AN ARCHAEOLOGICAL SURVEY OF A PROPOSED 345 KV POWER TRANSMISSION LINE CORRIDOR FROM DEMING, NEW MEXICO TO GREENLEE COUNTY, ARIZONA

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INTRODUCTION

From March 12, 1975, to March 19, 1975, Patrick H. Beckett, Douglas P. Brethauer, and Duane Hyatt of the Department of Sociology and Anthropology, New Mexico State University, conducted an archaeological survey of a proposed 345 KV transmission line right-of-way in Greenlee County, Arizona, for the Public Service Company of New Mexico. The survey team then returned to the field from March 23, 1975, to April 19, 1975, to continue on from the Arizona-New Mexico border to the proposed Deming substation.

Duane Hyatt was replaced by Duane Burrell when the survey team returned to the field on March 23, 1975. Beckett was field supervisor, and the principal investigator of the project is Dr. Stanley D. Bussey, New Mexico State University.

The survey began at the Greenlee substation (SE 1/4 of Sec. 29 T5S, R31E, Greenlee County, Arizona) and ended at the proposed Deming substation (SW 1/4 of Sec. 16, T23S, R9W, Luna County, New Mexico).

The right-of-way was not staked, but it was marked by white plastic panels used as air photo spotters from the Greenlee substation to the proposed Hidalgo substation. During this portion of the survey, with the use of air photos, compass bearings and horizon markers, the survey crew worked from panel to panel. From the proposed Hidalgo substation to the proposed Deming substation the line was marked by surveyors' targets. By the use of topographic maps, compass bearings and horizon markers, the survey crew worked from target to target. The route was later checked on air photos. While a possibility for error exists when these techniques are used, the

field supervisor feels confident that the entire right-of-way was thoroughly inspected.

Artifact analysis was performed in the field by the field supervisor. No collections were made except for points and sherds that were to be used for laboratory analysis. The laboratory analysis was done by Toni S. Murphy, Curator, New Mexico State University Museum. Copies of the survey forms will be filed with the Arizona State Museum and the Museum of New Mexico for their respective states. In addition, a complete file will be maintained at New Mexico State University.

IMPACT ON CULTURAL RESOURCES

In general, construction of a transmission line in the Arizona section of the proposed right-of-way will have little impact on cultural resources. The New Mexico section will definitely have impact on prehistoric cultural resources between the Hidalgo and Deming substations.

Direct Impact

Two archaeological sites were found in the right-of-way in the Arizona project area. Both can be bypassed if care is utilized in tower and road placement.

Site PSC-1 is in the NW 1/4 of the NW 1/4 of the SW 1/4, Sec. 11, T7S, R31E (673150 m. E, 3634650 m. N, Zone 12), Greenlee County, Arizona. The site is a small lithic site and is on a large flat bench which is covered by residual gravel.

Site PSC-2 is in the SE 1/4 of the SE 1/4 of the SE 1/4, Sec. 17, T9S, R32E (679850 m. E, 3613250 m. N, Zone 12), Greenlee County, Arizona. It is a one-room historic site which was probably occupied around 1900. It is south of an earthen dam.

Neither of these two sites would merit nomination to the National Register. However, both are potential sources of information and care should be taken to avoid them.

In various parts of the survey route occasional flakes were encountered. As no other artifacts or sherds were noted, these areas were not designated as sites. They were recorded in the project field notes. Only one Alma plainware sherd was found, and it was off the survey route on an adjacent

bench overlooking the Gila River just north of Duncan. The general lack of cultural remains in the survey seems to stem from the location of the proposed route. The line transects many areas that are too rocky to farm or inhabit. These areas are far enough away from the Gila River and from the mountain springs to the east that water is not generally available.

Ten (10) archaeological sites were found in the right-of-way of the New Mexico project area. These sites are in danger of being damaged or destroyed by construction if special care is not taken.

PSC-3 is in the SW 1/4 of the SE 1/4 of the SW 1/4, Sec. 23, T21S, R20W (699925 m. E, 3593155 m. N, Zone 12), Hidalgo County, New Mexico. The site is in a long, narrow, deflated area (25 x 200 meters), located in an aeolian sand dune deposit. There is a very good possibility that two components are present: a Mogollon site on the south end and a pre-ceramic Cochise site on the north end - or else these are two distinct use areas. There is a slight break in the continuity of the site between the two areas.

PSC-4 is in the SW 1/4 of the SW 1/4 of the SW 1/4, Sec. 22, T21S, R19W (707400 m. E, 3593115 m. N, Zone 12), Hidalgo County, New Mexico. The site is on a broad flood plain. It appears to have been a Jornada Mogollon campsite utilized only briefly. There are no structures present.

PSC-5 is in the SW 1/4 of the SW 1/4 of the SE 1/4, Sec. 21, T21S, R19W (708290 m. E, 3593135 m. N, Zone 12), Hidalgo County, New Mexico. The site is on a slight slope north of Ninemile Hill. The area has numerous small rock clusters which are very reminiscent of hearth areas.

PSC-6 is located in the SE 1/4 of the SW 1/4 of the NW 1/4, Sec. 7, T23S, R15W (741925 m. E, 3578575 m. N, Zone 12), Grant County, New Mexico. The site is on a small bench southeast of a large arroyo. No depressions

or surface structures were observed.

PSC-7 is located in the SW 1/4 of the SW 1/4 of the NE 1/4, Sec. 19, T23S, R14W (752210 m. E, 3575700 m. N, Zone 12), Grant County, New Mexico. The site is on a bench on the east side of Burro Cienega. At least six pit houses are visible, and pot sherds number in the thousands. The site may possibly be stratified.

PSC-9 is located in the SE 1/4 of the NE 1/4 of the SW 1/4, Sec. 30, T23S, R10W (225575 m. E, 3574385 m. N, Zone 13), Luna County, New Mexico. The site is in an aeolian dune deposit east of Jones Spring Draw in a heavy growth of mesquite. It is composed of scattered concentrations of sherds and lithic materials.

PSC-10 is located in the NE 1/4 of the NW 1/4 of the SE 1/4, Sec. 30, T23S, R10W (225900 m. E, 3574440 m. N, Zone 13), Luna County, New Mexico. The site is in a large deflated area between a playa and an aeolian dune deposit. There is a seemingly random scattering of lithics and glass artifacts present in the site.

PSC-11 is located in the NW 1/4 of the NW 1/4 of the SW 1/4, Sec. 29, T23S, R10W (226480 m. E, 3574480 m. N, Zone 13), Luna County, New Mexico. The terrain in which the site is located is fairly flat, with some aeolian activity taking place. The site is located about 150 meters east of the fence line that runs between Sections 30 and 29.

PSC-12 is located in the SW 1/4 of the SE 1/4 of the SW 1/4, Sec. 23, T23S, R10W (231655 m. E, 3575210 m. N, Zone 13), Luna County, New Mexico. The site is on a north-facing slope. There has been a moderate amount of aeolian activity in the area. The site consists of a small scattering of sherds and a mano eroding out of the surface.

PSC-13 is located in the center of the SE 1/4, Sec. 24, T23S, R10W, (233960 m. E, 3575540 m. N, Zone 13), Luna County, New Mexico. The site is south of a fence line that parallels the Mimbres River. No visible evidence of subterranean or surface structures is present. There is little pottery. Parts of the prehistoric portion are overlain by the old Camp Cody dump. The survey line crosses over an old tile water system running from the Mimbres River to Camp Cody.

If the power line and tower placement is to be moved out of its existing easement, the new easement areas should be surveyed. In addition, all sites that have been flagged should have their flagging removed when construction activities have ceased.

One prehistoric site was discovered outside the right-of-way. If care is not taken, it could be damaged by subsidiary construction.

Indirect Impact

PSC-8 is located in the NE 1/4 of the SW 1/4 of the NW 1/4, Sec. 32, T23S, R11W (216385 m. E, 3573445 m. N, Zone 13), Luna County, New Mexico.

The Public Service Company of New Mexico power lines may have an indirect impact on archaeological remains in the area in three ways:

1. Construction of access roads for the project may lead to easier access to isolated areas and thus increase the amount of vandalism to exposed archaeological resources;
2. Land treatment measures either in agricultural land or in rangeland may destroy or lead to the destruction of archaeological resources; and
3. Any disturbance of the earth outside the easement area during construction may lead to the destruction of cultural resources.

RECOMMENDATIONS TO MITIGATE THE IMPACT OF CONSTRUCTION

Indirect Impact

The first source of possible indirect impact, possible increased accessibility, is of minor importance in this case. Most of the project areas are moderately accessible at the present time, and most of the affected ranchers keep a close eye on their properties.

The second source of possible indirect impact, land treatment measures, cannot be evaluated without further information. Any activities involving disturbance of the earth on federal and state lands should be preceded by an archaeological survey, as cultural resources on these lands are protected by federal and state laws. The status of construction on private land is not clear at the present time. The Moss-Bennett Bill (PL 93-291) may provide funds for archaeological salvage work on private lands under certain circumstances.

The third source of possible indirect impact on archaeological resources, construction activities, can easily be controlled. If all earthmoving activities are limited to the areas surveyed, there will be no unpredicted disturbance of archaeological remains. However, any earthmoving activity outside the area surveyed, no matter how minor, should be checked for archaeological remains. Even minor soil disturbance can lead to the destruction of significant archaeological data.

In some other construction projects in the Southwest this kind of damage has resulted from two categories of activities. In some instances,

minor construction-related activities such as leveling ground for equipment parks and vehicle turnarounds have destroyed archaeological sites outside the formal right-of-way. In a few instances construction workers have intentionally destroyed archaeological sites for the purposes of obtaining artifacts.

In summary, indirect impact on archaeological resources as a result of this project can easily be prevented if proper care is utilized.

Direct Impact

Impact on cultural resources within the easement can be avoided or mitigated in several ways.

1. Spanning without road access. If no roads are planned for the project right-of-way and precise tower placement is not a factor along the route, the sites could be spanned without damage. If this option is selected, a field archaeologist should monitor the operation. Site flagging should be removed after construction work is completed.

2. Spanning with road access. If roads are planned for the project right-of-way and precise tower placement is not a factor along the route, the sites could be spanned and an access road built but a field archaeologist should monitor the operation.

3. By-pass. The sites could be bypassed by moving the line out of its existing easement. If this is done the new easement should have archaeological clearance.

4. Excavation of the sites. Clearance could be provided by excavation of the affected site or sites and the preparation of a final report. The entire process involves excavation with recording and mapping, laboratory analysis, interpretation and writing, and publishing a final report.

A Research Proposal and Estimated Budget for the Excavation of the Sites

The information presented below is not organized as a project. Instead we have presented each site more-or-less independently so that the rationale for excavating each site and the approximate costs of excavating each site independently can be seen. If it becomes necessary to excavate more than one site, a project budget can easily be developed from these budgets.

Research Goals

Site PSC-1 is a very small Archaic site. Excavation and collection would provide some basic information bearing on the utilization of the area during the Archaic Stage.

Site PSC-2 is a small historic site. Excavation would provide historians and historic archaeologists an insight to items not always present in the historical documents. These items include: 1) architecture, 2) consumer items available, 3) time the site was occupied, and 4) how these early settlers exploited their environment.

Site PSC-3 is a large ceramic site with a possible Archaic component. Its excavation would provide modern data on the Pinelawn Phase of the Mimbres branch of the Mogollon. Most of the known data is from the Reserve area to the north so PSC-3 could provide the basis for a better understanding of the spatial distribution and regional variations and adaptations of the Pinelawn Phase. The excavation could provide a better insight on the shift from the Desert Archaic (Cochise) to the Formative Stage (Mogollon). Most of our knowledge of the Pinelawn Phase is from the north (Reserve, New Mexico) and

data from the south are badly needed.

Site PSC-4 is a small ceramic site. Excavation and collection would provide information on special use areas. The site was probably occupied only briefly as a camp site.

Site PSC-5 is a 20 x 20 meter area of numerous small rock clusters. One locality has three small clusters in a N-S axis; another locality has two small clusters in an E-W axis. These areas could possibly be hearth areas: they do not appear to be walls. Excavation could provide information on this special use site (e.g., is it a seasonal gathering site or a ceremonial site?) The large number of hearths and lack of any other visible features tends to indicate a short-term occupation (temporary camp site) or an occupation by a small group of people who used the site sporadically over a long period of time (gathering site).

Site PSC-6 is a ceramic site. Excavation and collection would provide a better understanding of the transition between late Mangus and the early Mimbres Phases of the Mogollon. There appear to be several special use areas on the site which would provide information on the subsistence economy and would tend to indicate certain roles and segregation of activities. Excavation of this site could provide extremely valuable information on the kinds and rates of change occuring in the Mimbres Branch Mogollon during this time period.

Site PSC-7 is a pithouse village. At least six (6) pithouses are in evidence and potsherds number in the thousands. The pottery from the site is virtually unknown in the literature. The sherds seem to be a mixture of Casas Grandes and Mogollon influence. Excavation and collection would provide a basic identification for these wares. The site itself would tend to

reflect the cultural affiliations and the interaction this particular site had between the Casas Grandes and the Mogollon cultures. Other basic cultural data could also be provided by the excavation of this site: subsistence and segregation of role activities would be possible.

Site PSC-8 is a preceramic lithic site. The site has been badly picked over by the local populace. The site still has the potential of producing some valuable information. Several hearths and tool use areas seem to be intact. Essentially no preceramic sites have been excavated by professional archaeologists between the Rio Grande and the New Mexico-Arizona border. This absence of the preceramic prehistory makes the site an important one for determining a basic sequence for the area, cultural identification and how these early inhabitants of the Southwest exploited their environment.

Site PSC-9 is a ceramic site that is located in a large aeolian dune deposit. The site has produced an unknown brownware. As most of this site lies under the sanddune, no activity areas were noted. Cultural identification of the site and its place in the local sequence could be possible with the excavation of the site. The area and location of the site tends to suggest that the site was a seasonally occupied site for the exploitation of local flora as it became available.

Site PSC-10 is a late 19th century site that contains reworked glass artifacts. The site is probably Apache. It is quite small and lies entirely on the surface. The site is important as there is no known Apache site excavation in Southwestern New Mexico. A systematic collection of the site would be made to try to identify activity areas.

Site PSC-11 is a small ceramic site. All sherds are on the surface of the ground. A systematic collection would be made of these sherds in hopes of determining activity areas on this site.

Site PSC-12 is a small site located on a slight slope. From the pottery present the site has been assigned to the Three Circle Phase of the Mogollon. A systematic collection would be made of these sherds in hopes of determining activity areas on this site.

Site PSC-13 is a general location where historic artifacts (Camp Cody) overlie numerous sherds assigned to the Animas Phase. No evidence of prehistoric structures or features were evident. An old tile water or sewer system runs from the Mimbres River to Camp Cody. Extensive testing is necessary in order to determine the extent of the prehistoric remains if any are present at the site.

Research Strategy

1. We recommend complete excavation or collection (as appropriate) for all sites except PSC-3 and PSC-13. The portion of PSC-3 which is within the right-of-way should be excavated and the rest tested. PSC-13 needs extensive testing to determine its limits and to locate structures.

2. Cultural identification: excavation and collection of these sites would provide a more complete tool inventory and one that could be used as a comparison for other sites in the area.

3. Cultural sequence: If stratified, the sites would provide a stratigraphic sequence of cultural materials, allowing future researchers a basic chronology for the area.

4. Exploitation of the environment: The tool assemblage in each site would tend to indicate what function the site served during its occupation and in what seasons it was occupied.

5. Population density: Size of each site and habitation area would

give a relative demographic sample size for the site.

6. Social structure: Usage areas and their artifacts would tend to indicate certain roles and segregation of activities.

Field Methods

In some of the sites most of the fill or surface soils have eroded away. In these deflated sites the data collection phase of the project will consist of mapping and collecting surface material.

Sites that are stratified or have been covered by soil will be photographed, mapped, collected and excavated.

In order to insure maximum accuracy in surface mapping an artificial grid will be established over the site. Stakes will be placed at 10-meter intervals along north-south and east-west lines. The collecting units will be 1-meter squares. The normal procedure will be as follows:

The basic 10-meter square will be subdivided into 1-meter squares. Each 1-meter square will be photographed. The photograph will provide the working map of the square along with a map drawn on graph paper. In areas where there is a heavy concentration of artifacts the square will be divided into quarter sections and the collection of artifacts will be by quarter squares. Ordinary material from each quarter square will be bagged together. Artifacts of special interest will be bagged and mapped separately. After the surface material has been collected, each square will be excavated by standard techniques (by natural strata and arbitrary 10 cm. levels) to sterile soil. In this process, every attempt will be made to leave the local vegetation and ground surface in its original condition. Plants will only be moved from the squares being excavated or when it is absolutely necessary.

Charcoal, pollen and flotation samples will be collected where feasible. Additional data will be collected as the need is established.

LABORATORY ANALYSIS

Laboratory analysis includes the following:

1. Mechanical treatment - cleaning, numbering, etc.
2. Typological analysis of sherds and artifacts.
3. Functional analysis of sherds and artifacts.
4. Technological analysis of sherds and artifacts.
5. Preparation of punch cards for all or part of the collection.

The following subsidiary studies would be performed, where feasible:

1. Radiocarbon dating.
2. Obsidian hydration dating.
3. Dendrochronology.
4. Pollen analysis and interpretation.
5. Bone identification and interpretation.
6. Flotation extraction and analysis and interpretation of recovered specimens.
7. Geological studies of lithic material.
8. Soils interpretation.

INTERPRETATION AND WRITING

Interpretation and writing will be done by the archaeologist who supervised the excavation and analysis and the Principal Investigator. Archaeological interpretation will include internal and external comparisons of artifacts and spatial analysis of artifacts - the standard sorts of interpretation and presentation of data - plus whatever other procedures seem indicated by the data. Interpretation will be computer aided.

A published report will be submitted to the company.

If it is desired, New Mexico State University can prepare and disseminate news bulletins and feature articles discussing the work, its archaeological importance, and the role of the company in sponsoring the project.

SUPERVISION

The project will be under the overall direction of Dr. Stanley D. Bussey, Cultural Resources Management Division, Department of Sociology and Anthropology, New Mexico State University. Dr. Bussey will maintain overall supervision of all aspects of the project.

SITE PSC-1

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 1 day @ $43.28		$ 43.28	
Archaeological Assistant, 2 days @ $30.72		61.44	
	Wage sub-total	$ 104.72	
Fringe benefits @ 13.85%		14.50	
University overhead @ 17%		17.80	
	Total wages	$ 137.02	
Mileage: 300 miles @ $.20/mile		60.00	
Expendable field supplies		10.00	
Film		5.00	
Per diem, 3 days @ $20/day		60.00	
	Total supplies	$ 135.00	
	Total Field Costs	$ 272.02	272.02

Laboratory Costs

Lab Director, 1 day @ $43.28		$ 43.28	
Lab Assistant, 1 day @ $30.72		30.72	
	Wage sub-total	$ 74.00	
Fringe benefits @ 13.85%		10.25	
University Overhead @ 60%		44.40	
	Total Wages	$ 128.65	
Expendable supplies		10.00	
	Total Laboratory Costs	$ 138.65	138.65

SITE PSC-1 Continued

Interpretation and Writing Costs

Archaeologist, 5 days @ $43.28	$ 216.40	
Typist and draftsman, 3 days @ $20/day	60.00	
Wage sub-total	$ 276.40	
Fringe benefits @ 13.85%	38.28	
University overhead @ 60%	165.84	
Total wages	$ 480.52	
Expendable office supplies	10.00	
Developing and printing film	5.00	
Computer time, provided by department	0.00	
Total Interpretation and Writing	$ 495.52	495.52

Supervisory and Publication Costs

Principal Investigator, 1 day @ $58.00 (includes supervision of planning, excavation, analysis and preparation and editing of the final report)	$ 58.00	
Fringe benefits @ 13.85%	$ 8.03	
University overhead @ 60%	100.83	
Half of publication cost, est. at $150	$ 75.00	
Total Supervisory and Publication costs	$ 175.83	175.83
Total Project Costs		$1082.02

SITE PSC-2

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 3 days @ $43.28	$ 129.84	
Archaeological Assistant III, 6 days @ $30.72	184.32	
Wage sub-total	$ 314.16	
Fringe benefits @ 13.85%	$ 43.51	
University overhead @ 17%	53.41	
Total wages	$ 411.08	411.08
Mileage, 400 miles @ $.20/mile	80.00	
Expendable field supplies	10.00	
Film	5.00	
Per diem @ $20/day/9 days	180.00	
Total supplies	$ 275.00	
Total Field Costs		686.08

Laboratory Costs

Laboratory Director, 1 day @ $43.28	$ 43.28	
Laboratory Assistant, 1 day @ $30.72	30.72	
Wage sub-total	$ 74.00	
Fringe benefits @ 13.85%	10.25	
University overhead @ 60%	$ 44.40	
Total wages	$ 128.65	
Expendable supplies	10.00	
Total Laboratory Costs	$ 138.65	138.65

SITE PSC-2 Continued

Interpretation and Writing Costs		
Archaeologist, 5 days @ $43.28	$ 216.40	
Typist and Draftsman, 3 days @ $20/day	60.00	
Wage sub-total	$ 276.40	
Fringe benefits @ 13.85%	38.28	
University Overhead @ 60%	165.84	
Total Wages and Salaries	$ 480.52	
Expendable Office Supplies	10.00	
Developing and Printing Film	5.00	
Computer time, provided by department	0.00	
Total Interpretation and Writing Costs	$ 495.52	495.52
Supervisory and Publication Costs		
Principal Investigator, 1 day @ $58.00 (includes supervision of planning, excavation, analysis, and preparation and editing of the final report)	$ 58.00	
Fringe benefits @ 13.85%	8.03	
University overhead @ 60%	34.80	
Total supervisory	$ 100.83	
Half of publication cost, est. at $150	75.00	
Total Supervisory and Publication Costs	$ 175.83	175.83
Total Project Costs		$1496.08

SITE PSC-3

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 30 days @ $43.28/day	$1298.40	
Archaeological Assistant III, 120 days @ $30.72/day	3686.40	
Wage sub-total	$4984.80	
Fringe benefits @ 13.85%	$ 690.39	
University overhead @ 17%	847.42	
Total salary and wages	$6522.61	
Mileage, 2500 miles @ $.20/mile	500.00	
Expendable Field Supplies	75.00	
Film	15.00	
Per diem @ $20/day, 150 days	3000.00	
Total supplies	$3590.00	
Total Field Costs		10,112.61

Laboratory Costs

Laboratory Director, 10 days @ $43.28/day	$ 432.80	
Laboratory Assistant, 20 days @$30.72/day	614.40	
Wage sub-total	$1047.20	
Fringe benefits @ 13.85%	145.04	
University overhead @ 60%	628.32	
Total Salaries and Wages	$1820.56	
Expendable supplies	15.00	
Total Laboratory Costs		1835.56

SITE PSC-3 Continued

Interpretation and Writing Costs

Archaeologist, 15 days @ $43.28	$ 649.20	
Typist and draftsman, 5 days @ $20.00	100.00	
Wage sub-total	$ 749.20	
Fringe benefits @ 13.85%	103.76	
University overhead @ 60%	449.52	
Total Wages and Salaries	$ 1302.48	
Expendable Office supplies	15.00	
Developing and Printing Film	15.00	
Palynology, C-14, etc.	400.00	
Computer time, provided by department	0.00	
Total Interpretation and Writing	$ 1732.48	$1732.48

Supervisory and Publication Costs

Principal Investigator, 5 days @ $58.00 (includes supervision of planning, excavation, analysis, and preparation and editing of the final report)	$ 290.00	
Fringe benefits @ 13.85%	40.17	
University overhead @ 60%	174.00	
Total supervisory	$ 504.17	
Half of Publication Cost, et. at $300.00	150.00	
Total Supervisory and Publication	$ 654.17	654.17
Total Project Costs		$14,334.82

SITE PSC-4

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs		
Field Archaeologist, 1 day @ $43.28	$ 43.28	
Archaeological Assistant III, 2 days @ $30.72	61.44	
Wage sub-total	$ 104.72	
Fringe benefits @ 13.85%	14.50	
University Overhead @ 17%	17.80	
Total Wages	$ 137.02	
Mileage: 300 miles @ $.20/mile	60.00	
Expendable field supplies	10.00	
Film	5.00	
Per diem: 3 days @ $20/day	60.00	
Total field costs	$ 272.02	$ 272.02
Laboratory Costs		
Laboratory Director, 1 day @ $43.28	$ 43.28	
Laboratory Assistant, 1 day @ $30.72	30.72	
Wage sub-total	$ 74.00	
Fringe benefits @ 13.85%	10.25	
University overhead @ 60%	44.40	
Total wages	$ 128.65	
Expendable supplies	10.00	
Total Laboratory Costs	$ 138.65	$ 138.65

SITE PSC-4 Continued

Interpretation and Writing Costs		
Archaeologist, 5 days @ $43.28	$ 216.40	
Typist and draftsman, 3 days @ $20.00	60.00	
	$ 276.40	
Fringe benefits @ 13.85%	38.28	
University overhead @ 60%	165.84	
Total Wages and Salaries	$ 480.52	
Expendable office supplies	10.00	
Developing and Printing Film	5.00	
Computer time, provided by department	0.00	
Total Interpretation and Writing	$ 495.52	$ 495.52
Supervisory and Publication Costs		
Principal Investigator, 1 day @ $58.00 (includes supervision of planning, excavation, analysis and preparation and editing of the final report)	$ 58.00	
Fringe benefits @ 13.85%	$ 8.03	
University overhead @ 60%	34.80	
	$ 100.83	
Half of publication cost, est. at $150.00	75.00	
Total Supervisory and Publication	$ 175.83	$ 175.83
Total Project Costs		$1082.02

SITE PSC-5

ESTIMATED BUDGET

The costs detailed below are estimated costs. The actual work will be done on a cost-reimbursable basis, ie., we will charge only for work actually performed up the the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 10 days @ $43.28	$ 432.80	
Archaeological Assistant III, 20 days @ $30.72	614.40	
Wage sub-total	$ 1047.20	
Fringe benefits @ 13.85%	145.04	
University Overhead @ 17%	178.02	
Total Salary and Wages	$ 1370.26	
Mileage: 950 miles @.20/mile	190.00	
Expendable Field Supplies	75.00	
Film	10.00	
Per diem: 30 days @ $20/day	600.00	
Total Supplies	$ 875.00	
Total Field Costs	$ 2245.26	$2245.26

Laboratory Costs

Laboratory Director, 5 days @ $43.28	$ 216.40	
Laboratory Assistant, 5 days @ $30.72	153.60	
Wage sub-total	$ 370.00	
Fringe benefits @ 13.85%	51.25	
University Overhead @ 60%	222.00	
Total Salaries and Wages	$ 643.25	
Expendable Supplies	$ 10.00	
Total Lab Costs	$ 653.25	$ 653.25

SITE PSC-5 Continued

Interpretation and Writing Costs

Archaeologist, 15 days @ $43.28	$ 649.20	
Typist and draftsman, 4 days @ $20/day	80.00	
Wage sub-total	$ 729.20	
Fringe benefits @ 13.85%	$ 100.99	
University overhead @ 60%	437.52	
Total Wages and Salaries	$ 1267.71	
Expendable Office supplies	$ 10.00	
Developing and printing film	10.00	
Computer time, provided by department	0.00	
Total Interpretation and Writing	$ 1287.71	$ 1287.71

Supervisory and Publication Costs

Principal Investigator, 5 days @ $58/day (includes supervision of planning, excavation, analysis and preparation and editing of the final report)	$ 290.00	
Fringe benefits @ 13.85%	$ 40.17	
University overhead @ 60%	174.00	
Total Supervisory and Publication	$ 504.17	
Half of publication cost, est. $300.00	$ 150.00	
Total Supervisory and Publication Costs	$ 654.17	$ 654.17
Total Project Costs		$ 4840.39

SITE PSC-6

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 20 days @ $43.28	$ 865.60	
Archaeological Assistant III, 100 days @ $30.72	$ 3072.00	
Wage sub-total	$ 3937.60	
Fringe benefits @ 13.85%	$ 545.36	
University Overhead @ 17%	$ 669.39	
Total Salary and Wages	$ 5152.35	
Mileage: 1500 miles @ $.20/mile	$ 300.00	
Expendable Field Supplies	$ 60.00	
Film	$ 15.00	
Per diem: 120 days @ $20/day	$ 2400.00	
Total Supplies	$ 2775.00	
Total Field Costs	$ 7927.35	$ 7927.35

Laboratory Costs

Laboratory Director, 10 days @ $43.28	$ 432.80	
Laboratory Assistant, 20 days @$30.72	$ 614.40	
Wage sub-total	$ 1047.20	
Fringe benefits, @ 13.85%	$ 145.04	
University overhead @ 60%	$ 628.32	
Total salary and wages	$ 1820.56	
Expendable supplies	$ 15.00	
Total Laboratory Costs	$ 1835.56	$ 1835.56

SITE PSC-6 Continued

Interpretation and Writing Costs

Archaeologist, 15 days @ $43.28	$ 649.20	
Typist and draftsman, 5 days @ $20.00	$ 100.00	
Wage sub-total	$ 749.20	
Fringe benefits @ 13.85%	$ 103.76	
University overhead, 60%	$ 449.52	
Total Wages and Salaries	$ 1302.48	
Expendable Office supplies	$ 15.00	
Developing and printing film	$ 15.00	
Computer time, provided by the department	$ 0.00	
Palynology, C-14, etc.	$ 400.00	
Total Interpretation and Writing	$ 1732.48	$ 1732.48

Supervisory and Publication Costs

Principal Investigator, 5 days @ $58/day (includes supervision of planning, excavation, analysis, and preparation and editing of the final report)	$ 290.00	
Fringe benefits @ 13.85%	$ 40.17	
University overhead @ 60%	$ 174.00	
Half of publication cost, est. at $300	$ 150.00	
Total Supervisory and Publication Costs	$ 654.17	$ 654.17
Total Project Costs		$12,149.56

SITE PSC-7

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 30 days @ $43.28	$ 1,298.40	
Archaeological Assistant III, 150 days @ $30.72	$ 4,608.00	
Wage sub-total	$ 5,906.40	
Fringe benefits @ 13.85%	$ 818.04	
University Overhead @ 17%	$ 1,004.09	
Total Salary and Wages	$ 7,728.53	
Mileage: 2500 miles @ $.20/mile	$ 500.00	
Expendable Field Supplies	$ 75.00	
Film	$ 20.00	
Per Diem: 180 days @ $20/day	$ 3,600.00	
Total Supplies	$ 4,195.00	
Total Field Costs	$11,923.53	$11,923.53

Laboratory Costs

Laboratory Director, 15 days @ $43.28	$ 649.20	
Laboratory Assistant, 20 days @ $30.72	$ 614.40	
Wage sub-total	$ 1,263.60	
Fringe benefits, @ 13.85%	$ 175.01	
University overhead @ 60%	$ 758.16	
Total Salary and Wages	$ 2,196.77	
Expendable supplies	$ 20.00	
Total Laboratory Costs	$ 2,216.77	$ 2,216.77

SITE PSC-7 Continued

Interpretation and Writing Costs

Archaeologist, 20 days @ $43.28	$ 865.60	
Typist and draftsman, 6 days @ $20.00	$ 120.00	
Wage sub-total	$ 985.60	
Fringe benefits @ 13.85%	$ 136.51	
University overhead @ 60%	$ 591.36	
Total Salaries and Wages	$ 1,713.47	
Expendable office supplies	$ 15.00	
Developing and Printing Film	$ 20.00	
Computer time, provided by the department	-0-	
Palynology, C-14, etc.	$ 450.00	
Total Interpretation and Writing	$ 2,198.47	$ 2,198.47

Supervisory and Publication Costs

Principal Investigator, 5 days @ $58/day (includes supervision of planning, excavation, analysis, and preparation and editing of the final report)	$ 290.00	
Fringe benefits @ 13.85%	$ 40.17	
University overhead @ 60%	$ 174.00	
Half of publication cost, est. at $300	$ 150.00	
Total Supervisory and Publication Costs	$ 654.17	$ 654.17
Total Project Costs		$16,992.94

SITE PSC-8

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 15 days @ $43.28	$ 649.20	
Archaeological Assistant III, 60 days @ $30.72	$ 1,843.20	
Wage sub-total	$ 2,492.40	
Fringe benefits @ 13.85%	$ 345.20	
University Overhead @ 17%	$ 423.71	
Total Salary and Wages	$ 3,261.31	
Mileage, 1000 miles @ $.20/mile	$ 200.00	
Expendable Field Supplies	$ 50.00	
Film	$ 10.00	
Per Diem: 75 days @ $20/day	$ 1,500.00	
Total Supplies	$ 1,760.00	
Total Field Costs	$ 5,021.31	$ 5,021.31

Laboratory Costs

Laboratory Director, 10 days @ $43.28	$ 432.80	
Laboratory Assistant, 10 days @ $30.72	$ 307.20	
Wage sub-total	$ 740.00	
Fringe benefits @ 13.85%	$ 102.49	
University overhead @ 60%	$ 444.00	
Total Salary and Wages	$ 1,286.49	
Expendable supplies	$ 10.00	
Total Laboratory Costs	$ 1,296.49	$ 1,296.49

SITE PSC-8 Continued

Interpretation and Writing Costs

Archaeologist, 15 days @ $43.28	$ 649.20	
Typist and Draftsman, 5 Days @ $20	$ 100.00	
Wage sub-total	$ 749.20	
Fringe benefits @ 13.85%	$ 103.76	
University Overhead @ 60%	$ 449.52	
Total Salaries and Wages	$ 1,302.48	
Expendable office supplies	$ 15.00	
Developing and Printing Film	$ 15.00	
Palynology, C-14, etc.	$ 400.00	
Computer time, provided by the department	-0-	
Total Interpretation and Writing	$ 1,732.48	$ 1,732.48

Supervisory and Publication Costs

Principal Investigator, 3 days @ $58.00 (includes supervision of planning, excavation, analysis, and preparation and editing of the final report)	$ 174.00	
Fringe benefits @ 13.85%	$ 24.10	
University Overhead @ 60%	$ 104.40	
Half of publication cost, est. at $200	$ 100.00	
Total Supervisory and Publication Costs	$ 402.50	$ 402.50
Total Project Costs		$ 8,452.78

SITE PSC-9

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 10 days @ $43.28	$ 432.80	
Archaeological Assistant III, 30 days @ $30.72	$ 921.60	
Wage sub-total	$ 1,354.40	
Fringe benefits @ 13.85%	$ 187.58	
University Overhead @ 17%	$ 230.25	
Total Salary and Wages	$ 1,772.23	
Mileage: 750 miles @ $.20/mile	$ 150.00	
Expendable Field Supplies	$ 50.00	
Film	$ 10.00	
Per Diem: 40 days @ $20/day	$ 800.00	
Total Supplies	$ 1,010.00	
Total Field Costs	$ 2,782.23	$ 2,782.23

Laboratory Costs

Laboratory Director, 5 days @ $43.28	$ 216.40	
Laboratory Assistant, 5 days @ $30.72	$ 153.60	
Wage sub-total	$ 370.00	
Fringe benefits @ 13.85%	$ 51.25	
University Overhead @ 60%	$ 222.00	
Total Salary and Wages	$ 643.25	
Expendable Supplies	$ 10.00	
Total Laboratory Costs	$ 653.25	$ 653.25

SITE PSC-9 Continued

Interpretation and Writing Costs

Archaeologist, 10 days @ $43.28	$ 432.80	
Typist and Draftsman, 5 days @ $20	$ 100.00	
Wage sub-total	$ 532.80	
Fringe benefits @ 13.85%	$ 73.79	
University Overhead @ 60%	$ 319.68	
Total Salaries and Wages	$ 926.27	
Expendable office supplies	$ 10.00	
Developing and Printing Film	$ 10.00	
Computer Time, provided by the department	$ -0-	
Palynology, C-14, etc.	$ 250.00	
Total Interpretation and Writing	$ 1,196.27	$ 1,196.27

Supervisory and Publication Costs

Principal Investigator, 3 days @ $58.00 (includes supervision of planning, excavation, analysis, and preparation and editing of the final report)	$ 174.00	
Fringe benefits @ 13.85%	$ 24.10	
University Overhead @ 60%	$ 104.40	
Half of publication cost, est. at $200	$ 100.00	
Total Supervisory and Publication Costs	$ 402.50	$ 402.50
Total Project Costs		$ 5,034.25

SITE PSC-10

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 2 days @ $43.28	$ 86.56	
Archaeological Assistant III, 4 days @ $30.72	$ 122.88	
Wage sub-total	$ 209.44	
Fringe benefits @ 13.85%	$ 29.01	
University Overhead @ 17%	$ 35.60	
Total Salary and Wages	$ 274.05	
Mileage: 200 miles @ $.20/mile	$ 40.00	
Expendable Field Supplies	$ 10.00	
Film	$ 5.00	
Per Diem: 6 days @ $20/day	$ 120.00	
Total Supplies	$ 175.00	
Total Field Costs	$ 449.05	$ 449.05

Laboratory Costs

Laboratory Director, 1 day @ $43.28	$ 43.28	
Laboratory Assistant, 2 days @ $30.72	$ 61.44	
Wage sub-total	$ 104.72	
Fringe benefits @ 13.85%	$ 14.50	
University Overhead @ 60%	$ 62.83	
Total Salary and Wages	$ 182.05	
Expendable Supplies	$ 10.00	
Total Laboratory Costs	$ 192.05	$ 192.05

SITE PSC-10 Continued

Interpretation and Writing Costs

Archaeologist, 5 days @ $43.28	$ 216.40	
Typist and Draftsman, 3 days @ $20	$ 60.00	
Wage sub-total	$ 276.40	
Fringe benefits @ 13.85%	$ 38.28	
University Overhead @ 60%	$ 165.84	
Total Salaries and Wages	$ 480.52	
Expendable Office Supplies	$ 10.00	
Developing and Printing Film	$ 5.00	
Palynology, C-14, etc.	$ 150.00	
Computer Time, provided by the department	$ -0-	
Total Interpretation and Writing	$ 645.52	$ 645.52

Supervisory and Publication Costs

Principal Investigator, 1 day @ $58.00 (includes supervision of planning, excavation, analysis, and preparation and editing of the final report)	$ 58.00	
Fringe benefits @ 13.85%	$ 8.03	
University Overhead @ 60%	$ 34.80	
Half of publication cost, est. at $150	$ 75.00	
Total Supervisory and Publication Costs	$ 175.83	$ 175.83
Total Project Costs		$ 1,462.45

SITE PSC-11

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 2 days @ $43.28	$ 86.56	
Archaeological Assistant III, 4 days @ $30.72	$ 122.88	
Wage sub-total	$ 209.44	
Fringe benefits @ 13.85%	$ 29.01	
University Overhead @ 17%	$ 35.60	
Total Salary and Wages	$ 274.05	
Mileage, 200 miles @ $.20/mile	$ 40.00	
Expendable Field Supplies	$ 10.00	
Film	$ 5.00	
Per Diem: 6 days @ $20/day	$ 120.00	
Total Supplies	$ 175.00	
Total Field Costs	$ 449.05	$ 449.05

Laboratory Costs

Laboratory Director, 1 day @ $43.28	$ 43.28	
Laboratory Assistant, 2 days @ $30.72	$ 61.44	
Wage sub-total	$ 104.72	
Fringe benefits @ 13.85%	$ 14.50	
University Overhead @ 60%	$ 62.83	
Total Salary and Wages	$ 182.05	
Expendable Supplies	$ 10.00	
Total Laboratory Costs	$ 192.05	$ 192.05

SITE PSC-11 Continued

Interpretation and Writing Costs

Archaeologist, 5 days @ $43.28	$ 216.40	
Typist and Draftsman, 3 days @ $20	$ 60.00	
Wage sub-total	$ 276.40	
Fringe benefits @ 13.85%	$ 38.28	
University Overhead @ 60%	$ 165.84	
Total Salaries and Wages	$ 480.52	
Expendable Office Supplies	$ 10.00	
Developing and Printing Film	$ 5.00	
Palynology, C-14, etc.	$ 150.00	
Computer time, provided by the department	$ -0-	
Total Interpretation and Writing	$ 645.52	$ 645.52

Supervisory and Publication Costs

Principal Investigator, 1 day @ $58.00 (includes supervision of planning, excavation, analysis, and preparation and editing of the final report)	$ 58.00	
Fringe Benefits @ 13.85%	$ 8.03	
University Overhead @ 60%	$ 34.80	
Half of Publication Cost, est. at $150	$ 75.00	
Total Supervisory and Publication Costs	$ 175.83	$ 175.83
Total Project Costs		$1,462.45

SITE PSC-12

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1976, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 2 days @ $43.28	$ 86.56	
Archaeological Assistant III, 4 days @ $30.72	$ 122.88	
Wage sub-total	$ 209.44	
Fringe benefits @ 13.85%	$ 29.01	
University Overhead @ 17%	$ 35.60	
Total Salaries and Wages	$ 274.05	
Mileage: 200 miles @ $.20/mile	$ 40.00	
Expendable Field Supplies	$ 10.00	
Film	$ 5.00	
Per Diem: 6 days @ $20/day	$ 120.00	
Total Supplies	$ 175.00	
Total Field Costs	$ 449.05	$ 449.05

Laboratory Costs

Laboratory Director, 1 day @ $43.28	$ 43.28	
Laboratory Assistant, 2 days @ $30.72	$ 61.44	
Wage sub-total	$ 104.72	
Fringe benefits @ 13.85%	$ 14.50	
University Overhead @ 60%	$ 62.83	
Total Salary and Wages	$ 182.05	
Expendable supplies	$ 10.00	
Total Laboratory Costs	$ 192.05	$ 192.05

SITE PSC-12 Continued

Interpretation and Writing Costs

Archaeologist, 5 days @ $43.28	$ 216.40	
Typist and Draftsman, 3 days @ $20	$ 60.00	
Wage sub-total	$ 276.40	
Fringe benefits @ 13.85%	$ 38.28	
University Overhead @ 60%	$ 165.84	
Total Salaries and Wages	$ 480.52	
Expendable Office Supplies	$ 10.00	
Developing and Printing Film	$ 5.00	
Palynology, C-14, etc.	$ 150.00	
Computer time, provided by the department	$ -0-	
Total Interpretation and Writing	$ 645.52	$ 645.52

Supervisory and Publication Costs

Principal Investigator, 1 day @ $58.00 (includes supervision of planning, excavation, analysis, and preparation and editing of the final report)	$ 58.00	
Fringe benefits @ 13.85%	$ 8.03	
University Overhead @ 60%	$ 34.80	
Half of Publication Cost, est. at $150	$ 75.00	
Total Supervisory and Publication Costs	$ 175.83	$ 175.83
Total Project Costs		$1,462.45

SITE PSC-13

ESTIMATED BUDGET

The costs detailed below are estimated maximum costs. The actual work will be done on a cost-reimbursable basis, i.e., we will charge only for work actually performed up to the limits listed below. Salary estimates will hold through June 30, 1975, but other costs may need to be readjusted after September 30, 1975.

Field Costs

Field Archaeologist, 5 days @ $43.28	$ 216.40	
Archaeological Assistant III, 5 days @ $30.72	$ 153.60	
Wage sub-total	$ 370.00	
Fringe Benefits @ 13.85%	$ 51.25	
University Overhead @ 17%	$ 62.90	
Total Salary and Wages	$ 484.15	
Mileage: 250 miles @ $.20/mile	$ 50.00	
Expendable Field Supplies	$ 10.00	
Film	$ 5.00	
Per Diem: 10 days @ $20/day	$ 200.00	
Total Supplies	$ 265.00	
Total Field Costs	$ 749.15	$ 749.15

Laboratory Costs

Laboratory Director, 1 day @ $43.28	$ 43.28	
Laboratory Assistant, 1 day @ 30.72	$ 30.72	
Wage sub-total	$ 74.00	
Fringe Benefits @ 13.85%	$ 10.25	
University Overhead @ 60%	$ 44.40	
Total Salary and Wages	$ 128.65	
Expendable Supplies	$ 10.00	
Total Laboratory Costs	$ 138.65	$ 138.65

SITE PSC-13 Continued

Interpretation and Writing Costs

Archaeologist, 5 days @ $43.28	$ 216.40	
Typist and Draftsman, 3 days @ $20.00	$ 60.00	
Wage sub-total	$ 276.40	
Fringe Benefits @ 13.85%	$ 38.28	
University Overhead @ 60%	$ 165.84	
Total Salary and Wages	$ 480.52	
Expendable Office Supplies	$ 10.00	
Developing and Printing Film	$ 5.00	
Computer time, provided by the department	$ -0-	
Total Interpretation and Writing	$ 495.52	$ 495.52

Supervisory and Publication Costs

Principal Investigator, 1 day @ $58.00 (includes supervision of planning, excavation, analysis, and preparation and editing of the final report)	$ 58.00	
Fringe Benefits @ 13.85%	$ 8.03	
University Overhead @ 60%	$ 34.80	
Half of Publication Cost, est. at $150	$ 75.00	
Total Supervision and Publication	$ 175.83	$ 175.83
Total Project Costs		$1,559.15

APPENDIX I

The Sites

Site PSC-1

Location: NW ¼ of the NW ¼ of the SW ¼, Sec. 11, T7N, R 31E, Greenlee County, Arizona (673150 M.E., 3634650 M.N., Zone 12).

Cultural Affiliation: Cochise (?)

Stage: Unknown

Size: 5 x 5 meters

Description: The site consists of a small scattering of stone tools and flakes. The lithic assemblage lies directly on top of a residual surface and is all surface material, with no stratigraphy.

Ceramic Evidence: No sherds

Lithic Evidence: Diagnostic tool types include: Two (2) fine-grained quartzite scrapers; one (1) chert hammerstone; four (4) retouched flakes and approximately ten (10) waste flakes, mostly fine-grained quartzite and chalcedony.

Artifact Disposition: All material left at site undisturbed.

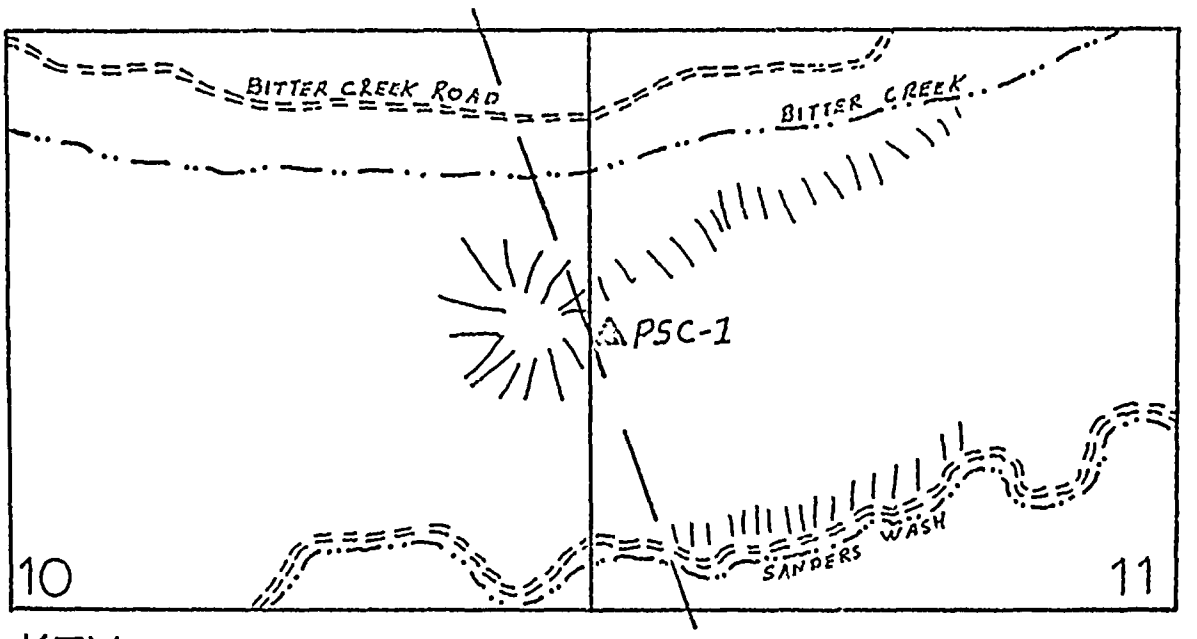
Recommendations: Not recommended for National Register. Recommend by-passing site it at all possible. If the site cannot be avoided, and collection is necessitated, three (3) man-days are needed, with travel time included.

Comments: Site was flagged by red flagging on creosote bush.

Owner: U.S. Department of the Interior, Bureau of Land Management.

PSC-1

T7S,R31E



KEY:

scale: 1mi.

---- arroyo
-- survey line
=== road
▲ site

Mag. N.

Site PSC-2

Location: SE ¼ of the SE ¼ of the SE ¼, Sec. 17, T9S, R32E, Greenlee County, Arizona (679850 M.E., 3613250 M.N., Zone 12).

Cultural Affiliation: Historic

Age: Circa A.D. 1900

Size: 10 x 10 meters

Description: A one-room dwelling which measures 3.5 x 4.0 meters. A doorway is located on the east wall. The structure has a basalt cobblestone foundation and had been a wooden structure with glass windows and a tin roof. A few very small wood fragments are left, and only the foundation and a few pieces of galvanized tin are left. No outhouse location could be determined. Approximately 10 cm. of fill in structure.

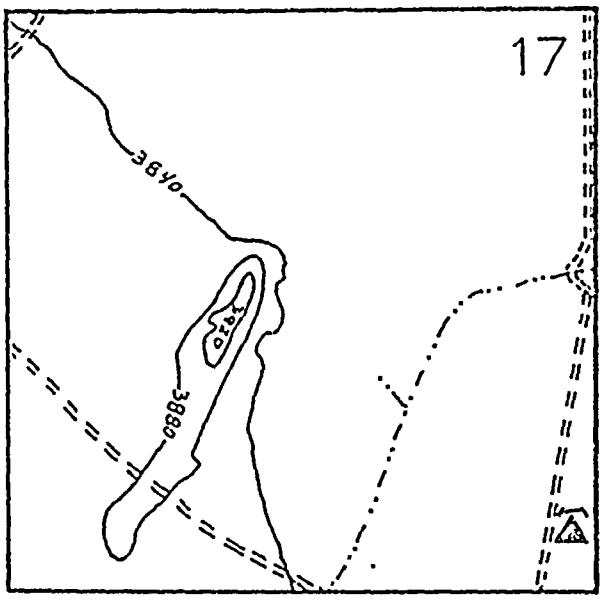
Artifacts: None were removed from the site, except for a WRA.38-55 cartridge which was brought back for identification. Window glass, china (without trademark), galvanized tin and wood fragments were present.

Recommendations: Not recommended for inclusion in the National Register. If the site cannot be avoided, and if an excavation is necessitated, nine (9) man-days are needed, with travel time included. Otherwise, it is recommended that the site be bypassed if at all possible.

Owner: U.S. Department of the Interior, Bureau of Land Management.

PSC-2

T9S,R32E



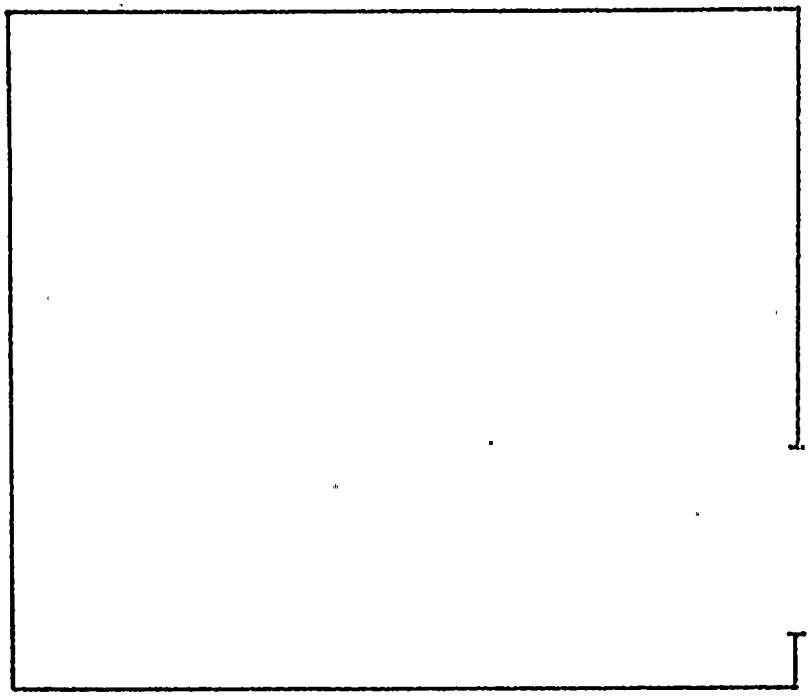
KEY:

dam
road
arroyo
contour

scale: 1mi.

PSC-2

One room historic site



South wall has a magnetic bearing of 79°; East wall has a magnetic bearing of 349°. Approximately 10 cm. of fill remains in the room. The structure has a basalt cobblestone foundation.

Site PSC-3

Location: SW ¼ of the SE ¼ of the SW ¼, Sec. 23, T21S, R 20W, Hidalgo County, New Mexico (699925 M.E., 3593155 M.N., Zone 12).

Cultural Affiliation: Mogollon

Stage: Pinelawn

Size: 25 x 200 meters

Description: The site consists of a large number of potsherds and worked stone eroding out of large dune buildup area. No structures were noted in the area. There are areas, however, that were possible living floors. The pottery clusters in the southern half of the site, while the northern half has numerous manos and metates scattered about. There is a good possibility that the site is more than 25 meters wide as there is a heavy aeolian buildup over the entire area.

Ceramic Evidence: Alma Plain sherds in abundance in the hundreds.

Lithic Evidence: Basalt and sandstone metates; sandstone manos; blades, side scrapers, plane scrapers, concave and convex scrapers and a hammerstone.

Artifact Disposition: Six sherds brought back to the NMSU Museum for analysis. All other sherds and artifacts were left undisturbed on the site.

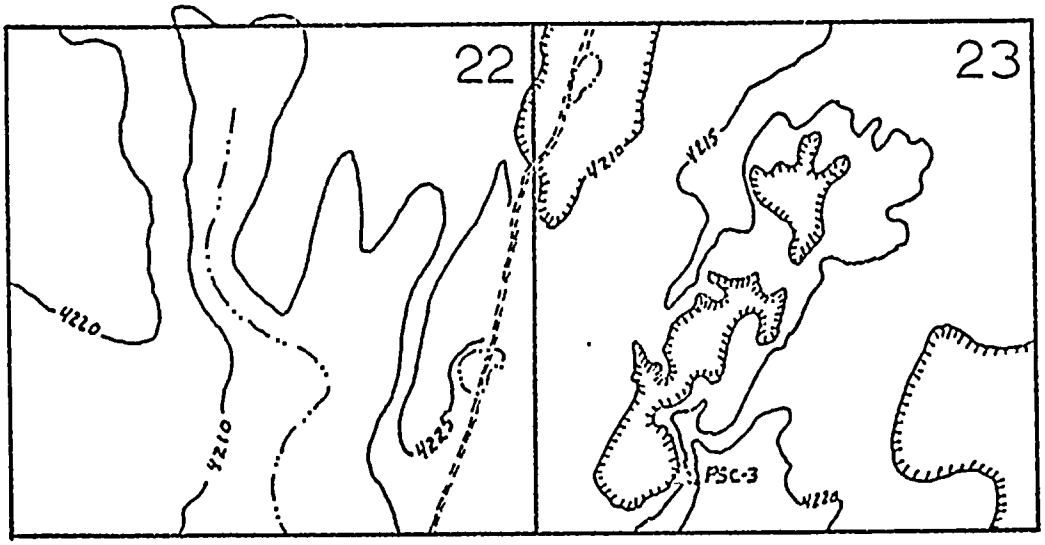
Recommendations: Recommend by-passing site if at all possible. If the site cannot be avoided, and excavation and collection are necessary, 150 man-days are needed.

Comments: Site was flagged by red flagging on mesquite bushes.

Owner: Bureau of Land Management (BLM Status map SW-21, 11/74).

PSC-3

T21S,R20W



KEY:

scale: 1mi.

--- water (temp.)
— contour
:::: road
uuuu depression
▲ site

mag. N.

Site PSC-4

Location: SW ¼ of the SW ¼ of the SW ¼, Sec. 22, T21S, R19W, Hidalgo County, New Mexico (707400 M.E., 3593115 M.N., Zone 12).

Cultural Affiliation: Mogollon (Jornada)

Stage: Unknown

Size: 5 x 5 meters

Description: Site rests on a broad flood plain. No structures were present. Site appears to have been a camp site utilized only briefly.

Ceramic Evidence: Eleven Jornada Brown sherds were in evidence. Two sherds were collected for further lab analysis.

Lithic Evidence: Two stone artifacts were observed on the site, a projectile point and a spokeshave-graver made out of rhyolite.

Artifact Disposition: Two potsherds and the projectile point were collected and brought back for lab analysis. All other sherds and the spokeshave-graver were left on the site undisturbed.

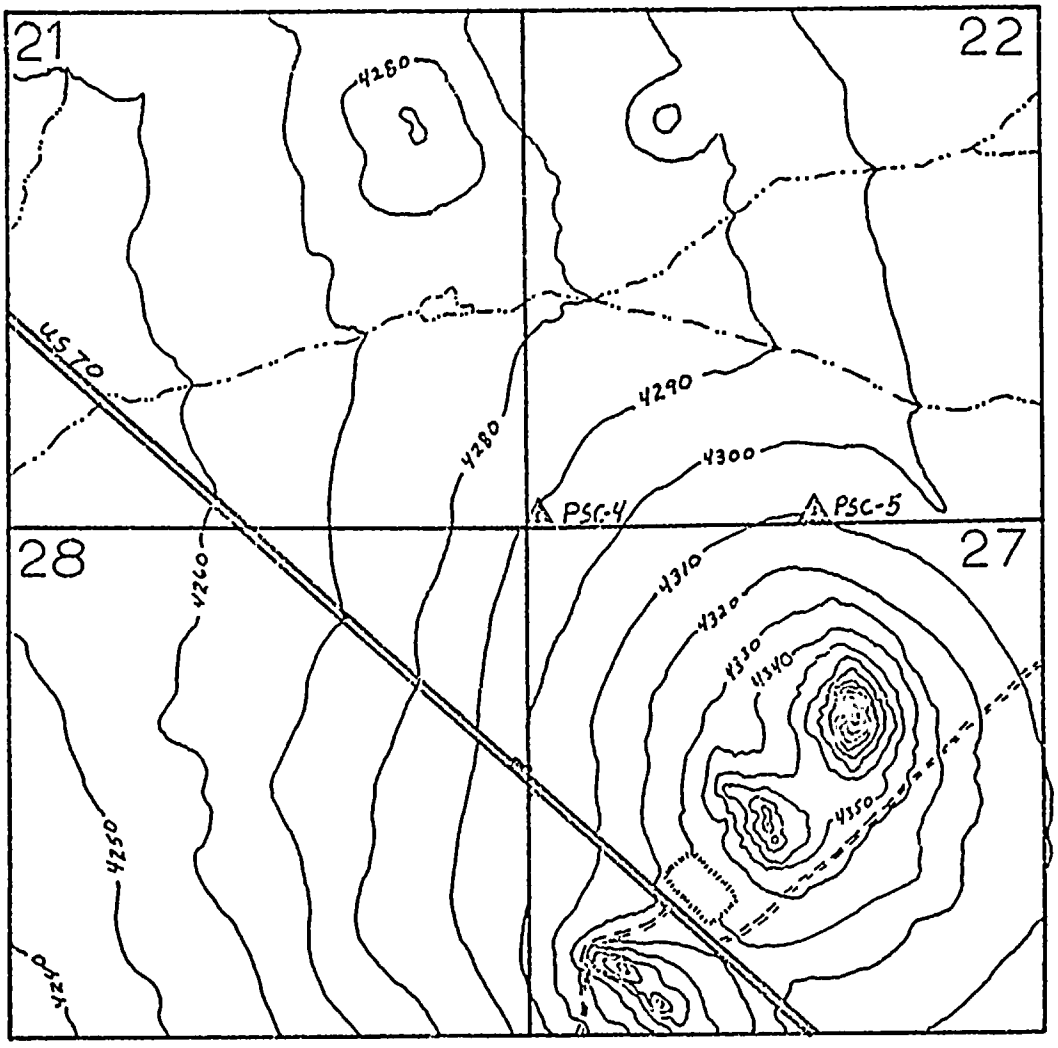
Recommendations: Not recommended for the National Register. Recommend by-passing site if at all possible. If the site cannot be avoided and collection is necessary, three man-days are needed, with travel time included.

Comments: Site was flagged by red flagging and is located 18 meters north of USGS marker $\frac{S21 \mid S22}{S27 \mid S28}$

Owner: State of New Mexico (BLM Status Map SW-21, 11/74).

PSC-4&5

T21S,R19W



KEY:

scale: 1 mi.

- arroyo
- contour
- US70
- road
- borrow pit
- site

mag. N.

Site PSC-5

Location: SW ¼ of the SW ¼ of the SE ¼, Sec. 22, T21S, R19W, Hidalgo County, New Mexico (708290 M.E., 3593135 M.N., Zone 12).

Cultural Affiliation: Mogollon

Stage: Unknown

Size: 20 meters N-S axis; 25 meters E-W axis.

Description: The area has numerous areas of small rock clusters. One locality has three small areas of rocks in a N-S axis; another locality has two small areas of rocks in an E-W axis. These areas could possibly be hearth areas; they do not appear to be walls.

Ceramic Evidence: Three Alma Plain sherds

Lithic Evidence: Two retouched flakes

Other Evidence: One live 8mm round

Artifact Disposition: All material left at site undisturbed.

Recommendations: Not recommended for National Register. Recommend by-passing site if at all possible. If the site cannot be avoided, and excavation and collection are necessary, 30 man-days are needed, with travel time included.

Comments: Site is on a slight slope. Location is approximately one-half mile north of Ninemile Hill.

Ownership: State of New Mexico (BLM Status Map SW-21, 11/74).

Site PSC-6

Location: SE ¼ of the SW ¼ of the NW ¼, Sec. 7, T23S, R15W, Grant County, New Mexico (741925 M.E., 3578575 M.N., Zone 12).

Cultural Affiliation: Mogollon

Stage: Late Mangus - Early Mimbres

Size: 25 meters N-S axis; 30 meters E-W axis

Description: The site is situated on a small bench SE of a large arroyo. No depressions or surface structures in evidence. Abundant potsherds and worked stone are scattered in a 25 x 30 meter area.

Ceramic Evidence: Mimbres Classic Black-on-White, Mangus Black-on-White, Alma Plain, Three Circle Neck-Banded

Lithic Evidence: Polishing stone, spokeshaves, blades, side scrapers, utilized and retouched flakes.

Artifact Disposition: Eleven (11) sherds and the polishing stone were collected for further analysis at the New Mexico State University Museum. All other potsherds and stone were left undisturbed at the site.

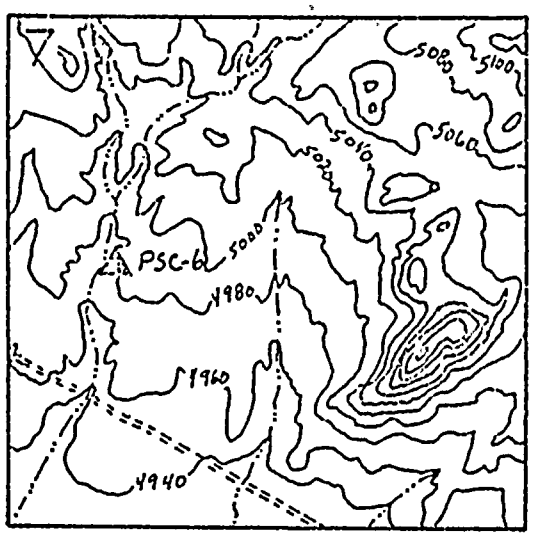
Recommendations: Possible that the site is of National Register significance. Recommend by-passing site if at all possible. If the site cannot be avoided, and excavation and collection are necessary, 120 man-days are needed, with travel time included.

Comments: The site has not been disturbed or pothunted. Location is approximately 1200 ft. northeast of the El Paso Natural Gas line.

Ownership: State of New Mexico (BLM Status Map SW-27, 6/74).

PSC-6

T23S, R15W



KEY:

--- arroyo
— contour
=== road
▲ site

scale: 1 mi.

Site PSC-7

Location: SW ¼ of the SW¼ of the NE ¼, Sec. 19, T23S, R14W, Grant County, New Mexico (752210 M.E., 3575700 M.N., Zone 12).

Cultural Affiliation: Mogollon

Stage: Unknown

Size: 80 meters N-S axis; 75 meters E-W axis

Description: The site is situated on a bench on the east side of Burro Cienega Creek. At least six pithouses are in evidence, and ceramics number in the thousands. Burro Cienega Creek provides arable land. The site is possibly stratified.

Ceramic Evidence: Alma Plain, Mimbres Red Wash (?), Casas Grandes Red Wares (?), and some unidentified sherds.

Lithic Evidence: Obsidian point, sidescrapers, spokeshaves, utilized and retouched flakes.

Artifact Disposition: Twelve (12) sherds and the obsidian point were collected for further analysis at the New Mexico State University Museum. All other material left on the site undisturbed.

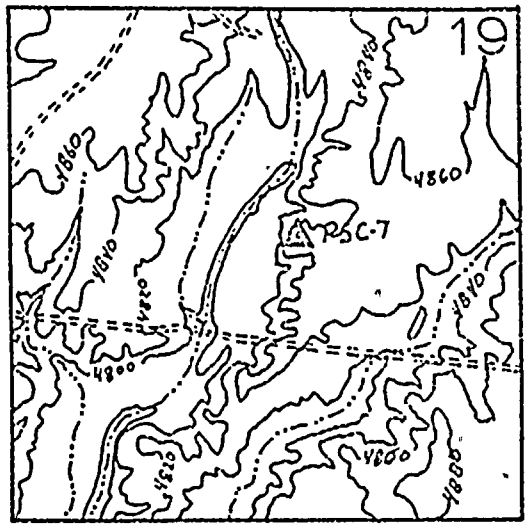
Recommendations. The site is an important one, and is of possible National Register significance. Recommend by-passing site if at all possible. If the site cannot be avoided, and excavation and collection are necessary, 180 man-days are needed, with travel time included.

Comments: The site has not been disturbed or pothunted.

Ownership: Kipp Ranch, patented land (BLM Status Map SW-27, 6/74).

PSC-7

T23S,R14W



KEY:

---- arroyo
=== road
— contour
△ site

scale: 1mi.

Site PSC-8

Location: NE ¼ of the SW ¼ of the NW ¼, Sec. 32, T23S, R11W, Luna County, New Mexico (216385 M.E., 3573445 M.N., Zone 13).

Cultural Affiliation: Cochise

Stage: Unknown

Size: 40 x 40 meters

Description: The site is eroding out of a shallow overburden, and several hearths are in evidence. The site is known to some of the local population. It is located just west of the dirt road running north from the Deming pumping station (El Paso Natural Gas Co.), one-half mile north from the road junction.

Ceramic Evidence: None

Lithic Evidence: Scraper planes, side scrapers, spokeshaves, utilized and retouched flakes.

Artifact Disposition: All material left at the site undisturbed.

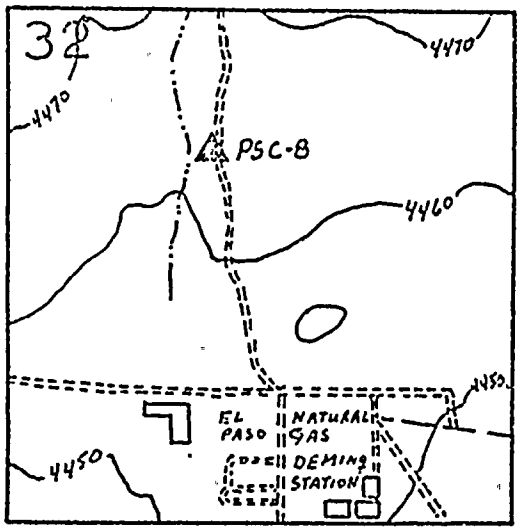
Recommendations: There will be no direct impact on the site as it lies to the north of the survey line. Indirect impact will be minimal as there is already easy access to the site.

Comments: There are a large number of 22 caliber shells and broken glass in the area. The site also looks as if it had been surface collected. Several use areas are still visible along with several hearths.

Ownership: State of New Mexico (BLM Status Map SW-27, 6/74).

PSC-8

T23S,R11W



KEY:

---- arroyo
-- pipeline
=== road
— contour
□ tank
▲ site

scale: 1mi.

Site PSC-9

Location: SE ¼ of the NE ¼ of the SW ¼, Sec. 30, T23S, R10W, Luna County, New Mexico (225575 M.E., 3574385 M.N., Zone 13).

Cultural Affiliation: Unknown

Stage: Unknown

Size: 70 meters N-S axis; 50 meters E-W axis

Description: Located in an aeolian dune deposit, east of Jones Spring Draw in a heavy growth of mesquite. The site is composed of scattered concentrations of potsherds and worked stone.

Ceramic Evidence: Unknown brownware

Lithic Evidence: One broken vesicular basalt mano, side scraper, utilized and retouched flakes.

Artifact Disposition: Ten unidentified potsherds were collected for lab analysis at the New Mexico State University Museum. All other artifacts were left on the site undisturbed.

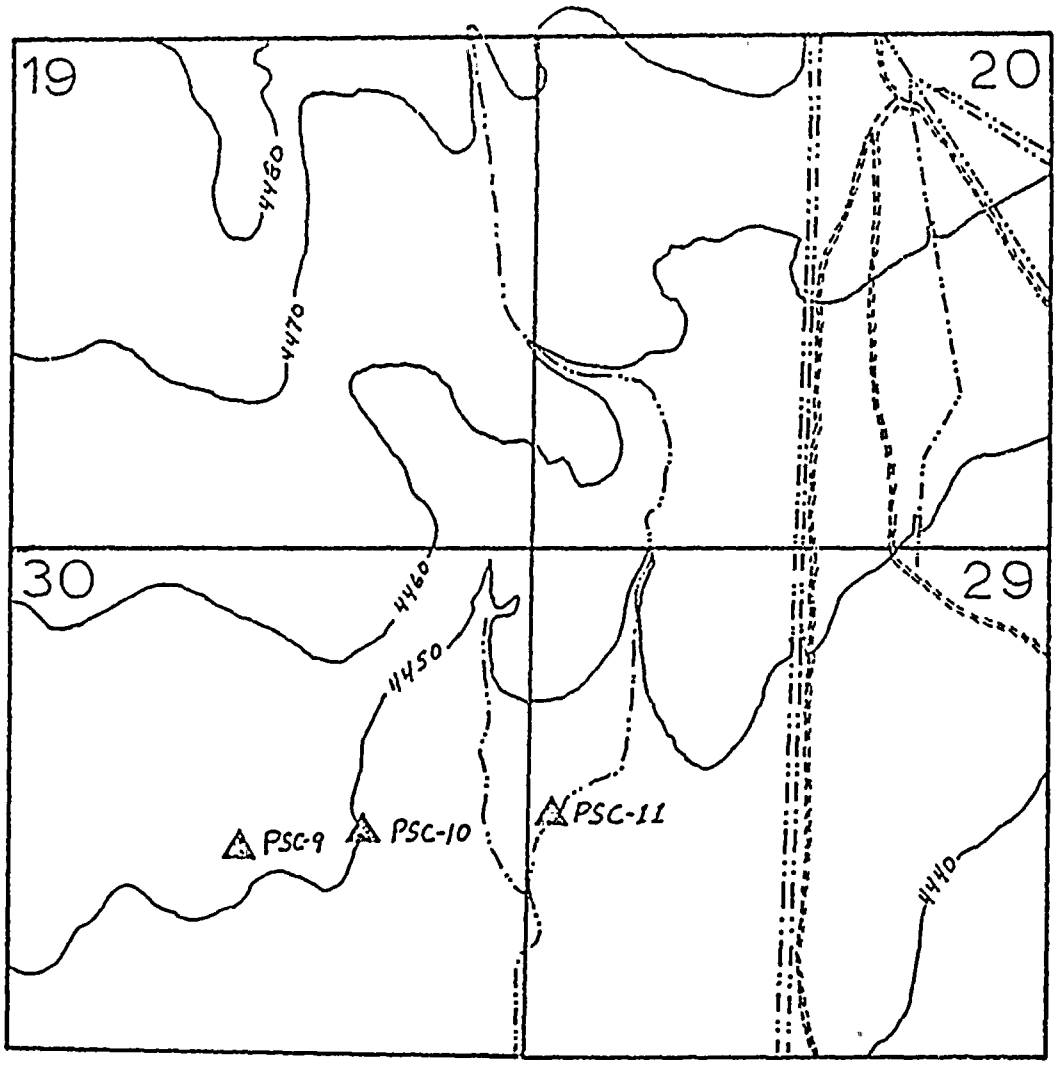
Recommendations: It is possible that the site is of National Register significance. It is recommended that the site be by-passed if at all possible. If the site cannot be avoided, and collection is necessary, 40 man-days are needed, with travel time included.

Comments: Site was flagged by red flagging on mesquite bushes.

Ownership: Private, patented land (BLM Status Map SW-27, 6/74).

PSC-9,10&11

T23S, R10W



KEY:

---- arroyo, ditch
— contour
=== road
△ site

scale: 1mi.

Mag. N.

Site PSC-10

Location: NE ¼ of the NW ¼ of the SE ¼, Sec. 30, T23S, R10W, Luna County, New Mexico (225900 M.E., 3574440 M.N., Zone 13).

Cultural Affiliation: Apache (?)

Age: 19th Century

Size: 20 x 20 meters

Description: The site is in a large deflated area. It is situated between a playa and an aeolian dune deposit. There is a random scattering of worked stone and glass artifacts present on the site. The number of artifacts is quite small (approximately 20-30).

Ceramic Evidence: One sherd of Jornada Brown (probably intrusive)

Lithic Evidence: Several broken manos and retouched flakes were present.

Other Evidence: Several other artifacts were encountered that were made from brown bottle glass. They include a very fine scraper and a graver.

Artifact Disposition: The scraper, graver, and a portion of a bottle bottom were collected for further analysis at the New Mexico State University Museum. All other artifacts were left on the site undisturbed.

Recommendations: Not recommended for the National Register. Recommend by-passing site if at all possible. If the site cannot be avoided, and excavation and collection are necessary, six (6) man-days are needed, with travel time included.

Comments: Site was flagged by red flagging.

Ownership Private, patented land.

Site PSC-11

Location: NW ¼ of the NW ¼ of the SW ¼, Sec. 29, T23S, R10W, Luna County, New Mexico (226480 M.E., 3574480 M.N., Zone 13)

Cultural Affiliation: Jornada Mogollon

Stage: Unknown

Size: 20 x 20 meters

Description: The site is comprised of a scattered small number of Jornada Brown sherds (10 sherds noted). The terrain is fairly flat, with some aeolian activity taking place. The site is located about 150 meters east of the fence line that runs between sections 30 and 29.

Ceramic Evidence: Jornada Brown

Lithic Evidence: No worked stone noted

Artifact Disposition: Two sherds were collected for further analysis at the New Mexico State University Museum. All other sherds were left at the site undisturbed.

Recommendations: Not recommended for the National Register. Recommend by-passing site if at all possible. If the site cannot be avoided, and collection is necessary, six (6) man-days are needed, with travel time included.

Comments: Site was flagged by red flagging.

Ownership: State of New Mexico

Site PSC-12

Location: SW ¼ of the SE ¼ of the SW¼, Sec. 23, T23S, R10W, Luna County, New Mexico (231655 M.E., 3575210 M.N., Zone 13).

Cultural Affiliation: Mogollon

Stage: Three Circle Phase

Size: 10 x 10 meters

Description: The site consists of a small scattering of potsherds and a lone mano. The site is situated on a slope that faces north. There has been a moderate amount of aeolian activity in the area.

Ceramic Evidence: Mangus Black-on-White, Alma Plain

Lithic Evidence: One large unifacial basalt mano

Artifact Disposition: Nine (9) sherds and the mano were collected for further analysis at the New Mexico State University Museum. All other sherds left on the site undisturbed.

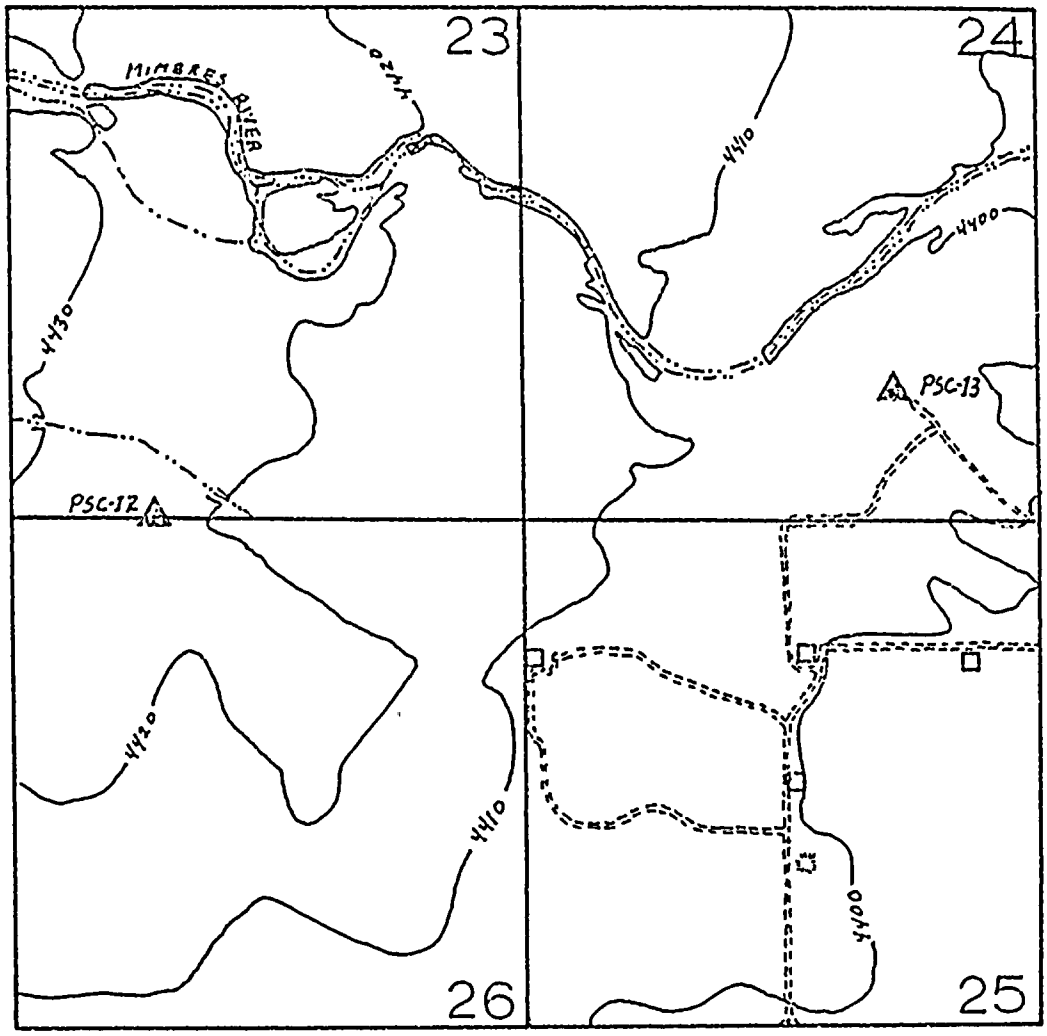
Recommendations: Not recommended for the National Register. Recommend by-passing site if at all possible. If the site cannot be avoided, and excavation and collection are necessary, six (6) man-days are needed, with travel time included.

Comments: Site was not flagged.

Ownership: State of New Mexico (BLM Status Map SW-28, 11/74).

PSC-12&13

T23S,R10W



KEY:

- river, ditch
- contour
- road
- borrow pit
- tank
- site

scale: 1 mi.

Mag. N.

Site PSC-13

Location: The center of the SE ¼, Sec. 24, T23S, R10W, Luna County, New Mexico (233960 M.E., 3575540 M.N., Zone 13)

Cultural Affiliation: Casas Grandes; Historic

Stage: Animas Phase; Camp Cody WWI

Size: 100 meters N-S axis; 250 meters E-W axis

Description: The site lies south of a fence line that parallels the Mimbres River. No surface evidence of subsurface or surface structures is present. The ceramic evidence is very meager due to parts of the site being overlain by the old Camp Cody dump. The survey line crosses over an old tile water system running from the Mimbres River to Camp Cody.

Ceramic Evidence: Jornada Brown, Playas Red Plain, Playas Red Punctate, Playas Red Incised, Casas Grandes Brownware Plain, and one sherd of Reserve Smudged.

Lithic Evidence: One side scraper, and utilized and retouched flakes.

Other Evidence: World War I and Post World War II era household artifacts abound in the dump area.

Artifact Disposition: Twenty-nine sherds were collected for further analysis at the New Mexico State University Museum. All other artifacts were left at the site undisturbed.

Recommendations: Possibility that the site should be nominated to the National Register. Extensive testing would have to be carried out to determine the limits and significance of the site. Recommend by-passing the site if at all possible. A professional archaeologist should be present if by-passing the site is acceptable. If the

Site PSC-13 (continued)

site cannot be avoided, and excavation and collection are necessary, ten (10) man-days of intensive testing would be needed to determine the extent of the site and its components. Excavation costs could then be estimated.

Comments: Site was not flagged as it would draw attention to local collectors who were observing our movements. The site stops about 50 meters west of the route change in Section 24.

Ownership: State of New Mexico (BLM Status Map SW-28, 11/74).

APPENDIX II

A Brief Overview of the Prehistory of Southwestern New Mexico

Archaeologically speaking, southern New Mexico has been one of the least understood parts of the state, possibly because there are few spectacular ruins or monuments. More work has been done in the western part of the state than in the eastern, but archaeologists still have more questions than answers about the area. Most of the archaeological work in this part of the state has been done so long ago that the information has only limited value for modern archaeologists.

The archaeological summary below is organized on the basis of the stage system which is generally accepted by American Archaeologists (see Willey and Phillips 1958).

Lithic Stage

The Lithic Stage dates from late glacial and early post-glacial times. The available evidence, which is relatively sparse, indicates that cultures at this stage placed heavy emphasis on hunting. Many of the animals associated with this stage are now extinct.

The earliest humans in southwestern New Mexico seem to have been the hunters of the Llano Complex, which includes, among others, the Clovis and Folsom traditions. We have little integrated information on the Llano occupation of this area. For the most part, our knowledge comes from scattered finds of Clovis, Folsom, Plainview and Scottsbluff points. In the absence of any information, we can only suppose that

the general sequence in this area follows that of the rest of the state (see Wormington 1957; Judge 1973).

At the start of the Altithermal, a period of general drying which began about 7000 B.C., the hunters of the Llano complex seem to have moved out into the Great Plains, probably following the herd animals (e.g., bison) which were their accustomed prey.

Archaic Stage

The Archaic Stage is a phenomenon of the post glacial period. Archaic peoples are generally characterized by the hunting of modern species of animals and by a heavy reliance on wild plant foods. Grinding stones and a number of stone tools which seem to have been used for processing vegetable foods became common. The Archaic tradition found in southwestern New Mexico is called the Cochise. The Cochise tradition has been divided into three (or possibly four) sequential stages. Most of the Cochise sites which have been excavated and interpreted lie around the margins of southwestern New Mexico. In this area we need the full range of archaeological work, beginning with the very basic task of testing and validating the chronological sequence and then proceeding to more sophisticated studies.

The three stages of the Cochise Culture are termed Sulphur Springs, Chiricahua, and San Pedro. There has been some attempt, as we shall see later, to establish another phase, the Cazador, placed between that of the Sulphur Springs and Chiricahua phases.

The Sulphur Springs stage of Sayles and Antevs (1941:8-9) is the least understood and oldest of the trio. There are only a handful of

known sites that can be definitely atrributed to the Surphur Springs stage. If geological dating by Antevs is correct, then the Surphur Springs type site places the earliest Cochise Culture beside the Llano hunting cultures toward the end of the last glacial epoch.

This placement is supported by the fauna that Sayles stated were found in direct association stratigraphically with the Sulphur Springs artifacts: horse, bison, pronghorn antelope, dire wolf, coyote, mammoth (Sayles 1941:12). To this list of fauna, Whalen (1971:94) adds: snow goose, mallard duck, teal-duck, raven, mussel, clams, and jackrabbit.

There has, in the past, been recognized a temporal hiatus between the Sulphur Springs stage and the Chiricahua stage - mostly due to the relatively few radiocarbon dated sites of the two stages.

This temporal gap has sometimes been referred to as the Cazador stage (Antevs 1962:192-195; Sayles 1964:476). A recent study of the San Pedro Valley (Whalen 1971:69-70) reviews an unpublished manuscript of Sayles (dated 1958) on the tool assemblage of the Cazador type site:

> At the Double Adobe type site, Sayles included in the Cazador tool complex biface blades, leaf-shaped flakes, heavily barbed corner notched projectile points, and leaf-shaped projectile points, bone implements, and some milling stones. With reference to Cazador tools, he remarked: "Other types of chipped stone tools are present in the Cazador stage and are comparable to those identified with the Sulphur Springs Stage." (Whalen 1971:69).

Cazador type sites have been questioned as to their separate stage status as the known sites all lie within a short distance from known Sulphur Springs type sites. These Cazador sites have been lumped together with the Sulphur Springs sites and assigned to the Sulphur

Springs stage by Whalen for briefly the following reasons:

> ...(1) the two radio-carbon dates available for this stage, collected from a pollen profile by Martin (1963: 38, 57) at the Cazador type sites at Double Adobe register 6, 280 B.C. (charcoal) and 5, 070 B.C. (leached carbonaceous alluvium). Both dates fall within the time range prescribed for the Sulphur Springs; (2) the presence of scraping and cutting tools at Sulphur Springs sites combined with the presence of burned and cracked animal bones, suggest participation in hunting...(3)...the four Cazador sites found in the 1950's were all along Whitewater Draw at locations formerly classified Sulphur Springs sites. No Cazador site has been found adjacent to a Chiricahua site (Whalen 1971:69-70).

The spatial and temporal relationship and close proximity of the Cazador sites to the Sulphur Springs stage sites would tend to discredit the validity of maintaining two distinct stages for what are probably two distinct usage areas for one nuclear group of hunters and gatherers. Irwin-Williams also questions the age of the Cazador materials and states that "...the detailed similarity of Cazador artifacts to those of the late Chiricahua Phase makes this [Cazador Stage] at the moment unacceptable." (Irwin-Williams 1968:51). For the moment the question of the Cazador Stage is still open.

The Chiricahua stage, as identified by Sayles (1941:15) is found under two conditions:

1. In association with middens and hearths along the foothills of the eastern slope of the Chiricahua Mountains;

2. In erosion channels later than the deposits containing artifacts identified with the Sulphur Springs stage.

The Chiricahua stage has been identified and tied to a large spatial area in eastern Arizona, New Mexico, and northern Mexico (Irwin-Williams 1967:447). These sites contain identifiable point types. Dick (1965:30-33) gives these as the leaf-shaped Pelona; the concave base, side-notched Chiricahua; the contracting stem, Augustin; along with the possible earlier Bat Cave form which

> ...is a leaf-shaped point with slight lateral indentations below the base. The point has been named Bat Cave Point, to facilitate future reference. This point is concentrated in the buff sand horizon and the above two levels in the midden. It correlates stratigraphically with the Augustin Point.(Dick 1965:32).

The majority of flaked lithic tools, excluding projectile points, tend to be core tools. Choppers and plane scrapers are percussion flaked; hammerstones are often unmodified cobbles whose sides show signs of battering. Pressure flaked tools are present in the form of side scrapers and cutting edges. These are largely made from percussion flakes.

Manos and metates appear in large numbers in both space and time throughout the Cochise development. The mano tends to be the one-handed asymmetrical mano, generally from locally indigenous stone. Metates generally are slab metates or a shallow basin type. These are principally used for the processing of wild foodstuffs.

Fauna include: coyote, bison, turtle, pronghorn antelope, mule deer, jackrabbit, cottontail, Sonora deer, woodrat, porcupine, wolf, rock squirrel, wildcat, kit fox, prairie dog, badger, bighorn sheep, gray fox (Whalen 1971:94-95). Corn and squash appear for the first

time in the archaeological record at Bat Cave, the corn being related to Chapalote, a type of popcorn. Later, in San Pedro times, there is evidence of introgression of teosinte which allows for a larger possible ear and better adaptation to lower altitude and drought. Other flora include: amaranth seeds, blue gramma seeds, juniper berries, sunflower seeds, walnuts, and yucca pods (Whalen 1971:99-100).

The type site for the succeeding San Pedro stage assigned by Sayles and Antevs (1941:21) is in an exposure of an arroyo wall of the San Pedro drainage. The deposition of the site was later in time than that of the Chiricahua stage soils.

Grinding tools continue in wide usage in this stage, along with the addition of the mortar and pestle. The manos are generally larger than the types from the earlier stages and the metates usually have a deeper basin (Sayles and Antevs 1941:24).

A wider use of flora appears to take place, suggesting the reasons for adding the mortar and pestle to the artifact inventory. Beans were added (Dick 1965:106) to complete the Southwest domesticated trio of corn, beans, and squash. Other economical plants include: acorns, agave, amaranth seeds, blue grama seeds, bluegrass seeds, bulrush rhyzomes, cattail seeds, goosefoot seeds, festuca seeds, juniper berries, pine nuts, prickly pear buds, primrose seeds, red berry, sagebrush seeds, saltbush seeds, sunflower seeds, trisetum seeds, walnuts and yucca pods (Whalen 1971:99-100). This is almost a 300 percent increase from 8 plants utilized to 23 in the recorded archaeological records from Chiricahua to San Pedro times.

The point typology of the San Pedro becomes more complex as regional differences begin to appear. Generally, however, the points belong to variations of shallow corner-notched and shallow side-notched types. More use of pressure flaking is evident in the San Pedro projectile points than in previous stages.

The local fauna continue to be exploited in San Pedro times with the exception of the turtle. The list includes all of those utilized by the Chiricahua and expands to include gopher, ringtail cat, elk, duck, hawk, muskrat, and turkey (Whalen 1971:94-95).

Sometime near the beginning of the Christian era (the date is not firmly established), the Cochise gatherers gradually shifted to a horticultural economy and entered the Formative Stage.

Formative Stage

The Formative Stage is characterized by a heavy dependence on domesticated plants (and sometimes animals), the presence of permanent villages and the manufacture of pottery. In southwestern New Mexico, the Formative population, the Mogollon, seem to have developed directly out of the Cochise. This shift to a Formative economy did not happen at the same time in all parts of southwestern New Mexico. Along the Rio Grande, an archaic way of life may have continued until as late as A.D. 900.

The earliest Mogollon artifact assemblage seems to be a San Pedro Cochise assemblage with the addition of pottery and pit houses (houses with the floors dug below the surface of the ground, with the walls of the pit serving as part of the house walls). The techniques for

making pottery probably spread into the Southwest from Mexico. The pit house may have developed locally.

Joe Ben Wheat (1955) has divided the Mogollon into six geographical branches. All are generally similar; but each has certain specialized features and each has a slightly different cultural sequence.

The Mogollon of the Mimbres Branch (basically the Gila and Mimbres drainages) began with the following basic characteristics: pit houses with sloping entrance passages; red-slipped pottery; plain brown pottery and a general absence of obvious luxury goods. For about the first thousand years of their occupation of the area, the basic inventory changed very little, though styles did change. After about A.D. 850, the Mimbres Branch inventory began to change with the addition of many features imported from outside the area. It has been assumed that most of the new features came from the north, but it is now suspected that some, at least, were a result of influence from civilized Mexico.

Most of the good evidence from early Mogollon sites comes from the Reserve area. In the absence of evidence to the contrary, archaeologists have assumed that the early development of the Mogollon was the same throughout the Mimbres Branch, but this may not be true. About A.D. 1000 (Reserve Phase), the Mogollon in the northern part of the area shifted from a Mogollon pattern with some northern (Anasazi) influence to an Anasazi pattern with some Mogollon characteristics. They adopted surface houses of stone masonry, ceremonial structures of an Anasazi pattern and black-on-white pottery made with Anasazi techniques. Further south, the same changes occurred during the Mangus and Mimbres Phases,

but more slowly and with a less complete rejection of Mogollon traditions.

Phases of the Mimbres Branch

South	North
Pinelawn	Pinelawn
Georgetown	Georgetown
San Lorenzo (?)	San Lorenzo (?)
San Francisco	San Francisco
Three Circle	Three Circle
Mangus	Reserve
Mimbres	Tularosa

About A.D. 1250 or 1300, the Mogollon abandoned southwestern New Mexico. At least some of them seem to have moved north.

After the Mimbres Branch Mogollon left, they were replaced by one or more groups which are collectively called the "Animas Phase". The Animas Phase is poorly understood. Pottery and houses typical of Casas Grandes (Chihuahua), Salado (eastern Arizona) and Jornada Mogollon (Rio Grande Valley) appear. No site with an Animas Phase occupation has been excavated by a modern professional archaeologist.

Along the Gila River, adobe pueblos of the Salado tradition were built. The relationship between the Salado peoples and the "Animas Phase" is unknown.

Finally, at about the beginning of the historic period, the Athabaskan-speaking Apache moved into the area.

While it is possible to produce a reasonably coherent summary of what is known of the prehistory of southwestern New Mexico, actually we know only a fraction of what we need to know before we can understand the prehistory of the area.

APPENDIX III

A Brief Historic Overview of Camp Cody

Camp Cody was a training center for the United States Army's 34th Division. It was built and established in 1917 at a cost of $2,025,000 (NMHRS 1942:14).

The first military contingent to arrive at Camp Cody was the Minnesota National Guard, organized as the 135th Infantry Regiment. Additional National Guard troops were brought from North Dakota, South Dakota, Iowa and Nebraska. These National Guard Units became the 34th Infantry Division in October 1917 (James 1971:58). Troops of the 34th Division who trained here nicknamed themselves the "Sandstorm Division" (James 1971:18).

At the termination of World War I, the facilities were used as a tuberculosis sanitarium for ex-soldiers by the United States Public Health Service. In 1922, the Camp Cody facilities were transferred to the Deming Chamber of Commerce (NMHRS 1942:14).

From 1923 until it closed its doors in 1938, the sanitarium was operated by the Sisters of Holy Cross of Notre Dame. Six sisters acted as caretakers of the property until March 12, 1939, when a careless smoker and a cigarette butt started a grass fire that quickly razed the sanitarium and could be seen 55 miles away in Silver City (El Paso Times 3/13/39:1).

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