adjacent to the current project and cuts across it at the mine haul road. Sites
immediately adjacent to the current project include Basketmaker III-Pueblo I pithouses, Pueblo II Anasazi sites, and historic Anglo sites. Farther east on the mine lease, the predominance of sites shifts from Anasazi to Navajo, though there are also Archaic and Basketmaker II sites. In addition to this important comparative material, projects have been carried out on the San Juan Coal lease in the Shumway Arroyo drainage to the west of the valley (see Beal 1984; Kemrer et al. 1980).

In 1984, Dykeman and Langenfeld (1987) conducted the La Plata Overview Project. In addition to surveying five locations, they evaluated and tabulated previous work in the valley and formulated both research questions and management plans for the valley. Their report contains detailed background information. Their study uses the concept of the community as a research foundation, as does our work along the highway.

The initial survey conducted by the New Mexico State Highway and Transportation Department recorded 17 sites in this project segment (Lancaster 1982), and an additional site excavated and reported by Morris (1939) was relocated by the survey. Other surveys and work have taken place in or immediately adjacent to the project area, most notably the survey of the La Plata Coal Mine lease (Reed and Horn 1987) and survey and excavations by the Division of Conservation Archaeology (Hancock et al. 1988:755-773). Those sites, which in some way impinge on the project area as drawn on the current plan (as of September 1989), have been discussed. Site locations and boundaries can be found in Appendix 1.

In the sloping area between the cliff base and the east side of the road there is a variety of cultural remains, only some of which intersect the right-of-way. Those that do are listed separately; the following sites are not in the proposed project area, but are listed in Appendix 2.

LA 37617. Area adjacent to existing and proposed right-of-way was tested by Lancaster (1983:76-78) and showed no intact cultural remains, though structures are likely outside the proposed right-of-way.

LA 37618. Lancaster (1983:78) concluded that this "site" was at most a mine test or vent. We could not relocate the feature.

LA 37620. A small cultural material area eroded by the Pioneer Ditch (Lancaster 1982:68); it was not in the project area and was not tested.

LA 37622. Though a few artifacts were observed in the location indicated on the USGS map, we were not sure that we had relocated the site. No structural remains were observed in the original survey recording (Lancaster 1982:69).

LA 61786. Reported by Reed and Horn (1987) as an Anasazi camp within the area of the Pioneer Ditch and the highway. No materials from this site were observed inside the proposed right-of-way, though once again we were not confident that we had precisely relocated the site.
The Present Project

Archaeological work relating to the improvement of the La Plata Highway began in 1982 with a preliminary survey of the road by New Mexico State Highway and Transportation Department archaeologists. James Lancaster of the Museum of New Mexico recorded the sites located (1982) and performed testing on several of the sites in this segment of the project (Lancaster 1983). The Museum of New Mexico Office of Archaeological Studies (formerly the Research Section) has been conducting excavations relating to highway improvement in the first through third segments of the project since 1985 (Vierra and Anschuetz 1987; Toll and Hannaford 1987, 1989). Analysis of archaeological materials from the second and third segments of the project is currently under way. This project constitutes the fourth and final phase of this work. The present report combines the results of a re-examination of the right-of-way for sites and an evaluation of previously recorded sites in order to make recommendations for future management of the resources should a construction project be developed. A listing of all sites known along the highway may be found in Appendix 2; the following site descriptions and evaluations include only those that are within the proposed limits of the final phase of road construction.

The project involves existing right-of-way and lands owned by the Bureau of Land Management (BLM), the Southern Ute Indian Tribe, and by private concerns. This report covers the 5 miles (8 km) from the town of La Plata, New Mexico, to 550 ft (170 m) inside Colorado. Including construction areas, the area of the proposed right-of-way is around 90 acres or 36 ha (4.98 miles at 150 ft wide, with width ranging from 120 to 230 ft). This 90 acres is distributed approximately as follows: Southern Ute Indian Tribe, 1 acre; Southern Ute Indian Tribe, currently easement used by the Colorado Department of Highways, 2 acres; Bureau of Land Management (includes existing right-of-way), 23 acres; New Mexico State Highway and Transportation Department (existing right-of-way), 32 acres; private landowners, 32 acres.

The project begins in the SW¼ of the SW¼ of the NE¼ of Section 3, T 31N R 13W (UTM Zone 12 750250E 4090680N) and ends in the NE¼ of the NW¼ of the SE¼ of Section 10 T 32N R 13W (750400E 4098440N). The existing right-of-way belongs to the New Mexico State Highway and Transportation Department, with the exception of the portion in Section 15 T 32N R 13W where both the right-of-way and the land east of the highway belong to the Bureau of Land Management. Ownership is private on either side of the right-of-way from the beginning of the project to the south edge of Section 15 (Station 769 to around Station 960: 3.7 miles, 5.9 km). In Section 15, ownership is private on the west side of the highway and BLM on the west. For the final .4 mile (.6 km) inside New Mexico (Station 1010 to 1028+50) ownership is again private on both sides of the NMSHTD right-of-way. At the state line, areas outside the right-of-way are part of the Southern Ute Indian Tribe, and the right-of-way is easement obtained by the Colorado Department of Highways from the Southern Ute Indian Tribe (Table 1).

The re-examination of the project was carried out by one or usually two archaeologists. With two exceptions, the entire project area, including temporary construction permit zones (TCPs) and construction maintenance easements (CMEs) (see Appendix 3), was walked at intervals of no more than 10 m, and any cultural manifestation seen was investigated. It should be noted that vegetation was very dense in a number of areas in which we worked, leading to very low ground visibility. The exceptions to complete coverage are due to landowner preference.
Table 1. Dawson Arroyo Quarter-Quarter Sections and Land Ownership outside New Mexico State Highway and Transportation Department Right-of-Way

<table>
<thead>
<tr>
<th>Section</th>
<th>Quarter-Quarters East/West</th>
<th>Owner East/West</th>
<th>Locations</th>
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<td>Private/Private Private</td>
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<td>Private Private Private Private La Plata Mine</td>
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</tr>
<tr>
<td>Section 22, T32N R13W</td>
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<td>Private Private Private Private Private</td>
<td>La Plata R. Manuel Arroyo</td>
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<tr>
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<td>Stone House</td>
</tr>
<tr>
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<td>BLM/Private BLM, Private/Private Southern Ute</td>
<td>Colorado border EOP</td>
</tr>
</tbody>
</table>

Quarter-Quarter sections separated by slashes are in locations where the highway runs along a quarter section line. Survey complications do exist, especially in Section 15. New Mexico State Highway and Transportation Department ownership is not indicated, but is assumed for the existing right-of-way, except where the Bureau of Land Management retains ownership of the right-of-way.

They include areas outside the current right-of-way (Stations 834 to 877, both sides), and the area in front of a private residence (990 to 993+50, west side, currently included within LA 37623). Fieldwork and site recording were carried out in September of 1989 by H. W. Toll and Charles A. Hannaford.

In addition to the intensive, formal survey conducted within the project area, two reconnaissance surveys were conducted in areas not presently within project plans, but which could possibly be affected by design modifications. The areas and results of these examinations follow. Though archaeological sites were observed in the second area, they were not recorded.
Vicinity of LA 37611-37621, Stations 950-975 (SW¼, SE¼ Section 15, T 32N, R 13W)

This is the area of the highest density of archaeological remains on this project. The staff of the NMSHTD suggested that a line west of the sites through what is presently a hayfield would avoid the sites and reduce the amount of excavation necessary. Accordingly, two surveyors walked a line well to the west of the project area shown on the current plan. The south end of this line is in very thick, tall brush, making surface archaeology very difficult to see. With that in mind, our assessment of the hypothetical line was that it would avoid the sites, since we saw virtually no cultural material. The line that we followed, however, is very close to the route of the high pressure CO₂ line. Hammack’s (1983) monitoring does not report any remains in this particular stretch of gas line. The total area of this reconnaissance is about 3.4 acres (2,500 by 60ft: 1.4 ha).

Vicinity of LA 37623-37624, Stations 992-1006 (NE¼, NE¼ Section 15, T32N, R13W)

This area is a candidate for a line change due to landowners concerns and the presence of a high pressure CO₂ line. Sites LA 37623 and LA 37624 are located east of the Pioneer Ditch, and both would be affected if the right-of-way were moved in that direction. Based on brief, informal examination by a single surveyor, the top of the terrace above those sites has a number of other sites on it. If the line move involved only cutting the slope, the terrace-top sites would probably be affected minimally, as the cultural material there is likely to be all surface wash; were cutting to reach the terrace top, however, there would be an affect on at least two sites. Judging from the pottery and the location, there is a reasonable chance that at least one of these contains Basketmaker pithouses, though no depressions were observed. The approximate area of this reconnaissance is 5-10 acres.
SITE DESCRIPTIONS

LA 73933

Situation: On the first terrace of the La Plata River, west of the river and east of NM 170. The east edge of the terrace (toward the river) is poorly defined since there is a gradual slope that extends from the site area to the river. There is, however, a change to a somewhat steeper grade where the cultural material stops, and this change in slope may mark the prehistoric terrace edge. The valley is very wide and currently under cultivation in this area.

Recorded: 9/89

Elevation: 5,800 ft

Owner: Private

Site type: Lithic, burned rock, and sherd area

Figure 2. LA 73933 site plan.
Cultural affiliation and estimated period: Anasazi BMIII-PI

Description: This site is located in a pasture and has been plowed and cut by irrigation ditches (Fig. 2). Its definition is therefore difficult, but it appears to contain three areas of increased concentration of cultural material within an area of more general scatter. These concentrations contain burned rock, lithics, and a few plain gray sherds in varying quantities; a single grooved maul made from a river cobble was also observed. Enough material is present that it is likely that there was at least one habitation structure, probably of an early date.

Size: 75 m east-west by 50 m north-south

Condition: Plowing and irrigation ditches present.

Overlap with right-of-way: The west edge of the site, including the western material concentration is within a TCP; the remainder of the site is outside the right-of-way.

Action: Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site.

LA 73934

Situation: On the broad first terrace above the west side of the La Plata River; the terrace drops to the floodplain less than a \( \frac{1}{4} \) mile to the north.

Recorded: 9/89

Elevation: 5,812 ft

Owner: Private

Site type: Sherd, lithic, ground stone, and burned rock area; probable habitation.

Cultural affiliation and estimated period: Anasazi BMIII-PI?

Description: The west edge of visible material at this site is formed by the Indian Ditch; in the banks of the ditch there are two areas of subsurface rock that are likely to represent prehistoric features (Fig. 3). The first of these two areas, at the northwest edge, contains two shallow trough metates and some other burned rock. The second area is 30 m to the south and consists of a possible wall stub in the west bank of the ditch and cultural material up to a depth of 1.5 m. In the pasture east of the ditch lithics, cobbles, and rare, small, early sherds are scattered in a zone more or less defined by the two material exposures in the ditch. This material extends around 60 m to the east, but the effects of 30 or more years of plowing are clearly evident; the property owner reports that they have found artifacts in this area through the years.

Size: 40 m north-south by 60 m east-west
Figure 3. LA 73934 site plan.
Condition: Long-term plowing, construction of the Indian Ditch (and perhaps the highway).

Overlap with right-of-way: Material exposures in the ditch and the west portion of the site area are inside both the proposed right-of-way and a TCP; the site also extends outside the right-of-way.

Action: Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site.

LA 73935

Situation: Located on the first terrace above the west side of the La Plata River, inside the mouth of a small drainage from the second terrace. Visible material is in the west borrow ditch of NM 170.

Recorded: 9/89

Elevation: 5,841–5,845 ft

Owner: New Mexico State Highway and Transportation Department

Site type: Sherd, lithic, burned rock area

Figure 4. LA 73935 site plan.
Cultural affiliation and estimated period: Anasazi PII-III

Description: Only limited surface is visible in this area due to pavement on the east and graveling on the west and north (Fig. 4). In addition to coverage by gravel, the landowner did not grant permission to leave the existing right-of-way. Artifacts and burned rock extend to the edge of the highway pavement, and material was also reported east of the highway in 1982 (Lancaster 1982, I.O. 6/LP 24).

Size: 6 m east-west by 30 m north-south

Condition: Construction of NM 170, construction yard present.

Overlap with right-of-way: Inside current right-of-way at the edge of the new right-of-way.

Action: Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site. The site could extend west of the existing right-of-way, but access to this area was denied by the landowner.

LA 37609

Situation: On the west side of NM 170, between the base of the second terrace and the highway.

Recorded: 10/81

Elevation: 5,843-5,855 ft

Owner: Private

Site type: Historic structures

Cultural affiliation and estimated period: Anglo, late nineteenth-early twentieth centuries.

Description: This is the site of the store and post office of Pendleton, as well as the probable location of a freighter's corral. Surface remains are few, though Lancaster reports a foundation. There is scant prehistoric material on the surface, which can probably be attributed to LA 37610 to the north and LA 3293 on the next terrace up. The area of the settlement extended across the highway and it is possible that some deposits may remain in the current and new rights-of-way (Fig. 5).

Size: 135 m north-south by 50 m east-west

Condition: Highway and county road construction, irrigation ditch construction and maintenance, probable structure dismantling.

Overlap with right-of-way: There is little historic material visible within the project limits.
Previous tests: None

Action: Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site.

LA 37610

Situation: On the valley floor, less than .5 km west of and less than 15 m above the present bed of the La Plata River. Artificially bounded by NM 170 on the east.

Recorded: 10/81

Elevation: 5,853-5,860 ft

Owner: Private; also La Plata Mine?; New Mexico State Highway and Transportation Department

Site type: Room blocks and cultural material scatter

Cultural affiliation and estimated period: Anasazi PII, some mixture of historic Anglo

Description: Lancaster’s assessments in 1982 (1982, 1983) indicated four areas with alignments and at least two trash areas. Given the quantity of surface remains present in 1982, it is probable that pit structures are present within the site area (Fig. 5).

Size: 150 m north-south by 50 m east-west

Condition: This area has been altered considerably since testing in 1982. At that time county road and irrigation ditch construction had occurred within the project limits, but a substantial and complex site was still indicated by surface remains. Since that time, heavy equipment has been used in the area south of the Highland Park Ditch, leaving deep tracks that have modified the site. New culverts have been placed where County Road 1191 meets NM 170, also causing considerable modification. Talley Park has been built north of the ditch, including placement of a layer of gravel over the site in that area and building a chain link fence through the site area. Lancaster thought pit structures were probably present, and such deep features have probably survived the surface alterations.

Overlap with right-of-way: The current plan is likely to contain the edges of several features, though all the tests performed were outside the currently planned right-of-way. It is almost certain that the prehistoric occupation extends across the existing highway. LA 58106 has been assigned to the east side of the road, and materials there will be discussed under that site number.

Previous tests: Lancaster (1983) put in a total of eight test trenches and some auger and shovel tests; four of the trenches suggest the presence of deep prehistoric deposits, two indicate mixed deposits, and two did not indicate prehistoric deposits.

Action: Conduct testing program to determine extent and importance of cultural materials and
Figure 5. LA 37609, LA 37610, and LA 58106 site plans.
to determine if any cultural materials still remain within the proposed project limits. See the Testing Plan section for more specific actions for this site.

**LA 58106**

**Situation:** On the valley floor, less than .5 km west of and less than 15 m higher than the present bed of the La Plata River. Artificially bounded by NM 170 on the west; terminates on the north before the La Plata Mine haul road.

**Recorded:** 9/85

**Elevation:** 5,852-5,859 ft

**Owner:** Private, New Mexico State Highway and Transportation Department

**Site type:** Prehistoric artifact scatter and known intact structures; portion of historic settlement

**Cultural affiliation and estimated period:** Anasazi BMIII-PII; Anglo 1890s-1930s

**Description:** The prehistoric component of this site is difficult to interpret due to later modification. Prehistoric material is present in considerable quantity on the current residence, through the remaining Pendleton structures, and up almost to the Highland Park Ditch (Fig. 5). There is considerable soil discoloration in the vicinity of the Pendleton structures, but the area has been used for livestock and coal handling and the discoloration is likely to be historic. The top of a hearth of unknown age is present just west of the structures. Tests by DCA revealed a room and underlying deposits (see below) at the north end of the site.

The historic component of the site includes two superficially joined structures, one of which was moved in and one (the Pendleton Butcher Shop?) in its original location on a concrete slab (M. Huggins, personal communication, 1989). The latter structure is small with lap siding, a cupola, and some attention to detail such as window and door frames; the structure joined to it is a pitched-roof barn. Other corrals and sheds are present, and there is an excavated feature 6 by 12 m by 1 m deep just north of the Talley house; both prehistoric and historic (such as a 1920s bottle neck) material are visible in this depression. The site survey form by Randy Harper for DCA treats this area in considerable detail.

**Size:** 190 m north-south by 50 m east-west

**Condition:** Highway, haul road, and ditch construction; prehistoric component doubtless affected by the historic occupation.

**Overlap with right-of-way:** The new right-of-way extends nearly 20 m east of the current pavement, which includes a substantial area of important material and probable features. The historic structures are avoided on this plan.

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**Previous tests:** The Division of Contract Archaeology (DCA) excavated at least four trenches at the north end of the site. These revealed PII structures underlain by mixed PII and BMIII materials (Hancock et al. 1988). The quantities and types of materials found indicated to Hancock and her colleagues that an occupation of some duration was likely. Both Hancock and Lancaster felt that deposits were present under the existing highway, connecting sites LA 37610 and LA 51806.

**Action:** Based on testing by DCA and surface observation, intact features are nearly certain to exist here. The site is likely to yield important information within the proposed project limits and additional investigations are recommended.

**LA 73936**

**Situation:** On the floodplain of the La Plata River, west of the river.

**Recorded:** 5/89

**Elevation:** 5,865-5,870 ft

**Owner:** New Mexico State Highway and Transportation Department and private.

**Site type:** sherd and lithic areas

**Cultural affiliation and estimated period:** Anasazi BMIII-PI?

**Description:** This site consists of three light concentrations of sherds, lithics, and burned rock adjacent to or cut by NM 170 (Fig. 6). Two of the areas extend from the base of the highway fill prism to the east, and the third is apparent in the drainage and irrigation ditch just west of the pavement. These material areas could just be surface remains, but it is also possible that pit structures are present. DCA excavated and tested several BMIII-PI structures and features for the La Plata Mine haulroad in this vicinity (Hancock et al. 1988). It is therefore possible that the features at this site are part of a sizable BMIII settlement. Given the very good date obtained for one of these structures (A.D. 693, Hancock et al. 1988:346), it may be possible to learn something about earlier settlements in the valley at this site.

**Size:** 160 m north-south by 60 m east-west

**Condition:** Severe—highway and irrigation ditch construction, leveling; west area also eroded.

**Overlap with right-of-way:** Edges of both east areas are cut by the new right-of-way, most of the west area as defined is inside the right-of-way.

**Action:** Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site.
Figure 6. LA 73936 site plan.
LA 73937

Situation: On the east-facing slope of a hogback east of the La Plata River and at the south edge of the mouth of Manuel Arroyo.

Recorded: 9/89

Elevation: 5,910-5,980 ft

Owner: coal company

Site type: Habitation and possibly large processing area.

Cultural affiliation and estimated period: Archaic or BMII and Anasazi PI

Description: This site consists of a large area of burned rock and gray soil with a large quantity of lithics on a considerable slope (Fig. 7). There is a relatively dense stand of *Lyceum* in the site area, indicating an old disturbed soil. The top of the slope is on a hogback and affords a narrow level area, although there is much more debris and cultural material on the slope than on the level area. Sherds seem to be restricted to the northwest portion of the site, near the ridge crest. A pothole in this area reveals PI sherds: Mancos Gray and Piedra Black-on-white. It seems likely, then, that this site has at least two components: one either Archaic or Basketmaker II, and one a smaller PI habitation. Morris's Site 34, a large PI habitation site built on earlier cultural fill, is somewhere in the vicinity of this site.

Size: 90 m east-west by 80-110 m north-south

Condition: one pothole; erosion

Overlap with right-of-way: completely outside right-of-way, although scatter reaches east edge.

Action: None with regard to highway construction.

LA 73938

Situation: Located at the base of a steep slope on the south side of the mouth of Manuel Arroyo; just east of NM 170

Recorded: 9/89

Elevation: 5,895 ft

Owner: coal company

Site type: sherd and lithic scatter; historic road segment
Figure 7. LA 73937 site plan.
Figure 8. LA 73937 and 73938 site plan.
Cultural affiliation and estimated period: Anasazi BMIII-PI; Anglo

Description: This site consists of a scatter of lithic material that increases in concentration at the base of the slope below LA 73937, a small level area (8 by 15 m) that contains a few gray sherds and some chipped stone, and a segment of a road with sun-colored amethyst glass associated with it (Fig. 8). Given the presence of chipped stone on the slope and the great quantity of lithic material at LA 73937, we assume that most of the material may be attributed to slope wash from that site. The area with the sherd concentration is also below the portion of LA 73937 containing pottery, but the flat location could indicate a separate activity area.

Size: 160 m north-south by 60 m east-west

Condition: Driveway construction, historic road construction, and current road construction

Overlap with right-of-way: Old road bed and some prehistoric material are within the new right-of-way.

Action: No action necessary due to condition of the site and the nature of deposition. No cultural materials likely to yield important information are within proposed project limits.

LA 73939

Situation: The material area of this site is cut by NM 170 north of where the highway crosses the La Plata River. It is on the open, flat floodplain (or low terrace?) east of the river.

Recorded: 9/89

Elevation: 5,585 ft

Owner: Private

Site type: Historic; probably the remains of a structure.

Cultural affiliation and estimated period: Anglo, early twentieth/late nineteenth century; two plain gray Anasazi sherds observed

Description: The site consists of a scatter of historic artifacts including sun-colored amethyst and aqua glass and building debris (Figs. 9, 10). The building debris is concentrated in a 10 by 20 m area west of the highway, and consists of brick fragments, window glass, sandstone, and cobbles; no foundations are apparent. Domestic refuse is widely scattered. Our initial impression was that a structure must have been present and later completely razed. Mrs. Mary Huggins, of La Plata, New Mexico, mentioned that the Dale School used to be located by the road, in the area just north of where the bridge now crosses the river. The Dale School was brick and the location is close enough to make it seem likely that this site may be its remains. The Anasazi sherds are likely to be scatter from an adjacent site (LA 73937 or LA 73938).
Figure 9. Relative locations of LA 73936, 73937, 37938, and 73939, showing heads of Greenhorn, Highland Park, and Indian ditches.
Figure 10. LA 73939 site plan.

Size: 45 m north-south by 50 m east-west

Condition: The structure seems to have been dismantled; the highway cuts through the material scatter, and secondary ditches or a road pass through the site; the field has also been plowed.

Overlap with right-of-way: The material areas are mostly inside the new right-of-way and two CME areas.

Action: Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site.

LA 73940

Situation: The site is located at the mouth of a small side drainage on the east sides of the La Plata River and NM 170.

Recorded: 9/89

Elevation: 5,915-5,925 ft

Owner: Private
Figure 11. LA 73940 site plan.
Site type: Sherd and lithic scatter, historic road segment, historic trash

Cultural affiliation and estimated period: Anasazi PII-III; Ute/Navajo; Anglo

Description: This site is likely to have three components, but could have four or more (Fig. 11). The first component is a scatter of Anasazi PII-III sherds associated with lithics on a small, gently sloping ridge just above the highway. In the same area, at the upper end of the ridge, adjacent to an old roadbed, are three small micaceous sherds. These are probably from the same vessel having a brushed interior; it could be either Ute or Navajo manufacture. Though they probably represent a separate component, it is conceivable that they are associated with the abandoned road. This segment of the road is well above the present road (around 6 m) but directly parallel to it; sun-colored amethyst glass and more recent cans in the vicinity of the site probably relate to the road. Immediately north of the ridge on which the aboriginal materials are located there is a cut in the valley slope that shows in the contours as square. Parallel to the road but nearly 3 m lower there is a 6-m-long, dry-laid wall made of large local sandstone rock, four courses (40-60 cm) high. Construction similar to this is present further along the road, but the discrepancy in height between road surface and wall top is difficult to account for, especially since there is no evidence that the wall was ever much higher. Perhaps the wall was only intended to break the slope. The presence of the road or some other factor seems to have altered the drainage from the side drainage, since there is no entrenched channel until this "feature" is reached.

Size: 26 m north-south by 13 m east-west

Condition: erosion; road construction; old road probably affected aboriginal deposits.

Overlap with right-of-way: The majority of both areas is within the proposed right-of-way, and a TCP (12-1) begins within the site area.

Action: Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site.

LA 37611

Situation: Located on a the first terrace above the floodplain on the east side of the La Plata River; sites LA 37611-37614 are all on portions of the same knoll that extends from the base of the talus, west of the highway. This site is at the south edge of this series of sites.

Recorded: 10/81

Elevation: 5,925-5,930 ft

Owner: Private; New Mexico State Highway and Transportation Department

Site type: Rubble mound with midden area
Cultural affiliation and estimated period: Anasazi PIII

Description: The site consists of an area of structural debris with an apron of grayed soil and high artifact content on the slope to the south of the building material (Fig. 12). Scattered material is present in a fairly confined area, although the dense vegetation to the south and west of the visible material may obscure further material. The material of this site is more or less contiguous with the material labeled LA 37612 by Lancaster (1983:66).

Size: 35 m by 35 m

Condition: Pothole or borrow noted near probable structure; unimproved road also passes by north edge as defined by Lancaster; Lancaster notes fill dumped on mound. Construction of NM 170 also may have altered the site on the east.

Overlap with right-of-way: Most of the probable structure is included in the current plan.

Previous tests: Lancaster placed two test trenches in the rubble area; intact walls were encountered and a room and pit structure postulated.

Action: Previous investigations have determined that cultural materials likely to yield important information are present within the proposed project limits. Additional investigations are recommended.

LA 37612

Situation: Located on the first terrace above the floodplain on the east side of the La Plata River; sites LA 37611-37614 are all on portions of the same knoll that extends from the base of the talus, west of the highway. This site is toward the south edge of this series of sites, separated from LA 37611 by a small dirt road.

Recorded: 10/81

Elevation: 5,929-5,931 ft

Owner: Private

Site type: Rubble mound with clearly visible pit structure

Cultural affiliation and estimated period: Anasazi PIII

Description: As defined by Lancaster this is a very tight area encompassing an Anasazi structure and little else (Fig. 12). This "site" could easily be considered part of LA 37611, given the proximity and the similarity of date suggested by ceramics. The surface structure is a small rubble mound, but this is by far the most clearly visible pit structure from the surface on the highway. The feature now shows as a round depression around .5 m deep, immediately adjacent to the rubble mound; it appears likely to be masonry-lined.
Figure 12. LA 37611, LA 37612, LA 37613, LA 37614, LA 61795, LA 37615, and LA 37616 site plans.
Size: 12 m north-south by 18 m east-west

Condition: Possible truncation by NM 170; surface modification along the edge of the road and in dirt road south of pit structure. The lack of fill in the pit structure could indicate that it has been dug, presumably by unauthorized individuals.

Overlap with right-of-way: The proposed right-of-way intersects the pit structure and the mound.

Previous tests: Lancaster (1983) dug three test trenches in the mound and put auger tests in the pit structure. He identified intact deposits.

Action: Previous investigations have determined that cultural materials likely to yield important information are present within proposed project limits. Additional investigations are recommended.

LA 37613

Situation: Located on a the first terrace above the floodplain on the east side of the La Plata River; sites LA 37611-37614 are all on portions of the same knoll that extends from the base of the talus, west of the highway. This site is in the central portion of this series of sites, occupying the largest area of the four.

Recorded: 10/81

Elevation: 5,930-5,937 ft

Owner: Private; New Mexico State Highway and Transportation Department

Site type: Large rubble mound with midden area and large artifact scatter

Cultural affiliation and estimated period: Anasazi PIII

Description: This site contains a long mound on the crest of the knoll; Lancaster (1983:70) maps a discrete midden and rubble mound, but the two may also be linked at the east end. Lancaster's tests reveal intact room walls and floors and a relatively shallow (around 30 cm), rich, midden (Fig. 12). No pit structures were located, but, as Lancaster notes, they are nearly inevitable, probably in the area between the two mounds. Scattered surface material in considerable quantity extends from the likely features to the remnant of an irrigation ditch that skirts the knoll. There also seems to be an area of increased artifact concentration between the southern (midden) mound and LA 37612 along the present right-of-way fence.

Size: 105 m north-south by 70 m east-west

Disturbance: NM 170 cut and work along the edge of road on the east; Lancaster’s test in the mound has been reopened by unauthorized individuals; the vessel shown in Lancaster’s report
(1983:71, fig. 31) was removed.

**Overlap with right-of-way:** The new right-of-way includes mostly the eastern end of the definable features. Intact subsurface features are highly likely.

**Previous tests:** Lancaster (1983) placed three trenches in the mound and auger tests in the midden.

**Action:** Previous investigations have determined that cultural materials likely to yield important information are present within proposed project limits. Additional investigations are recommended.

**LA 61795**

**Situation:** The site is located on a knoll (or bench?) slightly removed from the base of the talus. It is east of both the highway and the La Plata River.

**Elevation:** 5,935-5,948 ft

**Owner:** BLM

**Site type:** Sherd and lithic area with possible architectural features

**Cultural affiliation and estimated period:** Anasazi PII-III

**Description:** This site was described by Reed and Horn (1987) as being a sparse scatter of material with a potential for buried features (Fig. 12). In addition to the artifactual material, there are two piles of sandstone at the top part of the knoll; one is likely to be an outcrop, and both may be. The northern of the two, which looks less like an outcrop and more like a feature with a possible wall alignment, has an increased concentration of sherds adjacent to it to the west. At the west end of this small concentration of small sherds there is a third possible remnant of a prehistoric room. This site is directly across the 2-m-deep highway cut from LA 37613, and could easily relate to the structure there.

**Size:** 30 by 30 m

**Condition:** The old ditch apparent at LA 37615-37616 also runs through this area; edge of material area cut by NM 170; substantial slope wash.

**Overlap with right-of-way:** The two sandstone piles are at the east edge of the proposed right-of-way; the third possible feature is inside it, and material extends into the current right-of-way.

**Previous tests:** none, though Reed and Horn (1987) note the possibility of deep deposits.

**Action:** Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site.
LA 37614

Situation: Located on the first terrace above the floodplain on the east side of the La Plata River; sites LA 37611-37614 are all on portions of the same knoll that extends from the base of the talus, west of the highway. This site is at the north edge of this series of sites, on the slope north of the crest.

Elevation: 5,929-5,932 ft

Owner: Private; New Mexico State Highway and Transportation Department

Site type: Rubble mound with midden area and scatter

Cultural affiliation and estimated period: Anasazi PII-III

Description: This site is part of the complex including sites LA 37611-37613. This portion consists of a small rubble area and an area of fairly dense surface material that presently includes a concentration of carbon-painted white ware sherds, bone, and charcoal in the present right-of-way (Fig. 12). As with LA 37613, material extends in an apron to the contour formed by an old irrigation ditch.

Size: 45 m north-south by 25 m east-west

Condition: NM 170 shoulder, irrigation, dirt road along section fence.

Overlap with right-of-way: The area most likely to contain surface structures is outside the right-of-way as drawn; dense trash and possible pit structures are, however, included.

Previous tests: One test trench in trash area; this trench indicated no subsurface material.

Action: Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site.

LA 37615

Situation: Located directly across NM 170 from LA 37614, this site is higher than those across the road by virtue of being closer to the talus.

Elevation: 5,934-5,941 ft

Owner: BLM

Site type: Rubble mounds with trash area

Cultural affiliation and estimated period: Anasazi PII-III
Description: This site contains two or maybe three small mounds and a trash area on the slope below (Fig. 12).

Size: 65 m north-south by 25 m east-west

Condition: Fairly deep road cut for NM 170 contains material from the site, apparently primarily from washing; an abandoned ditch and an abandoned road (or perhaps two ditches?) cut through the mound area. There is considerable slope erosion.

Overlap with right-of-way: Surface indications and limited testing suggest that no structures are in the new right-of-way. There is, however, substantial material in the right-of-way, and it is possible that intact pit structures or middens are present.

Previous tests: Two 1 by 2 m trenches were excavated: one in a mound, one near the existing fence. The mound contains a possible floor; test by fence revealed material to around 15 cm below present ground surface.

Action: Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site.

LA 37616

Situation: Located on the slope below the base of the talus east of the La Plata River, and east of existing NM 170.

Elevation: 5,927-5,940 ft

Owner: BLM

Site type: Small rubble mounds with cultural material scatter

Cultural affiliation and estimated period: Anasazi PII-III

Description: This site is similar to neighboring LA 37615 in having two to three possible small structures located on a gentle slope (Fig. 12). Once again, given slope wash and disturbance, it is difficult to determine the location of features, especially middens and pit structures. The quantity of surface material is relatively small.

Size: 70 m north-south by 25 m east-west

Condition: Material area cut by NM 170 on the west; abandoned ditches or road and ditch cut through possible structures, and gullies also transect the site.

Overlap with right-of-way: Most likely surface structures are outside, but material extends into present and proposed rights-of-way.
Previous tests: None

Action: Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site.

LA 61810

Situation: At the juncture of the steep valley slope and the more gentle slope at the base of the talus.

Elevation: 5,934-5,945 ft

Owner: BLM

Site type: coal mine

Cultural affiliation and estimated period: Anglo, twentieth century

Description: This site is a coal mine with a substantial tailings pile (Fig. 13).

Size: 40 by 7 m

Condition: No evidence of modern construction

Overlap with right-of-way: The base of the tailing extends into the project area.

Previous tests: None

Action: This site is not likely to yield important information and additional investigations are not recommended.

LA 37619

Situation: At the base of the slickrock on the east side of the La Plata River, and east of the deep arroyo marked Pioneer Ditch on the quadrangle. The highway plans indicate that the Pioneer Ditch and this arroyo are separate, with the Pioneer Ditch crossing the highway about 500 m north of where this deep arroyo cuts the site and crosses the highway. The site is at the point where this arroyo turns to cross the highway.

Elevation: 5,940-5,951 ft

Owner: BLM
Site type: Probable structure with midden

Cultural affiliation and estimated period: Anasazi PII-III

Description: This is one of a series of Anasazi room blocks that were located at the base of the rounded cliffs in this part of the valley. The area has been severely cut by erosion, removing whole sections of structures, such as LA 3293, which was exposed when Morris was working in the valley. What remains at this site are some wall alignments and a thick midden area, which could be in or partially in pit structures (Fig. 13). When this site was examined in September 1989, a burial was exposed by erosion in the midden area.

Size: 50 m north-south by 15 m east-west

Condition: Severely eroded

Overlap with right-of-way: A drainage structure will be built here to carry the arroyo under the highway; if construction extends up out of the arroyo it will affect the midden area within the proposed right-of-way.

Previous tests: One trench at the edge of the rubble scatter, revealing no depth. The presence of rusted rebar stakes on the site suggest that other formal work may have taken place here, but the result and nature of that work are unknown.

Action: Site can be avoided; build fence on project limits (no higher than the 5,935 ft contour) to protect the midden during construction.

LA 37621

Situation: The majority of the site is east of the Pioneer Ditch, near the base of the slickrock east of the La Plata River; cultural material is present west of the ditch on the current shoulder of NM 170.

Elevation: 5,954-5,960 ft

Owner: BLM

Site type: Room block with scattered cultural material.

Cultural affiliation and estimated period: Anasazi PIII

Description: This site is adjacent to LA 3293, and also consists of rooms and other features cut by the deep Pioneer Ditch arroyo (Fig. 14). The visible portions of the site are constructed of shaped sandstone. The majority of the site was probably in the area of the arroyo and to the east, toward the cliff. There is, however, scattered material along the edge of the pavement, indicating that it probably also extended at least as far as the pavement.
Figure 14. LA 37621 site plan.
Size: 55 m north-south by 25 m east-west

Condition: Pioneer Ditch construction and cutting; NM 170 construction

Overlap with right-of-way: Area with visible walls east of the ditch is outside the right-of-way, but material along the edge of pavement is inside.

Previous tests: None

Action: Conduct testing program to determine extent and importance of cultural materials. See the Testing Plan section for more specific actions for this site.

LA 37623

Situation: East side of the La Plata River on the valley bottom but above the flood plain; a sizable drainage enters the valley from the east at this location; the present inclusive site definition includes features on both sides of NM 170.

Elevation: 5,981 ft

Owner: BLM

Site type: Pit structures, surface features, cultural material scatter

Cultural affiliation and estimated period: Anasazi PI

Description: The site number was originally assigned by Lancaster to historic and prehistoric features on the east side of the highway. Features west of the highway were exposed by the construction of the Shell CO₂ pipeline (Hammack 1983:16-28). The pipeline cut contains a pit structure with PI pottery visible in the profile, two hearths, and a surface room. A substantial quantity of cultural material on the surface suggests that other features may also be present. The apparent difference in age and the separation by the highway suggest that the features west of the highway should have been considered a different site from LA 37623 east of the highway; both should be separate from the adjacent historic Pond house (Fig. 15). An historic structure nomination has been submitted for the house by its owners, D. Ford and S. Andrae. This site is also cross-referenced in the ARMS files to a 6-acre survey performed by the BLM (Jacobson 1986). The site recorded by that survey is about ¼ mile east of the highway, and it, too, is best considered a separate site.

Size: as currently defined by Hammack (1983), 205 m north-south by 95 m east-west

Condition: The Shell CO₂ pipeline passed through at least one pit structure on this site; an irrigation ditch passes on the west, and NM 170 is on the east.

Overlap with right-of-way: Probable site area is inside proposed right-of-way and TCP
Figure 15. LA 37623 site plan.
**Previous tests:** A surface inventory and profiles of the pit structure were made when the pipeline trench was open.

**Action:** Previous investigations have determined that cultural materials likely to yield important information are present within proposed project limits. Additional investigations are recommended.

**LA 37624**

**Situation:** The site is located at the base of the slope from the second(?) terrace, on the east side of the La Plata River, NM 170, and the Pioneer Ditch. It is at the south side of the mouth of a small drainage.

**Elevation:** 5,993-5,997 ft

**Owner:** BLM. The owner of the adjacent house is a surveyor, and he says that there is some question about the ownership of the strip between the west edge of the existing pavement and the right-of-way fence. Presently the entire area of the existing right-of-way is considered to belong to the BLM.

**Site type:** Cobble mound

**Cultural affiliation and estimated period:** Anasazi, PII-III?

**Description:** This site consists of burned rock and artifacts on a gentle slope; a wall stub is present in the side of the ditch at this site (Fig. 16). Lancaster considered this site to have been destroyed; the location on the quadrangle map was incorrect, however, and intact remains are likely.

**Size:** 55 m north-south by 20 m east-west

**Condition:** Pioneer Ditch construction and cleaning have altered the site.

**Overlap with right-of-way:** East of Pioneer Ditch, which is just outside the right-of-way in this location. There is a possible wall remnant in the ditch that may mean that the site extended west of the ditch, though there is no indication that it did.

**Action:** This site would only require work if the alignment were changed to east of the Pioneer Ditch. The portion within the currently proposed right-of-way is unlikely to contain cultural materials that will yield important information.
Figure 16. LA 37624 site plan.
LA 73941

Situation: Located on a bench between the main first and second terraces of the valley on the east side of the La Plata River, east of both NM 170 and the Pioneer Ditch. The site is on a level area inside a small recessed area created by a minor side drainage.

Recorded: 9/89

Elevation: 6,015 ft

Owner: Private

Site type: Upright slabs, lithics, burned rock, ground stone.

Cultural affiliation and estimated period: Anasazi? PI?

Description: There are very few artifacts associated with this site, including a few flakes and a mano fragment. The clearest evidence for a site is a 1.2-m-long alignment of upright sandstone slabs (one large slab and two smaller ones) (Fig. 17). For a distance of about 10 m north of the slabs there is a fairly large quantity of burned cobbles. While the area has been recently burned off, the concentration of burned rock is greater here, and the mano is among them, suggesting that it may represent a prehistoric feature. The complete absence of sherds seems to contradict the idea that this is an Anasazi feature, but the upright slabs do suggest BMIII-PI, and pottery

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Figure 17. LA 73941 site plan.
is frequently scarce on the surface of early sites. The presence of a hammerstone and more
burned rock in the ditch cleaning backdirt suggests that the Pioneer Ditch may cut the west side
of the site.

Size: 35 m north-south by 25 m east-west

Condition: The Pioneer Ditch cuts the west side; erosion has taken place on the north, east, and
south sides.

Overlap with right-of-way: The site is contained by a TCP and is cut by the new right-of-way.

Action: Conduct testing program to determine extent and importance of cultural materials. See
the Testing Plan section for more specific actions for this site.

LA 37625

Situation: On a possible terrace remnant on the east side of the La Plata River, above the
floodplain; west of NM 170.

Elevation: 6,000-6,003 ft

Owner: Private

Site type: Historic ranch complex

Cultural affiliation and estimated period: Anglo; nineteenth-twentieth century

Description: This site contains five historic structures in varying states of disintegration: a frame
and an adobe house that were once linked, a dugout, a barn, and some sort of rock-lined cellar
(Fig. 18). These structures are the remains of the Dale Ranch, one of the earliest Anglo
operations in this part of the valley, having started in the latter 1800s. The adobe house is in
very unstable condition (Figs. 19, 20). A portion is missing on the east end and the west wall
showing signs of imminent collapse. Lancaster (1982:61-62) describes this site as follows:

This is a complex series of buildings; at least three building episodes are
indicated. The earliest structure is a double thick adobe building of between one
and two rooms. The later additions make it difficult to determine the actual
number of rooms it originally contained. The second addition is another adobe
structure added to the west side of the original. The final addition is a tar paper
and wood frame structure added to the southern side of the other two. The entire
house is wired for electricity although only the later additions were designed for
it. In addition the site includes: a dugout (presently being used as a dump), coal
dumps, a corral with loading chute, and a long barn with an enclosed stall.

Hammack (1983:11-13) is of the opinion that these structures date only to the 1930s or 1940s,
but at least some part of the adobe may well be older; he includes several photos of the site.
Figure 18. LA 37625 site plan.
Figure 19. LA 37625 frame house and adobe house, looking west.

Figure 20. LA 37625 adobe house, looking north.
Size: 95 by 45 m

Condition: The CO₂ line passed just east of the adobe house, and its construction may have taken away part of it.

Overlap with right-of-way: The two dwelling structures and outside activity areas are inside the proposed right-of-way and a TCP.

Previous tests: None

Action: Conduct limited ethnohistorical investigations and prepare Historic Building Inventory Forms to determine extent and importance of the structures.

LA 75146 (5LP 2388)

Situation: Located on the second terrace of the La Plata River Valley, on the east side of the valley and NM 170; the terrace forms a prominence well above the valley floor, and the site's structures are located along the north side of the prominence, extending from the base of the slope, to the next terrace, to the tip of the prominence.

Recorded: 11/89

Elevation: 6,065 ft

Owner: Southern Ute Indian Tribe (Colorado) and Private (New Mexico)

Site type: Pueblo

Cultural affiliation and estimated period: Anasazi PII, possible earlier component.

Description: This site consists of three cobbled mounds arranged in a broad crescent, located well above the valley floor (Fig. 21). The location commands a splendid view up and down the valley. The valley floor here is broad and gentle and is currently cultivated. The largest mound (Mound 1) is at the west end of the crescent, sitting at the edge of the terrace, with a steep slope below it to the northwest. This mound is 1-1.5 m high and is L-shaped with the short base at the east end. The mound is lower at the junction of the two legs, so that Mound 1 may actually represent two separate structures; 10-20 percent of the rock in Mound 1 is burned. Within the L, there is a large depression (about 13 by 19 m) containing gray-stained soil, artifacts, and a stand of Lycium (wolfberry). This depression probably contains either a very large pit structure or at least two more nearly average-sized ones; it was clearly excavated into the terrace surface.

Mound 2 is 9-10 m from Mound 1. It, too, is sizable, measuring 18 m east-west by 10 m by at least 1 m high. It rises from west to east as it approaches the base of the slope to the next terrace. Mound 2 is lower for about 4 m at the west end, then increases in volume to the east; some of this is natural rise, but there is also a definite increase in building material. Less than 10 percent of the cobbles in Mound 2 are burned, and some possible wall alignments are visible.
Figure 21. LA 75146 site plan.
Mound 3 is to the south-southeast of Mound 2, separated by a 5 m clear zone. Mound 3 is considerably smaller than either of the others, measuring 9 by 5 m. Two parallel alignments 1.5 m apart are visible; the mound may represent only two or three rooms. Mound 3 seems to have more corrugated pottery associated with it, and it may be a later use of this location than the other mounds. Mound 3 contains in the neighborhood of 30-40 percent burned rock, a higher percentage than the other two mounds. It is even closer to the base of the slope of the next terrace than Mound 2. The distance from Mound 3 to the east edge of Mound 1 is 33 m in a straight line.

Material continues to the south past the smaller drainage, which seems to define the main part of this site, onto a southern lobe of the terrace. A larger drainage defines the southern boundary of the overall site and terrace.

As this site is located in both Colorado and New Mexico, Colorado site number 5LP2388 has also been assigned to it, and the site is in the Colorado files.

Size: 100 m east-west by 80 m north-south

Condition: There is one minor pothole in the depression.

Overlap with right-of-way: Because the plan only extends to the edge of this site, exact location of the right-of-way and TCP lines is somewhat difficult; given only a Brunton compass, precise location of the state line is also difficult on top of the terrace. Two monuments (NMPLS 6159 and Bureau of Reclamation) are on an east-west line about 10 m north of what appears to be the state line based on a compass bearing projection from the fence line on the west side of the valley and on the state line monument on the west side of the highway. There is a rebar closer to my projection of the state line. A measurement by tape from the right-of-way fence indicates that the 175 ft take for the TCP includes 8-10 m of Mound 1 and perhaps the west edge of the depression, as well as the scatter on the slopes and the tip of the prominence.

Previous tests: None

Action: Conduct testing in areas within project limits that surround mounds to determine the extent and importance of the materials and to identify site limits more accurately.
IRRIGATION DITCHES

Irrigation is an important part of the historic occupation of the La Plata Valley, and ditches were focal to relationships among inhabitants and to survival in the valley. The upper La Plata Valley contains a complicated system of ditches, several of which parallel and cross the proposed project. These ditches are described briefly here, with the exception of the Pioneer Ditch, which was given a site number during a survey for the CO₂ line. Irrigation in the La Plata Valley is discussed and mapped in Dykeman and Langenfeld (1987:128-130, 140, figs. 9-1, 2).

The La Plata Indian Ditch

Established in 1877, one of the earliest ditches in the valley (see Dykeman and Langenfeld 1987:130), the Indian Ditch now takes out of the river in the SE¼ of Section 22, T 32N R 13W, somewhat downstream from the head of the Highland Park Ditch (Fig. 9). The Indian Ditch then extends about 2½ miles to the vicinity of the town of La Plata, crossing the highway corridor twice and paralleling the highway much of the way. Several ditches take out of the river in the same area, and masonry bridges are present as they meander through the flood plain. Valley residents have said that the Indian Ditch got its name because of the presence of prehistoric ditches. Like most ditches in the valley, it is unlined.

The USGS shows the Indian Ditch taking out below the highway bridge and the Highland Park above. If this is correct, the labelling of the project plans between Stations 900 and 910 is incorrect: the ditch west of the highway crossing at Station 906+16 is the Highland Park Ditch, while the ditch that diverges at about 905+40 is the Indian Ditch. This ditch is shown on the USGS quad as ending at the farmhouses in the SW¼ of the SE¼ of Section 34, but, as shown and marked on the highway plan, a large ditch continues from that point on the east side of the highway.

Highland Park Ditch

This ditch parallels the Indian Ditch for a considerable distance between the mine haulroad overpass and about a mile north of the town of La Plata. The Highland Park Ditch takes out from the river somewhat higher than the Indian Ditch (Fig. 9), and uses that elevation to reach the terrace west of the highway. Once on the terrace, it traverses several sections, which are primarily in alfalfa.

The Highland Park Ditch was established in 1885; in addition to paralleling the project from Station 806 to 874, it crosses it at Station 884. According to the USGS quad, it should also cross the project at around TCP 10-3, but the project plans show only the Indian Ditch in that area.
Greenhorn Ditch

The Greenhorn Ditch takes out of the river near the mouth of Manuel Arroyo and crosses the highway just above where the highway crosses the river. From there it proceeds down the east side of the valley, gaining considerable elevation above the river. About a half mile north of Highway 57, the ditch passes out of the river valley drainage into the McDermott Arroyo drainage, and the ditch then turns to a northeasterly course, providing water for pastures on the west side of McDermott Arroyo. Established in 1892, the ditch is named for the community of Greenhorn, which was located in this vicinity—the Greenhorn church used to stand near the Greenhorn cemetery in the SE, NE, SW¼, Sec. 35. The name Greenhorn apparently derives from the grassy terrace that separates the McDermott and La Plata drainages rather than from the neophytic nature of its inhabitants.

Pioneer Ditch

Established in 1877 by, among others, D. P. Dale, occupant of LA 37625, Dykeman and Langenfeld (1987:130) show the Pioneer Ditch as having priority number 3. The ditch runs along the east side of the proposed project from the state line to Station 986 (the Pioneer crosses the highway at TCP 15-1). The ditch runs parallel to a very deeply entrenched arroyo, part of which is marked on the USGS quad as being the Pioneer Ditch. This arroyo runs between the base of the sandstone cliff and the edge of the existing right-of-way between Stations 985 and 970, where it passes under the highway and forms a deep cut in the field on the west side. In the stretch on the east side of the highway, the arroyo cuts several sites located against the cliff, most notably LA 37619. Unless the ditch at some time escaped its channel to cause this severe downcutting, most of this erosion is attributable to the natural drainage.

The ARMS files show the Pioneer Ditch has been assigned LA 38077, as part of the survey conducted for the Shell CO₂ pipeline. According to Dykeman and Langenfeld (1987:134), Ute-Navajo farms were located in the vicinity of the Pioneer Ditch, below the prominent sandstone outcrop above TCP 13-1.
TESTING PLAN

Assuming that the presently evaluated project alignment is followed, archaeological action falls into three categories: sites requiring no further action due to their location and the nature of the materials within the proposed right-of-way; sites requiring testing either because of having been recently discovered or because previous tests were located so as to be inconclusive with respect to the alignment under consideration; and sites that are virtually certain to contain intact, significant deposits. Table 2 presents the sites on which further work is required.

The procedures for testing outlined here are based on the experience of several excavation and testing programs in the valley. Procedures established during excavations along Highway 170 (Toll and Blinman 1989) will be followed during testing. In order to maximize reliable information and minimize the impact of the testing, compromises are necessary. The use of a backhoe is strongly recommended since nearly all of the contexts in which work is required are heavily disturbed and cover extensive areas. Hand tests have been shown repeatedly to be inadequate to the task of finding buried structures, and buried structures have been found to be abundant. Therefore the following sequence of steps is recommended:

1. Establish a site datum and a baseline for horizontal and vertical control of test units. Photographs will be taken of each site before any surface modification takes place.

2. Surface collect area within the project limits, using a grid appropriate to the scale of the site and the degree of disturbance. Thus, a very small undisturbed site can practically be collected using fairly small grid units, though a scale less than 3 m on a side is probably false precision given the many processes that affect surface material distributions. A larger, more disturbed site should be collected using a larger size grid, up to 12 m on a side. A surface collection should be done at this stage, however, because the presence of any ground-disturbing work will further degrade surface material distributions. If meaningful distributions or particular artifacts are noted during the collection phase, the option of finer recording is always open. Collection will be accomplished by having crew members completely inspect each collection grid by walking back and forth across the grids. Any features noted will be marked with pin flags.

3. Place tests according to visible surface remains. If the surface material is generally scattered and no features are indicated it is appropriate to move directly to backhoe trenching. If, on the other hand, specific features are visible or the site is small enough, hand-testing should be performed. Hand-excavated tests will be conducted in 10-cm arbitrary levels, preserving natural stratigraphic breaks where feasible. Initial test size will be 1-by-2 m, but units will be expanded or reduced if greater or lesser exposure is required. Fill from these levels will be screened through ¼-inch mesh. Materials from each individual vertical/horizontal unit will be collected separately. If intact cultural features are encountered and sufficiently exposed to be verified, the test excavation will be halted, and the feature recorded insofar as possible. Upon verifying the presence of an intact feature, testing will be discontinued in the area of the site where the feature is located, but assessment of remaining areas will continue as necessary to provide the NMSHTD and the New Mexico Historic Preservation Division with a basis for planning subsequent management of the site. If a test does not encounter intact cultural features, it should be continued until culturally sterile soil is reached.
Table 2. Actions for Sites in the Dawson Arroyo Segment of the La Plata Highway Project (arranged south to north)

<table>
<thead>
<tr>
<th>Site</th>
<th>Action</th>
<th>Backhoe</th>
<th>Testing Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA 73933</td>
<td>Surface collect. Place backhoe trench along western concentration of surface material.</td>
<td>2 hours with LA 73934</td>
<td>4 days</td>
</tr>
<tr>
<td>LA 73934</td>
<td>Surface collect. Place hand test on areas with subsurface deposits exposed in the ditch wall. Place backhoe trench in area with surface artifacts if hand tests are negative.</td>
<td>2 hours with LA 73933</td>
<td>6 days</td>
</tr>
<tr>
<td>LA 73935</td>
<td>Surface collect. Place backhoe trench in borrow ditch to determine presence of intact features.</td>
<td>1 hour with LA 37609-10</td>
<td>3 days</td>
</tr>
<tr>
<td>LA 37609</td>
<td>Surface collect. Place backhoe trench inside existing right-of-way to look for surviving historic deposits</td>
<td>1 hour with LA 37610, 73935</td>
<td>3 days</td>
</tr>
<tr>
<td>LA 37610</td>
<td>Place backhoe trench within current right-of-way to determine if features are still present</td>
<td>3 hours with LA 37609, 73935</td>
<td>5 days</td>
</tr>
<tr>
<td>LA 58106</td>
<td>Cultural materials likely to yield important information are known to be present. No additional testing recommended.</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>LA 73936</td>
<td>Surface collect three areas. Place backhoe trench in each area.</td>
<td>4 hours</td>
<td>4 days</td>
</tr>
<tr>
<td>LA 73939</td>
<td>Perform auger testing to ascertain depth of historic deposits.</td>
<td>---</td>
<td>3 days</td>
</tr>
<tr>
<td>LA 73940</td>
<td>Surface collect. Place hand test by wall and one in scatter on slope.</td>
<td>---</td>
<td>4 days</td>
</tr>
<tr>
<td>LA 37611</td>
<td>Cultural materials likely to yield important information are known to be present. No additional testing recommended.</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>LA 37612</td>
<td>Cultural materials likely to yield important information are known to be present. No additional testing recommended.</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>LA 37613</td>
<td>Cultural materials likely to yield important information are known to be present. No additional testing recommended.</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>LA 37614</td>
<td>Cultural materials likely to yield important information are known to be present. No additional testing recommended.</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>LA 61795</td>
<td>Surface collect. Hand test area inside right-of-way.</td>
<td>---</td>
<td>4 days</td>
</tr>
<tr>
<td>LA 37615</td>
<td>Surface collect. Place backhoe trenches within project limits to look for deep deposits</td>
<td>2 hours with LA 37616</td>
<td>4 days</td>
</tr>
<tr>
<td>LA 37616</td>
<td>Surface collect. Place backhoe trench in material scatter inside project limits for deep deposits.</td>
<td>2 hours with LA 37615</td>
<td>4 days</td>
</tr>
<tr>
<td>Site</td>
<td>Action</td>
<td>Backhoe</td>
<td>Testing Total</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------</td>
<td>---------</td>
<td>---------------</td>
</tr>
<tr>
<td>LA 37619</td>
<td>No action unless construction cannot be limited to bottom of arroyo.</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>LA 37621</td>
<td>Surface collect. Place backhoe trench along edge of road to ascertain survival of features west of Pioneer Ditch.</td>
<td>4 hours</td>
<td>5 days</td>
</tr>
<tr>
<td>LA 37623</td>
<td>Cultural materials likely to yield important information are known to be present. No additional testing recommended.</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>LA 37625</td>
<td>Prepare Historic Building Inventory forms and conduct limited ethnohistorical investigations.</td>
<td>---</td>
<td>2 days</td>
</tr>
<tr>
<td>LA 73941</td>
<td>Hand test upright slab and burned rock areas for determination of the presence of features</td>
<td>---</td>
<td>5 days</td>
</tr>
<tr>
<td>LA 75146/SLP2388</td>
<td>Surface collect area within project limits, test flat area away from features; if features cannot be avoided, excavate as part of data recovery phase.</td>
<td>---</td>
<td>8 days</td>
</tr>
</tbody>
</table>

4. Record the results of testing. For hand tests much of the recording will take place during excavation. This will be achieved through recording individual stratigraphic units, but a final profile and supplementary photographs should be made of the test pit. Backhoe trenches are a more difficult problem due to their length. Any feature or other cultural deposit located in a backhoe trench wall should be fully profiled and photographed. It is of questionable value, however, to expend the time required to have archaeologists do full profiles of noncultural deposits. To record backhoe profiles that do not contain cultural deposits, then, sections of stratigraphy that show variation should be recorded and the area which they represent should be specified on an overall sketch. As a rule of thumb, stretches of greater than 20 m should not go without profile sections.

5. Map the site showing all tests and leave adequate reference so that the tests can be relocated if the site requires further work. When all recording is completed at a site, tests will be backfilled.

6. Collected materials will be cleaned and proveniences checked. All materials will be subjected to the standard laboratory analysis established during analysis of other La Plata Valley artifacts and samples.

7. Evaluate the testing results on the basis of features and deposits encountered and artifact analyses. Artifacts will be curated by the Museum of New Mexico, as agreed with the landowner of each site.

The purpose of testing is to determine the extent and importance of cultural properties. The use of mechanical equipment is necessary to obtain a reliable assessment of what is "out there." The testing outlined in Table 2 calls for an extensive amount of work: 13 weeks for one
crew. There are two primary reasons for this:

It is a conservative testing program. The intent is to cover any location with remains presently invisible to have a good idea of the scope of work required during data recovery and to minimize the risk of discoveries during construction.

The density of archaeological remains. The La Plata Valley in general is a very important archaeological area, and this segment has a wider representation of chronological periods than do any of the preceding ones. Basketmaker and early Pueblo, Pueblo II and III, Navajo or Ute, and historic Anglo components are all present. Major Anasazi settlements of all periods are in the immediate vicinity of the project. The scale of the Anasazi remains in the right-of-way, however, appears to be smaller than that in the vicinity of Barker Arroyo.
REFERENCES CITED

Beal, John D. (compiler)

Cully, Anne C.

Cully, Jack F.

Dane, Carle H., and George O. Bachman

Dykeman, Douglas D., and Kristin Langenfeld

Hammack, Laurens C.
1983  Cultural Resource Monitoring of the Shell CO₂ Cortez Pipeline New Mexico Mainline San Juan County, New Mexico. Draft report to Woodward-Clyde Consultants, Walnut Creek, California.

Hancock, Patricia, Timothy Kearns, Roger Moore, Margaret Powers, Alan C. Reed, Linda Wheelbarger, and Penelope Whitten
1988  *Excavation in the Middle La Plata Valley for San Juan Coal Company.* Division of Conservation Archaeology, Studies in Archaeology No. 6. Farmington, New Mexico.

Holmes, William H.

Jacobson, Louann
1986  Inventory of Stabilization Material at Aztec National Monument. BLM Farmington Office Report 86(IV)001f.

Kemrer, Meade, Alan C. Reed, Penelope Whitten, and Marilyn Swift
1980  *Excavations at Shumway Pueblo, an Early Pueblo III Village in Northwestern New*
Mexico. Division of Contract Archaeology Contributions to Anthropology No. 193. Farmington, New Mexico.

Lancaster, James W.
1982 The Recording of Archeological Sites along the La Plata Highway, San Juan County, New Mexico. Laboratory of Anthropology Notes No. 283. Museum of New Mexico, Santa Fe.

1983 The Testing of Archeological Sites along the La Plata Highway, San Juan County, New Mexico. Laboratory of Anthropology Notes No. 316. Museum of New Mexico, Santa Fe.

McKenna, Peter J.
1976 Ceramics from Tested Sites in the San Juan Drainage. Ms. in possession of author.

Morris, Earl H.

Nickens, Paul R.

Powers, Margaret A., and Richard P. Watson
n.d. Prehistory and History of the La Plata Valley. San Juan County Museum Association and San Juan College, Farmington, New Mexico.

Reed, Alan D., and Jonathon C. Horn

Reith, Charles C.

Roybal, F. Eileen, and others

Schmitt, Carl Gregory
1976 Summer Birds of the San Juan Valley, New Mexico. New Mexico Ornithological Society Publication No. 4.

Toll, H. Wolcott, and Eric Blinman
1989 Operating Procedures for the La Plata Highway Project. Archaeology Notes, Office of
Toll, H. Wolcott, and Charles A. Hannaford
1987 Data Recovery and Research Design for Excavations along the La Plata Highway in the Vicinity of Jackson Lake. Laboratory of Anthropology Notes No. 440. Museum of New Mexico, Santa Fe.


Vierra, Bradley, and Kurt Anschuetz
1987 The Excavation of a Multicomponent Anasazi Site (LA 50337) in the La Plata Valley, Northwestern New Mexico. Archaeology Notes No. 49. Office of Archaeological Studies, Museum of New Mexico, Santa Fe.

Ware, John A.

Whalley, Lucy Anne