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An Archaeological Survey of Twin Buttes Reservoir, Tom Green County, Texas, Volume II

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An Archaeological Survey of Twin Buttes Reservoir, Tom Green County, Texas, Volume II

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An Archaeological Survey of Twin Buttes Reservoir, Tom Green County, Texas

Volume II

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and
David L. Nickels

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Center for Archaeological Research
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An Archaeological Survey of
Twin Buttes Reservoir,
Tom Green County, Texas

Volume II

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and
David L. Nickels

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An Archaeological Survey of Twin Buttes Reservoir Tom Green County, Texas

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Appendix A: Twin Buttes Archaeological Project Prehistoric Site Descriptions and Summary Data Base Investigating the Archaeological Record at Twin Buttes

Ruth Mathews

This appendix provides site descriptions for the 192 prehistoric sites—historic site descriptions are incorporated in Chapter 11. This appendix has three sections. The first section provides detailed site descriptions for 172 newly recorded prehistoric sites, while section two summarizes the previously recorded sites in the reservoir. In addition, a table of summary attributes is provided as a third section. The attributes in the table formed the basis of the analysis in Chapter 8.

Newly Recorded Sites

41TG359

41TG359 (Figure A-1) is a prehistoric lithic scatter represented by an ephemeral and sporadic distribution of lithic artifacts over a moderate sized area (2,840 m²). The site is 3.2 km northwest of the Middle Concho River in an upland setting. It sits at the edge of a gently sloping terrain that descends into an unnamed tributary. Site 41TG359 lies at roughly 1,970 feet above sea level (ASL). At the time of survey, the colluvial surface was about 80 percent visible, being sparsely covered by ashe juniper, agarita, mesquite, prickly pear, and scrub brush.

Most of the artifact assemblage of cores and flakes was representative of early to middle stage reduction activities. No diagnostic artifacts were recovered. No features or fire-cracked rock were observed.

Four shovel tests excavated to a maximum depth of 50 centimeters below ground surface (cm bs) provided no indication of subsurface cultural material (see Appendix B). Two surface observation areas on the site were intensively inventoried (see Appendix D). In Area 1, 1,640 m² were inventoried and 77 artifacts recorded. Area 2 covered 770 m². Fifteen artifacts were observed in Area 2.

The site is heavily eroded and deflated. Bedrock appears on the surface in the upper portion of the site and there are numerous animal burrows across the site. Modern disturbances include a recent trash dump on the upper portion of the site and a two-track road along its western edge. This site has little research potential. No further investigations at this site are recommended (see Chapter 12).

Figure A-1. *Site map of 41TG359.*

41TG360

41TG360 (Figure A-2) is a moderate sized (4,590 m²) prehistoric lithic scatter. This upland site lies 3.1 km northwest of the Middle Concho River. The site, situated between two unnamed drainages at an elevation of roughly 1,950 feet ASL, slopes from the northeast to the southwest. At the time of survey, about 80 percent of the colluvial ground surface was visible. The other 20 percent was obscured by agarita, mesquite, prickly pear, and scrub brushes.

The artifact assemblage observed on the surface of 41TG360 consisted of cores, bifaces, unifaces and a number of primary, secondary, and tertiary flakes indicating early to late stage reduction. Reduction activities appear to have occurred where chert nodules are eroding out of the slope. One of the bifaces was a broken projectile point that had been burinated. A finely worked uniface, categorized as a scraper, was also observed. No hearth or burned rock features were observed at this site.

Three shovel tests, taken to a maximum depth of 50 cm bs, yielded no subsurface cultural material (see Appendix B). No surface observation areas were conducted at 41TG360.

This site and the surrounding area are currently used for public recreational activities. 41TG360 is heavily eroded. The two-track road that cuts through the northern end of the site contributes to the impact caused by recreational vehicular traffic. 41TG360 has little research value. No further investigations are recommended at this site (see Chapter 12).

Figure A-2. Site map of 41TG360.

41TG361

Site 41TG361 (Figure A-3) is a moderate sized (5,600 m²) lithic scatter located in an upland environment (ca. 1,960 feet ASL), roughly 2.9 km northwest of the Middle Concho River. The surface of the site slopes gently from the northeast to the southwest. At the time of survey, about 80 percent of the colluvial ground surface was visible. The other 20 percent was obscured by agarita, mesquite, prickly pear, and scrub brushes.

The artifact assemblage observed at the site consisted of cores, bifaces, quarry blanks and preforms, unifaces, and flakes representing early through late stage reduction. Most artifacts were located where chert was eroding out of the slope. There were approximately 300 fire-cracked rocks spread across the site in no apparent pattern, with the exception of one possible hearth feature in the northeastern portion of the site. No diagnostic artifacts were recovered.

Five shovel tests, taken to a maximum depth of 50 cm bs, yielded no subsurface artifacts (Appendix B). Two observation areas on the site were intensively inventoried (Appendix D). Area 1 covered 840 m² and 92 artifacts were recorded. In Area 2, 59 artifacts were observed in a 570 m² area.

The site is heavily eroded and is currently being used as a public recreation area. It is impacted by pedestrian and motorcycle traffic. Site 41TG361 has little research value, and no further work is recommended (see Chapter 12).

Figure A-3. Site map of 41TG361.

41TG362

41TG362 (Figure A-4) is a moderately sized (3,300 m²) site located at an elevation of roughly 1,950 feet ASL. The site is about 2.7 km northwest of the Middle Concho River, and sits between two unnamed tributaries. The upper, northern portion of the site is a low, gently sloping, eroded ridge, while the lower, southern portion is possibly an alluvial terrace remnant with a colluvial cap. At the time of survey, the vegetation on the surface of 41TG362 had recently burned. About 80 percent of the ground surface was visible, with a sparse cover of agarita, prickly pear, mesquite, and scrub brush present.

The site assemblage appears to reflect two separate activities. Cores, and primary and secondary flakes were concentrated in the northern portion of the site, where there are chert gravel outcrops. This area appears to reflect lithic procurement. Later stage reduction artifacts, such as dart point fragments and formal scrapers, rest on the colluvial cap in the southern 80 percent of the site. A single hearth feature was also observed in this area. These data suggest a campsite. Two diagnostic artifacts, a possible Uvalde medial dart fragment (UI #41) suggesting an Early Archaic use, and a Marcos/Marshall-like medial dart fragment (UI #1) suggesting a Late Archaic period use, were recovered from the southern portion of the site. 41TG362 is, then, classified as multi-component.

Eleven shovel tests were dug to a maximum depth of 50 cm bs (Appendix B). Only one of the shovel tests (#4) recovered material from below surface, with two flakes present in the upper 10 cm. Two areas on the site were intensively inventoried (Appendix D). Area 1 covered 490 m² and recorded 27 artifacts. Area 2 encompassed 4,840 m² and recorded only 28 artifacts.

Natural impacts have resulted in erosion and deflation of the upper, northern end of the site, while reservoir fluctuation has caused shore erosion along the southwestern edge of 41TG362. A deep cut, two-track road passes through the northern portion of the site. The site is located in an area that is currently used for public recreation, and is subject to recreational vehicular traffic. Continued shoreline erosion is expected when reservoir water levels return to normal. Despite these impacts, the research value of this site, from both a site specific as well as regional perspective is suggested to be moderate. The presence of a hearth on the surface and flakes found beneath the surface suggest the possibility of buried features with the potential to provide both temporal and subsistence information. In order to better evaluate the site's integrity and research value, further investigations are recommended (see Chapter 12).

Figure A-4. Site map of 41TG362.

41TG363

Site 41TG363 (Figure A-5) is a moderate sized (5,790 m²) prehistoric lithic scatter. This site, located 2.7 km northwest of the Middle Concho River, sits at an elevation of about 1,950 feet ASL. 41TG363 slopes gently to the south on a finger ridge above a small unnamed tributary. During the survey, surface visibility was good due to a recent burn. Approximately 10 percent of the colluvial ground surface was obscured by sparse vegetation such as agarita, mesquite, prickly pear, ashe juniper, and scrub brushes.

Cores, bifaces, unifaces, and primary, secondary, and tertiary flakes made up the artifact assemblage recorded at this site. The artifacts found at this site were disbursed in no apparent pattern, and no features or fire-cracked rock were observed at 41TG363.

Three shovel tests, taken to a maximum depth of 50 cm bs, provided no indication of subsurface cultural material (See Appendix B). No surface inventories were conducted at 41TG363.

41TG363 is heavily eroded with many spalled chert nodules, probably due to the recent burn. A two-track road cuts through the northern edge of the site. The condition of the road indicates excessive four-wheel and two-wheel drive vehicular traffic. Because of these natural and cultural impacts, we estimate that only 20 percent of the site is still intact. 41TG363 has little research value. No further investigations are recommended at 41TG363.

Figure A-5. Site map of 41TG363.

41TG364

This upland site (Figure A-6) consists of scattered fire-cracked rock associated with a wide variety of stone tools. The small (860 m²) site is located on a steep slope with sandstone shelves overlooking an unnamed drainage 2.7 km northwest of the Middle Concho River. 41TG364 is at an elevation of roughly 1,980 feet ASL. At the time of the survey, about 25 percent of the ground surface was visible, with the remaining area covered by mesquite trees, juniper, scrub brushes, and dense grasses.

A few fire-cracked rocks were observed on the surface, but no intact hearth features could be discerned. An Andice dart point proximal fragment (UI #39) was collected from the surface near the center of the site. Other artifacts observed on the surface included three primary flakes, three secondary flakes, ten tertiary flakes, four bifaces, one uniface, and a utilized flake. These, like the fire-cracked rock, were distributed in no apparent pattern. CAR's assessment is that the site is an upland lithic procurement area and campsite. The ratio of tools to debitage suggests a campsite even though no intact hearths were observed, and debitage exhibited evidence of middle to late stage reduction. While the majority of the tool stone at 41TG364 consisted of brown chert, a finely worked, creamy pink biface distal tip (possibly a Marcos or Marshall) was found on the surface near the perimeter fence, but not collected. The creamy pink raw material, present at this site in the form of small, 2 to 3 cm nodules, was also observed at 41TG359 and 41TG365.

Two shovel tests were taken to a maximum depth of 43 cm bs (see Appendix B). No evidence of subsurface cultural deposits were present in these shovel tests. No discrete component could be observed across the surface or in the shovel test data. No surface observation area was selected.

Approximately 10 percent of this site remains intact. The site is in a public park and open to park related activities and artifact collectors. The site is heavily eroded. The limestone cobbles here are heavily weathered and cracked, and there is a disturbance in the form of a water diversion berm that cuts across the northern portion of the site. The degree of slope, bioturbation, and colluvial deposits suggest that the site integrity is not high, and the artifacts are most likely not *in situ*. The research value of this site is minimal. No further investigations are recommended (see Chapter 12).

Figure A-6. Site map of 41TG364.

41TG365

41TG365 (Figure A-7) is a moderate sized (1,980 m²) prehistoric lithic scatter. This upland site is at an elevation of about 1,980 ASL. 41TG365 is 2.0 km northwest of the Middle Concho River next to an unnamed tributary. The southwestern portion of the site is on an eroded bluff and ridge, while the northeastern portion gently slopes towards the bluff. We estimate that at the time of the survey only 55 percent of the surface was visible, with agarita, ashe juniper, prickly pear, and scrub brush covering the remaining area. The sediments appear to be colluvial in origin.

The large quantity of artifacts recorded at this site were distributed in no apparent pattern. The types of artifacts observed included cores, bifaces (including quarry blanks), unifaces, and a retouched flake, as well as primary, secondary, and tertiary flakes. A contracting point base, possibly Marcos or Marshall, was collected (UI #2). The projectile point fragment indicates that the site may represent a Late Archaic occupation. No features were recorded at the site, though a small number of fire-cracked rock were present.

Of the 11 shovel tests dug at 41TG365, two were positive. Shovel Test 2 produced a single flake at 30 to 40 cm below surface and Shovel Test 4 yielded a single flake within 10 cm of the surface. Shovel tests were dug to a maximum depth of 50 cm bs (Appendix B). A 610 m² surface observation area was intensively inventoried and recorded 138 artifacts (Appendix D).

The southern portion of the site appears to be heavily eroded and deflated, though about 30 percent of the northern portion has some possibly intact sediments. Several areas of the site have been bioturbated. The site and the surrounding area are currently being used as a public recreation area. There is a deer blind nearby and the site receives, and will continue to see, pedestrian traffic. The lack of features and the low number of buried flakes suggests that the site has little potential to provide temporal or subsistence information. 41TG365 has minimal research value, and no further investigations are recommended (see Chapter 12).

Figure A-7. Site map of 41TG365.

41TG366

41TG366 (Figure A-8) is a small (300 m²) prehistoric lithic scatter represented by a minimal number of artifacts. The site, at an elevation of about 1,920 feet, lies 2.6 km to the northwest of the Middle Concho River. It is situated on an alluvial terrace on the outside meander of an unnamed tributary. This section of the tributary may have been artificially channeled. Only 25 percent of the ground surface was visible at the time of survey, and this area was primarily along the cutbank. The rest of the surface was obscured by scrub brush and grasses.

The small artifact assemblage consisted of four tertiary flakes, a secondary flake, and a biface. No diagnostic artifacts were recovered and no features noted. Fire-cracked rock was not present.

Four shovel tests were taken to a depth of 70 cm bs. No subsurface cultural material was present (Appendix B). Based on these negative shovel tests, it is possible that the artifacts may have slumped from the upper surface of the site, though they may also have eroded from the cutbank. No intensive surface observation was made at 41TG366.

The dense grasses that covered the western three quarters of the site at the time of survey effectively retain silts and sands, whereas the steep cutbank along the southwestern perimeter of the site is heavily eroded. A deeply cut two-track road lies just below the cutbank. The area is heavily used by four-wheelers and motorcyclists. Free ranging cattle also compromise the integrity of the site. The research value of this site is considered minimal. No further investigations are recommended at 41TG366 (Chapter 12).

Figure A-8. Site map of 41TG366.

41TG367

41TG367 (Figure A-9) is a moderate sized (1,570 m²) site, designated as a prehistoric open campsite. The site is partially buried in an alluvial terrace of an unnamed tributary 2.7 km northwest of the Middle Concho River. 41TG367 is at an elevation of 1,920 feet ASL. The surface gently slopes from north to south. At the time of survey, about 40 percent of the ground surface was visible. Much of this area was associated with the heavily eroded cutbank. The rest of the site was covered by white willow, scrub brush, and grasses.

The assemblage observed on the surface of 41TG367 consisted primarily of tertiary flakes, though several formal tools were also present. Three diagnostic dart point fragments (UI #3, UI #4, and UI #5) were observed, suggesting that at least a portion of the site dates to the Late Archaic. All artifacts were eroding out of the cutbank at approximately 30–40 cm bs. No hearth features could be discerned, though fire-cracked rock was present.

Four shovel tests were dug to a maximum depth of 70 cm bs. Two of the shovel tests yielded positive results at 30 to 40 cm bs (Appendix B), the same depth as the artifacts eroding out of the cutbank. A 350 m² controlled surface observation was made and 112 artifacts were recorded (Appendix D).

41TG367 is in an area designated for public recreational use and the area is along a popular four-wheel drive and motorcycle course. The area had been recently burned resulting in many spalled chert nodules. The cutbank, which accounts for approximately 50 percent of the site, has been eroded and continues to erode due primarily to vehicular traffic. Fluctuating reservoir levels have also damaged the site. Despite the erosional problems the research value of this site is considered high. The presence of buried artifacts in two shovel tests at the same approximate depth as the artifacts eroding out of the cutbank suggest the possibility of buried cultural features with the potential to yield environmental and subsistence information. This site is recommended for further testing to better evaluate the potential for buried intact features (see Chapter 12).

Figure A-9. Site map of 41TG367.

41TG368

Site 41TG368 (Figure A-10) is a moderate sized (2,630 m²) site, located about 2.6 km northwest of the Middle Concho River. 41TG368 is in an upland setting at an elevation of about 1,940 feet. The surface gently slopes from the southwest to the northeast above a small unnamed tributary. At the time of survey, surface visibility was good. We estimate that about 90 percent of the surface was exposed, with sparse vegetation consisting of scrub brush, dense grass tufts, and immature mesquite. The sediments appear to be colluvial in origin.

The artifacts observed at 41TG368 indicate a wide range of prehistoric activities. Early through late stage reduction flakes, cores, bifaces, a uniface, and a retouched flake were present. No diagnostic artifacts were encountered and no distinguishable hearths could be identified, though fire-cracked rock was present.

Five shovel tests were taken to a maximum depth of 50 cm bs with no indication of subsurface cultural material (Appendix B). A 740 m² surface observation area was intensively inventoried and 104 artifacts were recorded (Appendix D).

The land is currently designated as a public recreation area and receives heavy pedestrian and vehicular traffic. A two-track road cuts along the eastern edge of the site. Portions of 41TG368 are badly eroded, and a small bedrock outcrop is present in the northwestern portion of the site. Bioturbation is present in a few areas. We suggest that the site has minimal research value, and no further investigations are recommended at 41TG368.

Figure A-10. Site map of 41TG368.

41TG369

41TG369 (Figure A-11) is a moderate sized (2,610 m²) site, classified as a prehistoric open campsite. It is located at an elevation of 1,940 feet ASL. 41TG369 sits on a colluvial terrace that gently slopes in a general west to east direction. The site is 2.5 km northwest of the Middle Concho River on an unnamed tributary. An estimated 80 percent of the ground surface was visible at the time of survey, with a dense growth of immature willows and sparse grass covering the surface area.

The artifact assemblage observed included early through late stage reduction flakes, cores, two medial dart point fragments, a uniface, and a retouched flake. Four hearth features were noted, and the majority of the artifacts were concentrated around the hearth features. The attributes of one of the two dart fragments suggests that the site may date to the Early Archaic (UI #6).

Four shovel tests were dug to a maximum depth of 50 cm bs. No cultural material was encountered in any of these tests (Appendix B). No intensive surface observations were conducted at 41TG369.

The site and the area around it are designated as public recreational lands. 41TG369 is eroded and deflated, with only about 30 percent of the site classified as intact. Low earthen berms on and near the site could be evidence of past farming activities, or could have been caused by earlier wave action before the water in the reservoir receded. A reservoir shoreline runs through the eastern edge, eroding and exposing the shallow site. The site has also recently been burned, creating scattered, heat-spalled chert. A two-track road dissects the site. Pedestrian and vehicular traffic, as well as fluctuating reservoir levels, continue to compromise the integrity of the site. The wave action appears to have created a palimpsest, obscuring occupations. This site has minimal research value. No further work is suggested at 41TG369 (see Chapter 12).

Figure A-11. Site map of 41TG369.

41TG370

41TG370 (Figure A-12) is a moderate sized (1,990 m²) site, classified as a prehistoric lithic scatter. The site is located on a terrace at the edge of gently sloping terrain that slants from the northeast to the southwest down into an unnamed tributary. The site is located 2.25 km northwest of the Middle Concho River, at an elevation of 1,940 feet ASL. Only 50 percent of the ground surface was visible at the time of survey, with dense growths of immature willow bushes and sparse grasses covering the remaining site area.

The artifact assemblage observed on the site consisted of cores, a biface, a uniface, a utilized flake, and debitage representing early through late reduction stages. One medial lanceolate point fragment (UI #7), a point form typical of a Paleoindian occupation, was collected. No features or fire-cracked rock were seen at 41TG370.

Four shovel tests taken to a maximum depth of 50 cm bs provided no indication of subsurface cultural material (Appendix B). No intensive surface observation was undertaken at this site.

Designated as public recreation land, the area surrounding the site has been, and will continue to be, used by four-wheel vehicles and motorcycles. A two-track road cuts through the center of the site. 41TG370 has been heavily disturbed by past land clearing activities. Bedrock fragments have been brought to the surface by tree removal. The area has also been recently burned. Wave action, caused by the fluctuating reservoir levels, has eroded and deflated the site. These natural and cultural impacts have created a possible palimpsest that obscures past discrete occupations. Because of these factors, this site has minimal research value. No further investigations are recommended at this site (see Chapter 12).

Figure A-12. Site map of 41TG370.

41TG371

41TG371 (Figure A-13) is a moderate sized (8,500 m²) site, designated at a prehistoric lithic scatter. The site is 1.8 km northwest of the Middle Concho River in an upland setting at an elevation of about 1,980 feet ASL. The center of the site is a prominent, steeply uplifted bedrock knoll. Colluvial sediments have settled around the knoll, particularly on the southwest downslope side of the site. Surface visibility was good, with about 80 percent of the surface visible at the time of survey. The dominant vegetation was cactus.

Flakes representing early to late stage reduction and two unifaces, one of which can be identified as a scraper, made up the chipped stone assemblage. No diagnostic artifacts were discovered. No features were observed and fire-cracked rock was not present.

Three shovel tests, taken to a maximum depth of 50 cm bs, yielded no evidence of cultural activity (Appendix B). No intensive surface observations were conducted at this site.

Allocated as public recreational land, the area of 41TG371 sees heavy recreational activity. The uplifted knoll is a popular four-wheel drive and motorcycle rallying area. Many small roads and trails crisscross the site. Vehicular and pedestrian traffic, including camping and picnicking on and around the knoll, will continue to compromise the integrity of this site. Given the level of disturbance, we suggest that 41TG371 has minimal research value. No further testing is recommended at 41TG371 (see Chapter 12).

Figure A-13. *Site map of 41TG371.*

41TG372

41TG372 (Figure A-14) is a moderate sized (1,740 m²) site, classified as a prehistoric open campsite. Located in the uplands at an elevation of 1,930 feet ASL, the site is about 2.2 km northwest of the Middle Concho River. The surface of the site gently slopes from the northeast to the southwest towards an unnamed tributary. At the time of survey, about 90 percent of the surface was visible. The other 10 percent was sparsely covered by immature willows and dense grass tufts. The sediments appear to be colluvial in origin.

Artifacts observed at 41TG372 included cores, primary, secondary, and tertiary flakes, tested cobbles, quarry blanks, unifaces, bifaces, and a retouched flake. One of the bifaces was a finely worked knife tip. Most of the debitage was found along an old shoreline where wave action from the reservoir has probably eroded sediments. These artifacts were heavily patinated. The retouched flake was facially worked and collected as UI #9. Two possible prehistoric features were observed on the surface, along with scattered fire-cracked rock.

Nine shovel tests were taken to a maximum depth of 60 cm bs. Three of the nine shovel tests recovered five flakes, fire-cracked limestone, a mussel shell, and a piece of yellow ocher. These items were recovered down to 50 cm bs. Shovel Tests 7 and 5 were placed next to the surface features. Shovel Test 7 produced no cultural material, and Shovel Test 5 recovered a single flake at 40–50 cm bs (Appendix B). Though both features are associated with chipped stone on the surface, the low recovery rates for the shovel tests, and the location of the features near an old shoreline, suggest that these surface features may be modern. A single surface observation area, consisting of 1,270 m², was intensively inventoried. Ninety artifacts were recorded (Appendix D).

The area on which 41TG372 is located is designated as public recreational land. Surface disturbance, as a result of recreational use, is clearly present at the site. Natural impacts that affect the integrity of the site include the periodic inundation and exposure of the site due to fluctuating reservoir levels. The wave action is probably responsible for artifacts eroding out along the old reservoir shoreline. Nevertheless, the research value of this site is considered high. The presence of the two possible hearths associated with the cultural material, and the recovery of artifacts at depths of 0 to 50 cm bs from shovel tests, suggest that intact deposits may be present at 41TG372. This site has the potential to provide data about paleoenvironment as well as subsistence practices. In order to better evaluate the site, further testing is recommended (see Chapter 12).

Figure A-14. *Site map of 41TG372.*

41TG373

41TG373 (Figure A-15) is a small (520 m²) prehistoric site, classified as an open campsite. The site is eroding out of an alluvial terrace that is 2.1 km northwest of the Middle Concho River. It is situated at 1,910 feet ASL, on a surface that slopes gently from the northeast to the southwest. The western edge of the site is defined by a steep cutbank that leads down to an unnamed tributary channel and a two-track road. At the time of the survey, salt cedar obscured much of the surface of 41TG373.

All lithics were noted eroding out of the cutbank in association with a single hearth feature. The hearth, sitting approximately 80 cm below the modern surface, has deer bone present. The artifact assemblage observed at the site included primary, secondary, and tertiary flakes, a utilized flake, and a biface. The biface (UI #10) is an Early Triangular point that had slumped to the bottom of the cutbank below the hearth. This point dates the site to the Early Archaic.

Six shovel tests were dug to a maximum depth of 70 cm bs. Two of the shovel tests contained cultural material. Shovel Test 3 uncovered a retouched medial biface fragment, and medial and distal biface fragments (refit) from 20–25 cm bs. Charcoal samples were collected from an ash and charcoal lens at 25–27 cm bs (designated feature 2) and from 30–40 cm bs in Shovel Test 6 (Appendix B). Forty-seven artifacts were inventoried in a 190 m² observation area (Appendix D).

It appears that the tributary channel has been artificially widened or deepened with machinery, exposing the buried site. This exposure has helped to promote rapid erosion. We estimate that approximately 50 percent of this site was intact at the time of the survey. Site 41TG373 is rapidly being destroyed by artificial and natural impacts. This site, like others in this section of the Twin Buttes Reservoir, is being impacted by public use. The channel bottom and the cutbank are heavily used by four-wheel vehicles and motorcyclists. Periodic exposure and inundation due to fluctuations in reservoir levels, as well as motorized vehicles traveling up and down the cutbank, are causing the feature and associated cultural materials to erode into the channel. The research value of this site is high. The potential for recovering data relevant to past environments, site formation processes, subsistence practices, and settlement patterns is high. Both diagnostic artifacts and charcoal are present. Further testing is recommended at this site (see Chapter 12).

Figure A-15. Site map of 41TG373.

41TG374

41TG374 (Figure A-16) is a small (225 m²) site, classified as a prehistoric campsite. The site, situated at about 1,910 feet ASL, is located 2.0 km northwest of the Middle Concho River on an unnamed tributary. The surface of the site gently slopes from the northeast to the southwest. The western boundary of 41TG374 is along a steep cutbank that descends into the tributary. At the time of survey, about 40 percent of the surface of the site was visible, with a cover of immature willow, salt cedar, and sparse grasses. The cutbank offered good visibility with a low density of vegetation.

All chipped stone and fire-cracked rock were noted eroding out of the cutbank in association with a single hearth feature, located about 40 cm below the surface. The artifact assemblage was represented by a small number of primary, secondary, and tertiary flakes, and a single uniface. No diagnostic artifacts were recovered.

Five shovel tests were dug to a maximum depth of 80 cm bs. Only Shovel Test 2 produced any cultural material—a single flake was present at 40–50 cm bs (Appendix B). This is approximately the same depth as the *in situ* hearth feature seen in the cutbank. Twelve artifacts were intensively inventoried in a 280 m² surface observation area (Appendix D).

We estimate that approximately 50 percent of this site is still intact. This site is similar to 41TG373, located about 50 meters up the channel, in that the tributary appears to have been either artificially deepened or widened with machinery, exposing the site. This exposure has promoted rapid erosion. The channel bottom, the cutbank, and the two-track road that runs through the site receive heavy four-wheel vehicle and motorcycle traffic. The cutbank has also been modified by periodic exposure and inundation due to fluctuations in reservoir water levels. The combination of these cultural and natural impacts is causing the feature and associated cultural material to slump into the bottom of the channel. The research value of this site is high based on our limited testing. This site has the potential for recovering data relevant to understanding paleoenvironment, site formation processes, subsistence, and settlement patterns. Site 41TG374 is recommended for further investigations (see Chapter 12).

Figure A-16. Site map of 41TG374.

41TG375

Site 41TG375 (Figure A-17) is a moderate sized (1,270 m²) site classified as a prehistoric lithic scatter. The site sits on an alluvial terrace at the confluence of two unnamed tributaries, at the edge of gently sloping terrain that slants from the north/northwest to the south/southeast. 41TG375 is 1.7 km northwest of the Middle Concho River at an elevation of about 1,910 feet ASL. At the time of the survey, the surface of the site had about 40 percent visibility, with scrub brushes and dense grasses present.

All lithics and fire-cracked rock at this site were noted eroding out of, and slumped to the bottom of, the cutbank. The artifact assemblage included primary, secondary, and tertiary flakes, a biface, and a uniface. No hearths could be discerned though fire-cracked rock was present. No diagnostic artifacts were recovered.

Two shovel tests were dug to a maximum depth of 70 cm bs. No discrete components were indicated from the limited shovel testing and no cultural materials were retrieved (Appendix B). Twenty-two artifacts were intensively inventoried in a 590 m² surface observation area (Appendix D).

We estimate that 50 percent of this site is still intact. However, 41TG375 is rapidly being destroyed by artificial and natural impacts. The tributary channel appears to have been artificially widened or deepened with machinery, exposing the buried site. This exposure has helped to promote rapid erosion. The channel bottom and the cutbanks at the site and in the general vicinity are heavily used by four-wheel vehicles and motorcycles. Periodic exposure and inundation due to fluctuations in reservoir water levels, as well as motorized vehicles traveling over the cutbank, are causing cultural materials to erode down into the bottom of the channel. The research value of this site is considered minimal given the limited testing that has been conducted. However, because this site sits at the confluence of two drainages in clay loam, there should typically be greater evidence of occupation. Its research value should be considered moderate when considered in context with nearby sites on the same drainage, as well as other prehistoric sites within the region. Further testing is recommended at this site (see Chapter 12).

Figure A-17. Site map of 41TG375.

41TG376

Site 41TG376 (Figure A-18) is a small (540 m²) prehistoric site classified as a lithic scatter. The site is buried in an alluvial terrace of an unnamed tributary, 1.4 km northwest of the Middle Concho River. The elevation of 41TG376 is about 1,910 feet ASL. The ground surface gently slopes from northeast to southwest. At the time of survey, only about 40 percent of the surface was visible. Site vegetation included dense grass clusters and immature willows.

The artifact assemblage contained a small amount of secondary and tertiary flakes. Reservoir wave action has concentrated the flakes on an old shoreline. Fire-cracked rock and two possible hearth features were also noted at this site, though they are classified as modern because of their proximity to the old shoreline and the presence of modern trash associated with one of the hearths. No diagnostic artifacts were recovered from 41TG376.

Two shovel tests, dug to a maximum depth of 70 cm bs, provided no indication of subsurface cultural material. No intensive site observation was performed at this site, although a 100 percent inspection of this small site was carried out.

41TG376 is in an area designated for public recreational use. The area had been burned recently resulting in many spalled chert nodules. Modern camping and recreational pedestrian and vehicular traffic have reduced the integrity of the site. This site is normally underwater, and periodic inundation and exposure due to the fluctuating reservoir levels also compromise the site's integrity. No further investigations are recommended (see Chapter 12).

Figure A-18. *Site map of 41TG376.*

41TG377

41TG377 (Figure A-19) is a moderate sized (2,230 m²) site classified as a prehistoric open campsite. The site is eroding out of an alluvial terrace on the inside meander of an unnamed tributary, about 1.5 km northwest of the Middle Concho River. It is situated at about 1,900 feet ASL, on a surface that gently slopes from northwest to southeast. At the time of the survey, about 80 percent of the ground surface was visible. The rest of the surface was sparsely covered with dense grass clusters.

A subjective evaluation of artifacts present at the site includes one preform (UI #11), one uniface, a retouched flake, two cores, 30 primary flakes, 15 secondary flakes, and 30 tertiary flakes. A bone (scapula) was observed at the water level at about 1.3 meters below the modern surface. Many of these artifacts were associated with two sandstone hearth features. These features were observed to be eroding out of the western cutbank, approximately 80 cm below the extant surface.

Ten shovel tests were dug to a maximum depth of 70 cm bs. Three of the ten shovel tests contained evidence of cultural activity. Shovel Test 1 uncovered four flakes, fire-cracked limestone, and charcoal between 0 and 40 cm bs. Two flakes were found in Shovel Test 8 between 0 and 10 cm bs, and one flake was encountered between 60 and 70 cm bs in Shovel Test 3 (Appendix B). No diagnostic artifacts were found, but artifacts discovered at varying levels suggests multiple components. No intensive site observations were conducted at this site.

Approximately 80 percent of this site is still intact. 41TG377 receives pedestrian traffic, as well as traffic from four-wheel drive vehicles and motorcycles. Its current proximity to the present water level makes it a popular modern campsite. Periodic exposure and inundation due to fluctuations in reservoir water levels appears to be causing additional damage to both the features and associated cultural material. The research value of this site is significant. The potential for recovering information relevant to understanding paleoenvironments, site formation processes, subsistence, and settlement patterns is high. Further testing is recommended at this site (see Chapter 12).

Figure A-19. Site map of 41TG377.

41TG378

41TG378 (Figure A-20) is a large (12,170 m²) site classified as a prehistoric open campsite. The site is on an eroded finger ridge that slopes from northeast to south/southwest. At 0.9 km northwest of the Middle Concho River, this upland site is at an elevation of about 1,920 feet ASL. At the time of the survey, about 75 percent of the ground surface was visible. The rest of the surface was obscured by sparse grass tufts, scrub brush, and a dense growth of immature willows and salt cedar.

The artifact assemblage included a broad array of lithic artifacts. A diagnostic Clovis point base (UI #12) that dates the site to the Paleoindian era, bifaces, cores (including one prismatic core), primary, secondary, and tertiary flakes, as well as two prismatic blades and a possible battering stone, were observed. Also found at this site was a transparent quartz crystal that had been partially worked into what appears to be a pendent shape. Surface observations indicate that there are two different colors of chert; a creamy grey with heavy patination, and a dark chocolate brown with only slight patination. There seems to be no area where the two different tool stones are clearly spatially discrete, but most artifacts that are suspected to be coeval with the Clovis point, as well as the point itself, are heavily patinated. There are six hearth features distributed across the southern boundary of the site. The majority of the lithic artifacts were concentrated around these hearth features.

Eight shovel tests were taken to a maximum depth of 80 cm bs. Four of the eight shovel tests provided positive results with cultural materials present 0 to 10 cm below surface. Shovel Tests 4, 7, and 8 contained small fragments of fire-cracked rock. Shovel Test 6 contained fire-cracked rock and lithic debitage (Appendix B). Two 1-x-1-meter test units were excavated at 41TG378 (Appendix C). These units were excavated in 10 cm arbitrary levels. One unit was located in the approximate area of the Clovis point. The other unit was placed about 30 meters northeast of the first. No artifacts were found below 10 cm bs in either unit (Appendix C). Soil susceptibility samples collected from a vertical column in the unit near the Clovis point provided no indication of a buried soil or occupation surface (see Appendix J). Two intensive site observation areas were undertaken at 41TG378 (Appendix D). One area produced 36 artifacts in a 1,930 m² area. The other area, 2,530 m² in size, had 123 artifacts recorded.

The site and surrounding area is used heavily by four-wheel drive vehicles and motorcycles. Two, deeply cut, two-track roads run through the center and along the northeastern edge of the site. A characteristic consequence of being in close proximity to the reservoir is erosion caused by inundation and exposure to fluctuating water levels. The presence of two distinct patination patterns on chert artifacts from the surface of 41TG378 suggests that two components may be present. If so, these now form a palimpsest as a function of the erosion. We suggest that the eight shovel tests, two excavation units, data from two surface observations areas, and limited collection from the surface have effectively mitigated the research potential of the site. The research value of this site is minimal as a single site. No further investigations are recommended at 41TG378 (see Chapter 12).

Figure A-20. Site map of 41TG378

41TG379

41TG379 (Figure A-21) is a large site (11,590 m²), classified as a prehistoric open campsite. Located at an elevation of about 1,900 feet ASL, the site is on an expansive peninsula that gently slopes to the south down into an unnamed tributary. 41TG379 is located about 750 meters from the Middle Concho River. The soils here appear to be *in situ*. Normally, this site is underwater. At the time of the survey, the ground surface had recently been exposed. There was approximately 80 percent visibility with sparse weeds covering the ground.

The artifact assemblage consists of cores, bifaces, unifaces, retouched flakes, primary, secondary, and tertiary flakes, as well as a minimal scatter of small fire-cracked rocks. The scattered fire-cracked rock are probably indicative of disturbed hearths, but there was no apparent pattern in their distribution. No diagnostic artifacts were recovered from this site.

Four shovel tests taken to a depth of 70 cm bs, and one auger test taken to a depth of 140 cm bs, provided no cultural materials (Appendix B). No intensive site observations were conducted at this site.

41TG379 receives a great deal of vehicular and pedestrian traffic. A deep, two-track road runs through the site, and the area is a popular fishing and camping spot. Shoreline erosion and wave action over the Kimbrough associated soil has caused an undulating surface across the entire site. Crushed gravels are mixed with the ephemeral lithic scatter. The area appears to have been heavily disturbed and may have been contoured with heavy machinery. Sandstone bedrock is exposed in the upper portion of the site. We estimate that only 10 percent of the site is intact. Shoreline erosional activity has displaced artifacts and features. Based on the limited testing, this site has no depth. No further investigations are recommended (see Chapter 12).

Figure A-21. Site map of 41TG379.

41TG380

41TG380 (Figure A-22) is a large prehistoric site (11,890 m²), classified as an open campsite. Located at 1,900 feet ASL, the site is 950 meters northwest of the Middle Concho River on an alluvial terrace of an unnamed tributary. The surface of the site gently slopes from north to south. During the survey, the southern portion of the site was muddy and swampy. Approximately 95 percent of the site was visible with sparse grasses obscuring the remaining surface.

A subjective evaluation of artifacts on the surface indicates there are about six cores, ten primary flakes, 25 secondary flakes, and 25 tertiary flakes. Although the quantity of lithic debitage was small, it appeared to be concentrated around two fire-cracked rock features. Scattered fire-cracked rock was also present on the surface of 41TG380. No diagnostic artifacts were recovered, and the number of components remains unknown.

Eight shovel tests were dug to a maximum depth of 70 cm bs. Shovel Tests 7 and 8 provided information on the existence of possible intact cultural remains between 0 and 10 cm bs. Charcoal and burned clay from the shovel tests have been collected as special samples (Appendix B). No intensive site observations were conducted.

Approximately 30 percent of this site is still intact. This site has been significantly deflated by erosive wave action, and periodic inundation and exposure due to fluctuating reservoir levels. The site is located in an area frequented by four-wheel drive vehicles. These have cut deep ruts throughout the site, primarily in its northern portion. The site's exposure to these cultural and natural impacts has helped to promote rapid erosion. The research value of this site is minimal. No further investigations are recommended at 41TG380 (see Chapter 12).

41TG381

41TG381 (Figure A-23) is a moderate sized (4,580 m²) prehistoric site, classified as an open campsite. The site is 1.3 km northwest of the Middle Concho River on an alluvial terrace along the western edge of an unnamed drainage. 41TG381 is located at about 1,900 feet ASL, on a surface that gently slopes from the northeast to the southwest. During the survey, heavy grasses obstructed surface visibility. We estimate that about 40 percent of the surface was visible.

On the surface of 41TG381, approximately three cores, 15 primary flakes, 25 secondary flakes, 20 tertiary flakes, and a metate fragment were observed. There were two fire-cracked rock hearth features at 41TG381, and the debitage appears to have been concentrated around these features. No diagnostic artifacts were noted at this site. No discrete components could be discerned. Most of the artifacts and the two features were exposed on the eastern side of the site, where wave action has exposed underlying deposits.

Seven shovel tests were excavated to a maximum depth of 70 cm bs, and one auger test was taken to 160 cm bs. These were concentrated in a line along the center of the site. Fire-cracked limestone was recovered from 0–10 cm bs in Shovel Test 6, but no chipped stone was found in association with this burned rock (Appendix B). While a controlled inspection was made of the entire surface, no surface observation areas were placed on this site.

This site is heavily eroded. We estimate that only about 20 percent of 41TG381 is intact. Hearth features and artifacts appear to have slumped from an exposed surface, down the face of the cutbank, possibly as a result of inundation and exposure as reservoir water levels fluctuated. This site is located in an area frequented by campers and 41TG381 has been impacted by vehicular traffic. These natural and cultural impacts will continue to impact the site. The research value of this site is minimal. No further investigations are recommended (see Chapter 12).

Figure A-23. Site map of 41TG381.

41TG382

Site 41TG382 (Figure A-24) is a large (10,770 m²) prehistoric site, classified as an open campsite. The site is on an alluvial terrace at the confluence of two tributaries, 1.15 km northwest of the Middle Concho River. Site elevation is about 1,900 feet ASL, and the surface of the site slopes gently from north to south. At the time of the survey, approximately 40 percent of the ground surface was visible, with dense clusters of grass obscuring the remaining surface area. Water from Twin Buttes Reservoir surrounded the southern end of 41TG382.

The artifact assemblage at this site included a Pedernales point (UI #18), a burin (UI #326), cores, bifaces, unifaces, utilized flakes, and a proportionate amount of primary, secondary, and tertiary flakes. Fourteen hearth features of fire-cracked sandstone and limestone were present. These are located both on the modern surface and eroding from the cutbank along the eastern edge of the site. The Pedernales point indicates at least some use of the site during the Late Archaic.

There were 21 shovel tests dug to a maximum depth of 80 cm bs. In addition, a single auger test was excavated to a depth of 140 cm bs. Flakes, bone, mussel shell, and fire-cracked rock were collected from 6 of the 21 shovel tests. Two different occupations may be indicated by varying concentrations of artifacts in the shovel tests. All positive shovel tests had artifacts from 0 to 10 cm bs and then a second concentration was present from 20 to 50 cm bs (Appendix B). Artifacts and ecofacts recovered from shovel tests were concentrated at approximately the same depth as the hearth features eroding out of the cutbanks. No intensive surface observation was carried out at 41TG382.

41TG382 is subject to heavy recreational use. A two-track road cuts through the site ending at the current shoreline, and many campers and fishermen enjoy the area. This site is periodically underwater and there is the potential for continued shore erosion from inundation and exposure due to fluctuating water levels in the reservoir. The research value at this site is high. This site is recommended for further testing because of the potential for recovering data relevant to understanding past environments, site formation processes, subsistence practices, and settlement patterns (see Chapter 12).

Figure A-24. Site map of 41TG382.

41TG383

41TG383 (Figure A-25) is a moderate sized (7,010 m²) site classified as a lithic scatter. This upland site is on an eroded sandstone bluff, 550 meters northwest of the Middle Concho River. Elevation is about 1,900 feet ASL, and the surface of the site gently slopes to the southeast. At the time of the survey, about 90 percent of the colluvial surface was visible, with the remaining 10 percent covered with sparse patches of grass.

On the surface of 41TG383, we observed about eight cores, six primary flakes, 22 secondary flakes, 26 tertiary flakes, and a uniface. Fire-cracked rock was present at the site, though at a low density. The only artifact concentration turned out to be the result of a modern knapper piling debitage on the edge of the site.

Three shovel tests were excavated to a maximum depth of 30 cm bs, where bedrock was encountered. No cultural materials were recovered from the shovel tests, and no temporally diagnostic artifacts were found at this site (Appendix B). A surface observation area was not placed at this site.

It appears that at least some portions of 41TG383 have been bladed by heavy machinery. A two-track road cuts through the upper central portion of the site and is heavily used. The site suffers continued inundation and exposure due to fluctuating water levels in the reservoir. We would estimate that only five percent of the site is intact. If there were once features at the site, they are no longer intact, and the erosion due to wave action has displaced artifacts. The research value of this site is minimal. No further investigations are recommended (see Chapter 12).

Figure A-25. *Site map of 41TG383.*

41TG384

41TG384 (Figure A-26) is a large (14,850 m²) site, classified as a prehistoric open campsite. The site is on an alluvial terrace, near the confluence of an unnamed tributary and the Middle Concho River, at an elevation of about 1,900 feet ASL. The surface of 41TG384 slopes gently to the south towards the Middle Concho. At the time of the survey, dense grass limited surface visibility to about 60 percent.

Artifacts observed on the surface of 41TG384 included approximately 15 cores, 30 primary flakes, 30 secondary flakes, 30 tertiary flakes, and two crude end scrapers. Eight hearth features were concentrated on the eastern edge of the site, near the bank of the Middle Concho River. Sporadic fire-cracked rock, mussel shells, and lithic debitage continued along the bank of the Middle Concho and near the shoreline of the unnamed tributary. There may be more hearths both to the east and west of those recorded on the surface. Fire-cracked rock in groups of two or three were observed across the site, but were not recorded as features. Artifacts were sparsely distributed across the site. The artifacts observed on the surface of the site were all large, with the smaller artifacts possibly silted over due to the proximity of the site to the water's edge.

Twelve shovel tests were dug to a maximum depth of 50 cm bs and one auger test was taken to 100 cm bs. Eleven of the 12 shovel tests conducted at the site contained cultural material, including flakes, a core, a metate fragment, fire-cracked limestone and sandstone, mussel shell, a burned pecan fragment, and charcoal. The charcoal was collected as a special sample from Shovel Test 9 between 40 and 50 cm bs. Two of the flakes recovered from shovel tests appear to be burned. The vertical distribution of cultural material recovered from the shovel tests indicates that the occupation zone is continuous from the surface to 50 cm bs (Appendix B). No diagnostic artifacts were recovered and the component remains unknown. No intensive surface observation area was defined at 41TG384.

The current shoreline at 41TG384 is a favorite fishing and camping area. The site has been impacted by vehicles, including both four-wheel drive and motorcycle traffic. Periodic exposure and inundation due to fluctuation in reservoir levels is causing any *in situ* features and associated artifacts near the surface to be displaced. Much of this site has been underwater, and it appears that 41TG384 may extend into the lake. Nevertheless, we estimate that about 90 percent of the site is intact. The research value of this site is high. This site is recommended for further testing because of the potential for recovering data relevant to understanding past environments, site formation processes, subsistence practices, and settlement patterns (see Chapter 12).

Figure A-26. Site map of 41TG384.

41TG385

41TG385 (Figure A-27) is a very large prehistoric site (128,850 m²), classified as a lithic scatter. It sits on exposed limestone bedrock ridges, 310 meters north of the Middle Concho River, at an elevation of about 1,920 feet ASL. The surface of the site slopes steeply to the south. At the time of the survey, the colluvial surface of 41TG385 was about 80 percent visible. Sparse grasses, immature mesquite trees, willow bushes, salt cedar, and scrub brush obscured the remaining surface.

The artifact assemblage consisted of a few scattered cores and flakes on the upper surface and face of a series of exposed limestone outcrops. No diagnostic artifacts were recovered, and no features could be identified. Fire-cracked rock was not recorded at the site.

The four shovel tests on 41TG385 were placed in areas thought to have deep sediments. These were taken to a maximum depth of 50 cm bs. No evidence of buried cultural material was found in any of the shovel tests (Appendix B). Four surface observation areas were intensively inventoried. Area 1 encompassed 340 m² and recorded 71 artifacts. In Area 2 there were 41 artifacts inventoried in a 230 m² area. Area 3 had 35 artifacts in a 340 m² area. The fourth, and final, area had 93 artifacts in a 28 m² area (Appendix D).

A variety of heavily used two-track roads cut through the site. Four-wheel and two-wheel drive vehicles, as well as motorcycles, use the area. In addition, modern trash dumping and camping occurs at this location. The site is badly eroded and deflated, with little or no possibility of discerning palimpsest components. The research value of this site is minimal. No further investigations are recommended (see Chapter 12).

Figure A-27. Site map of 41TG385.

41TG386

41TG386 (Figure A-28) is a moderate sized (1,190 m²) prehistoric site, classified as a lithic scatter. This upland site, situated on the western edge of a long, eroded ridge, is 950 m from the Middle Concho River at an elevation of about 1,970 feet ASL. The surface of 41TG386 slopes to the south and west into an unnamed tributary. At the time of the survey, the colluvial ground surface visibility of 41TG386 was about 70 percent with mesquite trees, ashe juniper, sage brush, and sparse, scattered grasses and scrub brush.

The artifact assemblage consisted of flakes, cores, a crude biface, and a utilized flake. In the northeast corner of the site, modern collectors have made a pile of flakes gathered from the site. No diagnostic artifacts were observed at the site and no features could be identified. Fire-cracked rock was not present.

Four shovel tests were dug to a maximum depth of 15 cm bs where calcrete was encountered. Shovel Test 4 recovered one flake and one retouched flake between 0 and 10 cm bs (Appendix B). Thirty artifacts were inventoried within an intensively inspected 500 m² area (Appendix D).

41TG386, and the surrounding area, are used for public recreation. A two-track road cuts along the northern boundary. A gravel road intersects the two-track road and dissects the eastern third of the site. The site is visited by modern collectors, and both four-wheel drive vehicles and motorcycles, have impacted the area. The vehicular activity has greatly disturbed the site's integrity. The site is also heavily eroded and deflated, with calcrete exposed in portions of the site. The research value of this site is minimal. No further investigations are recommended at this site (see Chapter 12).

Figure A-28. Site map of 41TG386.

41TG387

41TG387 (Figure A-29) is a moderate sized (4,990 m²) prehistoric site, classified as a lithic scatter. This site is situated on an eroded, low ridge between the confluence of two unnamed drainages at an elevation of about 1,910 feet ASL. The Middle Concho River is located 470 meters to the south of 41TG387. At the time of the survey, the colluvial ground surface was about 50 percent visible with a dense stand of immature willows, salt cedar, and sparse grasses present.

A subjective inventory of artifacts at the site recorded three cores, one primary flake, one secondary flake, five tertiary flakes, a crude biface, and a uniface. Chert nodules were eroding from the artificially channeled cutbank. No diagnostic artifacts or features were observed at the site. Fire-cracked rock was not observed.

Four shovel tests were excavated to a maximum depth of 70 cm bs. Shovel Test 2 recovered one flake between 10 and 20 cm bs (Appendix B). No intensive surface observation areas were placed on this site.

Several two-track roads cut through the site. A broad area on the eastern portion of the site has been used by modern campers, and four-wheel drive and motorcycle traffic has been extensive across the area. The site is also eroded due to periodic inundation and exposure associated with the fluctuating water levels in the reservoir. It also appears that portions of this site may have been bladed with heavy machinery. Modern trash dumping and modern campfires are also present. The research value of this site is minimal. No further investigations are recommended (see Chapter 12).

Figure A-29. Site map of 41TG387.

41TG388

41TG388 (Figure A-30) is a moderate sized (8,830 m²) prehistoric site, classified as an open campsite. The site is on an alluvial terrace deposit between the confluence of an unnamed drainage and the Middle Concho River. At an elevation of 1,900 feet ASL, the surface of 41TG388 slopes gently to the east. At the time of the survey, there was approximately 30 percent ground surface visibility, with dense grass present.

We observed 23 hearth features at 41TG388. These features were primarily concentrated along the southern edge of the site along the Middle Concho River. Cores, primary, secondary, and tertiary flakes, a possible Guadalupe tool (UI #70), bifaces, including a Uvalde point (UI #20), and unifaces were seen along the reservoir shoreline in the area of the hearths. Mussel shell concentrations were also associated with the hearths, especially near the western end of the site.

Thirteen shovel tests were taken to a maximum depth of 70 cm bs. Two auger tests were also excavated. Auger Test 1 was taken to 2 meters and Auger Test 2 went to 1.2 meters below surface. A core, flakes, mussel shell, utilized flakes, fire-cracked limestone and sandstone, and charcoal came from eight positive shovel tests. At least two concentrations of cultural material are reflected in the shovel tests, with concentrations from 0–40 cm bs and from 50–70 cm bs (Appendix B). The collected artifacts suggest that at least one of these components dates to the Early Archaic. There are two surface observation areas at this site. Area 1 is 90 m² and produced 215 artifacts. The second area recorded 134 lithic artifacts in a 90 m² area (Appendix D).

41TG388 is subject to heavy recreational use. Many campers and fishermen enjoy the area. The area also receives a great deal of four-wheel drive and motorcycle traffic. It appears that sections of both water courses may have been altered, perhaps during reservoir construction. The current shoreline is heavily eroded from periodic inundation and exposure caused by fluctuating water levels in the reservoir. The site is rapidly being destroyed by artificial and natural causes. Nevertheless, we estimate that approximately 90 percent of this site remains intact. The research value at this site is high. This site is recommended for further testing. The site has the potential to contribute information on paleoenvironments, site formation processes, prehistoric subsistence, and settlement patterns (see Chapter 12).

Figure A-30. Site map of 41TG388.

41TG389

Site 41TG389 (Figure A-31) is a moderate sized (6,600 m²) site, classified as an open campsite. It sits on a rounded knoll just above the confluence of an unnamed tributary and the Middle Concho River. 41TG389 is located about 100 meters northwest of the Middle Concho River, at an elevation of 1,920 feet ASL. At the time of survey, about 50 percent of the ground surface was visible, with tall, spindly cedars and grass covering the surface.

Eight hearth features, concentrated on the southern half of the site, were recorded on the surface. In and around the hearths were cores, bifaces, unifaces, retouched flakes, and utilized flakes. Primary, secondary, and tertiary flakes were also present, along with scattered fire-cracked rock. We observed evidence for quarrying, with chert cobbles located on the site being reduced from early through late stages. Snapped quarry blanks and preforms suggest that the raw materials at this site may have been only partially reduced. Two projectile points were collected and date the site to the Late Archaic. One of the projectile points is an Ellis/Ensor-like point from the surface (UI #69) and the other is an untypeable point (UI #44) collected from Shovel Test 1 between 0–10 cm bs.

Six shovel tests were excavated to a maximum depth of 50 cm bs and one auger test was taken to 160 cm bs. All six shovel tests recovered cultural material to a maximum depth of 30 cm bs (Appendix B).

Two separate surface observation areas were selected at this site. Each was 28 m². The first area recorded 384 artifacts and the second recorded 170 artifacts (see Appendix D).

Given the shovel test results and the probability that the site represented a Late Archaic occupation with good integrity, a single 1-x-1-meter test unit was excavated on the site (Appendix C). The unit, established north of Shovel Test 3 (Figure A-31), was excavated in 10 cm arbitrary levels to a depth of 70 cm bs. A small concentration of thermally altered limestone and sandstone rocks, designated Feature 9, was encountered in the southeast corner of the unit in level 2 (10–20 cm bs). This level also had the greatest amount of lithic debitage. The burned rock feature continued down to 40 cm bs. Eleven thermally altered rocks were cored with an archaeomagnetic drill in order to establish the integrity of this feature (Figure A-32), and the results indicate that the feature was intact (Appendix J). Level 5 (40–50 cm bs) exposed another smaller burned rock feature in the west wall of the unit, though the small number of rocks prevented core sampling.

We estimate that 41TG389 is approximately 90 percent intact. There is some shoreline and slope erosion around the circumference of the knoll landform, but the rest of the site has a good grassy ground cover that seems to be preserving the cultural features. This site has not been extensively damaged by modern campers or by off-road vehicles. However, the site is in danger of continued shoreline erosion due to fluctuating reservoir water levels and wave action. The research potential of 41TG389 is high, with excellent prospects for recovering data on paleoenvironments, site formation processes, and subsistence during the Late Archaic. Further testing is recommended at this site (see Chapter 12).

Figure A-31. *Site map of 41TG389.*

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41TG390

41TG390 (Figure A-33) is a moderate sized (5,000 m²) prehistoric site, classified as a lithic scatter. It sits on an eroded upland ridge that slopes to the south and east. It is approximately 530 meters from the Middle Concho River on an unnamed tributary, at an elevation of 1,950 feet ASL. At the time of survey, the colluvial surface was about 90 percent visible. Mesquite trees, prickly pear, thorny brush, and sparse grasses obscured the remaining 10 percent.

Less than 50 pieces of fire-cracked rock and an assortment of lithic debitage were seen scattered across the site. No hearth features could be defined. The artifact assemblage consists of cores, bifaces, uniface, retouched flakes, utilized flakes, and primary, secondary, and tertiary flakes. One diagnostic Bandy-like dart point (UI #21) was recovered, dating the site to the Early Archaic.

Four shovel tests were dug to a maximum depth of 30 cm bs at which point bedrock was encountered. All four shovel tests were negative (see Appendix B). No surface observation areas were placed on this site.

We estimate that only 20 percent of the site is intact. This site is heavily eroded, with only shallow sediments remaining over calcrete. Large animal burrows are common on the site, and several cattle trails crisscross the landform. We suggest that the research value of this site is minimal. No further investigations of this site are recommended (see Chapter 12).

Figure A-33. *Site map of 41TG390.*

41TG391

41TG391 (Figure A-34) is a moderate sized (8,550 m²) prehistoric site, classified as an open campsite. It is situated on the southern end of a gently sloping, partially eroded ridge, located roughly 450 meters northwest of the Middle Concho River. 41TG391 is at an elevation of about 1,950 feet ASL. The site slopes from the northwest to the southeast. At the time of the survey, approximately 90 percent of the colluvial ground surface was visible with mesquite, prickly pear, thorny brush, and sparse grasses covering the remaining 10 percent.

Two hearth features were observed on the surface in the upper, more heavily eroded portion of the site. An eroded chert cobble outcrop bordering the southern boundary of the site has evidence of quarrying activity. Reflecting early to late stage reduction, the artifact assemblage includes primary, secondary, and tertiary flakes, tested cobbles, cores, quarry blanks, preforms, bifaces, unifaces, and utilized flakes. The southeastern portion of the site has a number of bifaces. A Trinity-like point (UI #22) was collected from the surface. This diagnostic point dates the site to the Late Archaic.

Nine shovel tests were dug to a maximum depth of 60 cm bs. Two auger tests were also excavated. One was taken to 30 cm bs where calcrete was encountered. The second auger went to a depth of 100 cm bs. Four of the shovel tests produced cultural material from 0 to 20 cm bs (see Appendix B). The continuous deposit of cultural material from the surface to 20 cm bs may indicate a single discrete occupation. A 540 m² surface observation area was intensively inventoried —106 artifacts were recorded (see Appendix D).

A two-track road cuts through 41TG391 on the south tip and along the western boundary, enabling access for a great deal of vehicular traffic. This area is also a livestock ranging area and there are many cattle trails, as well as large animal burrows in the northwestern portion of the site. This site has also been subjected to slope erosion. Fluctuating water levels in the reservoir have contributed to the removal of sediments. In spite of the damage, the positive shovel tests indicating material from 0 to 20 cm bs, the presence of hearth features, and the presence of a wide variety of stone tools, all suggest that the research value of this site should be considered moderate. There is some potential for intact features and associated cultural material to be found in the southeastern portion of the site. Further investigations are recommended at 41TG391 (Chapter 12).

Figure A-34. Site map of 41TG391.

41TG392

41TG392 (Figure A-35) is a moderate sized (8,780 m²) prehistoric site classified as a lithic scatter. Located at an elevation of about 1,940 feet ASL, this upland site is 570 meters northwest of the Middle Concho River. It is situated on the north and eastern end of a long, eroded ridge, and the surface slopes towards the northeast. At the time of this survey, roughly 80 percent of the colluvial surface was visible, with mesquite, prickly pear, thorny brush, and sparse grasses covering the site.

Artifacts observed on the surface included 15 cores, 75 primary flakes, 50 secondary flakes, 25 tertiary flakes, and two crude bifaces. These are distributed in no apparent pattern. No hearths or other cultural features could be discerned, and no fire-cracked rock was observed on the surface.

Seven shovel tests were dug to a maximum depth of 50 cm bs. No cultural material was encountered in any shovel test (Appendix B). A single surface observation area of 510 m² was intensively inventoried and 115 artifacts were recorded (Appendix D).

41TG392 appears to be heavily eroded. We estimate that about 20 percent of the site is intact. The area is used both for modern recreation activities and as open range for livestock. Many cattle trails crisscross the site, and extensive bioturbation is present. A two-track road makes this site accessible to vehicular traffic. The site will continue to be impacted by recreational activity, bioturbation, and slope erosion. Site 41TG392 has minimal research and no further investigations are recommended (see Chapter 12).

Figure A-35. *Site map of 41TG392.*

41TG393

41TG393 (Figure A-36) is a large (36,300 m²) prehistoric site classified as a lithic scatter. The site is 300 meters to the northwest of the Middle Concho River. It is on a series of eroded limestone conglomerate shelves with little sediment remaining, especially in the lower, southern portion of the site. 41TG393 is at an elevation of about 1,930 feet ASL. At the time of survey, roughly 30 percent of the colluvial ground surface was visible. The majority of the site's surface was obscured by dense grasses, patches of immature willows, and scattered scrub brush.

The assemblage observed at 41TG393 consisted of 30 tertiary flakes, 100 secondary flake, 70 primary flakes, a biface, and a uniface. Most artifacts were setting on an eroded and deflated surface along the western and southern portion of the site. No diagnostic artifacts were recovered and no features noted.

Eight shovel tests were taken to a maximum depth of 50 cm bs. Only Shovel Test 6 yielded cultural material, with a single flake recovered between 0 and 10 cm bs (Appendix B). No intensive surface observation areas were placed at this site.

A two-track road lies along the northern boundary allowing easy access to the site. Free ranging cattle and burrowing animals also compromise the integrity of the site. Fluctuating reservoir levels will continue to cause shoreline erosion along the southern and eastern edges of 41TG393. The research value of this site is considered minimal. No further investigations are recommended at this site (Chapter 12).

Figure A-36. Site map of 41TG393.

41TG394

Site 41TG394 (Figure A-37) is a small (150 m²) site classified as an open campsite. The site lies partially buried within an alluvial terrace that terminates on a bluff overlooking the Middle Concho River. At an elevation of roughly 1,900 feet ASL, 41TG394 is located on a surface that gently slopes from north to south. At the time of the survey, we estimate that only 10 percent of the ground surface was visible. A heavy growth of young willow bushes, salt cedar, and dense grasses covered the ground. Most of the cultural material was present in the cutbank.

The artifact assemblage included early through late stage reduction flakes, cores, and bifaces. A slab metate was also present. The majority of the artifacts were found in association with a hearth eroding from the cutbank, about 1.2 meters below the modern ground surface. Mussel shell was also observed in this cutbank. No diagnostic artifacts were recovered at 41TG394.

Three shovel tests were excavated to a maximum depth of 73 cm bs and an auger test was taken to 140 cm bs. Fire-cracked limestone and ocher were recovered from Shovel Test 1 at 70 cm bs (Appendix B). No intensive surface observation areas were conducted at this site.

The surface of 41TG394 is eroded. We estimate that only about 50 percent of this site remains intact. The site and the area around it is a popular location for modern hunting, fishing, camping, and artifact collecting. Vehicular traffic, along with erosion caused by fluctuating water levels in the reservoir, continue to damage the site. Given the potential buried component represented by the hearth and associated artifacts, the research value of this site is considered high. The site has the potential for recovering information relevant to past environments, site formation processes, subsistence practices, and settlement patterns. Further investigations are recommended at 41TG394 (see Chapter 12).

Figure A-37. Site map of 41TG394.

41TG395

41TG395 (Figure A-38) is a moderate sized (2,920 m²) prehistoric site classified as an open campsite. The site sits on a broad alluvial terrace that gently slopes south toward the Middle Concho River, about 90 meters away. Site elevation is about 1,905 feet ASL. At the time of the survey, only 10 percent of the surface was visible due to a dense growth of grasses and weeds. The area also appears to have been silted over –impeding visibility of smaller artifacts.

Cores, tested cobbles, tertiary, secondary, and primary flakes, bifaces, and a uniface were spread evenly from east to west along an old shoreline of the reservoir. Scattered fire-cracked rock follows the same pattern. A single fire-cracked limestone hearth feature was found in the southwestern portion of the site.

Five shovel tests were dug to a maximum depth of 70 cm bs, and one auger test was taken to a depth of 140 cm bs. One flake was retrieved from 0 to 10 cm bs in Shovel Test 2 (Appendix B). A 330 m² controlled surface observation area was placed on the site, and 81 artifacts were recorded (Appendix D). No diagnostic artifacts were recovered from 41TG395.

Site 41TG395 is situated in an area used for livestock grazing, and is eroded and disturbed. There is less evidence of impact associated with recreational activities at 41TG395 than at other sites in the immediate area, but there is an increased level of impact from cattle. This site also suffers the lake-effect erosion caused by periodic inundation and exposure due to fluctuating reservoir water levels causing. We estimate that this site is only about 20 percent intact. The research value of this site is considered minimal, and no further work is recommended (see Chapter 12).

Figure A-38. Site map of 41TG395.

41TG396

41TG396 (Figure A-39) is a moderate sized (7,430 m²) prehistoric site classified as a lithic scatter. The site sits on a five meter high bluff face of an alluvial terrace on an outside meander of the Middle Concho River. It is slumping down the bluff into the river. The site is at an elevation of about 1,910 feet ASL, and slopes gently in a southeasterly direction to the bluff. At the time of the survey, the bluff face had excellent exposure. However, the ground surface of the upper portion of the site is only 5 percent visible with a dense cover of weeds and grasses.

Artifacts were observed on the bluff edge trailing down to the Middle Concho River. The artifacts recorded at this site included cores, primary, secondary, and tertiary flakes, and a retouched flake. No artifacts were observed on the upper, modern surface. Less than 50 pieces of fire-cracked rock were spread across the bluff face, though no hearth features were recorded. No diagnostic artifacts were found at this site.

Eleven shovel tests were taken to a maximum depth of 70 cm bs and one auger test was taken to 140 cm bs. A single flake from 0–10 cm bs was collected from Shovel Test 3 (Appendix B). No intensive surface observation areas were placed on this site.

Site 41TG396 and the surrounding area have been subjected to modern hunting, camping, and fishing activities. Cattle trails have also disturbed the area. The site's bluff is continually being cut away by the Middle Concho River and is exposed to periodic inundation and exposure due to fluctuating water levels in the reservoir. We estimate that about 10 percent of this site remains intact. It has minimal research value, and no further testing is recommended at 41TG396 (see Chapter 12).

Figure A-39. Site map of 41TG396.

41TG397

Site 41TG397 (Figure A-40) is a moderate sized (5,620 m²) site classified as a lithic scatter. This upland site is 700 meters north of the Middle Concho River at an elevation of 1,930 feet ASL. It is situated on an eroded ridge which slopes from the northeast to the southwest. At the time of the survey, the colluvial ground surface had about 70 percent visibility with mesquite, prickly pear, thorny brush, and grasses spread intermittently over the site.

Cores, tested cobbles, primary, secondary, and tertiary flakes, quarry blanks, and other crude bifaces were noted on the surface. This site appears to be an upland quarry where early and middle stage reduction has occurred. No diagnostic artifacts were observed at the site and no discrete components could be discerned either on the surface or within shovel tests. Features and fire-cracked rock were not noted at this site.

Two shovel tests were excavated to a maximum depth of 20 cm bs. Shovel tests were terminated when calcrete was encountered. No artifacts were recovered in the shovel tests (Appendix B). Two surface observation areas were selected for inventory. Area 1 inventoried 90 m² and recorded 128 artifacts. Area 2 recorded 119 artifacts in a 190 m² area (Appendix D).

Site 41TG397 and the surrounding area are being used for public recreation. A two-track roads cuts along the southern edge of the site, and the area is frequently visited by campers and fishermen. There are cattle trails cutting across the site, as well as areas of bioturbation. The site is heavily eroded and deflated. The research value of 41TG397 is minimal, and no further investigations are recommended.

Figure A-40. Site map of 41TG397.

41TG398

41TG398 (Figure A-41) is a moderate size (1,840 m²) prehistoric site, classified as a lithic scatter. The site is on a terrace, 470 meters north of the Middle Concho River, at an elevation of about 1,925 feet ASL. It sits on an eroded shelf sloping south toward the river. The colluvial ground surface upon which the site rests was about 10 percent visible in the northern portion of the site, and about 80 percent visible in the southern portion. At the time of survey, the vegetation consisted of scrub mesquite and clusters of dense grass.

The site appears to have been an ephemeral lithic scatter resulting from quarrying an outcrop of gravels along the edge of an exposed limestone conglomerate shelf. The artifacts observed at the site included cores, primary, secondary, and tertiary flakes, a quarry blank, and a preform. No diagnostic artifacts were recovered, and no features or fire-cracked rock were noted.

Four shovel tests taken to a maximum depth of 50 cm bs provided no indication of subsurface cultural material (Appendix B). No intensive surface observation areas was placed on this site (Appendix D).

41TG398 is only about 20 percent intact. The site is heavily eroded and deflated, especially in the southern portion where the reservoir shoreline has scoured the surface. The landform on which 41TG398 sits is frequently used for camping and fishing, and cattle trampling has also compromised the integrity of the site. 41TG398 will continue to be degraded by recreational activity, cattle trampling, and periodic inundation and exposure due to fluctuating reservoir levels, and lake-effect erosion. The site has little research potential, and further investigations of this site are not recommended (see Chapter 12).

Figure A-41. Site map of 41TG398.

41TG399

41TG399 (Figure A-42) is a moderate sized (2,600 m²) prehistoric site, classified as a lithic scatter. It is in an upland setting, running along a subtle ridge and knoll. Gravels outcrop from the underlying limestone conglomerate. The site is 340 meters northeast of the Middle Concho River at an elevation of about 1,935 feet ASL. At the time of the survey, the colluvial ground surface was only 50 percent visible with mesquite, prickly pear, and sparse grasses present.

A subjective evaluation of artifacts present on the surface suggests that the site contains approximately five cores, ten primary flakes, 20 secondary flakes, 30 tertiary flakes, a utilized flake, a quarry blank, a preform, and a finely-flaked point or medial knife fragment. There appears to be a significant amount of late stage reduction activities occurring at this site. No diagnostic tools were observed. While hearth features could not be identified, fire-cracked rock is scattered across the surface at a low density.

Nine shovel tests were excavated to a maximum depth of 50 cm bs. Pieces of fire-cracked chert were found in Shovel Test 3 and 9 between 0 and 10 cm bs. Fifteen flakes were also recovered with the deepest deposit coming from Shovel Tests 4 and 7 at 20–30 cm bs. Despite these results, no discrete spatial patterning could be observed in the shovel test data (Appendix B). No intensive surface observation areas were placed at this site.

We estimate that this site is about 50 percent intact, but cattle trampling, areas of bioturbation, slope erosion, and pedestrian use will continue to compromise the integrity of this site. The research value of this site is considered moderate based on the potential for buried, intact cultural deposits on the southern portion of the site where there are still sediments remaining over the limestone conglomerate. Further investigations are recommended at this site (Chapter 12).

Figure A-42. Site map of 41TG399.

41TG400

41TG400 (Figure A-43) is a large (11,040 m²) prehistoric site classified as a lithic scatter. This upland site, situated on a prominent finger ridge with two small mounds, is 280 meters northeast of the Middle Concho River at an elevation of about 1,930 feet ASL. The surface of the site slopes to the south and west towards the river. At the time of this survey, the colluvial ground surface was about 30 percent visible with mesquite, sparse grasses, and thorny scrub brush covering the terrain.

The artifact assemblage observed on the surface included cores, primary, secondary, and tertiary flakes, tested cobbles, utilized flakes, and a retouched flake. No hearth features could be identified and no fire-cracked rock was noted on the site. Fine-grained chocolate brown cherts, some with cream-colored bands, were observed outcropping from the limestone conglomerate underlying the two uplifted knolls on the northern portion of the site. A subjective evaluation indicates primarily early stage reduction was occurring at this site. No diagnostic artifacts were observed and no discrete components could be identified.

Three shovel tests were dug to a maximum depth of 50 cm bs, where calcrete was encountered. In Shovel Test 1, a single flake was recovered between 0 and 10 cm bs (Appendix B). A 60 m² surface observation area was inventoried with 168 artifacts documented (Appendix D).

A two-track road cuts through this site, as do many cattle trails. There are some animal burrows and a great deal of slope erosion on and around the uplifted knolls on the northern portion of the site. Erosion has deflated the site, leaving artifacts in an apparent palimpsest on the surface. The vehicular traffic, cattle trampling, and erosion have disturbed the site's integrity. The research value of this site is minimal, and no further investigations are recommended (see Chapter 12).

Figure A-43. *Site map of 41TG400.*

41TG401

41TG401 (Figure A-44) is a moderate sized (2,970 m²) prehistoric site classified as an open campsite. The site is on an alluvial terrace, roughly five to six meters above the east bank of the Middle Concho River, at an elevation of about 1,920 feet ASL. The upper surface is gently sloping toward the cutbank, near which the surface slopes steeply down to the river. During the survey, there was good visibility on the cutbank, but only 10 percent of the upper, modern ground surface was not obscured by dense grasses, young willows, and salt cedar.

The artifact assemblage recorded at 41TG401 included a core, five primary flakes, ten secondary flakes, ten tertiary flakes, and a single mano. No diagnostic artifacts were recovered. The artifactual material appeared to be associated stratigraphically with two fire-cracked hearths eroding from the cutbank, approximately 1.5 m below the modern surface. Mussel shell was also observed at this site.

Four shovel tests were excavated to a maximum depth of 70 cm bs and one auger test was taken to a depth of 170 cm bs. None of these tests provided any indication of cultural activity (Appendix B). No intensive surface observation areas were carried out at this site.

41TG401 is subject to heavy recreational use and livestock grazing. The site also suffers from periodic inundation and exposure due to fluctuating water levels in the reservoir. Even though the site is approximately 50 percent intact, erosion is causing the site to slump into the Middle Concho River. Future perceived impacts are cattle trampling, continued erosion, and pedestrian and vehicular traffic. The research value at this site is high despite the fact that no cultural remains were found in any of the shovel tests or the auger test. The presence of the features and associated material at 41TG401 revealed in the cutbank at about 1.5 meters, a depth beyond which shovel testing could reach on the current project, clearly suggests the probability of buried material. We believe that the potential for recovering paleoenvironmental and subsistence data from these features is high. This site is recommended for further testing (see Chapter 12).

Figure A-44. Site map of 41TG401.

41TG402

Site 41TG402 (Figure A-45) is a small site (360 m²) consisting primarily of a mussel shell lens. The site is located along an alluvial terrace cutbank on the northwest edge of the Middle Concho River at an elevation of about 1,910 feet ASL. The terrain gently slopes from northeast to southwest to the edge of the cutbank. At the time of the survey, about 95 percent of the modern ground surface was covered with dense, thick concentrations of salt cedar bushes and grass.

The mussel shell lens appeared to be eroding out of the cutbank and was associated with a single bifacial thinning flake. The shell and the flake were discovered approximately three meters below the modern surface. The approximate thickness of the cultural deposit as it appears in the cutbank is 15 cm. No diagnostic artifacts were recovered from this site, and hearth features and fire-cracked rock were not seen.

Two shovel tests were excavated to a maximum depth of 70 cm bs and one auger test was taken to 180 cm bs. No cultural material was found in any of these probes (Appendix B). No organized surface observation was deemed necessary at this site.

There is only about 50 percent of this site left intact. This area is used for hunting, camping, and fishing. The area is also open to ranging cattle and there are cattle trails that lead to the river's edge. Pedestrian activity, cattle trampling, and shoreline erosion will eventually take their toll on this site. The importance of this site is related to site 41TG424, located immediately across the Middle Concho. There are mussel shell lenses at 41TG424 that are seemingly stratigraphically similar to this one at 41TG402. Negative shovel tests could indicate that the shell lens is only ephemerally within the cutbank face, but the extreme depth of the shell midden mitigates against any systematic investigations with shovel testing. Therefore, the research value for this site is considered moderate and further investigations are recommended (see Chapter 12).

Figure A-45. Site map of 41TG402.

41TG403

Site 41TG403 (Figure A-46) is a small (730 m²) prehistoric site classified as an open campsite. The site is eroding from a cutbank face of an alluvial terrace on the east edge of the Middle Concho River at an elevation of roughly 1,920 feet ASL. The upper, eastern portion of the site slopes gently to the west towards the cutbank. The cutbank plunges steeply to the river's edge. At the time of the survey, about 70 percent of the ground surface was visible on the bluff face. The upper, western portion of the site was almost completely obscured due to dense salt cedars and thick grass.

There are two fire-cracked rock hearth features and associated artifacts eroding from the cutbank about one meter below the surface. The associated artifacts are scattered fire-cracked rock, two tertiary flakes, and two secondary flakes. No diagnostic artifacts were uncovered.

Three shovel tests were taken to a maximum depth of 80 cm bs and one auger test was dug to 170 cm bs. A single flake was recovered from Shovel Test 3 between 60 and 70 cm bs (Appendix B). It appears that the hearths and artifacts comprise a single component because they are eroding from the same level. The age of this component, though, remains unknown. No intensive surface observation areas were conducted at this site.

This site has been subject to heavy recreational use by modern campers and fishermen. This site is also located in cattle ranging territory. The shoreline is heavily eroded from periodic inundation and exposure caused by fluctuating water levels in the reservoir. Though we estimate that about 50 percent of this site remains intact, the integrity of 41TG403 is rapidly being compromised by these artificial and natural causes. The research value at this site is high. A flake found at 60 to 70 cm bs in Shovel Test 3 is in approximately the same horizontal position as the exposed hearth features and artifacts. The site has the potential to provide information on past environments, site formation processes, subsistence practices, and settlement patterns. This site is recommended for further testing (see Chapter 12).

Figure A-46. Site map of 41TG403.

41TG404

Site 41TG404 (Figure A-47) is a large (29,490 m²) prehistoric site classified as a lithic scatter. This upland site, situated on a series of eroded limestone conglomerate ridges, is 360 meters from the Middle Concho River at an elevation of about 1,960 feet ASL. The land surface, which appears to be composed of colluvial material, slopes southwest towards the bluff's edge. At the time of the survey, roughly 50 percent of the surface was visible, with mesquite, scattered grasses, thorny scrub brush, and prickly pear present.

The artifact assemblage observed at 41TG404 included cores, primary, secondary, and tertiary flakes, tested cobbles, quarry blanks, preforms, bifaces, unifaces, utilized and retouched flakes, and a Langtry dart point (UI #49). The point suggests that some portion of the occupation may date to the Late Archaic. Hearth features were not observed nor was there any fire-cracked rock noted at this site.

Three shovel tests were excavated to a maximum depth of 18 cm bs, where calcrete was encountered. Shovel Test 3 recovered one flake between 0 and 10 cm bs (Appendix B). Two surface observation areas were inventoried. Area 1 recorded 107 artifacts in a 160 m² area. Area 2 encompassed 50 m² and recorded 133 artifacts (Appendix D).

41TG404 and the surrounding area are designated for public recreation. A two-track road cuts along the edge of the site, and many cattle trails cross the site. The site probably extends onto private property on the northeast side of the road and fence. Vehicular traffic, pedestrian activity, and cattle trampling have greatly disturbed the site's integrity. The site is also heavily eroded and deflated. If more than one occupation has occurred it will remain obscure because the components at this site have become a palimpsest resting on the colluvial surface. The research value of this site is suggested to be minimal. No further investigations are recommended (see Chapter 12).

Figure A-47. Site map of 41TG404.

41TG405

41TG405 (Figure A-48) is a large site (36,700 m²) classified as a prehistoric campsite. Situated atop a ca. 12 m high limestone bluff on an outside meander of the Middle Concho River, 41TG405 is at an elevation of about 1,955 feet ASL. The terrain of this upland site slopes gently to the southeast, with little sediment present in the south and southwest portions of the site. At the time of this survey, about 50 percent of the ground surface was visible, with mesquite, prickly pear, thorny brush, and sparse grasses present.

Two hearth features were observed on 41TG405. These were partially buried in the upper central portion of the site. Fewer artifacts were found in association with the hearths than were observed on and around the eroded bluff edge. Lithic procurement activities have occurred on the finger ridges on the southeastern portion of the site. A Marshall-like point stem, placing the occupation in the Late Archaic, was found on the surface and collected as UI #50. Other artifacts noted at this site were cores, tested cobbles, primary, secondary, and tertiary flakes, bifaces, unifaces, as well as retouched and utilized flakes.

Twelve shovel tests were dug to a maximum depth of 48 cm bs. Seven of the twelve shovel tests contained 17 flakes between 0 and 30 cm bs (Appendix B). Two selected surface observation areas were intensively inventoried. The first area was 28 m² and a total of 238 artifacts were recorded. Area 2 was also 28 m², and 391 artifacts were recorded (Appendix D).

A dirt road cuts along the boundary of 41TG405, enabling access for vehicular and pedestrian traffic at this location. This area is also a livestock ranging area and there are many cattle trails. Some bioturbation, primarily animal burrows, were also observed at the site. The site has been subjected to slope erosion and a portion of the bluff appears to have been undercut by the Middle Concho. The integrity of 41TG405 will continue to be compromised by these erosional factors as well as the cultural impacts. We estimate that about 50 percent of this site is still intact. The research value of 41TG405 is considered moderate, as there is potential for finding intact cultural features and artifacts near the hearths in the upper, middle section of the site. Further investigations are recommended at this site (see Chapter 12).

Figure A-48. Site map of 41TG405.

41TG406

Site 41TG406 (Figure A-49) is a moderate sized (2,900 m²) prehistoric site classified as a campsite. The site elevation is 1,935 feet ASL. Site 41TG406 sits on an alluvial deposit on the north side of the Middle Concho River. The terrain trends in a general northeast to southwest direction. At the time of survey, an estimated 50 percent of the ground surface was visible. Immature willows and grasses were the primary vegetation present.

Four hearth features were found partially exposed on the lowest portion of the site, above the Middle Concho River on a stable terrace. Cores, primary, secondary, and tertiary flakes, and utilized and retouched flakes were associated with these hearths. These artifact types also appeared on the exposed slope.

Four shovel tests were dug to a maximum depth of 70 cm bs. All four shovel tests recovered cultural material between 0 and 40 cm bs (Appendix B). No intensive surface observation was performed.

The site and the area surrounding it has been used by hunters, fishermen, and campers. The area is also used for cattle grazing. Lake-effect slumping caused by periodic inundation and exposure due to fluctuating lake levels continue to compromise the integrity of this site, as do the recreational activities. Site 41TG406 is eroded and deflated. We estimate that 50 percent of this site remains intact. The research value at this site is considered high because shovel tests produced cultural material between 0 and 40 cm bs, and hearth features are present on a potentially stable terrace. The possibility for finding buried, intact cultural features and deposits which could yield information on paleoenvironment, site formation processes, subsistence, and settlement patterns, is high. Further investigations are recommended at 41TG406 (see Chapter 12).

Figure A-49. Site map of 41TG406.

41TG407

Site 41TG407 (Figure A-50) is a small (470 m²) site characterized as a prehistoric lithic scatter. The site is on the edge of a seven meter high limestone conglomerate bluff on the north side of the Middle Concho River. The elevation is about 1,925 feet ASL. At the time of survey, approximately 75 percent of the ground surface was visible, with ashe juniper, prickly pear, mesquite, agarita, agave, and sparse grasses present.

The small artifact assemblage consisted of four cores, a tested cobble, five primary flakes, four secondary flakes, six tertiary flakes, and a retouched flake. Artifacts have eroded from the upper surface and are spread down the face of the bluff, resting on small limestone ledges. No diagnostic artifacts were recovered and no features noted.

One shovel test taken to a depth of 43 cm bs was placed in one of the few areas where sediments remained. This shovel test yielded no subsurface cultural material (Appendix B). No intensive surface observation was made at this site.

This site and the surrounding area are designated for public recreational uses. Hunters, fishermen, campers, and artifact collectors visit the area of the site frequently. This area is also used by ranchers to pasture livestock. 41TG407 also suffers windblown erosion and periodic inundation and exposure due to fluctuating reservoir levels. 41TG407 is only about five percent intact. Both cultural and natural impacts will continue to degrade the integrity of the site. The research value of this site is considered minimal, and no further investigations are recommended (see Chapter 12).

Figure A-50. Site map of 41TG407.

41TG408

Site 41TG408 (Figure A-51) is a large (18,600 m²) prehistoric site classified as a lithic scatter/campsite. Located at an elevation of 1,950 feet ASL, the site is on a series of ridges sloping south to a bluff on the Middle Concho River. Sediments appear to be colluvial in origin. At the time of survey, the ground surface was approximately 65 percent visible, with ashe juniper, prickly pear, agave, agarita, and sparse grasses covering the rest of the landform.

Cores, primary, secondary, and tertiary flakes, quarry blanks, bifaces, uniface, and retouched and utilized flakes were concentrated in an area on the northwestern edge of the site. The artifact assemblage is reflective of early and middle stage reduction. Fire-cracked rock was scattered about the site, but no distinguishable hearth features could be recognized.

Seven shovel tests were dug to a maximum depth of 50 cm bs. Shovel Test 3 recovered six flakes, two of which were utilized, between ground surface and 10 cm bs (Appendix B). A 440 m² surface observation area was intensively inspected and a total of 194 artifacts observed (Appendix D).

We estimate that only about 10 percent of 41TG408 is intact. This area has been extensively mined and quarried for gravels. A deeply, bladed road cuts between the southern edge of the site and the river. The quarry area is most likely related to a concrete slab and historical industrial site 60 meters to the west of 41TG408. Areas on the site that have not been bulldozed or quarried are heavily eroded and deflated. Any features that may have existed at this site are no longer intact, as the area is also used by hunters, campers, and cattle grazing. The research value of this site is minimal, and no further work is recommended (Chapter 12).

Figure A-51. Site map of 41TG408.

41TG409

Site 41TG409 (Figure A-52) is a moderate sized (4,480 m²) site classified as a prehistoric campsite. This upland site is situated on a high limestone conglomerate bluff, at an elevation of about 1,950 feet ASL. The surface of the bluff slopes gently to the south toward the Middle Concho River, located about 40 meters away. At the time of survey, about 40 percent of the ground surface was visible. The vegetation was primarily ashe juniper, prickly pear, mesquite, and sparse grasses.

Seventeen mortar holes were documented on the western edge of the bluff. These range between 3 and 22 cm deep. Other artifacts found at the site were cores, tested cobbles, primary, secondary, and tertiary flakes, uniface, retouched and utilized flakes, and a Marcos-like dart point (UI #65). Surface artifacts are most visible on the western edge of the site where sediments are thin and limestone conglomerate is exposed. No intact hearth features could be observed on the surface. However, a substantial quantity of fire-cracked rock was present.

Three shovel tests were dug to a maximum depth of 70 cm bs, and one auger test was taken to 140 cm bs. All three shovel tests and the auger hole were positive. Flakes, cores, metate fragments, a uniface fragment, a utilized flake, and fire-cracked rock were recovered in discrete deposits 0–40 cm bs, 50–70 cm bs, and 120–140 cm bs (Appendix B). A single surface observation area, 28 m² in size, was inventoried and 273 artifacts were recorded (Appendix D).

There is a deeply cut, two-track road, and associated smaller trails, that traverse the site. In addition, trash disposal is common in this area. The bluff, with an expansive overview of the surrounding area, is a popular location, and modern camping, collection, and other recreational activities appear to be frequent at this location. Vandalism of some of the mortar holes was also noted. Artificial lake levels have caused shore erosion along the bluff, causing some of the landform to sluff into the river. There are also bioturbative areas where burrowing activity is displacing artifacts. Despite these erosional and recreational impacts, the research value of this site is significant. We estimate that about 70 percent of this site is left intact. The shovel tests and the auger test both indicate that subsurface deposits at this site could be intact. The probability of intact fire-cracked rock features is high between 10–40 cm bs and 50–60 cm bs. The potential for recovering data relevant to paleoenvironmental conditions and subsistence from buried, intact features and associated cultural material is high. Additional work is recommended for 41TG409 (see Chapter 12).

Figure A-52. Site map of 41TG409.

41TG410

Site 41TG410 (Figure A-53) is a small (410 m²) prehistoric site classified as a lithic scatter/campsite. Portions of this site are buried in an alluvial terrace on the east bank of the Middle Concho River. 41TG410 is at an elevation of about 1,940 feet ASL, on a landform that slopes from northeast to southwest. At the time of the survey, about 50 percent of the cutbank surface was visible. Mature pecan trees, mesquite trees, and dense grasses obscured most of the upper surface, leaving only about 10 percent visible.

The surface artifact assemblage was represented by a large tertiary flake and three cores. These are associated with a fire-cracked limestone hearth feature that was seen eroding out of the cutbank at about 50 cm bs.

Two of the four shovel tests, dug to a maximum depth of 70 cm bs, had cultural material. From Shovel Tests 2 and 3, we recovered four flakes and a Frio-like projectile point (UI #45) between 30 and 50 cm bs. Also at that depth were mussel shell fragments, umbos, and charcoal. A charcoal sample was taken from Shovel Test 2. This sample produced a ¹⁴C date of 460±40 BP (Appendix H). One auger test, taken to a depth of 180 cm bs, produced negative results (Appendix B). A single 1-x-1-meter excavation unit was established northwest of Shovel Test 3 where the projectile point was found. This unit was excavated to 100 cm bs by arbitrary 10 cm levels. While cultural material was recovered from 10 to 90 cm bs, most artifacts came from a single zone between 30 and 50 cm bs (Appendix C). Given the presence of the probable Frio point at this depth, and the concentration of other cultural material, we suggest that 41TG410 represents a single component occupation, probably dating sometime in the Late Archaic. The carbon sample from Shovel Test 2, which produced a date of 460±40 BP, is not compatible with either the presence of a Late Archaic point at this depth nor with the geomorphic description of this area (see Chapter 4). No intensive site observation was performed at this site (Appendix D).

Recreational pedestrian and vehicular traffic will continue to impact this site. A two-track road cuts across the northeastern edge of 41TG410 making the site accessible for a variety of activities. The cutbank also suffers periodic inundation and exposure due to the fluctuating reservoir level. There are a few areas of animal burrowing and evidence of modern trash dumping and burning in the area. Nevertheless, 41TG410 is estimated to be about 80 percent intact. The research value of this site is considered significant. The potential for recovering paleoenvironmental and subsistence data from *in situ* features that may date to the Late Archaic, is high. Further investigations are recommended (see Chapter 12).

Figure A-53. Site map of 41TG410.

41TG411

Site 41TG411 (Figure A-54) is a moderate sized (1,010 m²) prehistoric site characterized as a lithic scatter/burned rock midden. This site, partially buried on a bluff overlooking the Middle Concho River, is at an elevation of about 1,940 feet ASL. The ground surface slopes gently to the southeast. At the time of this survey, about 20 percent of the surface was visible, with mesquite trees, whitebrush, and dense grasses present.

The major feature of 41TG411 was a possible burned rock midden (BRM) exposed in a road cut. Slightly darker soils were evident in the two-track road around the midden area. The feature was roughly 13 meters wide, 15 cm high, and extended westward onto private property. This is the only BRM we observed on this survey. Cultural materials observed on this site were primarily concentrated around the midden and a separate hearth feature. Surface artifacts noted here include cores, primary, secondary, and tertiary flakes, utilized and retouched flakes, and unifaces.

Five shovel tests were dug to a maximum depth of 80 cm bs. Shovel Tests 1, 2, and 3 were placed in and around the midden, the hearth, and an area of exposed fire-cracked rock in one of the erosional cuts along the northern cutbank. These shovel tests all provided evidence of cultural occupation. Shovel Tests 4 and 5 were further away from these features, located in the southeastern portion of the site. Shovel Test 5 is actually outside of the designated boundary. These shovel tests were negative. There was a total of 66 artifacts recovered from the shovel tests and 64 of these came from between 10 and 40 cm bs. No diagnostic artifacts were observed at the site (Appendix B). Two surface observation areas were selected for intensive inventory near the midden. Area 1 consisted of 30 m² and a total of 268 artifacts were observed. Area 2 was 20 m² in size and 132 artifacts were recorded (Appendix C).

A heavily traveled two-track road cuts through the center of 41TG411, allowing easy access to artifact collectors. A gravel road intersects the two-track road and dissects the eastern third of the site. Four-wheel drive vehicles, motorcycles, and pedestrian traffic is common in this area. There is also evidence of a great deal of slope erosion. In addition, heavy machinery may have been used along the river bank on the eastern portion of the site. These cultural and natural impacts will continue to compromise the integrity of this site. Nevertheless, we estimate that 41TG411 is about 80 percent intact. The presence of the burned rock midden, at least one additional feature, and a concentration of artifacts within 40 cm of the surface, suggest that 41TG411 has the potential to contribute data relevant to a variety of research issues. The research value of this site is considered high. We recommend additional investigations at 41TG411 (see Chapter 12).

Figure A-54. Site map of 41TG411.

41TG412

Site 41TG412 (Figure A-55) is a moderate sized (9,980 m²) prehistoric site classified as a lithic scatter/campsite. A historic component is also present (see Chapter 11). The site is situated at the western edge of a ca. 6 m-high sandstone bluff on an outside elbow bend of the Middle Concho River at 1,945 feet ASL. The southeastern portion of the site is relatively flat, while the northwestern portion slopes toward the Middle Concho. The soils at this site appear to be *in situ*, but at the time of the survey, only 10 percent of the ground surface was visible. Ground covering vegetation consisted of mesquite trees, thorny brush, cactus, and dense grasses.

Large quantities of fire-cracked rock in some areas, with a wide variety of late stage reduction stone tools, were present at this site. Prehistoric artifacts observed on the surface included cores, tested cobbles, primary, secondary, and tertiary flakes, bifaces, unifaces, retouched and utilized flakes, and three projectile points. The unique items, that date one component of the site to the Late Archaic, are an Ensor or Frio-like point base (UI #24), an unidentifiable, but Late Archaic-like point base (UI #25), and a Marshall proximal point fragment (UI #68). Large quantities of fire-cracked rock were present in small clusters. It appears that the clusters may represent disturbed surface hearths, but no distinguishable hearth features were recognized. Most of the prehistoric artifacts and fire-cracked rock was concentrated near the bluff in the northeastern portion of the site.

Six shovel tests were dug to a maximum depth of 70 cm bs. In four of the six shovel tests, cultural material was recovered indicating a discrete prehistoric component between 10 and 20 cm bs (Appendix B). Two surface observation areas were intensively inventoried. Area 1 encompassed 60 m² and recorded 157 artifacts. The second area recorded 117 artifacts in a 120 m² area (Appendix D).

We estimate that the prehistoric component of this site is approximately 80 percent intact. There are two-track roads, cattle trails, and motorcycle trails across the terrain. The bluff suffers the same periodic inundation and exposure due to fluctuating reservoir levels as do other riverside sites. The slope of the terrain is conducive to extreme runoff during heavy rains and there are several areas where erosional cuts are washing artifacts downslope. Perceived future impacts are continued erosion, vehicular and pedestrian traffic, artifact collecting, and cattle trampling. In spite of these impacts, the research value of the prehistoric component is considered high. The shovel test results indicate there is a high potential for *in situ* cultural deposits between 10 and 20 cm bs. Additional work is recommended at this site (see Chapter 12).

Figure A-55. Site map of 41TG412.

41TG413

Site 41TG413 (Figure A-56) is a small (770 m²) prehistoric open campsite. The site is buried in an alluvial terrace on the south bank of the Middle Concho River, at an elevation of 1,940 feet ASL. The surface gently slopes from east to west. The river has cut into the terrace creating a bluff approximately five meters high. At the time of the survey, only about five percent of the upper, modern surface was visible. Thick grasses and a dense growth of young willows covered most of the surface. About 50 percent of the bluff surface was visible.

The site assemblage consisted of two tertiary flakes and a secondary flake. All material appeared to have eroded from the cutbank. A single fire-cracked limestone hearth was also observed at approximately 70 cm bs.

Two shovel tests were dug to a maximum depth of 70 cm bs, and one auger test was taken to 140 cm bs. These failed to produce any evidence of buried cultural material (Appendix B). No surface observation areas were placed on this site.

The site has been severely eroded. We estimate that only five percent of this site is intact. River erosion and lake-effect slumping caused by periodic inundation and exposure due to fluctuating reservoir levels will continue to alter this site. Exposure to recreational activities such as motorcycles cutting across the face of the bluff and grazing by cattle further compromises the site's integrity. The research value of this site is minimal. No further work is recommended at this location (see Chapter 12).

Figure A-56. Site map of 41TG413.

41TG414

Site 41TG414 (Figure A-57) is a moderate sized (3,250 m²) prehistoric site classified as a campsite. This upland site, located at about 1,950 feet ASL, is situated on a prominent north-south trending, limestone conglomerate-based ridge. The ridge ends abruptly at a cliff overlooking the Middle Concho River. Much of the ridge has little or no sediment present, but there are deeper sediments in the northern and eastern portions of the site. At the time of the survey, about 75 percent of the surface was visible, with prickly pear, mesquite trees, agarita, and sparse grasses present.

The entire ridge upon which the site is located was covered with large quantities of artifacts. However, the artifacts seemed to be more heavily concentrated in the central and northwestern portions of the site. Several thousand artifacts were observed, including cores, tested cobbles, primary, secondary, and tertiary flakes, unifaces, and retouched and utilized flakes. In addition, several hundred pieces of fire-cracked rock were observed on the surface. Five mortar holes were recorded on the conglomerate shelves along the northern edge of the site.

Three shovel tests were dug to a maximum depth of 50 cm bs. All three shovel tests recovered artifacts. Artifacts collected from the shovel tests included 128 flakes, 11 utilized flakes, one biface, mussel shell, and fire-cracked limestone and sandstone (Appendix B). An 8 m² surface observation area was selected and intensively inventoried. In the selected area, 665 artifacts were recorded (Appendix D).

We estimate that only about 20 percent of this site is left intact. As a recreational area the site receives a minimal amount of pedestrian and motorcycle traffic, but cattle have been at this location. Continued future impacts will be slope erosion caused, primarily, by wind, artifact collecting, and cattle trampling. While the site is generally eroded, the presence of high densities of subsurface material, especially in the area of Shovel Tests 2 and 3, suggest that some material may be intact. We suggest that the research value of the site be considered moderate. This site is therefore recommended for further testing in order to better evaluate the integrity of cultural deposits (see Chapter 12).

Figure A-57. Site map of 41TG414.

41TG415

41TG415 (Figure A-58) is a moderate sized (1,050 m²) prehistoric site classified as an open campsite. The site is partially buried in an alluvial terrace approximately four to five meters deep. It is situated on the south bank of the Middle Concho River, at an elevation of about 1,930 feet ASL. The upper surface gently slopes to the cutbank in a northerly direction, with a steep slope near the river's edge. At the time of the survey, about five percent of the upper surface was visible, while on the cutbank, 20 percent of the ground surface was visible. The vegetation consisted of dense grasses and weeds.

The site consists of hearth features and associated lithic debitage. Three fire-cracked rock features were observed, along with four secondary flakes, two tertiary flakes, and a utilized flake. All material was observed eroding out of the cutbank.

There were three shovel tests excavated to a maximum depth of 70 cm bs and one auger test taken to a depth of 140 cm bs. Shovel Tests 1 and 2 were placed on the steep slope, 50 cm above two hearth features eroding out of the cutbank. These features were about four meters below the modern surface. Shovel Test 3 was placed farther up on the slope, above another hearth. The auger test was placed on the upper, modern surface. None of the shovel tests nor the auger test provided any indication of cultural activity (Appendix B). No intensive surface observation was carried out at this site.

Site 41TG415 has been impacted by both recreational use and livestock grazing. The site also suffers from periodic inundation and exposure due to fluctuating reservoir levels. We estimate that approximately 50 percent of the site is intact, and erosion is causing the site to slump into the Middle Concho River. Future impacts are anticipated, including cattle trampling, continued erosion, and pedestrian recreational traffic. Even though there is a high probability that a deeply buried occupation is present, because of the negative results from shovel and auger testing, the research potential of the site is considered moderate. Further investigations are recommended (see Chapter 12).

Figure A-58. Site map of 41TG415.

41TG416

Site 41TG416 (Figure A-59) is a moderate sized (3,710 m²) site classified as a lithic scatter. This upland site is on the edge of a low, gently sloping bench overlooking the Middle Concho River, located about 270 m to the east. The elevation of the site is about 1,930 feet ASL. At the time of the survey, the ground surface was approximately 20 percent visible. Mesquite trees, dense grasses, and brush covered most of the surface.

The artifacts observed at 41TG416 included three cores, one primary flake, fifteen secondary flakes, six tertiary flakes, and a utilized flake. No features or fire-cracked rock was noted at the site.

Five shovel tests were excavated to a maximum depth of 50 cm bs. Three flakes were recovered from Shovel Tests 2 and 4 between 10 and 30 cm bs (Appendix B). An intensive surface observation was not performed at this site.

We estimate that roughly 40 percent of this site is intact. A two-track road runs along the eastern edge of the site and is heavily used. There is some slope erosion, and the eastern shoreline suffers continued inundation and exposure due to fluctuating reservoir levels. The site will continue to endure these natural and artificial impacts. Without the presence of features that could yield paleoenvironmental and subsistence data, the research value of this site is considered moderate. The suggestion that there may be a discrete, intact cultural material deposit between 10 and 30 cm bs provides the impetus for further investigation. This site is recommended for testing in order to further investigate its integrity (see Chapter 12).

Figure A-59. Site map of 41TG416.

41TG417

Site 41TG417 (Figure A-60) is a small (170 m²) prehistoric site classified as a lithic scatter. The site, located at about 1,920 feet ASL, is eroding out of the cutbank of an alluvial terrace on the west edge of the Middle Concho River. At the time of the survey, about 75 percent of the ground surface was visible on the cutbank, but only 10 percent of the upper modern surface was visible. Young willows, and dense weeds and grasses obscured most of the upper portion of the site.

Site 41TG417 was represented by a minimal number of artifacts. The small assemblage consisted of four cores, a tested cobble, one primary flake, five secondary flakes, and three tertiary flakes. Artifacts were found slumping down the face of the cutbank. No fire-cracked rock or features were observed.

Two shovel tests were taken to a depth of 70 cm bs. Shovel Test 1 produced one flake between 30 and 40 cm bs. (Appendix B). Intensive surface observations were not conducted at this site.

Site 41TG417 has been impacted by a variety of factors. It is probable that hunters, fishermen, campers, and artifact collectors visit this area frequently. This area is also used by ranchers to range their livestock. Periodic inundation and exposure due to fluctuating reservoir levels along the shoreline also have impacted the site. We estimate that only about 10 percent of 41TG417 is intact. Both cultural and natural impacts will continue to endanger the site. The research value of this site is considered minimal. Although a flake was recovered from Shovel Test 1, no fire-cracked rock or features were observed either on the eroded cutbank or in the shovel tests. No further investigations are recommended at 41TG417 (see Chapter 12).

Figure A-60. Site map of 41TG417.

41TG418

Site 41TG418 (Figure A-61) is a moderate sized (2,620 m²) prehistoric site classified as a campsite. This site is situated on a gentle slope in an open field about 340 m southwest of the Middle Concho River. The elevation is roughly 1,940 feet ASL. At the time of the survey, about 10 percent of the ground surface was visible. The vegetation consisted of mesquite trees, dense grasses, and weeds.

Artifacts observed at 41TG418 included five cores, a tested cobble, a primary flake, ten secondary flakes, ten tertiary flakes, two bifaces, two unifaces, a retouched flake, a utilized flake, and a Late Archaic-like (possibly Frio) point base (UI #26). Artifacts and sparse fire-cracked rock are spread across the site in no apparent pattern. No features were recorded at this site.

Four shovel tests were excavated to a maximum depth of 50 cm bs. Shovel Test 2 recovered two flakes between 10 and 20 cm bs (Appendix B). No intensive surface observation was performed at 41TG418.

We estimate that only about 10 percent of this site remains intact. The site is in an old field and is heavily disturbed by plowing, terrace building, and burrowing animals. The site and the surrounding area are currently used as range land. Even though Shovel Test 2 recovered two flakes, the results probably do not indicate subsurface intact cultural material. The research value of this site is considered minimal. No further investigations are recommended (Chapter 12).

Figure A-61. Site map of 41TG418.

41TG419

Site 41TG419 (Figure A-62) is a moderate sized (9,980 m²) prehistoric site, classified as a lithic scatter/camp-site. A historic component is also present (see Chapter 11). Located on a ca. seven meter-high limestone conglomerate bluff on an outside elbow bend of the Middle Concho River, 41TG419 is at an elevation of 1,930 feet ASL. This site location offers a panoramic view of the Middle Concho River valley, with the river located about 30 m to the northeast. At the time of the survey, mesquite trees, dense grasses, and brush obscured about 75 percent of the ground surface.

Two fire-cracked rock hearth features, presumed to be prehistoric in age, were present on the surface. Artifacts, including cores, tested cobbles, primary, secondary, and tertiary flakes, unifaces, and retouched and utilized flakes were recorded across the surface of the site. A concentration of smaller tertiary/bifacial thinning flakes was noted along the eastern edge of the site. These potentially have been washed downslope.

Nine shovel tests were excavated to a maximum depth of 25 cm bs where limestone conglomerate was encountered. Four of the nine shovel tests were positive. Collected from the shovel tests were 11 flakes, two of which were utilized, a uniface, a core, and fire-cracked rock (Appendix B). A selected surface observation area comprising a total of 220 m² was inventoried. There were 149 artifacts recorded in this observation area (Appendix D).

We estimate that about 20 percent of the prehistoric component of this site is intact. The two hearth features were clearly discernible. There is 20 to 25 cm of soil left on the upper, flat portion of the site, but the remainder of the site is heavily eroded and deflated with artifacts on exposed conglomerate. A recent burn has produced heat spalled chert scattered over the site. This site and the surrounding area are designated as public recreation land and the area is open to cattle. A fence and multiple roads cut through the site. The roads have made this site accessible to vehicular and pedestrian traffic. Periodic inundation and exposure due to fluctuating reservoir levels have also impacted the site. Potential future impacts include continued erosion, vehicular and pedestrian traffic, artifact collecting, and cattle trampling. Given the lack of soil and the severity of the impacts, we suggest that the research value of the prehistoric component is minimal. No further investigations are recommended (see Chapter 12).

Figure A-62. *Site map of 41TG419.*

41TG420

Site 41TG420 (Figure A-63) is a moderate sized (3,850 m²) prehistoric site classified as a lithic scatter. This upland site, located at 1,940 feet ASL, is situated on a three percent southeasterly slope above an unnamed drainage, roughly 620 m southwest of the Middle Concho River. At the time of the survey, the ground surface was covered by a dense growth of mesquite trees, prickly pear, and pencil cactus. Only about five percent of the ground surface was visible.

Artifacts observed on the surface of the site included two cores, ten secondary flakes, six tertiary flakes, and a scraper (UI #27). A sparse scatter of fire-cracked rock was observed in the upper, northwestern portion of the site near an old fence line. No diagnostic artifacts were located, and no discrete components could be discerned.

Four shovel tests, dug to a maximum depth of 50 cm bs, were all negative (Appendix B). An intensive inventory of artifacts was conducted in a 2,130 m² area. Nineteen artifacts were recorded (Appendix D).

Impacts observed at 41TG420 are primarily associated with the use of the area for public recreation. Hunters and fishermen use the area, and it is probable that artifact collecting also has occurred on the site. There is a fence line on the northwest edge of the site, and cattle range across this area. The site is eroded and deflated due to slope erosion and animal burrowing activity. We estimate that roughly 10 percent of the site is left intact. These cultural and natural impacts will continue to compromise the integrity of this site. We suggest that the research value of this site is minimal. No further investigations are recommended (Chapter 12).

Figure A-63. Site map of 41TG420.

41TG421

Site 41TG421 (Figure A-64) is a small (600 m²) prehistoric site designated as a lithic scatter. The site is 850 m southwest of the Middle Concho River in an upland setting at 1,945 feet ASL. It sits on a gently sloping surface. At the time of the survey, about 50 percent of the ground surface was visible. Vegetation consisted of mesquite trees, cactus, and sparse grasses.

Artifacts observed on the surface included a few primary, secondary, and tertiary flakes. No diagnostic artifacts were recovered and no features were noted.

Two shovel tests, taken to a maximum depth of 50 cm bs, provided no indications of subsurface cultural material (Appendix B). A single surface observation area was intensively inventoried. Fourteen artifacts were recorded in the 630 m² area (Appendix D).

There is some slope erosion and a few animal burrows across the area. A two-track road forms the southern edge of the site and allows frequent visitation by hunters, campers, and artifact collectors. The area is also used by ranchers to range their cattle. These cultural and natural impacts will continue to jeopardize the remaining 20 percent of this site. 41TG421 has little research potential. No further investigations of this site are recommended (see Chapter 12).

Figure A-64. *Site map of 41TG421.*

41TG422

Site 41TG422 (Figure A-65) is a moderate sized (1,240 m²) prehistoric site classified as a lithic scatter. Located 470 m southwest of the Middle Concho River at an elevation of 1,940 feet ASL, the surface of 41TG422 gently slopes in a northerly direction. At the time of the survey, surface visibility was poor with roughly 95 percent of the ground obscured by a dense stand of mesquite trees intermixed with prickly pear and sparse grasses.

The small number of artifacts found at this site were disbursed in no apparent pattern and observed primarily in the two-track road cut. Artifacts observed included cores, primary flakes, secondary flakes, and tertiary flakes. No diagnostic artifacts were recovered, and no features were encountered.

Four shovel tests, taken to a maximum depth of 50 cm bs, provided no indication of subsurface cultural material (Appendix B). No surface inventories were conducted.

A two-track road cuts through site 41TG422, allowing easy access. The area is also being used by local ranchers to graze their cattle. Natural impacts to this area include some bioturbation and slight slope erosion. Because of natural and cultural impacts, we estimate that only 20 percent of the site is still intact. This site has little research value. No further investigations are recommended (see Chapter 12).

Figure A-65. Site map of 41TG422.

41TG423

Site 41TG423 (Figure A-66) is a small (710 m²) prehistoric site classified as a lithic scatter. This upland site, located at 1,930 feet ASL, lies 230 m southwest of the Middle Concho River on an unnamed tributary. It is situated on the end of a small, gently sloping limestone conglomerate shelf. At the time of survey, about 90 percent of the ground surface was visible. Vegetation consisted of young willows and sparse grasses.

The assemblage at site 41TG423 consisted of a few cores as well as some primary, secondary, and tertiary flakes. A small quantity of gravels were observed outcropping on the end of the bench landform. Much of the raw materials worked at this site were tabular cherts, a form not commonly seen in the Twin Buttes survey. No diagnostic artifacts were recovered, and no features or fire-cracked rock were noted on the site.

Two shovel tests, taken to a maximum depth of 50 cm bs, provided no indication of subsurface cultural material (Appendix B). A surface observation area was selected and intensively inventoried. Observations were made on 112 artifacts over an area of 190 m² (Appendix D).

The site and surrounding area are used by hunters, campers, and artifact collectors. A two-track road cuts across the west and south boundaries, and allows easy access to the area. The area is also utilized by ranchers to range their cattle. The area has suffered wave erosion due to periodic inundation and exposure caused by fluctuating reservoir levels. Site 41TG423 has been significantly eroded and deflated, creating a palimpsest of artifacts on the surface. We estimate that only about 20 percent of the site is currently intact. This site has little research potential. No further investigations of this site are recommended (Chapter 12).

Figure A-66. *Site map of 41TG423.*

41TG424

Site 41TG424 (Figure A-67) is a very large (116,290 m²) prehistoric site classified as an open campsite. The site extends over a series of alluvial terrace deposits adjacent to the Middle Concho River. Much of the site is at an elevation of about 1,920 feet ASL. At the time of survey, visibility varied at the site from less than five percent along the river to about 90 percent on the upper surface. Vegetation ranged from dense willows and grasses along the river, to cactus and sparse grasses farther upslope.

A series of hearths associated with a wide variety of stone tools and ceramics help to define this site as a prehistoric open campsite. The stone tool assemblage at this site included cores, primary, secondary, and tertiary flakes, tested cobbles, quarry blanks, preforms, bifaces, unifaces, retouched and utilized flakes, and ground stone. Sixteen ceramics, classified as Leon Plain (see Chapter 8), were collected as UI #51. Additional diagnostics included an Early Archaic Martindale/Bandy point (UI #29), a Late Prehistoric Scallorn or Perdiz distal fragment (UI #30), and a Late Archaic Marshall-like point (UI #72).

Fifty-nine hearth features were documented at this site (Figure A-68; A-69). One group of hearths, associated with thousands of pieces of lithic debitage, was recorded on an upper bench in the western portion of the site. On the surface, associated with the western cluster of hearths are large quantities of mussel shell, stone tools, and ground stone fragments. A second hearth feature group is eroding approximately 50 cm bs out of the cutbanks in the alluvial terrace deposits in the northern portion of the site. A third discrete hearth group is on the southeastern edge of the site. One hearth (#23), on the north side of the ravine, had deer bone present, and hearth #30, on the south side of the ravine, had an Early Archaic Martindale or Bandy point in it (collected as UI #29).

Mussel shell lenses, 15–20 cm thick, were also observed in stretches along the riverbank. These were eroding out ca. 50–70 cm below the upper, modern surface. It appears that the mussel shell lenses may be associated with seeps that still appear to be active along the river bottom.

Several testing strategies were undertaken at this site. Fourteen shovel tests were taken to a maximum depth of 80 cm bs and one auger test was taken to 90 cm bs (Figure A-70). Shovel Tests 1, 2, 3, 13, and 14 were positive. The shovel test data indicate two possible concentrations, one with cultural material between 0–20 cm bs and a second at 50–70 cm bs (Appendix B). Two backhoe trenches, associated with the geomorphic work summarized in Chapter 4, were excavated on this site (Figure A-71). A Late Archaic Marshall-like point (UI #72) was collected from Backhoe Trench #4.

There were four surface observation areas at this site. Area 1 was a selected 12 m² area, focused around hearth #30, thought to date in the Early Archaic. Thirteen artifacts were observed in that area. The second area, recorded 118 artifacts in a 130 m² area. Included in the Area 2 inventory were the 16 ceramics, and a large metate fragment. Areas 3 and 4, were both centered on hearths thought to date to the Late Prehistoric. Area 3 covered 28 m² and recorded 335 artifacts, and Area 4 recorded 189 artifacts in a 28 m² area (Appendix D).

41TG424 is subject to heavy recreational use. Many hunters, campers, and fishermen use the area. The area also receives some vehicular traffic, and cattle are common. The shoreline is heavily eroded from periodic inundation and exposure caused by fluctuating reservoir levels. Both natural and cultural impacts will continue to compromise the integrity of this site. Nevertheless, about 30 to 80 percent of this site remains intact, depending on the area. There are a large number of hearths, many of which clearly have subsistence data present. We suggest that the site has high research potential. The potential for recovering data with relevance to a variety of research issues applicable to the Early Archaic, the Late Archaic, and the Late Prehistoric periods is high. This site is recommended for further testing (Chapter 12).

Figure A-67. Site map of 41TG424.

Figure A-68. Cluster of hearths on the southeastern portion of 41TG424.

Figure A-69. Cluster of hearths on the western portion of 41TG424.

Figure A-70. Location of shovel tests on 41TG424.

Figure A-71. Location of backhoe trenches on 41TG424.

41TG425

Site 41TG425 (Figure A-72) is a moderate sized (8,420 m²) prehistoric site classified as an open campsite. The site is on a lower, alluvial terrace along the south bank of the Middle Concho River. It is situated on eroded finger ridges running perpendicular to the river, at an elevation of roughly 1,915 feet ASL. The surface slopes gently north towards the river's edge. At the time of the survey, about 75 percent of the ground surface was visible. The rest of the surface was sparsely covered with dense grass clusters and weeds.

The site consists of a variety of features and associated debitage. Artifacts observed at the site included about 5 cores, 10 primary flakes, 100 secondary flakes, 250 tertiary flakes, 2 bifaces, a retouched flake, 6 utilized flakes, and several unifaces. One of the bifaces was an untypeable point fragment. Twelve fire-cracked rock hearth features were recorded on the surface of the eroded finger ridges. All hearths were associated with lithic debitage, mussel shell and/or stone tools. No diagnostic artifacts were encountered and the component remains unknown.

Three shovel tests were excavated to a maximum depth of 70 cm bs. No cultural material was discovered (Appendix B). No intensive site observation areas were selected at this site.

We estimate that about five percent of this site is still intact. 41TG425 is currently a popular area for hunting, fishing, and camping. Cattle are also grazed in this area. This site suffers lake-effect erosion and slumping due to periodic exposure and inundation caused by fluctuating reservoir levels. The site's exposure to these cultural and natural impacts has helped to promote rapid erosion of the surface. The small finger ridges have eroded down to hard-packed Pleistocene clay, and the hearth features and associated artifacts have been deflated. Given the level of impact, the research value of this site is considered minimal. No further testing is recommended at this site (see Chapter 12) .

Figure A-72. Site map of 41TG425.

41TG426

Site 41TG426 (Figure A-73) is a moderate sized (5,550 m²) prehistoric site classified as an open campsite. It sits on an alluvial terrace, at 1,900 feet ASL, on the south bank of the Middle Concho River. The terrace gently slopes north to the river's edge. At the time of the survey, we estimated that only five percent of the ground surface was visible. Dense stands of immature willows and grasses covered the site.

The site consists of fire-cracked rock hearth features and associated stone tools and flakes. The tops of eight fire-cracked rock features were recorded on the surface on what appears to be a stable, alluvial terrace. Artifacts are predominately exposed along an old shoreline. We observed three cores, five primary flakes, 15 secondary flakes, 20 tertiary flakes, two uniface, and a utilized flake. A finely worked and polished gouge and a finely-worked unifacial scraper were observed on the surface. No diagnostics were found at this site.

Seven shovel tests were excavated to a maximum depth of 75 cm bs and one auger test was taken to 160 cm bs. All but one shovel test and the auger hole recovered cultural material. Bone fragments, charcoal, fire-cracked limestone and chert, mussel shell, and six flakes came from the shovel tests from 0 to 10 cm bs and 30 to 60 cm bs, suggesting multiple components. Charcoal was collected from 0 to 10 cm bs as a special sample from Shovel Tests 2 and 7 (Appendix B). No intensive surface observation was performed.

The site and the area around it are used by hunters, fishermen, and campers. Cattle are also in this area. A two-track road that cuts through the eastern portion of the site makes this area very accessible to recreational activities as well as modern trash disposal. There is also a fence that runs across the eastern portion of the site. Lake-effect slumping caused by periodic inundation and exposure due to fluctuating lake levels continue to compromise the integrity of this site, as do the recreational activities and garbage disposal. With at least 50 percent of this site still intact, the research value at this site is considered high. Shovel tests which suggest the possibility of multiple components, and hearth features resting on a potentially stable terrace indicate the possibility of finding buried, intact cultural features and deposits. Further investigations are recommended at this site (see Chapter 12).

Figure A-73. Site map of 41TG426.

41TG427

Site 41TG427 (Figure A-74) is a large (21,350 m²) site classified as a prehistoric open campsite. The site is on the south bank of the Middle Concho River, at an elevation of about 1,920 feet ASL. The upper portion of the site is arranged on a prominent limestone conglomerate bluff on an outside elbow of the river. The lower portion sits on an alluvial terrace deposit. The land surface slopes to the west, with the lower shelf ending at the river's edge. At the time of the survey, approximately 30 percent of the ground surface was visible due to dense grasses.

The site assemblage consists of a series of fire-cracked rock hearth features associated with a wide variety of formal tools and lithic debitage. We recorded 25 hearth features at this site. The site probably extends further west, but the grass is extremely dense and the soils are deeper in that area. Quarrying activity has occurred along the edge of the bluff where chert cobbles are eroding from the limestone conglomerate. There were three point bases collected from the surface that are morphologically Late Archaic (UI #28, #53, and #54). Artifacts observed at the site included cores, tested cobbles, primary, secondary, and tertiary flakes, bifaces, unifaces, re-touched and utilized flakes, and mussel shell.

Ten shovel tests were taken to a maximum depth of 70 cm bs, and all but one recovered evidence of cultural activity between 0 and 20 cm bs and between 30 and 50 cm bs. One hearth was found in a shovel test between 18 and 21 cm bs (Appendix B). A 28 m² area was selected for an intensive surface observation. Nine hundred and sixty-four artifacts were recorded in this area (Appendix D).

The bank on which 41TG427 is located is frequently used by campers and fishermen. A two-track road cuts across the edge of the bluff. This road forks at the northern end of the terrace and proceeds north along the shoreline and along the base of the bluff. There are the remains of several modern campfires and the site area has been used as a trash dump. Cattle also graze the area. The site has been impacted by lake-effect erosion from periodic inundation and exposure caused by fluctuating reservoir levels. In spite of this level of impact, we estimate that approximately 50 percent of this site remains intact. The potential for buried features and multiple horizons of artifacts revealed by the shovel tests suggests that considerable data remain at 41TG427. The research value at this site is considered high. We recommend that further testing be conducted at 41TG427 (Chapter 12).

Figure A-74. Site map of 41TG427.

41TG428

Site 41TG428 (Figure A-75) is a moderate sized (2,690 m²) prehistoric site classified as a campsite. It is situated on a gently sloping, alluvial terrace on the south bank of the Middle Concho River, at an elevation of 1,900 feet ASL. At the time of the survey, dense grasses covered about 35 percent of the surface.

Fire-cracked rock and associated lithic debitage were recorded at this site. We estimate that the surface assemblage consisted of at least two cores, six primary flakes, ten secondary flakes, three tertiary flakes, two bifaces, two utilized flakes, and a retouched flake. No intact hearth feature could be discerned, but fire-cracked rock is scattered across the surface and down the cutbank.

Two shovel tests were dug to a maximum depth of 70 cm bs, and one auger test was taken to 140 cm bs. No cultural material was recovered from either of the two shovel tests or the auger test (Appendix B). No intensive surface observation was performed at this site.

Natural and cultural impacts have left about 10 percent of this site intact. The site suffers river and lake-effect erosion from periodic inundation and exposure due to fluctuating reservoir levels. Erosion has exposed and displaced any cultural material and features that were intact. The area of site 41TG428 is currently used for recreational activities such as hunting and fishing. Cattle also graze in this area. Given the level of disturbance, the research value of this site is considered minimal. No further investigations are recommended (Chapter 12).

Figure A-75. Site map of 41TG428.

41TG429

Site 41TG429 (Figure A-76) is a moderate sized (4,920 m²) prehistoric site classified as an open campsite. The site is on a gently sloping, lower alluvial terrace on the south bank of the Middle Concho River at an elevation of about 1,900 feet ASL. At the time of the survey, sparse grasses covered very little of the cutbank, while the upper surface was covered by a thick grass blanket. Only about five percent of the upper surface was visible.

At 41TG429, we observed several hearths, a wide variety of stone tools, and associated debitage. Artifacts on the surface included 10 cores, 2 tested cobbles, 50 primary flakes, 200 secondary flakes, 100 tertiary flakes, and a biface (collected as UI #55). These lithic materials were associated stratigraphically with 12 hearth features. Features were partially exposed on the upper surface, and appear to be eroding along the cutbank about 50 to 70 cm below the surface.

Seven shovel tests were excavated to a maximum depth of 70 cm bs and one auger test was dug to a depth of 140 cm bs. Discrete cultural deposits were discerned in five of the shovel tests between 0 and 20 cm bs and 50 and 70 cm bs. Materials collected from these tests were 11 flakes, two of which were utilized, a burin, a spokeshave, and mussel shell. Charcoal was collected from Shovel Tests 5 and 6 (Appendix B). No intensive surface observation areas were placed at this site.

Because of its proximity to the Middle Concho, the site area is subject to heavy recreational use. In addition, cattle are grazed in this area. The site also suffers river and lake-effect erosion caused by periodic inundation and exposure due to fluctuating reservoir levels. Due to these cultural and natural impacts, we estimate that only about 50 percent of 41TG429 remains intact. Nevertheless, the positive shovel tests in the upper 20 cm and the presence of hearth features eroding out of the cutbank at 50 to 70 cm bs indicate that multiple components are present. It is believed that the potential for recovering data from intact features is high. This site is recommended for further testing (see Chapter 12).

Figure A-76. Site map of 41TG429.

41TG430

Site 41TG430 (Figure A-77) is a large (35,340 m²) prehistoric site classified as a lithic scatter/campsite. It is situated on a gently sloping, eroded, north-south trending ridge culminating in a bluff overlooking the Middle Concho River, which is located about 100 meters to the north. The site is at an elevation of about 1,920 feet ASL. At the time of the survey, roughly 60 percent of the ground surface was visible, with salt cedar bushes and sparse grasses covering much of the landform.

Fire-cracked rock and a variety of stone tools and debitage were observed on the surface. In addition to a scatter of fire-cracked rock, artifact types noted as present included cores, tested cobbles, primary flakes, secondary flakes, tertiary flakes, bifaces, unifaces, and retouched and utilized flakes. No distinguishable hearth features could be recognized, and no diagnostic was recovered.

Five shovel tests were dug to a maximum depth of 40 cm bs, or to the conglomerate base. No cultural material was found in any of the shovel tests (Appendix B). A 80 m² surface observation area was intensively inspected and 223 artifacts inventoried (Appendix D).

We estimate that only about 10 percent of site 41TG430 is intact. Erosion due to wind and waves have heavily deflated this site. Artifacts and possible hearth features appear to have been displaced by periodic inundation and exposure due to fluctuating reservoir levels. This area is also used by modern campers and fishermen, and cattle are grazed on this land. As a result of these impacts, we suggest that the research value of this site is minimal. No further work is recommended at 41TG430 (see Chapter 12).

Figure A-77. Site map of 41TG430.

41TG431

Site 41TG431 (Figure A-78) is a small site (150 m²) classified as an open campsite. The site is on a gently sloping bench overlooking the Middle Concho River terraces, 320 m southwest of the river at an elevation of 1,915 feet ASL. At the time of the survey, five percent of the ground surface was visible. A heavy growth of young willow bushes and dense grasses obscured the ground surface.

We recorded a fire-cracked rock feature with an associated lithic artifact. The hearth feature had less than 10 fire-cracked rock, and had been exposed by wave/shoreline erosion. A single tertiary flake was observed beside the feature.

Two shovel tests were excavated to a maximum depth of 50 cm bs. Neither shovel test recovered cultural material (Appendix B). No intensive surface observation was conducted at this site. The component remains unknown.

Site 41TG431 is eroded and deflated. We estimate that only about 10 percent of the site is intact. The site and the area around it are designated as public recreational lands, and it is a popular fishing and camping area. Because of lake-effect impacts, the integrity of the feature and debitage is questionable. The research value of this site is considered minimal. No further testing is recommended at 41TG431 (Chapter 12).

Figure A-78. Site map of 41TG431.

41TG432

Site 41TG432 (Figure A-79) is a moderate sized (1,750 m²) prehistoric site classified as a lithic scatter. The site sits on a gently sloping bench, overlooking the lower terraces of the Middle Concho River, at an elevation of about 1,920 feet ASL. The Middle Concho is located about 490 meters away. At the time of the survey, approximately 35 percent of the ground surface was visible. Salt cedar and grasses covered the remainder of the surface.

Artifacts observed on the surface included two cores, five primary flakes, five secondary flakes, and a tertiary flake. These were sporadically scattered across the site. It appears that cobbles eroded from the underlying limestone conglomerate have been quarried with early to late stage reduction flakes associated with this area. No features were encountered and fire-cracked rock was not observed. No diagnostic artifact was found and the component remains unknown.

Two shovel tests were excavated to a maximum depth of 50 cm bs. A single flake from 0–10 cm bs was collected from Shovel Test 1 (Appendix B). No intensive surface observation areas were selected for this site.

Site 41TG432 has been subjected to modern hunting and fishing activities. Cattle are present in the area, and several established trails cut through the site. This site is exposed to periodic inundation and exposure due to fluctuating reservoir levels. We estimate that only about 10 percent of this site remains intact, and it has minimal research value. No further testing is recommended (Chapter 12).

Figure A-79. Site map of 41TG432.

41TG433

Site 41TG433 (Figure A-80) is a moderate sized (3,740 m²) site classified as a prehistoric open campsite. The site is located on an alluvial terrace on the south side of the Middle Concho River at about 1,900 feet ASL. The surface gently slopes from north to south. At the time of the survey, about 95 percent of the ground surface was visible on the cutbank. However, dense grasses obscured all but five percent on the upper terrace surface.

Two hearth features with associated lithic debris were recorded eroding from the face of the cutbank along the river at ca. 40 cm bs. Artifacts were also recorded on the exposed upper surface, above the hearth features. A subjective evaluation of artifacts present at the site included three cores, 10 primary flakes, 10 secondary flakes, and 20 tertiary flakes.

Four shovel tests were dug to a maximum depth of 70 cm bs. Two of the four shovel tests contained evidence of cultural activity. One flake-blade was collected from Shovel Test 1 between 40 and 50 cm bs, and fire-cracked limestone pieces were collected from Shovel Test 2 between 20 and 30 cm bs (Appendix B). No intensive site observation areas were placed on this site.

We estimate that about 50 percent of this site is still intact. The proximity of this site to the present water level makes it a popular modern campsite, and it receives frequent visits from hunters and fishermen. Periodic exposure and inundation due to fluctuations in reservoir levels are causing features and associated cultural material to erode into the river. The site's exposure to these cultural and natural impacts has helped to promote the rapid erosion of the site. The research value of this site is considered moderate. Discrete cultural deposits may be present on the surface and also represented by shovel test data at 20 to 50 cm bs. Further testing is recommended at this site (Chapter 12).

Figure A-80. Site map of 41TG433.

41TG434

Site 41TG434 (Figure A-81) is a very small site (40 m²), classified as an open campsite. The site is on a cutbank of a gently sloping, lower alluvial terrace on the south edge of the Middle Concho River. The site is at an elevation of about 1,900 feet ASL. At the time of the survey, we estimated that about 40 percent of the ground surface was visible. Dense grasses and a thin layer of silt covered much of the surface.

The site assemblage consisted of a single fire-cracked rock hearth feature and a secondary flake. These had slumped due to shoreline erosion. No diagnostic artifacts were discovered and the component remains unknown.

Two shovel tests were dug to a maximum depth of 70 cm bs and an auger test was taken to 140 cm bs. No cultural material was found in these tests (Appendix B). Surface observation areas were not placed on this site.

Site 41TG434 is eroded and deflated. We estimate that only about 10 percent of the site remains intact. The site and the area around it are popular hunting, fishing, and camping areas. In addition, 41TG434 endures periodic vehicular and pedestrian traffic. Reservoir fluctuations also are degrading the integrity of the site. Because of the probability that the integrity of the artifact and fire-cracked rock has been degraded, the research value of this site is considered minimal. No further investigations are recommended (see Chapter 12).

Figure A-81. Site map of 41TG434.

41TG435

Site 41TG435 (Figure A-82) is a large (24,380 m²) site, classified as a prehistoric open campsite. The site sits on a low, gently sloping alluvial terrace on the south and west side of the Middle Concho River. The elevation of 41TG435 is about 1,900 feet ASL. At the time of the survey, about 90 percent of the ground surface was visible. Sparse grasses were the primary vegetation present.

Artifacts observed on the surface included 20 cores, a biface, a uniface, about 50 primary flakes, 100 secondary flakes, 75 tertiary flakes, and a retouched flake. Six fire-cracked rock hearth features were recorded. Artifacts were concentrated around the hearths, with sporadic scatters between the features. No diagnostic artifact was recovered. The component remains unknown.

At this site, six shovel tests were dug to a maximum depth of 70 cm bs. No cultural material was found in any of the shovel tests (Appendix B). No intensive surface observation areas were placed on this site.

Site 41TG435 has been impacted by campers and fishermen. Cattle also graze in the area and have trampled the surface. Erosion from inundation and exposure due to fluctuating reservoir levels is also in evidence. The re-search value at this site is considered minimal. This site is not recommended for further testing (see Chapter 12).

Figure A-82. Site map of 41TG435.

41TG436

Site 41TG436 (Figure A-83) is a moderate sized (1,700 m²) prehistoric site classified as an open campsite. The site is situated on a lower, alluvial terrace on the north edge of Spring Creek, at an elevation of 1,905 feet ASL. The surface gently slopes to the edge of the creek. At the time of the survey, about 95 percent of the ground surface was visible. Only a few dead mesquite tree stumps and a thin layer of silt obscured the surface.

The site consisted of a single hearth feature associated with three cores and a large secondary flake. There was also charcoal on the site, but this may have been modern. No diagnostic artifacts were discovered and no discrete occupations could be discerned.

Five shovel tests were taken to a maximum depth of 70 cm bs. Two of the five shovel tests recovered five flakes and fire-cracked sandstone between 0 and 30 cm bs (Appendix B). No intensive site observation areas were placed on this site.

This site has been impacted by modern recreational users. Cattle also graze this area, and cattle trails cut up to 15 cm deep into the surface of the site. Motorcycle and automobile tracks are also common. The lake-effect-wave action—has and will continue to affect the integrity of the site. The periodic inundation and exposure due to fluctuating reservoir levels and wave action are responsible for artifacts eroding out along an old reservoir shoreline. The research value of this site is considered moderate. Despite the lake-effect erosion evident on the surface and the modern impacts, the potential exists for finding buried, intact features and associated cultural material. In order to better evaluate the research potential of the site, 41TG436 is recommended for further testing (see Chapter 12).

Figure A-83. Site map of 41TG436.

41TG437

Site 41TG437 (Figure A-84) is a moderate sized (3,800 m²) prehistoric site classified as a campsite. The site is primarily on a limestone conglomerate shelf, ca. 1.5 m above alluvial deposits associated with Spring Creek. Behind the limestone shelf there are deeper sandy loam deposits. The landform is gently sloping behind and below the shelf. The site is at an elevation of about 1,920 feet ASL. Spring Creek is located 180 m to the southeast. At the time of the survey, the limestone shelf had excellent visibility, but grasses and scattered willows obscured about 10 percent of the ground surface off the limestone shelf.

Site 41TG437 had 27 mortar holes, a wide variety of stone tools, and a large quantity of fire-cracked rock. The mortar holes, all located on the limestone shelf, varied in size and depth. Large quantities of fire-cracked rock were noted in a plowed and terraced field behind the shelf, and small quantities of fire-cracked rock are also present below the shelf. They may represent disturbed hearths. The artifacts observed on the surface included cores, primary, secondary, and tertiary flakes, bifaces, and a uniface. No diagnostic artifacts were observed on the site.

Seven shovel tests were dug to a maximum depth of 70 cm bs and one auger test was taken to 75 cm bs. Five shovel tests were positive. Artifacts collected from the shovel tests were a crude biface, fire-cracked chert, a piece of clear, flaked glass, and 22 chert flakes, one of which was utilized. These artifacts were recovered in discrete deposits 0–50 cm bs (Appendix B). A 130 m² surface observation area was intensively inventoried and 151 artifacts recorded (Appendix D).

We estimate that about 50 percent of this site is left intact. This site suffers from slope and shoreline erosion due to periodic inundation and exposure caused by fluctuating reservoir levels. In addition, the site receives heavy vehicular and pedestrian traffic. Cattle are also present in this area. During a revisit to the site we noted one of the mortar holes had been filled with lithic debitage collected from the surface. In spite of these impacts, the shovel test results indicate that there are buried, potentially intact deposits present at the site. The research value is considered high and this site is recommended for further testing (see Chapter 12).

41TG438

Site 41TG438 (Figure A-85) is a moderate sized (1,610 m²) prehistoric site classified as an open campsite. The site sits on an alluvial terrace on the west side of Spring Creek at an elevation of 1,905 feet ASL. The surface slopes gently from west to east. At the time of the survey, about 10 percent of the ground surface was visible. Dense grasses covered the majority of the site.

The assemblage consisted of two fire-cracked rock hearths and associated lithic debitage. An evaluation of artifacts present at the site included a core, six secondary flakes, and nine tertiary flakes. Fire-cracked rock is scattered across the site. No diagnostic artifacts were observed at the site.

Six shovel tests were dug to a maximum depth of 70 cm bs. Four of the six shovel tests contained evidence of cultural activity, with the possibility of discrete occupations between 0 and 40 cm bs and between 50 and 70 cm bs. Two flakes, one of which was utilized, and two tested cobbles were collected from the shovel tests (Appendix B). No intensive site observations were conducted at this site.

We estimate that about 60 percent of this site is still intact. Site 41TG438, being near the present water level, is a popular modern campsite. A two-track road cuts through the site, and the area is used by hunters and fishermen. In addition, cattle have trampled portions of the surface, especially near the current shoreline. At least three old shorelines, associated with fluctuating water levels in Spring Creek, cut through the site. These fluctuations have caused significant erosion. In spite of these impacts, the research value of this site is considered high. As suggested by the shovel test data, there is potential for finding buried, intact cultural features and associated artifacts. Further testing is recommended at this site (see Chapter 12).

Figure A-85. Site map of 41TG438.

41TG439

Site 41TG439 (Figure A-86) is a moderate sized (6,020 m²) prehistoric open campsite. The site is situated on a lower, gently sloping, alluvial terrace on the south edge of Spring Creek, at an elevation of about 1,905 feet ASL. At the time of the survey, dense grasses and sparsely scattered young willows covered the surface. Visibility was only about five percent.

Two fire-cracked rock hearth features, one of which was eroding out of the cutbank, and a variety of lithic artifacts were recorded at this site. Artifacts observed on the surface included four cores, a primary flake, 35 secondary flakes, 10 tertiary flakes, and three bifaces. The artifacts are predominantly around the hearth features, and many are visible along the eroded cutbank. No diagnostic artifacts were recovered at the site.

Three shovel tests were excavated to a maximum depth of 70 cm bs and one auger hole was dug to 140 cm bs. Shovel Test 3 contained cultural material. A flake was recovered between 0 and 10 cm bs and an additional flake was present in the 20 to 30 cm bs level (Appendix B). No intensive surface observation areas were placed on this site.

The modern shoreline of Spring Creek, including the current site location, is a favorite fishing and camping area. A two-track road cuts through the western edge of the site allowing easy access. The site receives a high incidence of vehicular traffic. In addition, cattle are frequent in this area, resulting in significant destruction of the sediments. Riverbank and lake-effect erosion caused by periodic exposure and inundation due to fluctuations in reservoir levels is also impacting the site. We estimate that about 50 percent of the site is intact. However, given the presence of subsurface material and features, the research value of this site is considered moderate. Further testing at this site is recommended (see Chapter 12).

Figure A-86. Site map of 41TG439.

41TG440

Site 41TG440 (Figure A-87) is a moderate sized (4,430 m²) prehistoric site classified as an open campsite. The site, at an elevation of about 1,920 feet ASL, is on the upper portion of a limestone conglomerate ridge on an outside meander of Spring Creek. At the time of the survey, we estimated that 40 percent of the ground surface was visible. A dense growth of immature willows and sparse grasses covered the surface.

We recorded a fire-cracked rock hearth feature and a variety of stone tools and debitage on this site. The hearth feature appeared to be partially intact. Artifacts observed on the surface included about 40 cores, 50 primary flakes, 250 secondary flakes, 750 tertiary flakes, 12 bifaces, 6 unifaces, 5 retouched flakes, and 20 utilized flakes. In addition, we collected UI #31, a Late Archaic, Marshall or Williams-like projectile point.

Three shovel tests were dug to a maximum depth of 38 cm bs where calcrete was encountered. No cultural material was found in any of the shovel tests (Appendix B). No intensive surface observation areas were placed on site 41TG440.

Wind and water have heavily eroded and deflated this site, leaving it only about 10 percent intact. A two-track road dissects the site, allowing easy access for campers and hunters. There is also evidence of modern flintknapping activities conducted here, with several piles of recently produced flakes present. In addition, there are numerous cattle trails that cross the site. Given the level of impact and the lack of any evidence for subsurface material, we suggest that the site has minimal research value. No further investigations are recommended at 41TG440 (Chapter 12).

Figure A-87. Site map of 41TG440.

41TG441

Site 41TG441 (Figure A-88) is a small (700 m²) prehistoric site classified as a lithic scatter. The site is on a low, limestone conglomerate finger ridge overlooking Spring Creek which is located about 260 m to the southeast. The site is at an elevation of about 1,920 feet ASL. At the time of the survey, an estimated 20 percent of the ground surface was visible. Young willows, dense weeds and grasses obscured most of the site.

The artifact assemblage recorded at 41TG441 consisted of cores, tested cobbles, primary, secondary, and tertiary flakes. Chert gravels eroding from the exposed limestone conglomerate have been quarried. No fire-cracked rock was observed, and features were not noted. No diagnostic artifacts were observed on the site.

Four shovel tests were taken to a depth of 51 cm bs. Shovel Tests 1 and 2 produced six flakes between 0 and 30 cm bs (Appendix B). A selected area of 390 m² was intensively inspected and 46 artifacts were documented (Appendix D).

Only about 10 percent of this site is intact. Lake-effect wave action and slope erosion caused by periodic exposure and inundation due to fluctuating reservoir levels, as well as use of the area for a variety of recreational activities, have compromised the integrity of the site. Nevertheless, based on the presence of flakes found in shovel tests to a depth of 30 cm bs, the research value of this site is considered moderate. Potentially intact cultural deposits could be present. This site is recommended for further work to investigate the potential for such deposits (see Chapter 12).

Figure A-88. Site map of 41TG441.

41TG442

Site 41TG442 (Figure A-89) is a small (360 m²) prehistoric site classified as a lithic scatter. This upland site, at an elevation of 1,920 feet ASL, is on a low limestone conglomerate finger ridge trending southeast toward Spring Creek, located about 360 m to the west. At the time of the survey, about 40 percent of the ground surface was visible. Stands of immature willows and moderately dense grasses covered the surface.

Artifacts recorded at the site included two cores, a tested cobble, five primary flakes, two secondary flakes, and two tertiary flakes. Most of the material at this site is crushed or heat-spalled. No diagnostic artifacts were observed at the site and no discrete components could be discerned.

One shovel test was dug to a maximum depth of 13 cm bs to the conglomerate base (Appendix B). No intensive surface observation areas were placed on this site.

The area of site 41TG442 is frequented by hunters, fishermen, and campers. Periodic inundation and exposure due to fluctuating reservoir levels, vehicular traffic, and impacts associated with cattle grazing have heavily disturbed the site area. The research value of this site is minimal. No further investigations are recommended (see Chapter 12).

Figure A-89. Site map of 41TG442.

41TG443

Site 41TG443 (Figure A-90) is a small (990 m²) historic and prehistoric site. The historic material, which includes a possible dugout, is discussed in Chapter 11. The prehistoric material, consisting of scattered chipped stone, was classified as a lithic scatter. These materials were located primarily on the northeastern edge of the site, with the historic material dominating the southern portion of 41TG443. This upland site, at an elevation of 1,925 feet ASL, is on a low limestone conglomerate ridge about 420 m to the west of Spring Creek. At the time of the survey, about 10 percent of the ground surface was visible. Stands of immature willows and moderately dense grasses covered the surface.

Artifacts recorded at the site included cores and tested cobbles, along with primary, secondary, and tertiary flakes. No features were observed but fire-cracked rock is present, in close association with the historic occupation. In addition, a rock alignment of unknown antiquity is present on the northern end of the site.

Two shovel tests were excavated to a maximum depth of 38 cm bs and a single 1-x-1-meter excavation unit was also placed at the site. However, most of the subsurface work concentrated on the historic portion of the site. Only one shovel test was placed any distance away from the probable historic dugout. That shovel test, excavated to a depth of 38 cm bs, produced no artifacts (Appendix B). A single surface observation area, consisting of 150 m², was intensively inspected for prehistoric artifacts. A total of 47 artifacts were recorded in this area (Appendix D).

The area of site 41TG443 is frequented by hunters, fishermen, and campers. The area has also been heavily impacted by cattle, and the prehistoric material has certainly been disturbed by the historic occupation. Periodic inundation and exposure due to fluctuating reservoir levels have also damaged the area, and a prominent old shoreline is located just to the southeast of the site. Given the high level of impact to the prehistoric component, and the lack of recovery in the limited shovel testing, the research value of the prehistoric portion of the site is considered to be minimal. No further investigations are recommended (see Chapter 12).

Figure A-90. Site map of 41TG443.

41TG444

Site 41TG444 (Figure A-91) is a moderate sized (1,770 m²) prehistoric site classified as a lithic scatter. It is on the end of a low, limestone conglomerate finger ridge trending southeast toward Spring Creek, which is located about 410 m east of the site. The site is at an elevation of 1,925 feet ASL. At the time of the survey, only about 10 percent of the ground surface was visible. Dense grasses and young willows obscured most of the site.

Artifacts recorded on the surface of 41TG444 included three cores, a tested cobble, 10 primary flakes, 18 secondary flakes, and 6 tertiary flakes. No hearth features or fire-cracked rock were noted, and diagnostic artifacts were not observed at the site.

One shovel test was dug to a maximum depth of 27 cm bs where the conglomerate bedrock was encountered. A single flake was recovered between 0 and 10 cm bs (Appendix B). No intensive surface observation areas were placed on this site.

This site is heavily eroded and deflated. We estimate that only 20 percent of the area is intact. Sediments are shallow. A two-track road borders the eastern edge of the site, allowing easy access to the site area for hunting and fishing. Cattle are also present in the area, and several trails cross the site. Wave action and shoreline erosion as a result of periodic inundation and exposure has damaged the site. This site has been heavily disturbed. Combined with the lack of sediment, we suggest that the research value is minimal. No further investigations at 41TG444 are recommended (see Chapter 12).

Figure A-91. Site map of 41TG444.

41TG445

This upland site (Figure A-92) is a moderate sized (9,750 m²) site classified as a lithic scatter. A historic component is also present (see Chapter 11). The site elevation is about 1,925 feet ASL. It is situated on the end of a low, limestone conglomerate finger ridge trending southeast, and is approximately 340 m west of Spring Creek. At the time of the survey, only 10 percent of the ground surface was visible. Ground covering vegetation consisted of dense grasses and young willows.

Prehistoric artifacts observed on the surface of the site included three cores, a tested cobble, 12 primary flakes, 10 secondary flakes, six tertiary flakes, and a crude biface. A single fire-cracked rock hearth feature, presumably prehistoric, was recorded on the southeastern edge of the site. There are no prehistoric diagnostic artifacts.

Two shovel tests were dug to a maximum depth of 20 cm bs to the underlying conglomerate. Historic material was recovered to 20 cm bs from Shovel Test 1, but prehistoric artifacts were found only on the surface (Appendix B). No surface observation areas were placed at this site.

The prehistoric component is about 20 percent intact. There are two-track roads to the west and south of the site that allow easy access to vehicular traffic. Cattle trails also cut through the site. Shoreline erosion caused by periodic inundation and exposure due to fluctuating reservoir levels appear to be compromising the site's integrity. Given the overall level of impact, and lack of sediment, the research value of the prehistoric component is considered minimal. No further investigations are recommended for the prehistoric component (see Chapter 12).

Figure A-92. Site map of 41TG445.

41TG446

This site (Figure A-93) is a small (640 m²) prehistoric site classified as a campsite. Located at 1,920 feet ASL, the site is on the north edge of Spring Creek. The site sits on a gentle sloping bluff 3.5 m above the creek channel. At the time of survey, about five percent of the ground surface was visible. Dense grasses and weeds covered most of the site.

The site was recorded as a single fire-cracked rock hearth feature and associated lithic debitage. One core, a primary flake, and two secondary flakes were observed below the hearth. These appeared to have slumped from the upper surface. No diagnostic artifacts were recovered.

Two shovel tests were dug to a maximum depth of 70 cm bs, and one auger test was taken to 75 cm bs, to the conglomerate base. No cultural material was observed in any of these tests (Appendix B). No surface observation areas were placed at this site.

The site is heavily eroded. We estimate that only about 10 percent of this site is intact. The bluff is slumping due to periodic inundation and exposure caused by fluctuating reservoir levels. There is also some bioturbation. A two-track road that runs along the northwestern edge of the site allows easy access for recreational activities such as fishing and camping. There are also cattle trails cutting across the site. The research value of this site is considered minimal. Erosion has displaced and deflated both the hearth feature and the artifacts on the surface. No further investigations are recommended (see Chapter 12).

Figure A-93. Site map of 41TG446.

41TG447

This site (Figure A-94, A-95) is a large (29,180 m²) prehistoric site, classified as a campsite. It is situated on a gently sloping bluff on the north edge of Spring Creek overlooking a small waterfall. The site elevation is about 1,925 feet ASL. At the time of the survey, about five percent of the alluvial ground surface was visible. Dense grasses and young willows covered the surface of the site.

We recorded 28 fire-cracked rock hearth features and a variety of chipped stone artifacts at 41TG447. Figure A-94 presents the distribution of these features. Note that 26 of the 28 hearths were recorded on the surface in the upper, northern portion of the site. The remaining two hearths (#27, #28, Figure A-94) are on the southern edge, eroding out of the cutbank. A large, historic irrigation ditch has been cut through the center of the site, destroying some of this central area. We estimate that over a thousand artifacts were present on the surface. Artifacts observed included cores, primary, secondary, and tertiary flakes, bifaces, unifaces, retouched and utilized flakes. These are most visible in the upper portion of the site where erosion and a two-track road provide better surface visibility. Because visibility is extremely poor, there are likely more hearth features unobserved just below the dense grasses.

Fourteen shovel tests were dug to a maximum depth of 70 cm bs, and one auger test was taken to 160 cm bs. Cultural material was recovered from 11 of the 14 shovel tests and the auger test (Figure A-95). An untyped projectile point (UI #74) was discovered in Shovel Test 13. Cultural material was concentrated between 0 and 70 cm bs and between 100 and 160 cm bs. The deeply buried cultural material revealed by the auger test was found in soft sandy soil below a packed crust, suggesting that the deposit may have great antiquity (Appendix B). A selected 50 m² area was intensively inventoried and 221 artifacts were recorded (Appendix D).

This site and the area around it has been impacted by a variety of elements. A two-track road cuts through the site, enabling access for a great deal of vehicular traffic. This area is also a livestock ranging area and there are numerous cattle trails. Several areas of the site have been bioturbated. The site has also been subjected to slope erosion. This lake-effect erosion is caused by periodic inundation and exposure due to fluctuating reservoir levels. The fact that there are literally thousands of artifacts on the surface, yet our survey crew did not observe a single diagnostic, suggests that the area has been heavily collected. Although much of this site has apparently been destroyed by the excavation of a large irrigation channel in the early 1900s, we estimate that about 60 percent of the site is still intact. The research value of this site is considered high. The shovel test and auger test data indicate the potential for finding buried, intact features and cultural deposits that can provide data on a variety of research topics. Further testing is recommended at this site (see Chapter 12).

Figure A-94. Site map of 41TG447 showing distribution of hearth features.

Figure A-95. Site map of 41TG447 showing location of shovel tests.

(Intentionally blank.)

41TG448

This upland site (Figure A-96) is a moderate sized (1,360 m²) prehistoric lithic scatter. It is situated on a small, gently sloping bench where gravels outcrop, 650 m northeast of Spring Creek, at an elevation of 1,935 feet ASL. At the time of the survey, only about 15 percent of the ground surface was visible. Dense growths of immature willow bushes, sparse grasses, and mesquite trees covered most of the surface.

The artifact assemblage consists of cores, primary, secondary and tertiary flakes, a biface, and a unifacial side scraper. No hearth features were noted but a small quantity of fire-cracked rock was present. No diagnostic artifacts were recovered.

Three shovel tests were excavated to a maximum depth of 35 cm bs to the indurated caliche base. These provided no indication of subsurface cultural material (Appendix B). A selected area consisting of 30 m² was intensively inspected. Data on a total of 90 artifacts were collected from this area (Appendix D). No diagnostic artifacts were recorded at this site, and the component remains unknown.

This site and the surrounding area has been heavily used for recreational activities. A two-track road cuts across the northern edge of the site allowing easy access for camping and fishing activities. Cattle are commonly grazed in the area, and several trails are present on the site. Wave action, caused by fluctuating reservoir levels, has also eroded the surface. It is likely that these natural and cultural impacts have created a palimpsest of artifacts on the surface. Because of these factors this site has minimal research value. No further investigations are recommended at this site (see Chapter 12).

Figure A-96. *Site map of 41TG448.*

41TG449

This is a moderate sized (2,930 m²) site classified as a campsite (Figure A-97). A historic component is also present (see Chapter 11). The site, at an elevation of about 1,925 feet ASL, is situated on a gentle, south trending slope approximately 80 m north of Spring Creek. At the time of the survey, ground covering vegetation consisting of mesquite, grass, and willows obscured approximately 95 percent of the ground surface.

Although no intact hearth features were observed, the tops of fire-cracked rocks are sticking through the grass and scattered across the upper, northern portion of the site. Primary, secondary and tertiary flakes, four bifaces, and a utilized flake were observed on the surface, predominately on the upper, northern portion of the site around the scattered fire-cracked rock. A snapped quarry blank was seen on the upper, western portion, and a nicely flaked biface was found near the lower two-track road near an irrigation channel that is to the south. An Early Archaic Baker-like proximal point fragment (UI #56) was collected off the surface.

There were three shovel tests excavated to a maximum depth of 70 cm bs, and one auger test was taken to 160 cm bs. Cultural material was found consistently in shovel tests from 0 to 70 cm bs and in the auger test from 120 to 140 cm bs. Prehistoric artifacts collected from the shovel tests and auger test included 30 flakes, one of which was utilized, a core, and scattered fire-cracked limestone and sandstone. Historic material was also present in one shovel test (see Chapter 11; Appendix B). A selected surface observation area, 80 m² in size, was inventoried. There were 361 artifacts recorded (Appendix D).

The prehistoric component of this site is approximately 30 percent intact. A large, early 1900s irrigation channel has damaged the southern edge of the site. Three two-track roads cut through the site as well as many cattle trails. There are crushed gravels across the site, south of the northern two-track road. Two large berms have been constructed on the southeastern portion of the site. North of the northern two-track road the surface appears less disturbed. This site has also been impacted by periodic inundation and exposure due to fluctuating reservoir levels. In spite of these impacts, the research value of the prehistoric component is high. The high potential for finding buried, cultural features and associated material that can provide information on a variety of research topics is clearly indicated by the shovel and auger test results. The prehistoric component of this site is recommended for further investigation (see Chapter 12).

Figure A-97. Site map of 41TG449.

41TG451

This upland site (Figure A-98) is a moderate sized (2,670 m²) prehistoric site classified as a lithic scatter. It is 340 m north of Spring Creek, at an elevation of 1,935 feet ASL. At the time of the survey, about five percent of the ground surface was visible. Dense grasses obscured most of the surface.

Artifacts observed on the surface included three cores, six primary flakes, 10 secondary flakes, 30 tertiary flakes, and a late-stage biface fragment. Although no hearths were recorded, a few pieces of fire-cracked rock are sticking through the dense grass. Most of the artifacts were seen in a 5 to 10 cm deep road cut that runs through the center of the site. No diagnostic artifacts were observed at the site and no discrete components could be discerned.

Three shovel tests were dug to a maximum depth of 50 cm bs, and one auger test was taken to 140 cm bs. A single flake was collected between 0 and 10 cm bs in Shovel Test 2 (Appendix B). No surface observation areas were placed at this site.

As noted above, a two-track road cuts through the center of the site. There are cattle trails cutting across the site and areas of bioturbation. The site is partially damaged by natural and artificial causes, reducing the integrity of the cultural deposits. Limited testing suggests that it is unlikely that there are buried, intact cultural deposits at the site. The research value of this site is therefore considered minimal. No further investigations are recommended at 41TG451 (see Chapter 12).

Figure A-98. Site map of 41TG451.

41TG453

This terrace site (Figure A-99) is a small (490 m²) prehistoric occupation characterized as a lithic scatter. The site sits on a gently sloping alluvial terrace, about 50 m north of Spring Creek, at an elevation of about 1,945 feet ASL. At the time of the survey, about 30 percent of the ground surface was visible. Dense grasses, elm, and mesquite trees covered the area.

Artifacts observed on the surface included three cores, a tested cobble, five primary flakes, five secondary flakes, and ten tertiary flakes. While no features were recorded, a small quantity of fire-cracked rock was present. No diagnostic artifacts were recovered. Private fences along the northern and western edge prevented inspection of those areas, though it is probable that the site continues to the north and west.

Three shovel tests were taken to a depth of 50 cm bs. All were positive. Flakes were found in the shovel tests between 0 and 20 cm bs and between 30 and 40 cm bs (Appendix B). No intensive surface observation areas were placed on this site.

A two-track road cuts along the southern boundary of the site. The road provides easy access to hunters, fishermen, and campers. The site suffers windblown erosion and has been impacted by fluctuating reservoir levels. Both cultural and natural impacts have endangered the significance of the site. We estimate that 41TG453 is about 50 percent intact. Large quantities of crushed rock are mixed in with the artifacts. The artifacts appear to have been washed in from a plowed field located upslope, and across the fence on private property. However, the presence of buried flakes suggests potentially intact deposits at this location. The research value of this site is considered moderate. Further investigations are recommended at this site in order to evaluate the possibility of discrete, intact occupations (see Chapter 12).

Figure A-99. Site map of 41TG453.

41TG454

This site (Figure A-100) is a moderate sized (2,990 m²) artifact scatter classified as a campsite. The site, at an elevation of 1,950 feet ASL, sits on a gently sloping, upper alluvial terrace, about five meters above the Middle Concho River. An artificial berm roughly 70 cm in height runs through the site from north to south. Its original purpose was probably for water retention and to prevent further cutbank erosion. At the time of the survey, an estimated 20 percent of the ground surface was visible. Mesquite trees, dense grasses, several species of cactus, yucca, and brambles covered the area.

Two fire-cracked rock hearth features with associated lithic artifacts were recorded on the site. Much of the material was observed in a road cut. Hearth #1 (Figure A-100) is eroding out of the cutbank ca. 70 cm below the surface. This hearth consisted of tabular sandstone where as Hearth #2, located on the upper surface, was composed of angular limestone. Artifacts observed on the surface included two secondary flakes and four tertiary flakes. An intrusive purple bottle glass sherd was also observed on the surface. No diagnostic artifacts were recovered.

Four shovel tests were dug to a maximum depth of 80 cm bs, and two auger tests were also excavated. Auger Test #1 was taken to 20 cm bs where a large root was encountered. Auger Test #2 was taken to 160 cm bs. A single flake was recovered, in Shovel Test 4, at a depth of between 60 and 70 cm bs. The shovel tests were placed in areas that appeared to be undisturbed (Appendix B). No intensive surface observation areas were placed on this site (Appendix D).

The site and the area around it is used by hunters, fishermen, and campers. A deeply cut two-track road is present on the eastern side of the site, as is the artificial berm noted above. Cutbank erosion is also present. We estimate that about 50 percent of this site remains intact. The research value at this site is considered high because of the buried feature and the single positive shovel test. Further investigations are recommended to evaluate the integrity of the lower deposits (see Chapter 12).

Figure A-100. Site map of 41TG454.

41TG455

This terrace site (Figure A-101) is a moderate sized (5,560 m²) occupation site classified as a prehistoric camp-site. It is located at an elevation of 1,950 feet ASL on a gently sloping upper, alluvial terrace, about five meters above the Middle Concho River. Two roads and a low, artificial berm cut through the site from north to south. At the time of the survey, about 20 percent of the ground surface was visible. Thick cactus patches, mesquite trees, yucca, brambles, and dense grasses covered the remaining 80 percent.

A single fire-cracked rock feature and lithic artifacts were recorded on this site. The top of the limestone feature was visible in a deep road cut. Artifacts observed on the surface included a primary flake, a secondary flake, seven tertiary flakes, and a retouched flake. Two intrusive purple glass sherds were also observed. Most artifacts were seen along the road cuts. No diagnostic artifacts were recovered from this site.

Six shovel tests were excavated to a maximum depth of 70 cm bs, and one auger test was taken to 160 cm bs. The shovel tests were placed in areas that appeared undisturbed. Flakes were recovered from two of the shovel tests between 20 and 30 cm bs, the same general depth as the hearth feature in the road cut. Rusty metal fragments were found between 10 and 20 cm bs and between 20 and 30 cm bs giving an indication of the degree of disturbance at this site (Appendix B). No surface observation areas were established at this site.

The two-track roads that run along the east and west sides of the site allow easy access for recreational activities such as fishing, hunting and trash dumping. A deer blind has been constructed near the river. The site is being destroyed primarily by river channel erosion, but also by artificial causes. There is also some bioturbation. Much of the site appears disturbed, and we estimate that only about 30 percent is intact. Nevertheless, we consider the research potential of this site to be moderate. This consideration is based on the presence of buried deposits in the shovel tests, and the potential that buried features are present. This site is recommended for further testing to evaluate the integrity of buried deposits (see Chapter 12).

Figure A-101. *Site map of 41TG455.*

41TG456

Site 41TG456 (Figure A-102) is a large (24,380 m²) scatter classified as a campsite. The site is on gently sloping terrain, about 720 m east of the Middle Concho River, at an elevation of about 1,965 feet ASL. At the time of the survey, about 50 percent of the ground surface was visible. Grasses, prickly pear, and mesquite were present.

A series of hearths associated with lithics were recorded on this site. The artifacts observed on the surface included cores, tested cobbles, bifaces, unifaces, primary, secondary and tertiary flakes, and retouched and utilized flakes. There are at least two fire-cracked rock hearth features. Artifacts are most dense around the northern hearth, where chert gravels have been worked. Artifacts were also concentrated along the western edge of the site. A private fence that extends along the northern portion of the site precluded our inspection of that area. No diagnostic artifacts were recovered.

There were 13 shovel tests dug to a maximum depth of 50 cm bs. One flake and one core fragment were found in Shovel Test 11 between 0 and 10 cm bs (Appendix B). Two surface areas were selected and inventoried. Area 1 covered 270 m² and recorded 169 artifacts. Area 2 recorded 116 artifacts in a 840 m² area (Appendix D) .

This site has been impacted by a variety of processes. There are numerous animal burrows present, and the site has been heavily eroded and deflated by wind and slope erosion. This area has also been heavily trampled by cattle and goats. There are three goat sheds built on the site, and there are many trails that cut through the area. Because of the level of impact, and the minimal results of the shovel tests, no further investigations are recommended. The research value of this site is considered minimal (see Chapter 12).

Figure A-102. Site map of 41TG456.

41TG457

This site (Figure A-103) is a small (460 m²) prehistoric occupation, classified as a campsite. The site is buried within a gently sloping, upper alluvial terrace bluff and sits about four meters above the east edge of the Middle Concho River. The elevation is about 1,950 feet ASL. A trench, probably the result of a bulldozer cut, is on the southern end of the site. At the time of the survey, we estimated that five percent of the surface was visible. Thick grasses and mesquite trees covered the surface.

While features were not observed at this site, fire-cracked rock was seen eroding from the bulldozer cut at a depth of about 90 cm bs. Three flakes were observed with this fire-cracked rock. In addition to the artifacts noted in the bulldozer cut, three flakes were observed on the surface.

Five shovel tests were excavated to a maximum depth of 70 cm bs, and one auger test was taken to 140 cm bs. Only Shovel Test 2 produced any cultural material (Appendix B). No surface observation areas were placed at this site (Appendix D).

We estimate that approximately 30 percent of this site is still intact. The site is slumping into the Middle Concho channel. The area immediately to the south of this site is a dump containing oil filters and oil waste. This debris is also slumping into the channel. The research value of this site is considered moderate. The presence of fire-cracked rock and associated lithic debitage in the bulldozer cut suggests that there may be intact, buried features, at a depth which could not be reached by shovel testing. This site is recommended for further testing (see Chapter 12).

Figure A-103. Site map of 41TG457.

41TG460

This is a moderate sized (1,070 m²) site classified as a prehistoric campsite (Figure A-104). The site lies on the south edge of the Middle Concho River. It is situated on a gently sloping, upper alluvial terrace on an outside meander of the river at an elevation of roughly 1,950 feet ASL. At the time of the survey, visibility was poor. Dense grasses and mesquite trees covered about 95 percent of the ground surface.

Most cultural materials noted on the surface of this site were visible in the road cut that crosses along the western edge of the site. Artifacts observed included three secondary flakes, three tertiary flakes, and a biface. No features were observed. However, fire-cracked rock was present on both the road and eroding from the cutbank ca. 2 m below the surface. No artifacts were observed in the cutbank, and no diagnostic artifacts were encountered.

Four shovel tests were taken to a maximum depth of 75 cm bs, and an auger test was taken to 180 cm bs. No subsurface cultural materials were observed (Appendix B). No surface observation areas were placed at this site.

We estimate that this site is about 50 percent intact. A two-track road cuts through the site. This road makes the site accessible to recreational activities such as camping, fishing, and hunting. The area is also used as a modern trash dump. There is erosion along the cutbank, causing a portion of the surface to slump into the river channel. The presence of fire-cracked rock eroding from the cutbank ca. 2 m below the surface suggests the potential for finding buried, intact hearth features and associated cultural material. This site is therefore considered to have moderate research potential. This site is recommended for further testing to evaluate the composition and integrity of the deposit (see Chapter 12).

Figure A-104. Site map of 41TG460.

41TG461

41TG461 (Figure A-105) is a moderate sized (4,580 m²) prehistoric site classified as a campsite. The site is at an elevation of 1,910 feet ASL, and is about 50 m north of the Middle Concho River. It sits on the south edge of a gently sloping, east/west trending, upland finger ridge. At the time of the survey, dense grasses and salt cedar obstructed visibility. We estimated that about 40 percent of the ground surface was visible.

Site 41TG461 was defined by hearth features associated with a wide variety of stone tools. Artifacts, including cores, tested cobbles, flakes, bifaces, unifaces, and retouched flakes, were observed along an old reservoir shoreline. Six fire-cracked rock hearth features were also recorded. Diagnostic artifacts were not observed at the site.

Nine shovel tests were dug to a maximum depth of 50 cm bs, and one auger test was taken to 140 cm bs. Two of the nine shovel tests and the auger test contained cultural material between 0 and 20 cm bs (Appendix B). Two selected areas were inventoried. Area 1 covered 450 m² and had 48 artifacts. Area 2 recorded 135 artifacts in a 360 m² area (Appendix D).

We estimate that this site is 40 percent intact. The hearth features appear to be deflated and artifacts have been displaced by shoreline wave action. This site and the surrounding area are popular fishing and camping spots, and suffer from vehicle traffic. The area is also used to range cattle and there are many cattle tracks across the site. In spite of these impacts, we consider the research value of this site to be moderate. This site has potential for providing buried, intact cultural features and deposits that could yield information on a variety of research issues. Further investigations are recommended to evaluate the integrity of the buried cultural material (see Chapter 12).

Figure A-105. Site map of 41TG461.

41TG462

This is a moderate sized (8,420 m²) prehistoric site classified as a campsite (Figure A-106). The site sits on a lower, gently sloping alluvial terrace, on an outside meander of the Middle Concho River, at an elevation of 1,900 feet ASL. At the time of the survey, about 10 percent of the ground surface was visible. Most of the surface was covered with dense grasses and sparsely scattered weeds.

A wide variety of tools and mussel shell, associated with hearth features, was recorded at this site. Artifacts present on the surface included four cores, five primary flakes, 16 secondary flakes, 17 tertiary flakes, four unifaces, eight bifaces, four retouched flakes, and a utilized flake. There were 15 fire-cracked rock hearth features recorded. All hearths were associated with lithic debitage, mussel shell and/or stone tools. In addition to these hearths there was a concentration of fire-cracked rock recorded on the southern end of the site. No diagnostic artifacts were encountered and the component remains unknown.

Seven shovel tests were dug to a maximum depth of 70 cm bs, and an auger test was taken to 140 cm bs. Shovel tests were placed above and/or behind hearths and mussel shell concentrations. Flakes and fire-cracked rock were recovered from three of the shovel tests between 0–10 cm bs (Appendix B). No intensive site observation areas were placed on this site.

We estimate that about 20 percent of this site is still intact. The entire area has been used for public recreation, and this location is currently a popular fishing and camping area. Cattle also graze in this area, and have damaged the site. This site area has been impacted by lake-effect erosion and slumping due to periodic exposure and inundation caused by fluctuating reservoir levels. The cutbank/reservoir shoreline is heavily eroded. The site's exposure to these cultural and natural impacts has helped to promote its rapid destruction. In spite of these impacts, we recommend that the research value of this site should be considered moderate. Although fluctuating reservoir levels have damaged the integrity of the northern half of the site, cultural material recovered between 0 and 10 cm bs in Shovel Tests 4, 5, and 7 suggests that there is a potential for finding buried intact deposits that can provide information on a variety of research issues. Further investigations are recommended, especially in the southern portion of the site, to evaluate the integrity of buried cultural material in that area (see Chapter 12).

Figure A-106. *Site map of 41TG462.*

41TG463

This is a moderate sized (2,750 m²) prehistoric site classified as a lithic scatter (Figure A-107). At an elevation of 1,900 feet ASL, the site is on a gently sloping, lower alluvial terrace along the west bank of the Middle Concho River. At the time of the survey, about 95 percent of the upper surface was covered by dense grasses. The cutbank, however, had good visibility.

Artifacts visible on the surface included two cores, a tested cobble, two primary flakes, nine secondary flakes, 11 tertiary flakes, two utilized flakes, two retouched flakes, a bifacial chopper, and three unifaces. These are predominantly associated with mussel shell eroding out of the cutbank face. No true hearth features were observed, but a few fire-cracked rocks were scattered across the area. No diagnostic artifacts were discovered and the component remains unknown.

Four shovel tests were dug to a maximum depth of 70 cm bs, and an auger test was excavated to 160 cm bs. Cultural material was not recovered in any of the subsurface testing (Appendix B). No intensive surface observation areas were placed on this site.

The site and the area around it are designated as public recreational lands. The area is used by hunters, fishermen, and campers. Cattle are also grazed in the area. Lake-effect slumping caused by periodic inundation and exposure due to fluctuating lake levels have also compromised the integrity of this site. We estimate that only about 10 percent of 41TG463 is intact. As such, the research value of this site is considered minimal. No further investigations are recommended (see Chapter 12).

Figure A-107. Site map of 41TG463.

41TG464

Site 41TG464 (Figure A-108) is a moderate sized (3,250 m²) prehistoric site classified as a campsite. The site is on a gently sloping, lower alluvial terrace on the west bank of the Middle Concho River at an elevation of about 1,900 feet ASL. Dense grasses and weeds impeded surface visibility. We estimate that at the time of the survey only about 20 percent of the surface was visible.

This site is defined by hearth features associated with mussel shell, a variety of stone tools, and metate fragments. Artifacts observed on the surface included primary, secondary, tertiary and utilized flakes, as well as cores, unifaces, bifaces, and tested cobbles. These artifacts were primarily along the face of the cutbank in association with mussel shell and fire-cracked rock. Three recognizable hearth features were documented with mussel shells and artifacts on the southern end of the site. Other concentrations of mussel shells, fire-cracked rocks and artifacts were present northward along the cutbank face. A fourth hearth feature was still in a recognizable pattern on the northern portion of the site. A bifacial chopper was found with a mussel shell concentration. However, no diagnostic artifacts were recovered on this site.

Nine shovel tests were dug to a maximum depth of 70 cm bs, and one auger test was excavated to 80 cm bs where the conglomerate base was encountered. Four shovel tests, placed on the northern end of the site, contained cultural material, including two cores, 20 flakes, a uniface, and fire-cracked limestone. These were recovered between 0 and 10 cm bs and between 30 and 70 cm bs (Appendix B). A selected area comprising 70 m² was inventoried and 134 artifacts were recorded (Appendix D).

The site and the surrounding area are currently used for public recreation. This portion of the modern shoreline is a favorite fishing and camping spot. The area is also used by ranchers to range their cattle, and there are cattle tracks crisscrossing the site and leading down to the river. Periodic exposure and inundation due to fluctuations in reservoir levels have also damaged the site causing many features and associated artifacts to be displaced. Nevertheless, we estimate that this site is still about 60 percent intact. The research value of this site is considered high. The presence of a concentrated strata of cultural material discerned from shovel testing suggests there is a high probability that buried, intact features may be present. Further testing at this site is recommended (see Chapter 12).

Figure A-108. Site map of 41TG464.

41TG465

This upland site (Figure A-109) is a moderate sized (4,490 m²) prehistoric site classified as a campsite. The site, at roughly 1,930 feet ASL, is 960 m southeast of Spring Creek on a gently sloping surface. At the time of the survey, about 80 percent of the ground surface was obscured by dense grasses, young willows, and mesquite trees.

A single limestone fire-cracked hearth feature is on the surface in the center of the site. Two chert flakes were associated with this feature. The remainder of the site consists of an ephemeral lithic scatter. The artifact assemblage is represented by a sparse scattering of cores, flakes, unifaces, and retouched flakes. No diagnostic artifacts were recovered.

Four shovel tests were dug to a maximum depth of 50 cm bs. No cultural material was found in any of the shovel tests (Appendix B). Ninety-four artifacts were recorded in a surface observation area that was 4,580 m² in size (Appendix D).

Approximately 10 percent of this site is still intact. There is a two-track road that abuts the south end of the site, one that cuts along the northeastern boundary, and one that dissects the site and connects the other two roads. This road network allows easy access to the public and the site has suffered vehicular traffic. This area is also used by ranchers to graze their cattle. Finally, there is some slope erosion, and areas of bioturbation present. No further investigations are recommended because the feature and surface artifacts appear to be deflated. No evidence of cultural material was found below the surface in any of the four shovel tests. The research value of this site is considered minimal (see Chapter 12).

Figure A-109. Site map of 41TG465.

41TG466

This upland site (Figure A-110) is a large (15,720 m²) prehistoric occupation classified as a lithic scatter. It sits on a gently sloping, eroded limestone conglomerate shelf, approximately 390 m east of Spring Creek, at an elevation of 1,920 feet ASL. At the time of the survey, about 15 percent of the ground surface was visible. Young mesquite trees and dense grasses obscured most of the surface.

Artifacts observed at this site included cores, primary, secondary and tertiary flakes, bifaces, and unifaces. Two bedrock mortar holes were also recorded on the west-central edge of the site. They had been ground into a low limestone conglomerate shelf. Two large limestone rock circular rings were present, but they could not be categorized conclusively as cultural. Some of the artifacts were concentrated between the two mortar holes. No diagnostic artifacts were recovered from this site.

Three shovel tests were dug to a maximum depth of 50 cm bs. None of these tests recovered subsurface cultural material (Appendix B). A 100 m² surface observation area was inventoried and 115 artifacts were recorded (Appendix D).

We estimate that there is still about 10 percent of this site left intact. There is considerable slope and wave-effect shoreline erosion caused by periodic inundation and exposure due to fluctuating reservoir levels. There are also bioturbatious areas where burrowing activity has displaced artifacts. The site also receives a fair amount of recreational activity in the form of hunting, camping, and fishing. The area is used to graze cattle. No further investigations are recommended because the surface appears to have been deflated by erosion and no subsurface cultural material was discovered. The research value of this site is considered minimal (see Chapter 12).

Figure A-110. *Site map of 41TG466.*

41TG467

This terrace site (Figure A-111) is a large (13,120 m²) occupation classified as a campsite. It is situated on an eroded slope, just above an outside meander of Spring Creek, at an elevation of about 1,920 feet ASL. The ground surface slopes gently west to Spring Creek. At the time of the survey, approximately 40 percent of the ground surface was visible with mesquite trees, salt cedar, and dense grasses covering the surface.

Hearth features with a wide variety of stone tools and debitage were recorded at 41TG467. Artifacts observed on the surface included cores, tested cobbles, primary, secondary and tertiary flakes, bifaces, unifaces, as well as retouched and utilized flakes. Sixteen fire-cracked hearth features were recorded in the center portion of the site. These appeared to have an abundance of formal and informal stone tools, as well as debitage reflecting late stage reduction. Material reflecting earlier reduction stages was prevalent along the northwestern portion of the site where gravels are outcropping.

Ten shovel tests were dug to a maximum depth of 50 cm bs. Six of the ten shovel tests recovered 20 flakes, a biface, fire-cracked limestone, and a clear glass sherd between 0 and 40 cm bs (Appendix B). Two selected surface observation areas were intensively inventoried. A 28 m² area had 102 artifacts present while a second area, 130 m² in size, had 167 artifacts noted (Appendix D).

This site area is used for public recreation. There are many two-track roads, two of which cut through the center of the site. These roads enable access for a great deal of vehicular traffic. This area is also a livestock ranging area and there are many cattle trails crisscrossing the site. The site has also been subjected to lake-effect slumping and erosion caused by periodic exposure and inundation due to fluctuating reservoir levels. Exposure of the hearths and artifacts on the surface by erosion has probably displaced and deflated the material to a moderate degree, and modern glass was found in the upper 10 cm. However the presence of cultural material between 20–40 cm bs in Shovel Test 3 suggests the potential that buried, intact cultural features may be present. We estimate that this site is still about 40 percent intact. We consider the research value of this site to be moderate. Further investigations are recommended at this site (see Chapter 12).

Figure A-111. Site map of 41TG467.

41TG468

This site (Figure A-112) is a moderate sized (2,940 m²) prehistoric occupation classified as a campsite. The site, on a gently sloping alluvial terrace on the west bank of the Middle Concho River, is at an elevation of about 1,910 feet ASL. Dense grasses and salt cedar bushes covered 80 percent of the surface.

Artifactual materials observed at the site included cores, primary, secondary and tertiary flakes, bifaces, pre-forms, and unifaces. Twelve fire-cracked rock hearth features were also recorded. These are tightly clustered on the surface, with a dense concentration of lithic debitage. Mussel shell is also present. Artifact densities decreased significantly just a few meters away from the hearth cluster. Hearths are comprised of both sandstone and limestone, and appear to be 60 to 70 percent intact, with some wave displacement caused by fluctuating reservoir levels. Hearth bottoms are sitting on silt from the reservoir. No diagnostic artifact was collected and the component remains unknown.

Four shovel tests were dug to a maximum depth of 70 cm bs, and one auger test was excavated to 120 cm bs. The only indication of a possible buried cultural deposit was a burned bone fragment between 10 and 20 cm bs in Shovel Test 3 (Appendix B). A 28 m² surface observation area was selected and inventoried. There were 361 artifacts recorded (Appendix D).

This site is subject to recreational use. It endures heavy vehicular traffic. Cattle are also grazed in the area. The site has been impacted by river cutbank and lake-effect erosion caused by periodic inundation and exposure due to fluctuating reservoir levels. Due to these cultural and natural impacts, we estimate that this site is about 20 percent intact. The fluctuating reservoir levels have deflated and displaced the hearths and artifacts, probably creating a palimpsest on the surface. The research value of this site is considered minimal. No further investigations are recommended (see Chapter 12).

Figure A-112. Site map of 41TG468.

41TG469

This small (150 m²) upland site (Figure A-113) is classified as a campsite. The site is 180 m east of Spring Creek at an elevation of 1,935 feet ASL. The ground surface slopes gently to the west. A road cuts through the center of the site. At the time of the survey, we estimated that 30 percent of the ground surface was visible. Willow bushes, mesquite trees, and dense grasses limited visibility.

A single hearth feature was observed on the surface on the south end of the site. A core fragment and four tertiary flakes were observed in a ca. 10 cm-deep cut associated with the road. This was the only area where visibility was good. No diagnostic artifacts were discovered and the component remains unknown.

Three shovel tests were dug to a maximum depth of nine cm bs where calcrete was encountered. None of the shovel tests recovered cultural material (Appendix B). No intensive surface observation areas were placed on this site.

We estimate that 41TG469 is about 20 percent intact. It appears that this site is located on shallow sediments lying over a calcrete base. There is some slope erosion and areas of bioturbation. The site and the area around it are used for public recreation. The two-track road allows easy access for fishing and camping. Given the level of impact and the low probability of recovering any intact, subsurface deposits, no further testing is recommended. The research value of this site is considered minimal (see Chapter 12).

Figure A-113. Site map of 41TG469.

41TG470

This upland site (Figure A-114) is a moderate sized (2,230 m²) prehistoric site classified as a lithic scatter. The site is 520 m east of Spring Creek at an elevation of 1,945 feet ASL. The ground surface slopes gradually west toward the creek. At the time of the survey, we estimated that only 20 percent of the surface was visible with a dense growth of mesquite trees, agarita bushes, and sparse grasses obscuring much of the ground.

Artifacts observed at this site included three cores, two primary flakes, four secondary flakes, six tertiary flakes, a uniface, and a retouched flake. No hearth features were recorded and fire-cracked rock was not present. The site abuts private property on the south, and the scatter probably continues in that direction. No diagnostic artifacts were discovered at this site.

Six shovel tests were taken to a maximum depth of 50 cm bs. No cultural material was encountered in any of the shovel tests (Appendix B). No intensive surface observation areas were placed on this site.

Site 41TG470 is subject to hunting, fishing, and camping activities. Cattle have also disturbed the area. A two-track road cuts through the site. Slope erosion is present and there are some areas of bioturbation. We estimate that only about 30 percent of this site remains intact. It has minimal research value. No further testing is recommended (see Chapter 12).

Figure A-114. *Site map of 41TG470.*

41TG471

This site (Figure A-115) is a moderate sized (2,740 m²) prehistoric occupation classified as a campsite. It sits on the lower edge of an upland area, just above the upper terrace of Spring Creek. The site is located 110 m east of the creek, at an elevation of 1,925 feet ASL. At the time of the survey, about 30 percent of the surface was visible with salt cedar bushes and dense grasses hiding a large portion of the surface.

Two fire-cracked rock hearths, with a large number of stone tools and lithic debitage, were recorded on this site. Artifacts observed on the surface included primary, secondary and tertiary flakes, tested cobbles, cores, bifaces, unifaces, and retouched and utilized flakes. However, no diagnostic artifacts were recovered.

Four shovel tests were dug to a maximum depth of 50 cm bs. Two shovel tests produced cultural material from 10 to 20 cm bs (Appendix B). A 540 m² surface observation area was inventoried and 106 artifacts were recorded (Appendix D).

Site 41TG471 and the area around it are used for public recreation. Two-track roads cut through both the east and west sides of the site, enabling access for a great deal of recreational activity such as fishing and camping. There are also some areas of bioturbation. This site has been subject to slope erosion and impacts associated with fluctuating reservoir levels. We estimate that approximately 50 percent of the site is intact. The cultural features and artifacts on the surface appear to be discrete from cultural material recovered in the shovel tests. Because of positive shovel tests, hearth features, and a wide variety of stone tools, the research value of this site is considered moderate, with potential for providing buried intact features and associated cultural material. Further investigations are recommended at this site (see Chapter 12).

Figure A-115. *Site map of 41TG471.*

41TG472

This site (Figure A-116) is a moderate sized (2,290 m²) prehistoric scatter classified as a campsite. The site straddles a gently sloping, alluvial terrace and a lower bench on the south side of Spring Creek, which is located approximately 30 m to the northwest of the site. It is at an elevation of about 1,910 feet ASL. At the time of the survey, we estimate that 40 percent of the ground surface was visible with salt cedar bushes and dense grasses covering the ground.

Hearth features, with a wide variety of stone tools, and associated debitage were recorded at this site. Ten hearth features have been exposed by reservoir shoreline erosion. The artifacts observed on the surface included primary, secondary and tertiary flakes, tested cobbles, cores, bifaces, unifaces, and utilized and retouched flakes. Concentrated with the hearths on the lower bench are larger artifacts such as cores and primary flakes. No diagnostic artifact was recovered.

Four shovel tests were dug to a maximum depth of 70 cm bs, and one auger test was excavated to 120 cm bs. Shovel tests produced cultural material from 0 to 40 cm bs and from 50 to 70 cm bs, indicating multiple components (Appendix B). A 60 m² surface observation area, concentrated along the lower bench, was inventoried. A total of 103 artifacts were recorded (Appendix D).

This site and the surrounding area are used for public recreation. A two-track road to the east of the site provides access for a great deal of vehicular and pedestrian traffic. Recreational activities include fishing and camping. This area is also a livestock ranging area and there are many cattle trails along the ridge. This site has also been subjected to slope erosion and impacted by fluctuating reservoir levels, however, we estimate that this site is about 50 percent intact. The research value of this site is considered high. Although the presence of modern ceramics in Shovel Test 2 indicates the upper 30 cm is somewhat disturbed, the data also suggest there is a discrete prehistoric cultural deposit between 50 and 70 cm bs. Buried, potentially intact cultural features and associated material have the potential to provide significant information on a variety of research topics. This site is recommended for further investigation (see Chapter 12).

Figure A-116. Site map of 41TG472.

41TG473

This site (Figure A-117) is a moderate sized (2,230 m²) occupation classified as a prehistoric lithic scatter. Located in an upland setting at 1,930 feet ASL, 41TG473 is about 210 m southeast of Spring Creek. The site sits at the edge of gently sloped terrain that descends northwest towards the creek. At the time of the survey we estimate that about 20 percent of the surface was visible. Dense patches of salt cedar bushes and grasses covered the surface.

Site 41TG473 was represented by an ephemeral and sporadic distribution of lithic artifacts over the surface. Artifacts observed on the surface included three cores, three primary flakes, two secondary flakes, a tertiary flake, and a utilized flake. No diagnostic artifacts were recovered and no features or fire-cracked rock were noted.

Four shovel tests were taken to a maximum depth of 23 cm bs where a calcrete base was encountered. None of the shovel tests provided any indications of subsurface cultural material (Appendix B). No surface observation areas were selected at this site.

The site suffers slight slope erosion. In addition, some areas have been bioturbated. The site and the surrounding area has evidence of recent camping, and the area has been grazed by cattle. Based on the results of limited shovel testing, it appears that this site is sitting on shallow sediments lying over a calcrete base. The likelihood of recovering buried, intact deposits with any degree of integrity is considered minimal. This site has little research potential. No further investigations of this site are recommended (see Chapter 12).

Figure A-117. *Site map of 41TG473.*

41TG474

41TG474 (Figure A-118) is a moderate sized (8,230 m²) site classified as a campsite. It sits on a small, eroded upland knoll, at an elevation of 1,920 feet ASL. Spring Creek is 230 m to the northwest. At the time of the survey, we estimate that about 30 percent of the ground surface was visible. Young willows, salt cedar bushes, and dense grasses covered a large portion of the surface.

Hearth features, with associated lithic debitage and tools, were recorded at this site. Five fire-cracked rock hearth features were recorded on the western lip of the knoll. Artifacts observed on the surface included primary, secondary and tertiary flakes, cores, unifaces, and utilized flakes. The artifacts were concentrated around the hearths. There were also a few artifacts scattered downslope to an area of exposed limestone conglomerate at the northwestern edge of the site. No diagnostic artifacts were recovered.

Six shovel tests were dug to a maximum depth of 50 cm bs. Two flakes were recovered from 0 to 10 cm bs from Shovel Test 6 and a flake was collected from Shovel Test 2 between 20 and 30 cm bs (Appendix B). A 150 m² surface observation area was intensively inventoried, and 88 artifacts recorded (Appendix D).

We estimate that approximately 30 percent of 41TG474 is intact. The site has been used for public recreation, including camping. A two-track road cuts through the northwest side of the site, and a second road borders the southern boundary. There are also some areas of bioturbation. This site has been subjected to slope erosion. Because of the positive shovel tests, hearth features, and a wide variety of stone tools, the research value of this site is considered moderate. There is potential for finding buried, intact features and associated cultural material. Further investigations are recommended at this site (see Chapter 12).

Figure A-118. Site map of 41TG474.

41TG475

This site (Figure A-119) is a prehistoric occupation classified as a lithic scatter. The site is moderate in size (2,230 m²). It sits on an alluvial terrace and on an exposed conglomerate-based shelf that runs parallel to Spring Creek, which is located 70 m to the north. The site is at an elevation of 1,920 feet ASL. At the time of the survey we estimated that about 50 percent of the ground surface was visible. Young willow bushes and grasses cover the area.

The site appears to be the remains of a small quarry area where cobbles have eroded from the limestone conglomerate base and were exposed on the cutbank. The cutbank appears to have been artificially cut during channelization for an old irrigation project. Artifacts observed on the surface included two cores, six primary flakes, two secondary flakes, and a tertiary flake. No diagnostic artifacts were recovered and no features or fire-cracked rock were noted.

Two shovel tests, excavated to a maximum depth of 28 cm bs where the conglomerate base was encountered, provided no indications of subsurface cultural material (Appendix B). No surface observation areas were selected at this site.

The site suffers some slope and shoreline erosion caused by periodic inundation and exposure due to fluctuating reservoir levels. Bioturbation is present, and cattle graze in this area. A two-track road cuts across the southern boundary and makes the area accessible. Based on the results of limited shovel testing, it appears that this site is sitting on shallow sediments. The likelihood of recovering buried, intact deposits with any degree of integrity is minimal. This site has little research potential, and no further investigations are recommended (see Chapter 12).

Figure A-119. Site map of 41TG475.

41TG476

This upland site (Figure A-120) was classified as a prehistoric lithic scatter. It is moderate in size (2,280 m²) and is situated on a low, gradually sloping knoll at an elevation of 1,930 feet ASL. Site 41TG476 is 500 m southeast of Spring Creek. Cobbles are outcropping along the western edge of the site. At the time of the survey, we estimate that about 30 percent of the ground surface was visible. Young willow bushes and dense grasses covered the surface.

The assemblage at this site included cores and flakes. No features or fire-cracked rock were recorded. Artifacts observed on the surface included a core, a primary flake, three secondary flakes, and five tertiary flakes. No diagnostic artifacts were recovered.

Three shovel tests were excavated to a maximum depth of 50 cm bs. No cultural materials were discovered (Appendix B). No surface observation areas were selected at this site.

The site suffers slight slope and shoreline erosion, caused by periodic inundation and exposure due to fluctuating reservoir levels. Bioturbation is also present. The site and the surrounding area are used for public recreation, including camping. Cattle are also grazed in the area. A two-track road cuts across the northwestern boundary of the site. Based on the results of limited shovel testing, the potential for recovering buried, intact cultural deposits with any degree of integrity is considered minimal. The artifacts on the surface are likely displaced and deflated due to shoreline/wave action. This site has little research potential. No further investigations of this site are recommended (see Chapter 12).

Figure A-120. *Site map of 41TG476.*

41TG477

This upland site (Figure A-121) is classified as a prehistoric lithic scatter. It is moderate in size (3,270 m²). The site is located on the edge of a north/south shallow tributary in an eroded area, about 750 m southeast of Spring Creek at an elevation of 1,935 feet ASL. At the time of the survey, the surface had about 20 percent visibility. Vegetation composed of young willow bushes, mesquite trees, and dense grasses, covered the surface.

Artifacts observed on the surface included eight cores, ten primary flakes, three secondary flakes, a tertiary flake, a retouched flake, and a bifacial chopper. No diagnostic artifacts were recovered and no features or fire-cracked rock were noted at the site.

Two shovel tests were excavated to a maximum depth of 28 cm bs where calcrete was encountered. Neither shovel test had indications of cultural material (Appendix B). No surface observation areas were selected at this site.

The site suffers slight slope and shoreline erosion, caused by periodic inundation and exposure due to fluctuating reservoir levels. Bioturbation was also noted. The site and the surrounding area are used for public recreation and the area is also grazed by cattle. A two-track road cuts across the center of the site. Based on the results of limited shovel testing, this site is sitting on shallow sediments lying over a calcrete base. The likelihood of recovering buried, intact cultural deposits with any degree of integrity is low. This site has little research potential and no further investigations are recommended (see Chapter 12).

Figure A-121. *Site map of 41TG477.*

41TG478

This upland site (Figure A-122) is a large (18,650 m²) prehistoric occupation classified as a campsite. The site is situated on a prominent rise between two shallow drainages, about 580 m from Spring Creek, at an elevation of 1,940 feet ASL. At the time of the survey, about 30 percent of the ground surface was visible. Agarita, mesquite trees, and dense grasses covered the landform.

Artifacts observed included cores, primary, secondary and tertiary flakes, bifaces, unifaces, and retouched and utilized flakes. These were primarily concentrated on the eastern and western portions of 41TG478. Early reduction stage lithic debitage was present on the lower, northern portion of the site where cobbles are outcropping from an eroded slope and exposed limestone conglomerate. Although no prehistoric fire-cracked rock features could be discerned, fire-cracked rock was spread across the site, with concentrations in the same areas as the lithic artifacts. No diagnostic artifacts were encountered.

Twelve shovel tests were excavated to a maximum depth of 30 cm bs where calcrete was encountered. A tested cobble and six flakes, two of which were utilized, were collected from 4 of the 12 shovel tests at a depth of 0 to 10 cm bs (Appendix B). A 390 m² surface observation area was intensively inspected and recorded 88 artifacts (Appendix D).

We estimate that 41TG478 is only about 30 percent intact on the upper portion, and 10 percent intact on the lower, northern portion of the site. Slope and shoreline erosion, bioturbation, and modern camping activities have impacted this site. Cattle also graze the area. The surface of the site is deflated. Subsurface testing indicates that shallowly buried cultural materials are present in selected areas. However, the site sits on shallow sediments over a calcrete base. We feel that there is little probability of encountering buried, intact cultural deposits with any integrity. The research value of this site is minimal and no further investigations are recommended (see Chapter 12).

Figure A-122. Site map of 41TG478.

41TG479

This upland site (Figure A-123), at an elevation of 1,940 feet ASL, is classified as a prehistoric lithic scatter. It covers a large area (10,800 m²) on the northern end of an eroded finger ridge overlooking Spring Creek, roughly 540 m to the northwest. The site extends south onto private property. At the time of the survey, about 60 percent of the surface was visible. Moderately dense cedar bushes, mesquite trees, and grasses covered the site.

Artifacts observed on the surface included cores, primary, secondary and tertiary flakes, unifaces, and utilized flakes. No diagnostic artifacts were recovered. No features or fire-cracked rock was observed.

Four shovel tests were taken to a maximum depth of 50 cm bs. One flake was found in Shovel Test 2 between 0 and 10 cm bs (Appendix B). No discrete occupations were observed either across the surface or in the shovel test results. A selected area, 130 m² in size, was intensively inventoried. Ninety-two artifacts were documented in this area (Appendix D).

The site suffers significant slope erosion with some areas of bioturbation. 41TG479 and the surrounding area are used for public recreation. Cattle also graze in this area. A two-track road and fence cut through the site. Anchors for Benchmarks #73 and #74 have also been dug into the site. Based on the results of limited shovel testing, the likelihood that there are buried, intact cultural features and associated material is minimal. The surface is heavily eroded and vehicles and animals have displaced and crushed artifacts on the surface. This site has little research potential. No further investigations of this site are recommended (see Chapter 12).

Figure A-123. *Site map of 41TG479.*

41TG480

This upland site (Figure A-124) is classified as a prehistoric lithic scatter. Located on the edge of a north/south shallow tributary in an eroded area, the site is at an elevation of 1,935 feet ASL. It is located 850 m southeast of Spring Creek. Site 41TG480 is moderate in size, covering an area of 1,700 m². The site continues onto private property to the east. At the time of the survey, the colluvial ground surface was about 75 percent visible. Young mesquite trees, prickly pear, and sparse grasses covered the ground.

Artifacts observed on the surface included cores, primary, secondary and tertiary flakes, retouched flakes, and bifaces. No diagnostic artifacts were recovered. No features or fire-cracked rock were noted at this site.

Five shovel tests were excavated to a maximum depth of 50 cm bs. One flake was collected from Shovel Test 1 between 0 and 10 cm bs and a single flake was retrieved from Shovel Test 2 between 30 and 40 cm bs (Appendix B). No surface observation areas were selected at this site.

The site suffers moderate slope erosion and some areas of bioturbation. This area is used for public recreation and cattle also graze in the area. A two-track road and fence cut through the site. Based on the results of limited shovel testing, the likelihood of recovering buried, intact cultural deposits with any degree of integrity is low. This site has minimal research value. No further investigations at this site are recommended (see Chapter 12).

Figure A-124. *Site map of 41TG480.*

41TG481

This upland site (Figure A-125) is classified as a prehistoric lithic scatter. It covers a moderate sized area (1,670 m²), and extends onto private property to the west. It sits on the east end of a low, heavily eroded ridge at an elevation of 1,935 feet ASL. The site is 980 m southeast of Spring Creek. At the time of the survey, the site's colluvial surface had about 70 percent visibility, with young mesquite trees, agarita bushes, and sparse grasses covering the surface.

Site 41TG481 was recorded as an artifact scatter represented by cores and flakes. Artifacts observed on the surface included cores, a tested cobble, primary, secondary, and tertiary flakes, a retouched flake and a Late Archaic-like point fragment, collected as UI #36. Although some fire-cracked rock was present on the surface, it was mixed with heavily weathered and naturally cracked angular limestone rocks.

Three shovel tests were excavated to a maximum depth of 70 cm bs. Two of the three shovel tests produced two flakes and fire-cracked chert between 0 and 20 cm bs (Appendix B). Surface observation areas were not selected at this site.

The site suffers extensive slope erosion, large animal burrowing, and impacts associated with grazing cattle. A two-track road and fence cut along the western boundary of the site. Based on the results of limited shovel testing the likelihood of recovering buried, intact cultural deposits with any degree of integrity is highly unlikely. The area has been churned by animal hooves and burrowing activity. This site has minimal research value. No further investigations are recommended (see Chapter 12).

Figure A-125. *Site map of 41TG481.*

41TG482

Site 41TG482 (Figure A-126) is a moderate sized (3,730 m²) prehistoric site classified as a lithic scatter. The site, at an elevation of 1,940 feet ASL, is on the end of an eroded limestone conglomerate shelf. The shelf overlooks Spring Creek, 780 m to the northwest. The site probably continues to the west onto private property. At the time of the survey, about 50 percent of the ground surface was visible with young mesquite trees, cedar trees, and sparse grasses obscuring the surface.

The artifact assemblage consisted of cores, tested cobbles, bifaces, unifaces, and primary, secondary and tertiary flakes. The assemblage appears to have resulted from the quarrying of chert gravels eroding out of a limestone conglomerate formation. There were several examples of 4–8 cm bifacial quarry blanks made from tabular chert, a form of tool not common on this survey. No diagnostic artifacts were recovered and no features or fire-cracked rock was observed.

Four shovel tests were excavated to a maximum depth of 50 cm bs, and an auger test was taken to 100 cm bs. Shovel Test 1 recovered three flakes between 0 and 20 cm bs (Appendix B). A single surface observation area was selected and inventoried. Within this area, 70 m² in size, 94 artifacts were recorded (Appendix D).

This site suffers significant slope erosion, and impacts associated with cattle grazing and recreational use. In addition, it has been significantly impacted by numerous animal burrows. Several two-track roads cut through the site. A fence, denoting the property boundary, defines the western edge of the site. These various impacts have resulted in shattered and crushed chunks of chert which are mixed with the artifacts on the surface. The artifacts on the surface appear to be displaced and deflated to a palimpsest condition. Although flakes were found in a shovel test, bioturbation in this area makes their integrity highly suspect. We would estimate that less than 10 percent of the site is intact. The research value of 41TG482 is considered minimal. No further work is recommended (see Chapter 12).

Figure A-126. Site map of 41TG482.

41TG483

This upland site (Figure A-127) is a small (880 m²) prehistoric occupation classified as a lithic scatter. The site is on a heavily eroded, gently sloping knoll 700 m southeast of Spring Creek, at an elevation of about 1,940 feet ASL. At the time of the survey, roughly 70 percent of the ground surface was visible with a covering of prickly pear, mesquite trees, cedar trees, and sparse grasses.

Site 41TG483 was represented by cores, tested cobbles, primary, secondary and tertiary flakes. No features were observed, however there were several pieces of fire-cracked rock recorded. No diagnostic artifacts were noted at this site.

Two shovel tests were excavated to a depth of 50 cm bs. No subsurface cultural material was recovered in either shovel test (Appendix B). A selected area comprising 150 m² was intensively inventoried and 29 artifacts documented (Appendix D).

This site and the surrounding area are used for public recreation. A two-track road cuts along the southwestern edge of the site making the area accessible to hunters and campers. This area is also used by ranchers to graze livestock and there are many cattle tracks across the site. The site also has extensive slope erosion, and animal burrowing is frequent. We estimate that only 10 percent of this site is intact. The site is extensively eroded and bioturbated. The artifacts have probably been displaced. Limited shovel testing provided no evidence of cultural features and associated material. The research value of this site is considered minimal. No further investigations are recommended (see Chapter 12).

Figure A-127. Site map of 41TG483.

41TG484

41TG484 (Figure A-128) is a moderate sized (5,000 m²) prehistoric site classified as a lithic scatter. The site lies 470 m southeast of Spring Creek, at an elevation of 1,935 feet ASL. It is located on an eroded, gently sloping limestone conglomerate shelf. A two-track road cuts through the site. At the time of the survey, the colluvial ground surface had about 85 percent visibility, with young mesquite trees, agarita bushes, and sparse grasses present.

Cores, primary, secondary and tertiary flakes were recorded at this site. The site appears to be a sparse lithic scatter with evidence of early stage reduction activities—predominately cores and primary flakes. A few artifacts found upslope east of the site were recorded as isolated finds. No diagnostics were discovered and no features or fire-cracked rock were observed.

Three shovel tests were taken to a maximum depth of 50 cm bs. No cultural material was recovered from any of the shovel tests (Appendix B). No surface observation areas were placed on this site.

The two-track road that crosses site 41TG484 makes this area accessible for recreational use. In addition, portions of the site have extensive bioturbation. This site is eroded and it is probable that the artifacts have been displaced. Shovel testing provided no evidence of subsurface deposits. We suggest that 41TG484 has minimal research value. No further testing is recommended (see Chapter 12).

Figure A-128. *Site map of 41TG484.*

41TG485

This upland site (Figure A-129) is a large (33,520 m²) scatter characterized as a prehistoric campsite. The site is on a gently sloping surface, with an exposed limestone conglomerate shelf on the northwestern portion. It is approximately 180 m south of Spring Creek at an elevation of 1,940 feet ASL. The southern boundary of the site abuts private property. It is likely that the site continues farther south. Several two-track roads also cut through the area. At the time of the survey, about 60 percent of the ground surface was visible with cedar trees, prickly pear, and sparse grasses present.

The assemblage of 41TG485 consisted of hearth features, a wide variety of stone tools, and associated debitage. Three hearth features were seen eroding out along the two-track roads. Hearth #1 consisted of a large quantity of small fire-cracked chert associated with a dense concentration of late stage chipping debitage. Hearths #2 and #3 consisted of larger limestone fire-cracked rocks with a few artifacts. Larger, early stage reduced lithics were prevalent along the northwestern portion of the site where chert gravels have eroded from an exposed limestone conglomerate shelf. The artifacts observed on the surface included primary, secondary and tertiary flakes, tested cobbles, cores, bifaces, unifaces, and utilized and retouched flakes. One biface was collected as UI #320. However, the biface was not diagnostic.

Thirteen shovel tests were dug to a maximum depth of 50 cm bs. Seven of the shovel tests were positive, with cultural material recovered from 0 to 30 cm bs (Appendix B). A 40 m² surface observation area was inventoried and 244 artifacts were recorded (Appendix D).

This site and the area around it are used for public recreation. A two-track road cuts across the center of the site, enabling access to vehicular and pedestrian traffic. Recreational activities include fishing, camping, and hunting. This area is also a livestock ranging area, and there are many cattle trails. Areas of bioturbation are also present. This site also has evidence of slope erosion. Nevertheless, we estimate that about 50 percent of this site is still intact. The three hearth features recorded were eroding out of the road cuts at 10–30 cm bs. Shovel test results indicate the presence of buried cultural material to a depth of 30 cm bs. This suggests that buried, intact cultural features and associated material may be present. The research value of this site is considered high. We recommend this site for further testing (see Chapter 12).

Figure A-129. Site map of 41TG485.

41TG486

This upland site (Figure A-130) is a large (11,650 m²) prehistoric scatter classified as a campsite. The site is on a high shelf, about 50 m south of Spring Creek, at an elevation 1,935 feet ASL. The southern boundary of the site abuts private property, and it is likely that 41TG486 continues to the south. A fence line and a series of roads also cut through the area. At the time of the survey, about 50 percent of the ground surface was visible with cedar trees, prickly pear, and moderately dense grasses present.

The assemblage at site 41TG486 consisted of a single fire-cracked rock hearth and associated debitage and tools. Artifacts observed on the surface included roughly 100 primary flakes, 250 secondary flakes, 350 tertiary flakes, five tested cobbles, 25 cores, 15 bifaces, 12 unifaces, 12 utilized flakes, and three retouched flakes. The majority of the artifacts, especially bifaces and tertiary flakes, were visible in the 10–15 cm deep road cuts. A broken biface was collected from the surface as UI #321. Scattered fire-cracked rock was also present. No diagnostic artifacts were recovered.

Five shovel tests were excavated to a maximum depth of 50 cm bs. All but one shovel test produced cultural material from 0 to 10 cm bs and between 30 to 40 cm bs, suggesting the possibility of two components (Appendix B). No surface observation areas were placed on this site.

A series of roads cut through the site, enabling access to vehicular and pedestrian traffic. Recreational activities conducted at this location include fishing, camping, and hunting. This area is also a livestock ranging area, and there are many cattle trails cutting across the site. Some areas of bioturbation are also present. The site has also been subjected to slope erosion, particularly in the road cuts. Finally, there is a small gully that washes through the western portion of the site. Despite these impacts, we estimate that about 50 percent of this site is intact. The presence of a feature, scattered fire-cracked rock, and a wide variety and density of tools and debitage, along with the evidence of subsurface deposits, suggests that data sets with application to a variety of research issues are present. We suggest that the research value of this site is high. Site 41TG486 is recommended for further testing (see Chapter 12).

Figure A-130. Site map of 41TG486.

41TG487

Site 41TG487 (Figure A-131) is a moderate sized (9,600 m²) prehistoric scatter classified as a lithic scatter/campsite. The site is on the northern end of a high, broad ridge trending in a north/south direction. A steep bluff comprised of limestone conglomerate forms the northern boundary of the site at Spring Creek. The southern site boundary is defined by a fence and road which denotes private property. The site, at an elevation of about 1,935 feet ASL, offers a commanding view of the Spring Creek valley. At the time of the survey, about 25 percent of the ground surface was visible with cedar trees, mesquite trees, cactus, and dense grasses present.

A fire-cracked rock feature with a wide variety of stone tools and debitage was recorded at 41TG487. Chert gravels eroding from the limestone conglomerate bluff along the northern edge of the site have been quarried. The hearth feature and associated debitage concentration was located in the central portion of the site. This portion of the site was classified as a campsite. Artifacts observed on the surface included about 100 primary flakes, 150 secondary flakes, 350 tertiary flakes, 15 tested cobbles, 45 cores, a biface, three unifaces, ten utilized flakes, and three retouched flakes. No diagnostic artifacts were recovered.

Four shovel tests were excavated to a maximum depth of 60 cm bs. All but one shovel test produced cultural material from 0 to 40 cm bs, with a concentration between 10 and 40 cm bs. A tested cobble, five flakes, and fire-cracked limestone were recovered from the shovel tests (Appendix B). No surface observation areas were placed at this site.

A series of two-track roads cut across the site, providing access for recreational activities including fishing, camping, and hunting. Four-wheel drive vehicles have impacted the western edge of the site. The surrounding area is also used for livestock, and there are many cattle trails across the site. The site has also been subjected to slope erosion, particularly along the northern edge. Despite these natural and cultural impacts, we estimate that about 40 percent of this site is intact. The presence of a zone of debitage and fire-cracked rock between 10 and 40 cm bs suggests the potential for buried features and associated material that could provide data on a variety of research topics. The research value of this site is considered high. Site 41TG487 is recommended for further testing (see Chapter 12).

Figure A-131. Site map of 41TG487.

41TG488

Site 41TG488 (Figure A-132) is a moderate sized (4,350 m²) prehistoric site classified as a lithic scatter/camp-site. It is located on a gently sloping sandstone-based shelf on the eastern edge of a deeply cut tributary of Spring Creek. The site, at an elevation of about 1,940 feet ASL, is 390 m south of Spring Creek. The southeastern boundary of the site abuts private land, and it is probable that the site continues off Bureau of Reclamation property. A fence, delineating the property boundary, and a series of roads, are present. At the time of the survey, about 30 percent of the surface was visible. Mesquite trees and dense grasses covered the ground.

Scattered fire-cracked rock associated with a wide variety of stone tools and debitage were recorded at this site. The debitage primarily represents late stage reduction activities. While no features were recorded, fire-cracked rocks appear on the surface except along the western portion of the site near an eroded and deflated bluff where gravels are present. This area appears to reflect early stage reduction activities. Artifacts observed on the surface included 25 cores, a tested cobble, 50 primary flakes, 40 secondary flakes, 350 tertiary flakes, three bifaces, a uniface, and a retouched flake. A Pandale point, collected as UI #37, dates the site to the Early Archaic. The point was found on the edge of a road cut 10–15 cm deep.

Seven shovel tests were dug to a maximum depth of 50 cm bs, and one auger test was taken to 70 cm bs, to the calcrete base. A core and two flakes were found in three of the shovel tests at a depth of 0 to 20 cm bs (Appendix B). No surface observation areas were placed at this site.

We estimate that about 30 percent of this site is intact. The site has been impacted by vehicle traffic. The slope is eroded and there are areas of bioturbation. Despite the eroded character of the site, we suggest that the research value should be classified as moderate. The presence of cultural material in the shovel tests, a diagnostic, and scattered fire-cracked rock suggest the possibility of buried cultural features and associated artifacts. In order to better evaluate the potential of the site, further investigations are recommended (see Chapter 12).

Figure A-132. *Site map of 41TG488.*

41TG489

Site 41TG489 (Figure A-133) is a large (55,330 m²), upland site classified as a lithic scatter/campsite. The site is on a low, gently sloping ridge trending southwest to northeast, ending on a raised knoll in the northeastern portion of the site. Site elevation is about 1,940 feet ASL. Spring Creek is located approximately 260 m to the southwest. A dirt road cuts along the northern edge of the site. At the time of this survey, about 30 percent of the surface was visible. Cedar and scattered mesquite trees were present on the knoll and along the ridge, and dense grass covered the northern portion of the site.

Abundant fire-cracked rocks associated with lithic concentrations and a wide variety of stone tools were recorded at 41TG489. Chipped stone and fire-cracked rocks are concentrated in the upper, northern portion and along the western edge. Artifacts observed on the surface included cores, tested cobbles, primary, secondary and tertiary flakes, bifaces, unifaces, retouched and utilized flakes, and a metate fragment. Some pinkish/red chert material had been worked here, a type of raw material infrequently observed in the Twin Buttes Reservoir survey. A Late Archaic Langtry point base (collected as UI #52) and a Middle Archaic Frio point proximal fragment (UI #38) were retrieved from the surface. No conclusive prehistoric features were observed. However, a pit, ca. 70 cm deep, with rock walls and a sloped entryway is present on the upper portion of the knoll. The age of this feature is not known. An additional pit, probably associated with looters, is to the east of the knoll.

Sixteen shovel tests were dug to a maximum depth of 50 cm bs. All but three shovel tests yielded cultural remains. Fire-cracked limestone and sandstone, 50 flakes, and mussel shell fragments were recovered from subsurface testing between 0 to 30 cm bs (Appendix B). A selected 90 m² area was inventoried, with 156 artifacts recorded (Appendix D).

We estimate that about 30 percent of this site remains intact. A deeply cut, two-track road passes through the northern portion of the site. The slope is eroded and areas of bioturbation are present. In addition, the site has been damaged by looters. Nevertheless, the presence of cultural material in shovel tests between 0 and 30 cm bs suggests there may be intact cultural features and deposits on the knoll. Such features and associated material can provide significant information on a variety of research issues. In addition, the pit feature, with rock walls and a sloped entryway, could be prehistoric. We suggest that the research value of this site should be considered high. Further investigations are recommended (see Chapter 12).

Figure A-133. *Site map of 41TG489.*

41TG490

Site 41TG490 (Figure A-134) is a small (380 m²) prehistoric site characterized as a lithic scatter. It is located on the east end of a low, heavily eroded north/south trending ridge, and lies 340 m southwest of Spring Creek. The elevation is approximately 1,940 feet ASL. The southwestern boundary of the site is defined by a fence and associated two-track road that delineates private property. It is likely that the site continues in that direction. At the time of the survey, about 25 percent of the ground surface was visible. Mesquite trees and grasses covered the site area.

Artifacts observed on the surface included a core, three secondary flakes, eight tertiary flakes, a crude biface, and a medial dart point fragment. Most of these were found in the two-track road cut. No features were recorded and fire-cracked rock was not observed on the site.

One shovel test, taken to a maximum depth of 50 cm bs, recovered no cultural material (Appendix B). No surface observation areas were selected at this site.

The site suffers extensive slope erosion and some animal burrowing. In addition, cattle have used this area. The site is heavily eroded and deflated, with little sediment remaining. Based on the results of limited shovel testing the likelihood of recovering buried cultural deposits with any degree of integrity is low. The site has minimal research value. No further investigations are recommended (see Chapter 12).

Figure A-134. Site map of 41TG490.

41TG491

Site 41TG491 (Figure A-135) is a moderate sized (2,550 m²) prehistoric site classified as a lithic scatter. The site is located 180 m south of Spring Creek, on the edge of a low, broad, south/north trending ridge and onto an upper terrace of Spring Creek. The site elevation is 1,945 feet ASL. The southern site boundary is determined by the property boundary. It is probable that the site extends south onto private land. A fence, delineating the property line, and several roads cut through the site. At the time of the survey, about 70 percent of the ground surface was visible in the bladed road, but only five percent of the surface was visible downslope. Mesquite trees, cactus, and grasses obscured most of the surface.

The artifact assemblage at 41TG491 consisted of cores, a tested cobble, and primary, secondary and tertiary flakes. No diagnostic artifacts were recovered. No features or fire-cracked rock were observed.

Four shovel tests, excavated to a maximum depth of 50 cm bs, were placed on this site. Only one of the four was positive, with the recovery of a flake between 30 and 40 cm bs in Shovel Test 1 (Appendix B). A single surface observation area was selected at this site. Within the 130 m² observation area 82 artifacts were recorded (Appendix D).

We estimate that this site is approximately 20 percent intact. It suffers significant slope erosion and areas of bioturbation. Several areas of the site have been impacted by cattle. Two-track roads cut through the site. The portion of the site inspected is in terrace deposits where there is some potential for buried material. Based the presence of a single flake buried between 30 and 40 cm bs, we suggest that there is a possibility of finding buried deposits. The research potential of the site should be considered moderate. Site 41TG491 is recommended for further testing (see Chapter 12).

Figure A-135. *Site map of 41TG491.*

41TG492

Site 41TG492 (Figure A-136) is a small (800 m²) prehistoric site classified as a lithic scatter. Located 210 m south of Spring Creek on a broad, gently sloping alluvial terrace, this upland site is at an elevation of 1,945 feet ASL. The southern boundary of the site is determined by a fence associated with the property line, and the site probably extends south onto private property. At the time of the survey, only about five percent of the ground surface was visible with mesquite trees, agarita, prickly pear, and dense grasses present.

A small number of artifacts were observed at this site. Artifacts noted included cores and a tertiary flake. These were found primarily in an area cleared by ants. Because of dense grasses and duff cover, only large artifacts were visible on the surface. No prehistoric features were observed and no diagnostic artifacts were recovered.

Three shovel tests were taken to a maximum depth of 50 cm bs. Two of the three shovel tests recovered three flakes between 30 and 50 cm bs (Appendix B). No surface observation areas were placed on this site.

This site is approximately 70 percent intact. There is some slope erosion and a few areas of bioturbation. This site and the area surrounding it are used for public recreation. Cattle also graze throughout this area. Based on our limited shovel testing, there is a potential for buried cultural deposits at 30–50 cm bs. We suggest that the research value of 41TG492 be considered moderate. Further testing is recommended (see Chapter 12).

Figure A-136. Site map of 41TG492.

41TG493

Site 41TG493 (Figure A-137) is a moderate sized (3,030 m²) site classified as a lithic scatter. The site is 980 m northeast of the Middle Concho River, at an elevation of about 1,945 feet ASL. It is located on a three to five percent sloping bluff near the south edge of an unnamed tributary of the Middle Concho. At the time of the survey, 70 percent of the surface was visible. A dense growth of mesquite, cedar, agarita bushes, prickly pear cacti, and grasses obscured the ground.

Artifacts observed at this site included three cores, five primary flakes, 10 secondary flakes, 15 tertiary flakes, a uniface, and a retouched flake. Fire-cracked rock was sparsely scattered across the site, although no features were recorded. No diagnostic was discovered at 41TG493.

Four shovel tests were taken to a maximum depth of 50 cm bs or to the calcrete base. No cultural material was encountered in any of the shovel tests (Appendix B). No intensive surface observation areas were placed on this site.

Allocated as public recreational land, the area around 41TG493 is subject to recreational activities. Cattle trails have also disturbed the area. Slope erosion is present and there are some areas of bioturbation. Extensive sheetwash erosion has occurred, displacing and deflating surface artifacts. We estimate that only about 10 percent of this site remains intact. We suggest that this site has minimal research value. No further testing is recommended (see Chapter 12)

Figure A-137. *Site map of 41TG493.*

41TG494

This site (Figure A-138) is a moderate sized (7,280 m²) occupation characterized as a campsite. It is located on a heavily eroded slope above the south edge of an unnamed tributary, 1,140 m northeast of the Middle Concho River, at an elevation of about 1,950 feet ASL. At the time of the survey, the surface had good visibility. About 30 percent of the ground surface was covered with dense grasses.

The site consisted of a large fire-cracked rock feature and associated lithic debitage. The feature was on the flatter, upper portion of the site, and a lithic concentration was recorded around the hearth feature. Artifacts observed on the surface included 10 cores, 10 primary flakes, 10 secondary flakes, 25 tertiary flakes, and a utilized flake. There was also an abundance of heated chert fragments on the surface. No diagnostic artifacts were collected.

Five shovel tests were excavated to a maximum depth of 50 cm bs. No cultural material was recovered from any of the shovel tests (Appendix B). No intensive surface observations were performed at this site.

Natural and cultural impacts have left about 20 percent of this site intact. It is heavily eroded with some bioturbations areas. Slope erosion has displaced the surface artifacts. We suggest that the research value of this site is minimal. No further investigations are recommended (see Chapter 12).

Figure A-138. *Site map of 41TG494.*

41TG495

This site (Figure A-139) is a moderate sized (5,240 m²) prehistoric occupation characterized as a lithic scatter. Located 1,200 m northwest of the Middle Concho River at an elevation of about 1,945 feet ASL, the site sits on the south edge of an unnamed drainage. The surface slopes gently toward the drainage. At the time of the survey, about 30 percent of the ground surface was visible. Mesquite, cedar, prickly pear and horse crippler cacti, agarita, catclaw bushes, and dense grasses obscured much of the ground.

This site appears to be an upland lithic procurement site with evidence of early to middle stage reduction activities. Artifacts observed on the surface included cores, a uniface, and primary, secondary and tertiary flakes. No diagnostic artifacts were recovered. No features or fire-cracked rock were observed.

Six shovel tests were excavated to a maximum depth of 44 cm bs to the calcrete base. Only one of the six shovel tests was positive. Two flakes, one of which was utilized, were recovered from Shovel Test 3 between 0 and 10 cm bs (Appendix B). A single surface observation area was selected. In that area, which was 110 m² in size, we recorded 11 artifacts (Appendix D).

This site and the area surrounding it are used for public recreation. Cattle also range in this area. The surface of this site is heavily eroded. Very shallow sediments remain except along the upper, southern portion of the site. In general, cultural material is either on the surface or shallowly buried. We suggest that the research value of 41TG495 is minimal. This site is not recommended for further testing (see Chapter 12).

Figure A-139. Site map of 41TG495.

41TG496

Site 41TG496 (Figure A-140) is a moderate sized (3,220 m²) prehistoric site classified as a lithic scatter. Located 1,200 m northwest of the Middle Concho River, the site is on the north side of an intermittent drainage, with a steep slope to the south. The site elevation is about 1,945 feet ASL. At the time of the survey, about 50 percent of the ground surface was visible with mesquite and cedar trees, prickly pear and horse creeper cacti, agarita, catclaw bushes, and moderately dense grasses obscuring half of the site.

Neither hearth features nor fire-cracked rock was observed at this site. Artifacts observed on the surface included cores, a uniface, and primary, secondary and tertiary flakes. A concentration of lithic debitage was present in the western, lower portion of the site. Cobbles and cores of banded and tabular chert were also recorded. Banded gray and black chert was not common on the Twin Buttes survey, and tabular chert was also rare. No diagnostic artifacts were recovered from 41TG496.

Three shovel tests were excavated to a maximum depth of 50 cm bs. All three provided evidence of cultural material. The shovel tests produced nine flakes (Appendix B). A single surface observation area was selected. In this 350 m² area we recorded 104 artifacts (Appendix D).

This site and the surrounding area are used for public recreation. The area is also used to graze cattle. There is some erosion, and areas of bioturbation were observed. Based on the limited shovel testing we consider the research value of 41TG496 to be moderate. This site is recommended for further testing (see Chapter 12).

Figure A-140. Site map of 41TG496.

41TG497

This upland site (Figure A-141) is a moderate sized (8,250 m²) prehistoric site classified as a lithic scatter. Located 1,100 m northwest of the Middle Concho River, the site is on two gently sloping knolls adjacent to the northern edge of an unnamed drainage. Site 41TG497 is at an elevation of 1,945 feet ASL. At the time of the survey, about 70 percent of the colluvial ground surface was visible with mesquite, cedar, prickly pear and horse creeper cacti, agarita, catclaw, and dense grasses present.

While no hearth features were observed on the site, fire-cracked rock was present. Artifacts observed on the surface included cores, a retouched flake, and primary, secondary and tertiary flakes. No diagnostic artifacts were recovered, although an untypeable point (possibly Late Archaic) was collected as UI #48. The site extends several meters upslope to the north onto private property with cobble outcrops on the southwestern edge. There are two knolls at this site, with colluvial fill between them. Artifacts are sparse in the area of colluvium and more concentrated around the knolls. The western knoll is the smaller of the two. They are both heavily eroded, slightly sloping landforms, with eroded bedrock exposed on the upper portion of the western knoll, while shallow sediments still remain on the upper portion of the eastern knoll. The site appears to be an upland lithic procurement site, with evidence of early to middle stage reduction activities.

Two of the five shovel tests were excavated to a depth of 50 cm bs. These shovel tests recovered two flakes between 0 and 10 cm bs (Appendix B). A single surface observation area was selected to be intensively inventoried. In this area of 170 m² we inventoried 35 artifacts (Appendix D).

This site and the area surrounding it are used for public recreation. This area is also open to ranging cattle. There is significant slope erosion and some bioturbation. Based on the limited shovel testing the research value of 41TG497 is considered minimal. The site surface is heavily eroded. No further investigations are recommended (see Chapter 12).

Figure A-141. Site map of 41TG497.

41TG498

Site 41TG498 (Figure A-142) is a moderate sized (1,520 m²) site classified as a lithic scatter. The site is located 1,100 m northwest of the Middle Concho River, on a heavily eroded, prominent knoll. An unnamed drainage is to the south. 41TG498 is at an elevation of roughly 1,950 feet ASL. At the time of the survey, about 70 percent of the colluvial ground surface was visible. Mesquite, cedar, cactus, and grasses were present.

Artifacts observed on the surface included five cores, five primary flakes, six secondary flakes, eight tertiary flakes, and a retouched flake. The debitage appeared to reflect early to middle stage reduction activities, suggesting that this site may have been an upland lithic procurement area. No diagnostic artifacts were recovered. We did not record any prehistoric features or fire-cracked rock at this site.

One shovel test was excavated to a maximum depth of 32 cm bs where the limestone base was encountered. No evidence of cultural material was recovered from this shovel test (see Appendix B). No surface observation areas were selected at this site.

This site and the area surrounding it are public recreation lands and used to graze cattle. The site has been impacted by campers, and cattle trails cut through the area. The surface is heavily eroded, and there are few artifacts present. Based on the limited shovel testing, the research value of 41TG498 is considered minimal. No further investigations are recommended at this site (see Chapter 12).

Figure A-142. *Site map of 41TG498.*

41TG499

This terrace site (Figure A-144) is a small (580 m²) prehistoric scatter classified as a campsite. The site is buried within an alluvial terrace on the south edge of the Middle Concho River, at an elevation of roughly 1,950 feet ASL. At the time of the survey, only about 10 percent of the ground was visible. Mesquite trees, elm trees, thorny brush, and dense grasses and weeds covered the surface.

The site was defined by a hearth feature and a core eroding out of the cutbank. The feature, recorded as a sandstone fire-cracked rock hearth, was observed eroding out of the cutbank ca. 50–60 cm below the upper terrace surface. A single core was found, roughly one meter northwest of the hearth, in the cutbank at approximately the same depth. No cultural features were noted on the upper modern surface.

Two shovel tests were dug to a maximum depth of 70 cm bs (see Appendix B). Shovel Test 1 produced fire-cracked sandstone and charcoal at 50 to 60 cm bs, approximately the same depth as the feature and core in the cutbank (Appendix B). No surface observation areas were placed on this site. In conjunction with the geomorphic assessment of the project area, Lee Nordt and Britt Bousman examined and described the cutbank at this site. Additionally, they excavated and described a backhoe trench west of the site (see Chapter 4 and Appendix I).

We estimate that about 50 percent of this site is still intact. Site 41TG499 and the surrounding area have been impacted by modern campers and fishermen. A two-track road runs across the north boundary of the site. The area is also utilized by ranchers to graze their cattle and there are cattle trails leading down to the river's edge. The cutbank has been modified by periodic exposure and inundation due to fluctuations in reservoir levels. The combination of these cultural and natural impacts is causing material to slump into the bottom of the channel. Nevertheless, we suggest that this site has high research potential. The presence of a partially buried hearth, with collaborating evidence of a second hearth in Shovel Test 1, suggest that features and associated cultural material are likely to be present. These data could provide significant information relevant to a variety of research questions. This site is therefore recommended for further testing (see Chapter 12).

Figure A-144. Site map of 41TG499.

41TG500

This terrace site (Figure A-145) is moderate in size (3,250 m²). It is classified as a lithic scatter/campsite. The site sits on a gently sloping second terrace, 30 m north of the Middle Concho River, at an elevation of roughly 1,880 feet ASL. At the time of the survey, the site's surface was about 70 percent visible. Mature mesquite trees and dense grasses were present.

Artifacts observed on the surface included cores, primary, secondary and tertiary flakes, bifaces, and retouched and utilized flakes. There were mussel shell fragments and a number of fire-cracked rocks spread across the site, though no hearths were defined.

Seven shovel tests were dug to a maximum depth of 70 cm bs, and one auger test was taken to 120 cm bs. Fire-cracked limestone and sandstone, mussel shell, and 26 flakes, one of which was used, were found in four of the seven shovel tests between 0 and 50 cm bs (Appendix B). Two areas were selected to be intensively inventoried. Area 1 was 28 m² in size and had 96 artifacts recorded. Area 2 had 160 artifacts in a 28 m² area (Appendix D).

Approximately 70 percent of this site remains intact. The site is in a public park and open to park related activities. There is extensive pedestrian and vehicular traffic. The area also suffers from park maintenance, such as grass mowing. The slope is slightly eroded and there are also some areas of bioturbation. We suggest that the research value of this site is high. The presence of cultural material in sequential levels to 50 cm bs suggests that there is a high potential for recovering buried cultural features with the potential to provide temporal and subsistence information. In order to better evaluate the research potential of the site, further investigations are recommended (see Chapter 12).

Figure A-145. *Site map of 41TG500.*

41TG502

This site (Figure A-146) is moderate in size (3,165 m²). Classified as a prehistoric campsite, it is on an alluvial terrace on the north bank of the Middle Concho River at an elevation of about 1,900 feet ASL. At the time of this survey, there was no vegetation present, as this site had only recently been exposed by the receding water in the reservoir. The site appears to be on the edge of an old borrow pit.

Five fire-cracked rock hearth features are present on the upper portion, near the center of the site. These hearths were noticed in a ca. 30 cm deep vehicle track. Most artifacts are along the western edge of the site near the water line. Predominately larger, middle stage reduction flakes and a few cores had been exposed by wave/shoreline erosion along the northern edge of the site. No diagnostic artifacts were recovered.

One shovel test, dug to a maximum depth of 70 cm bs, yielded no evidence of subsurface cultural material (see Appendix B). No surface observation areas were selected at this site.

The site is approximately 20 percent intact. The northern portion of the site has been used as a borrow pit area, presumably for building the Twin Buttes Dam, and the site now appears as a ridge running to an island in the reservoir. There is some erosion and silting at the site due to periodic inundation and exposure caused by fluctuating reservoir levels. The site and the area around it are designated recreational lands and receive a lot of vehicle and pedestrian traffic. The site is rapidly being destroyed by human activity. Activities such as four-wheeling have caused considerable damage to the site. Numerous deeply cut vehicle tracks have greatly impacted the wet surface and disturbed buried hearth features. Although much of the site has apparently been destroyed by sediment borrowing for dam construction, a portion of the site closest to the river channel may still be intact. The research value of this site is considered high. The conditions at this site suggest that there are buried, and possibly intact, features with associated cultural material that have the potential to provide information on a variety of research issues. This site is recommended for further investigation (see Chapter 12).

Figure A-146. Site map of 41TG502.

41TG503

This upland site (Figure A-147) is a small (275 m²) scatter of chipped stone classified as a prehistoric lithic scatter. Located 880 m northwest of the Middle Concho River at an elevation of roughly 1,925 feet ASL, the site is on a sloping limestone shelf. Exposed bedrock is present with a thin veneer of soil. The site overlooks an unnamed drainage to the Middle Concho River. Private land is to the north, and the site certainly continues in that direction. Bureau of Reclamation boundary marker #177 is on the site, and a fence cuts through the eastern edge. A two-track road is also present. At the time of the survey, about 70 percent of the ground surface was visible with cedar trees, salt cedar and agarita bushes, prickly pear cacti, and bear grass covering the site.

No prehistoric features were observed. A subjective evaluation of the artifacts observed on the surface included three cores, three primary flakes, three secondary flakes, four tertiary flakes, and a thick biface. These artifacts indicate early stage reduction activities and appear sporadically spread across the site in no apparent concentration. No diagnostic artifacts were recovered and the component remains unknown.

No subsurface testing was performed. No surface observation areas were selected at this site.

This site and the area surrounding it are used to range cattle, and portions of the site have been impacted by cattle grazing. The surface is also severely eroded, and some areas of bioturbation are present. As noted above, a fence and a two-track road cut through the site. The artifacts at the site are either sitting on bedrock, or are in a thin layer of colluvium. They have been displaced by slope erosion, and thus the site has little to no integrity. The research value of this site is considered minimal. No further investigations are recommended at this site (see Chapter 12).

Figure A-147. Site map of 41TG503.

41TG504

This site (Figure A-148) is large, multi-component site (64,690 m²) with both prehistoric and historic material present. The historic component is discussed in Chapter 11. The prehistoric material is classified as an open campsite. The site is on an upland surface, at an elevation of about 1,940 feet ASL. The surface gently slopes south to the South Concho River. At the time of the survey, about 40 percent of the ground surface was visible. Ground covering vegetation consisted of mesquite trees, prickly pear cactus, and grasses.

Prehistoric artifacts observed on the surface included cores, tested cobbles, primary, secondary and tertiary flakes, bifaces, unifaces, retouched and utilized flakes, and two projectile points. The first point, collected as UI #305, is an Early Triangular point. The triangular point was found in the uppermost, northern portion of the site where fewer artifacts could be seen on the surface. This point form suggests an Early Archaic temporal placement. The other diagnostic, a Bulverde point (UI #306) which dates to the Late Archaic, was found in association with an artifact concentration and seven hearth features near the river.

Nine shovel tests were dug to 70 cm bs, and one auger test was excavated to 100 cm bs. Seven of the shovel tests provided evidence of subsurface cultural material. The auger test was negative. Prehistoric material collected from the shovel tests included fire-cracked limestone and chert, 42 flakes, two cores, and a biface fragment (Appendix B). Two areas were selected for observation. The first area was 30 m² in size and contained 350 artifacts. The second surface observation area was 40 m² in size and contained 205 artifacts (Appendix D).

We estimate that approximately 50 percent of this site is intact. This site and the surrounding area are used by ranchers to graze cattle. There are two-track roads, cattle trails, and some areas of bioturbation present. In addition, the area has been used by fishermen and campers. Erosion is also present. The research value of the prehistoric component in the southern portion of the site is considered high. Fire-cracked rocks and lithics were found between 0 and 60 cm bs, suggesting the potential for intact deposits. Data from such deposits are potentially relevant to a variety of research issues. The research value of the prehistoric component in the upper, northern section of 41TG504 is considered minimal because of its questionable integrity. A historic sherd was found between 0 and 10 cm bs with shallowly buried flakes at the same depth. The southern section of this site is recommended for further testing to evaluate the research potential of the buried cultural deposits (see Chapter 12).

Figure A-148. *Site map of 41TG504.*

41TG505

Located about 180 m northwest of the South Concho River at an elevation of about 1,940 feet ASL, this site (Figure A-149) is classified as a prehistoric lithic scatter. The moderately sized (3,260 m²) site is on a surface which slopes toward the river. At the time of the survey, about 80 percent of the surface was visible in the eastern portion of the site. Visibility was about 50 percent across the rest of the site. Ground covering vegetation consisted of young mesquite trees and sparse grasses.

A subjective evaluation of artifacts observed on the surface included two cores, a primary flake, five tertiary flakes, a bifacial chopper, a uniface, and two retouched flakes. No diagnostic artifacts were recovered and no features noted, although there were a few fire-cracked rocks on the surface.

Three shovel tests were taken to a maximum depth of 50 cm bs, and an auger test was excavated to 58 cm bs. A cobble/conglomerate base was encountered at this depth. No indications of subsurface cultural material were recorded in any of the subsurface excavations (Appendix B). No surface observation area was selected at this site (Appendix D).

The site and the surrounding area are used to range cattle. A two-track road that runs along the eastern boundary of the site makes it accessible for recreational activities. The eastern portion of the site is heavily eroded, and this slope erosion appears to have displaced artifacts. In addition, some areas of bioturbation are also present. Based on the results of our limited shovel testing, and the questionable surface material the likelihood of recovering intact deposits with any degree of integrity is considered minimal. This site has little research potential. Further investigations are not recommended (see Chapter 12).

Figure A-149. Site map of 41TG505.

41TG506

This upland site (Figure A-150), classified as a prehistoric campsite, is a large (30,820 m²) scatter located on the ends of two finger ridges. A fence on the western side of the site delineates the property boundary, and it is likely that the site continues onto private land. The surface of 41TG506 slopes gently to the edge of the South Concho River. The site is at an elevation of about 1,945 feet ASL. At the time of the survey, about 50 percent of the ground surface was visible. Vegetation observed included mesquite trees, assorted cacti, and grasses.

Three mortar holes were documented near the river's edge in limestone conglomerate bedrock. Artifacts found on the surface included cores, primary, secondary and tertiary flakes, bifaces, unifaces, and retouched and utilized flakes. These were located predominately around and on the eroded finger ridges. A Pandale-like dart point (UI #302) dates the site to the Middle Archaic and a Perdiz Arrow point (UI #301) indicates a Late Prehistoric component. No intact hearth features could be observed on the surface. However, a large quantity of fire-cracked rock was present.

Seventeen shovel tests were dug to a maximum depth of 70 cm bs, and one auger test was taken to 140 cm bs. Eleven shovel tests and the auger hole were positive, recovering bone and mussel shell fragments, 103 flakes, one core, three utilized flakes, and fire-cracked limestone and sandstone. These artifacts were recovered in two discrete deposits, the first between 0 and 10 cm bs, and the second between 20 and 40 cm bs (Appendix B). A 100 m² surface observation area was selected and intensively inventoried. Two-hundred and twenty-three artifacts were recorded in this area (Appendix D).

We estimate that about 80 percent of this site is intact. This site, and the surrounding area are designated as public recreation land. A two-track road and fence line cut across the western boundary of the site. The road makes the site accessible for recreational activities. Slope erosion is present. There is also an area of gully down-cutting located in the center of the site. Despite the erosional and recreational impacts, the research value of this site is high. The shovel tests and the auger test both indicate that the subsurface deposits at this site could be intact, and may reflect two distinct occupations. The projectile points collected from the surface also suggest multiple occupations. There is excellent potential for recovering data relevant to a variety of research questions from buried, potentially intact features and associated cultural material. This site is recommended for further testing (Chapter 12).

Figure A-150. *Site map of 41TG506.*

41TG507

This upland site (Figure A-151) is classified as a prehistoric lithic scatter. The moderately sized (2,730 m²) site is 870 m southeast of the South Concho River, at an elevation of about 1,940 feet ASL. The site is on a low, eroded, limestone knoll. At the time of the survey, roughly 45 percent of the ground surface was visible. Vegetation consisted of mesquite trees, assorted cacti, and sparse grasses.

Artifacts observed on the surface included core fragments, primary, secondary and tertiary flakes, and tested cobbles. No diagnostic artifacts were recovered and no features noted. The artifacts were associated with exposed, decomposed limestone and chert cobbles.

Three shovel tests, taken to a maximum depth of 50 cm bs, yielded no evidence of subsurface cultural activity (Appendix B). A selected surface observation area, 1,140 m² in size, was intensively inspected. A total of 45 artifacts were observed (Appendix D).

We estimate that 41TG507 is only about 10 percent intact. This site is extremely eroded and deflated. Areas of bioturbation were also seen. No cultural material was found below the surface in any of the three shovel tests. We suggest that this site has little research value. No further investigations are recommended at 41TG507 (see Chapter 12).

Figure A-151. *Site map of 41TG507.*

41TG508

This terrace site (Figure A-152) is a moderate sized (1,460 m²) prehistoric campsite. Situated above the eastern edge of a gently sloping, upper terrace at approximately 1,935 feet ASL, 41TG508 is 590 m southeast of the South Concho River. A railroad grade is present along the eastern edge of the site. The construction of the railroad has disturbed 41TG508. At the time of the survey, surface visibility was only adequate in the cut of the two-track road that runs along the eastern side of the site. Away from the road, only about 10 percent of the ground surface was visible. Cedar bushes and grass covered the surface.

Two fire-cracked rock hearth features have been exposed on the south edge of a ca. 20 cm-deep road cut. Associated with these hearths is a small lithic scatter. Artifacts observed on the surface included two primary flakes, five secondary flakes, ten tertiary flakes, and two utilized flakes. No diagnostic artifacts were encountered.

Three shovel tests were dug to a maximum depth of 50 cm bs, and one auger test was taken to 100 cm bs. No evidence of subsurface cultural material was found in any of the shovel tests or the auger test (Appendix B). An 80 m² surface observation area was inventoried, recording 13 artifacts (see Appendix D).

We estimate that about 20 percent of this site remains intact. This site is open to recreational activities, and the area is also used by ranchers to graze cattle. The two-track road and the old railroad grade that cut along the eastern edge of the site have significantly impacted the area. The site is also subject to slope erosion, and there are animal burrows present. The fire-cracked rock features have been exposed and displaced in the road cut. The research value of this site is considered minimal. No further investigations are recommended (see Chapter 12).

Figure A-152. Site map of 41TG508.

41TG509

Site 41TG509 (Figure A-153) is a moderate sized (8,850 m²) scatter of artifacts and features classified as a campsite. The site is on a lower alluvial terrace at the confluence of an unnamed tributary and the South Concho River. Elevation is about 1,930 feet ASL. A two-track road is also present. At the time of the survey, visibility was poor. Approximately 95 percent of the ground surface was covered by thick stands of salt cedar brush, dense grasses, and weeds.

Five fire-cracked rock hearth features were observed eroding out of the terrace near the confluence. Three of the hearths were exposed near the surface and at least two others were eroding at the present water level, roughly 70 cm below the surface. These hearths were associated with burned mussel shell, some chert flakes, and deer bone. The scant artifact assemblage visible on the surface included primary, secondary and tertiary flakes. These were predominately seen in the two-track road. No diagnostic artifacts were observed at this site.

Six shovel tests were dug to a maximum depth of 70 cm bs. All shovel tests provided subsurface cultural material continuously between 0 and 70 cm bs. Materials collected from the shovel tests included 39 flakes, a biface, bone fragments, mussel shell, fire-cracked limestone, sandstone, and chert, a charred pecan shell, and charcoal. Between 65 and 70 cm bs in Shovel Test 1, a dense mussel shell lens was encountered indicating that this site has the potential for deeper cultural material (Appendix B). A 110 m² surface observation area was inventoried. Nineteen artifacts were recorded (Appendix D).

As part of a public recreation area, 41TG509 is impacted by modern campers and fishermen. A two-track road that runs through the center of the site and out to the point of the confluence, allows easy access for these types of activities. The area is also used by ranchers to graze their cattle, and there are cattle trails leading down to the river's edge. The cutbank has been modified and the shoreline eroded by periodic exposure and inundation due to fluctuations in reservoir levels. In spite of these impacts, we estimate that about 70 percent of this site is intact. All of the shovel tests contained cultural material. Based on hearth features and associated cultural material eroding from the cutbank, corroborated by an abundance of cultural material recovered from the shovel tests, it appears that this site contains at least one, well-stratified, deeply buried component. It is quite likely that multiple components are present. There is a significant probability that there are *in situ* features and associated cultural material which can provide information on a variety of research issues. The research value of this site is high. This site is recommended for additional testing (see Chapter 12).

Figure A-153. Site map of 41TG509.

41TG510

This terrace site (Figure A-154) is a moderate sized (3,450 m²) scatter of lithics and features classified as a prehistoric campsite. The site is on an upper, broad, gently sloping terrace deposit on the western edge of an unnamed tributary 550 m southeast of the South Concho River. The site is at about 1,930 feet ASL. A two-track road cuts through the site. At the time of the survey, approximately 10 percent of the ground surface was visible. Salt cedar bushes, dense grasses, and weeds obscured the surface.

Two distinct fire-cracked rock hearth features were observed eroding out of a slumping terrace face along the unnamed drainage, and fire-cracked rock was recorded in the ca. 10 cm deep two-track road. A finely-flaked bifacial preform was found up slope from the hearths, and three flakes were found on the road where surface visibility was high. No diagnostic artifacts were recovered.

Six shovel tests were dug to a maximum depth of 60 cm bs, and one auger test was excavated to 140 cm bs. Two of the six shovel tests were positive, with three flakes recovered between 30 and 60 cm bs (Appendix B). No surface observation areas were placed on this site.

We estimate that this site is approximately 50 percent intact. The site and the area around it are designated recreational lands and receive frequent vehicle traffic. Slope erosion and shoreline slumping are evident. There are a few areas of bioturbation present. This site appears to have at least two occupations. One is manifested by hearths and lithic debitage on the surface and the other is represented by the subsurface cultural remains. The research value of this site is considered moderate. The upper component hearth features and associated artifacts appear to have been disturbed. However, limited shovel testing suggests there is a potential for buried cultural features and associated material. This site is recommended for further investigation to better evaluate its research potential (see Chapter 12).

Figure A-154. Site map of 41TG510.

41TG511

This site (Figure A-155) is a large (10,010 m²) scatter classified as a prehistoric campsite. It is on an eroded, narrow terrace remnant on the eastern edge of the South Concho River at around 1,930 feet ASL. Limestone conglomerate is exposed in the center of the site. A two-track road cuts through the site. At the time of the survey, about 50 percent of the surface was visible. Young mesquite trees, salt cedar bushes, and dense grasses covered the site.

Erosion had exposed two fire-cracked rock hearth features on the slope near the river cutbank. The southern-most hearth was associated with a small mussel shell concentration. Artifacts observed on the surface included cores, primary, secondary and tertiary flakes, tested cobbles, and utilized flakes. The artifacts predominately occurred around the limestone conglomerate in the center of the site. No diagnostic artifacts were recovered at 41TG511.

Seven shovel tests were dug to a maximum depth of 50 cm bs. Two of the shovel tests recovered two flakes and mussel shell fragments between 0 to 20 cm bs (Appendix B). A 180 m² surface observation area was inventoried. Forty-five artifacts were recorded in this area (Appendix D).

We estimate that 30 percent of this site is intact. The site and surrounding area are designated as recreational land and range land for grazing animals. A two-track road that cuts through the site allows easy access to the area. The hearth features and associated cultural material have been exposed due to erosion, thus displacing and deflating them from their original context. The shovel test results indicate that the site is shallowly buried. The research value of this site is considered minimal. No further investigations are recommended (see Chapter 12).

Figure A-155. Site map of 41TG511.

41TG512

This riverine site (Figure A-156) is a small (4,580 m²) scatter of artifacts and a fire-cracked rock hearth. We classified this site as a camp. Located at about 1,930 feet ASL, 41TG512 is on a gently sloping alluvial terrace near the eastern edge of the South Concho River. The site probably extends northwest into the Twin Buttes Reservoir. At the time of the survey, scrub brush and dense marshy grasses obstructed about 90 percent of the surface.

Erosion has exposed a circular fire-cracked rock feature on the western edge of the site near the modern reservoir shoreline. A Late Archaic Langtry point (UI #310) was collected near the feature. Other artifacts observed on the surface included cores, flakes, bifaces, unifaces, and utilized flakes. The surface artifacts were concentrated along an old shoreline parallel to the reservoir.

Two shovel tests were dug to a maximum depth of 70 cm bs—both were positive. A total of six flakes and a biface, classified as a preform, were recovered from between 0 and 10 cm bs (Appendix B). A selected 120 m² surface observation area was placed on the site. We recorded 413 artifacts in this area (Appendix D).

As part of a public recreation area, this site and the surrounding area receive a fair amount of vehicle and pedestrian traffic. The area is also used to range cattle and there are many cattle tracks. We estimate that about 20 percent of this site is intact. The hearth feature and artifacts appear to be deflated and displaced by shoreline wave action due to periodic inundation and exposure caused by fluctuating reservoir levels. While both shovel tests were positive, the deposits were confined to the upper 10 cm. We suggest that the research value of the site is minimal. No further investigations are recommended (see Chapter 12).

Figure A-156. *Site map of 41TG512.*

41TG513

This site (Figure A-157), located at about 1,930 feet ASL, is a large (13,080 m²) scatter of chipped stone with a fire-cracked rock feature. We classified this site as a campsite. The site is situated on a low, gently sloping, alluvial terrace near the confluence of an unnamed tributary and the South Concho River. The river channel is about 240 m to the northwest, though water from the Twin Buttes Reservoir currently forms the northwestern boundary. An historic component is also present (see Chapter 11). At the time of the survey, only about 10 percent of the ground was visible. Young willow trees and a thick blanket of grass obscured the surface.

Shoreline erosion/wave action has exposed a fire-cracked rock hearth feature with associated lithic debitage on the western edge of the site. Associated artifacts observed on the surface included cores, flakes, bifaces, re-touched flakes, and utilized flakes. No prehistoric diagnostic artifact was noted, but a retouched blade was collected from the surface, about 50 meters to the northeast of the site (UI #76).

Four shovel tests were taken to a maximum depth of 70 cm bs. All four were positive. A total of 25 flakes, two bifaces, and a number of pieces of fire-cracked limestone were recovered from between 0 and 40 cm bs in these shovel tests (Appendix B). A 320 m² surface observation area was inspected. We documented 160 artifacts in this area (Appendix D).

We estimate that about 70 percent of this site is intact. Shoreline erosion/wave action has damaged a portion of the surface. In addition, a variety of activities, including modern fishing and camping, occur at this location. A two-track road also cuts through the site. In spite of these impacts, we suggest that the site has significant research potential. The high frequency of positive shovel tests, and the recovery of material down to 40 cm bs, demonstrates that buried cultural material is present. In addition, the recovery of fire-cracked limestone suggests that buried features may also be expected. We suggest that the prehistoric research potential of this site be considered high, and further investigations at 41TG513 are recommended (see Chapter 12).

Figure A-157. Site map of 41TG513.

41TG514

Site 41TG514 (Figure A-158) is classified as a prehistoric lithic scatter. The large sized (20,010 m²) site is at an elevation of about 1,980 feet ASL. The South Concho River is 1,220 m to the northwest. Site 41TG514 is on a gently sloping, eroded, upland surface above the South Concho River floodplain. At the time of the survey, surface visibility was estimated at 30 percent. Vegetation observed included mesquite and cedar trees, assorted cacti, and dense grass.

Artifacts observed on the surface included core fragments, tested cobbles, primary, secondary and tertiary flakes, bifaces, unifaces, and utilized flakes. No diagnostic artifacts were recovered and no features or fire-cracked rock were noted. The artifacts were associated with exposed, decomposed limestone and chert cobbles.

Five shovel tests were placed on this site. All five were shallow, with a calcrete base encountered at an average depth of 10 cm. No evidence of subsurface cultural activity was discovered in any of the shovel tests (Appendix B). A selected surface observation area comprising 490 m² was inspected. Attributes of 44 artifacts were recorded in this area (Appendix D).

We estimate that only about 20 percent of site 41TG514 remains intact. The site suffers extensive erosion with some areas of bioturbation. The site and surrounding area are used to graze cattle and for a variety of recreational activities, including camping. Given that none of the shovel tests were positive, and the shallow nature of the sediments, we suggest that the site has little research potential. No further investigations are recommended at 41TG514 (see Chapter 12).

Figure A-158. *Site map of 41TG514.*

41TG515

This upland site (Figure A-159) is classified as a prehistoric lithic scatter. The site is moderate in size (4,260 m²) and consists of scattered chipped stone artifacts. Site 41TG515 is on an eroded sandstone bluff, at an elevation of about 1,945 feet ASL. The surface slopes to the northwest, toward the South Concho River, which is located 530 m away. Several gullies cut through the site. In addition, a railroad grade and a fence line form the southeastern boundary of 41TG515. The site certainly continued onto private land in that direction. At the time of the survey, we estimate that about 70 percent of the surface was visible. Vegetation observed included mesquite and cedar trees, sage brush, prickly pear cactus, and grass.

Artifacts observed on the surface included cores, tested cobbles, primary, secondary and tertiary flakes, bifaces, unifaces, and utilized flakes. No features or fire-cracked rock were noted on the surface. In addition, no diagnostic artifacts were recovered

A total of four shovel tests were excavated at this site. The shovel tests were excavated to a maximum depth of 38 cm bs, where a sandstone base was encountered. No artifacts or other evidence of buried cultural material was recovered from any of the four shovel tests (Appendix B). A selected surface observation area comprising 1,120 m² was intensively inspected. Attributes were recorded on 116 artifacts within this area (Appendix D).

Site 41TG515 has been extensively eroded. The site and surrounding area are part of the public recreation area, and the location has been visited by modern campers. The area has also been used to range cattle, and several trails cross the site. Areas of bioturbation were also noted. Site 41TG515 is eroded and deflated. Construction of the railroad grade has certainly damaged the site. In addition, a series of active gullies cut through the area. The level of impact to the site is high, and we estimate that only about five percent of the site remains intact. As no cultural material was found in any of the shovel tests, and as the sediments are shallow, we suggest that this site has little research potential. No further investigations are recommended (see Chapter 12).

Figure A-159. *Site map of 41TG515.*

41TG516

This upland site (Figure A-160) is a large scatter with both prehistoric and historic material present (see Chapter 11). The prehistoric component of this site is classified as a lithic scatter. The site is large (41,810 m²) and is located 150 m northwest of Spring Creek, at an elevation of around 1,890 feet ASL. The site is on a low, broad, gently sloping ridge between Spring Creek and the Middle Concho River. A paved road cuts through the center of the site. At the time of the survey, about 40 percent of the surface was visible. Vegetation consisted of mesquite and cedar trees, assorted cacti, and moderately dense grasses.

A subjective evaluation of the artifacts observed on the surface included 14 cores, 15 primary flakes, 35 secondary flakes, 25 tertiary flakes, six bifaces, two unifaces, and five utilized flakes. Approximately 80 percent of the artifacts were observed on the east side of the north/south paved road, designated Area B, where surface visibility was enhanced. No diagnostic artifacts were recovered. No features or fire-cracked rock were noted on the surface.

Seventeen shovel tests were taken to a maximum depth of 70 cm bs, and two auger tests bored. Eight of the shovel tests and an auger test were placed in Area A, located to the west of the paved road, and nine shovel tests and an auger test were placed in Area B, located to the east of the road (see Figure A-160). Seven of the 17 shovel tests provided evidence of multiple prehistoric occupations. Mussel shell fragments, 21 flakes, and two bifaces were retrieved from the shovel tests between 0 and 30 cm bs and between 40 and 60 cm bs. The upper level artifacts were mixed with historic artifacts (Appendix B). No surface observation areas were placed at this site.

The prehistoric component at 41TG516 is about 50 percent intact. There is some slope erosion and a few bioturbations areas. This site and the surrounding area are part of a public recreation area as well as designated range land for cattle. There have been many modern disturbances at this site. The paved road, noted above, has been constructed through the center of the site, and a variety of trails are also present. An earthen berm has been constructed parallel to the north/south road, and the western portion of the site appears to have been machine cleared or plowed. Future impacts are perceived to be continued slope erosion, bioturbation, and pedestrian and bike traffic. In spite of these impacts, the research value of the prehistoric component of the site is considered high. Limited shovel testing has provided evidence for a potentially intact, buried cultural component, especially in Area A. Given these results, the site is recommended for further testing (see Chapter 12).

Figure A-160. Site map of 41TG516.

41TG517

This upland site (Figure A-161) is a large (12,030 m²) prehistoric lithic scatter located 200 m south of the Middle Concho River. The site sits on a high, eroded, sandstone bluff overlooking the river terraces to the north, at an elevation of roughly 1,910 feet ASL. Private land, designated by a fence line, is to the east of the site and lithic debitage continues in that direction. At the time of the survey, about 70 percent of the ground surface was visible with mesquite and cedar trees, sotol, prickly pear cactus, and sparse grasses covering the ground.

Artifacts observed on the surface included six cores, three tested cobbles, about 100 primary flakes, 270 secondary flakes, 250 tertiary flakes, five bifaces, three unifaces, three retouched flakes, and two utilized flakes. Two dart points, a Late Archaic, Marcos point (UI #312), and another, untyped dart point (UI #313), were collected from the surface. Artifacts were predominately observed north of the datum. The wide variety of stone tools suggest that the site may have been used as a temporary campsite, but on the portion of the site that we were able to inspect, no hearths were recorded though a few fire-cracked rocks were present. The main portion of the site appears to be on private property. The portion on private property may contain hearth features.

Eight shovel tests were taken to a maximum depth of 50 cm bs. This limited shovel testing indicates shallow sediments remain. Only two flakes were recovered from the shovel testing, one in Shovel Test 2 and one in Shovel Test 3. Both flakes were recovered in the upper 10 cm (Appendix B). No surface observation areas were selected at this site.

This site and the area surrounding it are public recreation land. The site has been heavily disturbed by modern landform modifications. A fence line forms the artificial southeastern boundary of the site. A railroad cut forms the artificial northern boundary of the site, and a water pipeline has also been dug into the site. It is also the case that the main portion of the site probably is beyond the fence on private land. This site is heavily eroded, deflated, and bioturbated. Given the low frequency of recovery in the shovel tests, and the shallow nature of the deposits, the research value of this site is considered minimal. No further investigations are recommended at 41TG517 (see Chapter 12).

Figure A-161. *Site map of 41TG517.*

41TG518

This upland site (Figure A-162) is a large (4,260 m²) scatter of chipped stone classified as a prehistoric lithic scatter. It lies 110 m south of the Middle Concho River at an elevation of around 1,900 feet ASL. The site sits on the end of an eroded, low finger ridge above an upper terrace of the river. The setting of this site is directly north of 41TG517 on the other side of the railroad grade. At the time of the survey, the surface had about 60 percent visibility. Vegetation consisted of mesquite and cedar trees, sotol, prickly pear cactus, and grasses.

Artifacts observed on the surface included cores, tested cobbles, primary, secondary and tertiary flakes, bifaces, unifaces, and retouched and utilized flakes. These were generally found on the northern, flat surface and at the end of the low ridge. The frequency of artifacts decreased toward the south. A fragment of an untypeable point, morphologically reflecting a Late Archaic form, was collected as UI#46. The assemblage at this site is similar to others observed in this area. The wide variety of stone tools present in the assemblage suggests at least a short-term campsite, but few pieces of fire-cracked rock were seen and no discernible features were observed.

Two shovel tests were taken to a maximum depth of 30 cm bs to the sandstone base. A single flake was recovered in Shovel Test 1 between 20 and 25 cm bs (Appendix B). Two surface observation areas were selected at this site. Area 1 was 70 m² in size and a total of 158 artifacts were recorded. Area 2 documented 237 artifacts in a 28 m² area (Appendix D).

We estimate that only about 20 percent of this site is left intact. This site sits in an active park which receives a significant amount of pedestrian traffic. A modern fence line and a cut for an abandoned railroad bed form the artificial southern boundary of the site. The site also suffers extensive bioturbation. The soils are shallow and there is significant slope erosion associated with the finger ridge region. The surface is heavily eroded and deflated, leaving the artifact assemblage displaced. The vertical provenience of a single, subsurface flake is in doubt because of the numerous animal burrows. We suggest that this site has little research potential, and we do not recommend any additional work at this location (see Chapter 12).

Figure A-162. Site map of 41TG518.

41TG519

This riverine site (Figure A-163) is a large (76,600 m²), dense scatter of chipped stone and fire-cracked rock classified as a campsite. It is located on a low, gently sloping, alluvial terrace on an inside meander of the Middle Concho River at an elevation of around 1,880 feet ASL. A series of modern hike and bike trails cut through the area, and the southwestern portion of the site has been graded as a parking area for these trails. At the time of the survey, there was about 40 percent ground surface visibility on the eastern portion of this site and approximately five percent everywhere else. Most of the site was covered with a dense stand of pecan, elm, and cedar, thorny brush, grasses and weeds.

Mortar holes, scattered fire-cracked rock, and a wide variety of stone tools were present on the surface. Four mortar holes were documented ground into a limestone conglomerate shelf on the water's edge along the northwestern boundary of the site. Artifacts visible on the surface included about 20 cores, over 100 primary flakes, more than 1,000 secondary flakes, more than 600 tertiary flakes, 10 bifaces, eight unifaces, and six utilized flakes. No intact hearth features could be observed on the surface. However, fire-cracked rock, along with mussel shell, were found eroding out of a hike and bike trail. In addition, fire-cracked rock was common on the southwestern portion of the site.

Five shovel tests were dug to a maximum depth of 70 cm bs. Three shovel tests were positive, recovering flakes down to 40 cm bs. (Note: excavation was terminated prior to the completion of shovel testing at the request of the director of the San Angelo Nature Center. This organization currently manages the area. Consequently, detailed information on the results of the shovel tests are not available. Therefore, these data are not included in Appendix B). A 28 m² surface observation area was selected and intensively inventoried. Attributes were recorded on 450 artifacts (Appendix D).

We estimate that in spite of the relatively heavy impacts to the site area which are associated with the hike and bike trails, about 70 percent of this site is intact. This particular area is an active park and is open to the public which makes the site subject to artifact collecting. The northwestern portion of the site near the river has been heavily looted, with many large potholes evident. It has also been significantly damaged by recent machine blading and construction activities. Other recent modifications are a parking lot, a fence around the parking lot, and pavilion construction. There is some slope erosion, and areas of bioturbation were clearly visible. Despite the modified and eroded nature of the site, the research value is considered high. The exposed cultural material in the hike and bike trail indicates there are potentially buried, intact cultural features and associated material. These potentially *in situ* deposits can provide important information on a variety of research issues. This site is recommended for further testing (see Chapter 12).

Figure A-163. Site map of 41TG519.

41TG520

This upland site (Figure A-164) is classified as a prehistoric lithic scatter. A historic component is also present (see Chapter 11). The site is large (13,180 m²), though only a small area, roughly 490 m² in size, contained prehistoric material. Site 41TG520 is located about 550 m south of Spring Creek at an elevation of around 1,895 feet ASL. The site sits on the highest point on the end of a gently sloping finger ridge above an upper terrace of Spring Creek. At the time of the survey, the surface had about 50 percent visibility. Large mesquite trees, thorny brush, pencil cactus, and sparse grasses covered the surface.

The prehistoric artifacts observed on the surface consisted of cores and flakes. These were located on a slope where chert gravels outcrop on the southeastern portion of the site. No diagnostic artifacts were recovered. No features or fire-cracked rock were noted in association with the prehistoric material.

Two shovel tests taken to a maximum depth of 23 cm bs, where a calcrete base was encountered, yielded no evidence of buried cultural material (Appendix B). A selected surface area comprising 850 m² was intensively inspected and 22 prehistoric artifacts were inventoried (see Appendix D).

The prehistoric component at 41TG520 is about 20 percent intact. This site and the surrounding area are part of a public recreation area as well as designated range land for cattle. An overgrown ditch and a two-track road cut through the site. There are three depressions, probably historic in age, as well as other historical disturbances. In addition, there is some slope erosion. The research value of the prehistoric component of the site is considered minimal. Neither shovel test produced subsurface material. No further testing is recommended at 41TG520 (see Chapter 12).

Figure A-164. Site map of 41TG520.

41TG522

This upland site (Figure A-165) is classified as a prehistoric lithic scatter. It is a small area (410 m²) that lies 730 m southeast of Spring Creek at around 1,900 feet ASL. It is located on a low, gently sloping knoll on the edge of a shallow drainage cut into an upper alluvial terrace. At the time of the survey, the surface had about 60 percent visibility. Vegetation consisted of mesquite trees, prickly pear cactus, and sparse grasses.

Artifacts observed on the surface were cores and flakes. These were concentrated along the northwestern portion of the site where chert gravels are exposed. No diagnostic artifacts were recovered, and no features could be identified. No pieces of fire-cracked rock were noted on the surface.

Two shovel tests, taken to a maximum depth of 31 cm bs, or to the calcrete base, yielded no evidence of subsurface cultural activity (Appendix B). A selected surface observation area, 85 m² in area, was intensively inspected. Attributes were recorded on 23 artifacts within this area (Appendix D).

We estimate that only about 20 percent of 41TG522 remains intact. There is some slope erosion, and a few areas of bioturbation are present. The site's surface is deflated. Limited shovel testing provided no indication of buried cultural material, and a calcrete layer is within 30 cm of the current surface. We suggest that this site has little research potential. No further investigations of this site are recommended (see Chapter 12).

Figure A-165. *Site map of 41TG522.*

41TG523

This upland site (Figure A-166) has both a historic (see Chapter 11) and prehistoric component. The prehistoric material was classified as a lithic scatter. The site is a large area (23,780 m²) that lies 340 m southwest of Spring Creek at an elevation of around 1,905 feet ASL. The site sits on a small, low knoll on a broad, gently sloping finger ridge overlooking an upper terrace of Spring Creek. At the time of the survey, the surface had about 50 percent visibility. Vegetation consisted of dense, large mesquite trees, cedar trees, assorted cacti, and sparse grasses.

The prehistoric artifacts observed on the surface consisted of cores, flakes, bifaces, and unifaces. These were located on the southern portion of the site. An Early Archaic Gower-like dart point fragment was collected as UI#64 on the northern portion of the site. Another diagnostic artifact, a Late Paleoindian point base, was collected as UI#67. These two temporally separate diagnostics indicate the possibility that multiple prehistoric components are present at this site.

Two shovel tests taken to a maximum depth of 10 cm bs where calcrete was encountered. Neither of the shovel tests were positive (Appendix B). Two surface observation areas were selected and inventoried. Area 1 was 290 m² in size, and 43 artifacts were recorded. Area 2 had 57 artifacts in a 610 m² area (Appendix D).

This site and the surrounding area are part of a public recreation area. The site is frequently visited by historical re-enactors. It is also used by ranchers to graze cattle, and cattle trails cut across the site. There is some slope erosion and a few bioturbations areas. The presence of the historic component, which is fairly extensive, has also impacted the prehistoric occupation. Given the level of impact and the lack of material present in the limited shovel testing, we suggest that only about 20 percent of the prehistoric component is intact. The research value of the prehistoric component should be considered minimal. No further work is recommended on the prehistoric material at 41TG523 (see Chapter 12).

Figure A-166. *Site map of 41TG523.*

41TG524

This upland site (Figure A-167) is classified as a prehistoric lithic scatter. The site, located 980 m southeast of Spring Creek, covers a large area (18,730 m²). It probably continues to the northeast, onto private property. The site is on the highest point on an eroded ridge trending southwest to northeast, and is at an elevation of about 1,905 feet ASL. Although relatively gently sloping on top, the surface is somewhat steep along the northwestern edge of the ridge. At the time of the survey, about 50 percent of the surface was visible. Vegetation consisted of mesquite and cedar trees, prickly pear cactus, sotol, and grass.

Artifacts observed on the surface included cores, primary, secondary and tertiary flakes, bifacial quarry blanks, and unifaces. These were concentrated along the western portion of the site on the lip of the ridge where chert gravels are exposed. The lithic scatter became less dense toward the northern fence line. A Late Archaic point fragment, though classified untypeable, may reflect a Pedernales point fragment. It was designated as UI#73, and was collected from the surface in the south-central portion of the site.

Twenty-three shovel tests were taken to a maximum depth of 50 cm bs. Six of the 23 shovel tests were positive. Between the surface and 10 cm bs, a tested cobble and 10 flakes were recovered from Shovel Tests 1, 7, 8, and 22. A single flake was found between 10 and 20 cm bs in Shovel Test 3, and three flakes were found in Shovel Test 19 between 20 and 30 cm bs (Appendix B). A selected surface observation area comprising 1,050 m² was inventoried. Attributes were recorded on 66 artifacts in this area (see Appendix D).

We estimate that about 20 percent of 41TG524 is intact. Based on the shovel test profiles and the absence of mature mesquite trees, it appears this site has been bulldozed, with deposits disturbed in some areas as deep as 20 cm. There is also a bladed area along the eastern boundary. A private property fence line and a two-track road make the artificial northeastern boundary. The two-track road continues along the northern boundary. The surface is eroded, with some areas of bioturbation present. Nevertheless, the research value of this site is considered moderate. The presence of three flakes between 20 and 30 cm bs suggests the potential for a buried, possibly intact cultural deposit that may provide information on a variety of research issues. Further testing is recommended at 41TG524 (see Chapter 12).

Figure A-167. Site map of 41TG524.

41TG525

This terrace site (Figure A-168) is a large (12,450 m²) scatter of artifacts in association with two hearth features. We classified the site as a prehistoric campsite. The site is on an eroded, upper terrace of the South Concho River, approximately 30 m west of the river, at an elevation of about 1,910 feet ASL. It is about 150 m upstream from 41TG91 (see Creel 1990). This is a multi-component, deeply stratified site. The northern boundary of the site was determined by a chain-link fence and a berm. The fence and berm are associated with a firing range built to the north of the site. A trench is cut through the southern portion of the site. At the time of the survey, approximately 70 percent of the ground surface was visible. A dense growth of mesquite and cedar trees, prickly pear cactus, and grass covered the area.

Two fire-cracked rock features with associated lithic debitage were recorded at this site. One appeared to be eroding out of the cutbank of an artificially channeled drainage. The remaining feature (Hearth # 2) was observed on the surface near the South Concho drainage. Artifacts observed on the surface included cores, bifaces, primary, secondary and tertiary flakes, and utilized and retouched flakes. A burinated point fragment was collected as UI #316. Although possibly Late Archaic, the point type remains unknown.

Five shovel tests were dug to a maximum depth of 50 cm bs. Artifacts were found in all but one of the shovel tests. Brown beer bottle glass, three lead bullets, and fire-cracked chert fragments were collected from between 0 and 20 cm bs in Shovel Tests 2, 4, and 5. Two flakes and mussel shell were found in Shovel Test 2 between 20 and 30 cm bs. A biface and eight flakes were found between 30 and 40 cm bs in shovel tests 2 and 5, and a flake was found between 40 and 50 cm bs in Shovel Test 3 (Appendix B). A single surface observation area, consisting of 5,030 m², was selected at this site. A total of 49 artifacts were recorded in this area (Appendix D).

We estimate that approximately 30 percent of this site remains intact. The site is located behind the firing range and the construction of the range has certainly impacted the site. A trench, approximately 1.5 meters wide and about 75 cm deep, has been cut through the site. While there is minimal slope erosion, a few areas have been bioturbated. Even though this site has been heavily impacted, primarily by these construction activities, the research value is considered high. The presence of the buried feature in the trench, and subsurface artifacts from roughly the same depth in the shovel tests, suggests the potential for finding buried, intact features and associated deposits. The site is recommended for further testing (see Chapter 12).

Figure A-168. Site map of 41TG525.

41TG526

This upland site (Figure A-169) is a large (16,300 m²) scatter of prehistoric artifacts that we classified as a lithic scatter. The site is 120 m west of the South Concho River at around 1,910 feet ASL. The site is situated on a broad, upland bench that slopes more steeply on its eastern edge toward the South Concho River drainage. The southern boundary of the site is defined by a fence and two-track road that abuts highway 584. At the time of the survey, the surface had about 60 percent visibility. Vegetation consisted of mesquite trees, prickly pear cactus, and sparse grasses.

Artifacts observed on the surface included cores, primary, secondary and tertiary flakes, bifaces, unifaces, and utilized flakes. A Late Archaic Frio point fragment (UI#317), and a point fragment, morphologically reflecting an Early Archaic time frame (UI#47) were collected from the surface in the west-central portion of the site. Artifacts were lightly distributed across the site's surface, with a slightly greater number observed along the eastern edge where there is a gradually sloping lip, and gravels outcrop. No features were observed at this site. No fire-cracked rock was recorded.

Eighteen shovel tests were taken to a maximum depth of 70 cm bs, and an auger test was excavated to 110 cm bs. A flake was found in Shovel Test 2 between 1 and 10 cm bs, and a total of 13 flakes were recovered in Shovel Tests 2, 5, 7, 14, 16, and 17 between 20 and 60 cm bs (Appendix B). A selected surface observation area, 2,740 m² in size, was inspected. We recorded attributes on 101 artifacts in that area (see Appendix D).

We estimate that 41TG526 is about 30 percent intact. The site endures slope erosion, particularly in the steeper eastern area. The site and the surrounding area are designated range land for cattle, and cattle trails cut across the site. In addition, areas of bioturbation were noted. The construction of the highway, fence, and the two-track road have certainly destroyed some portion of this site. Even though some of the site may have been destroyed, the presence of cultural material in shovel tests between 0 and 60 cm bs suggests there are potentially buried, intact deposits. Such deposits may yield information on a variety of research topics. Consequently, we consider the research value of this site is to be moderate, and further testing is recommended (see Chapter 12).

Figure A-169. Site map of 41TG526.

41TG527

This upland site (Figure A-170) is classified as a prehistoric lithic scatter. It is a moderate sized site (5,270 m²), located 590 m northwest of the South Concho River, at an elevation of around 1,930 feet ASL. The site is on a low knoll in a gently sloping upland area. A modern quarry pit is located to the west of the site, and it is likely that the quarry has impacted 41TG527. At the time of the survey, about 60 percent of the surface was visible. Vegetation consisted of mesquite and cedar trees, prickly pear cactus, and grass.

Artifacts observed on the surface included cores, primary, secondary and tertiary flakes, and crude bifaces. These were noted primarily in the upper, more heavily eroded western portion of the site. Neither features nor fire-cracked rock were noted at this site.

Three shovel tests, taken to a maximum depth of 50 cm bs, were placed on 41TG527. No subsurface cultural deposits were recovered (Appendix B). A selected surface observation area, 440 m² in size, was inspected. A total of 23 artifacts were recorded in this area (Appendix D).

We estimate that only about 10 percent of site 41TG527 is intact. The site and surrounding area is designated range land for cattle, and several trails cross the site. The western portion is heavily eroded. The erosion is associated with the impacts of the modern gravel quarrying operation. The combination of the gravel pit, and associated construction and quarrying operations appears to have destroyed a significant portion of the site. No evidence of buried cultural material was found in any of the subsurface tests and the surface assemblage appears to have been displaced and deflated. The research value of this site is, therefore, considered minimal. No further investigations are recommended (see Chapter 12).

Figure A-170. *Site map of 41TG527.*

41TG528

This upland site (Figure A-171) is a scatter of prehistoric artifacts which we classified as a lithic scatter. It is a moderate sized site (1,320 m²) that lies 360 m west of the South Concho River at an elevation of around 1,910 feet ASL. The site sits in a gently sloping upland area. The northern boundary of the site is defined by a two-track road and an associated fence that marks the property boundary. The site certainly continues to the north. A two-track road also runs through the center of the site. At the time of the survey, about 80 percent of the surface was visible. Vegetation consisted of mesquite trees, agarita bushes, prickly pear cactus, and grass.

Artifacts observed on the surface included cores, a few flakes, and a bifacial preform. These were noted primarily in the two-track road cuts. No features were seen nor was fire-cracked rock noted.

Three shovel tests, taken to a maximum depth of 62 cm bs, where caliche was encountered, were placed on this site. None of the three shovel tests yielded cultural material (see Appendix B). A selected surface observation area, consisting of 1,620 m², was intensively inventoried. A total of 34 artifacts were observed in this area (see Appendix D).

We estimate that only about 20 percent of site 41TG528 is intact. The site and the surrounding area is used to range cattle and several trails cut through the site. Some sheetwash erosion, as well as several areas of bioturbation, were noted at this site. Both the north-south and the east-west two-track roads have impacted the site. Given the lack of material from the shovel tests, the research value of this site is considered minimal. No further investigations are recommended (see Chapter 12).

Figure A-171. Site map of 41TG528.

41TG529

This upland site (Figure A-172) was classified as a lithic scatter. It is a small site (880 m²) that lies 2,150 m northwest of the Middle Concho River at an elevation of around 1,985 feet ASL. It is located on an eroded surface, on the east slope of a north-south trending ridge between two unnamed tributaries. At the time of the survey, the surface had about 30 percent visibility. Vegetation consisted of mesquite and cedar trees, sagebrush, and grass.

Artifacts observed on the surface included two tested cobbles, two primary flakes, two secondary flakes, six tertiary flakes, and two utilized flakes. One of the tested cobbles is quartzite, which is not a frequently occurring material in the region. The low number of artifacts were spread across the surface in no apparent pattern. A projectile point fragment, either a Martindale or a Late Archaic Frio, was collected as UI #322. We did not observe either features or fire-cracked rock at 41TG529.

Four shovel tests were excavated to a maximum depth of 50 cm bs. None of the shovel tests were positive (Appendix B). No surface observation areas were selected at this site.

We estimate that only about 20 percent of 41TG529 remains intact. Cattle trails cut across the site, and areas of slope/sheetwash erosion, as well as bioturbation, were observed. No evidence of buried cultural material was found in any of the subsurface tests and the meager surface assemblage appears to have been displaced. The research value of this site is considered minimal. No further investigations are recommended at 41TG529 (see Chapter 12).

Figure A-172. *Site map of 41TG529.*

41TG530

This upland site (Figure A-173) is classified as a prehistoric lithic scatter. It is a moderate sized site (1,360 m²) that lies 1,740 m north of the Middle Concho River at around 1,965 feet ASL. It sets in an eroded upland area on the east slope of a north-south trending ridge between two unnamed tributaries. A fence line, which defines the reservoir boundary, bisects the site on the east side. The site certainly continues onto private property. At the time of the survey, about 40 percent of the surface was visible. Vegetation consisted of mesquite and cedar trees, assorted cacti, and moderately dense grasses.

Artifacts observed on the surface included cores, tested cobbles, flakes, unifaces, and utilized flakes. A Val Verde or Uvalde point (Middle or Early Archaic), UI #58, and a Middle Archaic Pandale, UI#63, were collected off the surface in the south-central portion of the site. While a variety of stone tools were present, few fire-cracked rocks were observed and no hearth features were defined.

Four shovel tests were dug and taken to a maximum depth of 50 cm bs. None of the four shovel tests yielded subsurface cultural deposits (Appendix B). A selected surface observation area comprising of 900 m² was intensively inspected. A total of 86 artifacts were observed in this area (see Appendix D).

We estimate that 41TG530 is only about 10 percent intact. The site and surrounding area are used for a variety of activities, including public recreation. The area also has been grazed by cattle, and the surface has been heavily trampled. There is also evidence of slope and wind erosion, and areas of bioturbation. A north-south trending two-track road dissects the site. The research value of this site is considered minimal. No evidence of buried cultural material was found in any of the subsurface tests and the surface assemblage has been exposed by wind and slope erosion. Sheetwash has caused the surface assemblage to be displaced and deflated into a probable palimpsest. No further investigations are recommended at 41TG530 (see Chapter 12).

Figure A-173. *Site map of 41TG530.*

41TG531

This upland site (Figure A-174) is classified as a prehistoric lithic scatter. The site covers a moderate area (1,890 m²) and sits at about 1,945 feet ASL. It is located 30 m southwest of the South Concho River, on the edge of a terrace that overlooks the South Concho channel. Bedrock is exposed along the edge of the channel. Much of the site appears to extend west onto private property, designated by a fence line on the western edge of the site. This area was not inspected. At the time of the survey, about 50 percent of the surface was visible. Vegetation consisted of mesquite and cedar trees, assorted cacti, and moderately dense grasses.

Artifacts observed on the surface included cores, primary, secondary and tertiary flakes, a uniface, and a dart point fragment that, morphologically, resembled Late Archaic types (collected as UI #62). The point was located in the southern portion of the site. The other artifacts were generally along the upper, central portion of the site. No prehistoric hearth feature or fire-cracked rocks were noted at this site.

Four shovel tests were taken to a maximum depth of 60 cm bs. Some fire-cracked chert and 13 flakes were recovered from Shovel Tests 1, 2, and 4 (Appendix B). A selected surface observation area of 150 m² was inspected and inventoried. Within this area, we observed 216 artifacts (see Appendix D).

We estimate that site 41TG531 is about 50 percent intact. There is some slope erosion and minimal bioturbation. The site and surrounding area are part of a public recreation area, as well as designated range land for cattle. There are also cattle trails crossing the site. In spite of these impacts, we consider the research value for this site to be high. Limited shovel test data suggests there are potentially buried features and associated cultural deposits which may provide information on a variety of research issues. Further testing is recommended at this site (see Chapter 12).

Figure A-174. Site map of 41TG531.

41TG532

This upland site (Figure A-175) is classified as a prehistoric lithic scatter. It is a small (870 m²) scatter of artifacts located about 30 m west of the South Concho River. The site appears to extend to the west, onto private property. The site elevation is around 1,945 feet ASL. 41TG532 is on the edge of a terrace, overlooking the South Concho River channel. Bedrock and river cobbles are exposed along the lip of the slope to the channel. At the time of the survey, about 50 percent of the ground surface was visible. Vegetation consisted of mesquite trees, assorted cacti, sagebrush, and sparse grasses.

Artifacts observed on the surface included three cores, 15 primary flakes, 40 secondary flakes, 35 tertiary flakes, a biface, a uniface, and two retouched flakes. A few fire-cracked rocks were sporadically scattered across the site, but no hearth feature could be discerned. Most of the artifacts and fire-cracked rocks were in the upper, central portion of the site. No diagnostic artifact was recovered at this site.

Three shovel tests were taken to a maximum depth of 38 cm bs, where a calcrete and bedrock base was encountered. Shovel Tests 1 and 2 both provided three flakes between 0 and 10 cm bs (Appendix B). No surface observation areas were selected at this site.

We estimate that 41TG532 is only about 20 percent intact. The site and surrounding area are part of a public recreation area. The area is also used for cattle, and tracks are common across the site area. There is also evidence of a variety of recreational activities such as hunting and fishing. The surface of the site appears to have been displaced primarily by slope erosion and some bioturbation was noted. Given the level of disturbance, the research value of this site is considered minimal. While two of the three shovel tests were positive, the shallow depth and low frequency of material suggests that no further work should be conducted at this location (see Chapter 12).

Figure A-175. Site map of 41TG532.

41TG533

This site (Figure A-176) is classified as a prehistoric lithic scatter. Artifacts are distributed over a moderate sized area (4,010 m²), which lies on the west side of the South Concho River at around 1,950 feet ASL. The site is on the edge of a terrace, overlooking the river channel below. A fence line, designating the property boundary, forms the western boundary of the site, and the scatter continues to the west onto private land. River cobbles are exposed along the lip of the slope to the channel. At the time of the survey, about 50 percent of the ground surface was visible. Ground covering vegetation consisted of Mormon tea, mesquite and cedar trees, prickly pear cactus, and grass.

No prehistoric hearth feature or fire-cracked rock were noted at this site. Artifacts observed on the surface included cores, primary, secondary and tertiary flakes, a uniface, and several crude bifaces. No diagnostic artifacts were recovered from 41TG533.

Five shovel tests were taken to a maximum depth of 50 cm bs. This limited shovel testing yielded two flakes from Shovel Test 3 between 10 and 20 cm bs. However, two additional shovel tests (4 and 5) were placed within 5 m of Shovel Test 3 and failed to provide further evidence of buried cultural material (Appendix B). A 230 m² surface observation area was inspected and 249 artifacts were recorded (Appendix D).

The site and surrounding area are part of the public recreation area. The area is also used to graze cattle. There is some slope erosion, and some areas of bioturbation are present. Slope erosion may have displaced the surface artifacts, and the likelihood of recovering buried, intact deposits with any degree of integrity is considered minimal. This site has little research potential. No further investigations of this site are recommended (see Chapter 12).

Figure A-176. Site map of 41TG533.

41TG534

This upland site (Figure A-177) is a moderate sized (4,575 m²) scatter of features, fire-cracked rock, and a variety of stone tools and debitage. Classified as a prehistoric campsite, it is on a terrace, roughly 30 meters west of the South Concho River. A fence line, delineating the property boundary, forms the western edge of the site, which is at an elevation of around 1,930 feet ASL. At the time of the survey, approximately 50 percent of the ground surface was visible. Mormon tea, mesquite trees, prickly pear cactus, and sparse grasses were observed on the surface.

Two prehistoric fire-cracked rock hearth features are on the surface in the upper, central portion of the site. Four projectile points were found on the surface. A Late Paleoindian Golondrina-like point base (UI #303), an Early Archaic Triangular point (UI #308), a morphologically Late Archaic-like proximal point fragment (UI #304), and an untypeable point base (UI #307) were collected. The diagnostic points from three temporal intervals suggest different occupations. Other artifacts observed on the surface included cores, primary, secondary and tertiary flakes, bifaces, unifaces, and retouched and utilized flakes. These were along the lip of the slope toward the river.

Six shovel tests were dug to a maximum depth of 50 cm bs. Shovel Tests 3 and 6 recovered three flakes and fire-cracked limestone between 0 and 40 cm bs, indicating the potential for intact cultural features and associated material subsurface (Appendix B). No surface observation areas were selected at this site.

We estimate that the site is approximately 50 percent intact. The site, and the area around it are designated recreational lands and ranchers graze cattle in the area. There are cattle tracks disturbing the surface of the site, as well as a few bioturbations areas. Recreational activities such as fishing, hunting, and camping have also disturbed the site. Slope erosion is evident. In spite of these impacts, the research value of this site is considered high. Although temporally diagnostic artifacts from three different intervals were found on the surface, the presence of buried fire-cracked rocks and flakes as deep as 40 cm bs during the limited shovel testing suggests there may be intact cultural features and associated material not yet exposed on the surface. Such features and associated cultural material have the potential to provide significant information on a variety of research issues. This site is recommended for further investigation (see Chapter 12).

Figure A-177. Site map of 41TG534.

41TG535

This upland site (Figure A-178), classified as a prehistoric lithic scatter, is a small (1,890 m²) distribution of chipped stone that lies 30 m west of the South Concho River at around 1,945 feet ASL. The site sits on the edge of a terrace, overlooking the South Concho River channel. At the time of the survey, about 70 percent of the surface was visible. The vegetation consisted of mesquite trees, prickly pear cactus, Mormon tea bushes, sotol, and grass.

No prehistoric hearth feature or fire-cracked rock were noted at this site. Artifacts observed on the surface included a light scatter of cores and flakes. The majority of the flakes appeared to be secondary. A Late Archaic Pedernales-like projectile point (collected as UI #61) was located in the central portion of the site.

Two shovel tests were taken to a maximum depth of 50 cm bs. A single flake was retrieved from Shovel Test 2 between 0 and 10 cm bs (Appendix B). A selected surface observation area consisting of 400 m² was inventoried. Attributes were recorded on 95 artifacts within this area (Appendix D).

41TG535 is only about 20 percent intact. The slope is eroded, and there are some areas of bioturbation. The site and surrounding area are part of a public recreation area, as well as designated range land for cattle. There are cattle trails crossing the site. Limited shovel testing yielded one shallow flake offering little real potential for buried features and associated cultural deposits. As such, the research value for this site is considered minimal. No further testing is recommended (see Chapter 12).

Figure A-178. Site map of 41TG535.

41TG540

Site 41TG540 (Figure A-179) is a moderate sized (4,990 m²) distribution of chipped stone, classified as a prehistoric lithic scatter. The site sits on an alluvial terrace adjacent to the South Concho River, at an elevation of roughly 1,900 feet ASL. The channel bottom is ca. 3 m below the top of the terrace. Site 41TG91, excavated by Creel (1990), is located immediately to the south, across Highway 584. At the time of the survey, about 30 percent of the ground surface was visible with mature mesquite trees, pecan trees, assorted cacti, and moderately dense grasses covering the site.

No prehistoric features were observed and no fire-cracked rock was recorded at this site. Artifacts observed on the surface included cores, primary, secondary and tertiary flakes, unifaces, and retouched flakes. The artifacts were most visible in the bladed road cut on the western portion of the site. A few scattered artifacts were present between the bladed road, and the South Concho, but no artifacts were seen on the western side of the road. While it is probable that the site continues, western boundaries are not well defined.

Four shovel tests were taken to a maximum depth of 70 cm bs, and an auger test was taken to 118 cm bs where cobbles were encountered. One flake was found between 1 and 10 cm bs in Shovel Test 3 (Appendix B). No surface observation areas were selected at this site.

This site and the area surrounding it are public recreation lands and open to ranging cattle. The site has been used by historical re-enactors, and the surface has been impacted by cattle. There is some slope and river bank erosion. A fence and a bladed two-track road cut through the western portion of the site. Based on limited shovel testing, the research value of this site is considered minimal. No further investigations are recommended (see Chapter 12).

Figure A-179. Site map of 41TG540.

Previously Recorded Prehistoric Sites

41TG91

This open campsite was excavated by TxDOT and TARL, and reported on by Creel (1978). It sits in terrace deposits adjacent to the South Concho River. A wide variety of Late Archaic and Late Prehistoric diagnostic points and ceramics were recovered during the excavations, along with human remains. Highway 584 divides the site. During CAR-UTSA's visit to the site in 1999 there were very few artifacts observed on the south side of the highway, but several flakes and mussel shell fragments on the north side. The South Concho River has been channeled in the recent past and erosion is cutting into the site along its southern bank.

TxDOT and TARL excavations were restricted to the highway right-of-way. However, it is surmised most of the site remains buried within the terrace on Bureau of Reclamation property. We recommend that the site be further tested to evaluate its extent and integrity before it is destroyed by further artificial channeling and natural erosion (see Chapter 12).

41TG105

This upland open campsite was previously recorded by Willis (1958) as TG-1, Willis Site #1. Fire-cracked rocks and lithic debitage are scattered across an 8,970 m² area (Figure A-180). The site covers a prominent knoll at roughly 1,980 feet ASL, and follows the slope to a lower sandstone shelf outcrop. The Middle Concho River channel lies approximately 2.48 km to the east.

Willis (1958) described the site as a camp, about three acres in size, with burned rock middens. Creel (1982) described the site as a moderate sized (5,000 m²) lithic scatter associated with a few pieces of burned limestone and sandstone. CAR-UTSA's examination of the site's surface in 1999 revealed very few artifacts around the higher elevated knolls, but a concentration of debitage still remains on the lower portion. Fire-cracked rock was noted, but not in large quantities or concentrations, except for a single hearth in the southern portion of the site. Artifacts observed on the surface included unmodified flakes, a retouched flake, and a Late Archaic Marshall point base (UI #40; see Figure A-180 and Appendix F). Willis reported collecting a Late Archaic Castroville and a Marcos point from the site. CAR-UTSA tested the site with six shovel tests to a maximum depth of 53 cm bs, recovering a total of four flakes from two of the six shovel tests in the upper 10 cm (see Appendix B).

As noted by Creel (1982), the area is heavily eroded and deflated. There are several recent four-wheel drive road cuts throughout the area, causing further erosion. Limited shovel testing suggests the cultural deposits are shallow, and the natural and artificial impacts are compromising the site's integrity. Therefore, no further testing is recommended (see Chapter 12).

Figure A-180. Site map of 41TG105.

41TG106

41TG106 was previously inspected and recorded by Willis (1958). It is a moderate sized (5,670 m²) prehistoric campsite with scattered fire-cracked rock, five bedrock mortar holes, and a wide variety of stone tools (Figure A-181). It sits at around 1,940 feet ASL on a prominent bluff, approximately five meters above an outside meander of Spring Creek.

Willis (1958) noted a possible burial mound of stones. CAR-UTSA archaeologists photographed what may have been the mound he observed, however it is only ca. 15 cm high and the rocks are scattered. Willis also reported collecting an Early Archaic Martindale point from the surface, however no diagnostics were found during the current survey. The artifact density at this site is high, with some pieces of pinkish/red chert debitage from raw material not frequently observed around the reservoir. Although fire-cracked rock is common across the site, no intact hearth features were observed. A small concentration of debitage is associated with the five mortar holes, located just north of a two-track road that cuts across the site in the lower southern portion.

CAR-UTSA tested the site with five shovel tests dug to a maximum depth of 60 cm bs (see Appendix B). Fire-cracked limestone, 55 flakes (4 utilized), and 2 cores were recovered in discrete zones between 0 and 30 cm bs, and between 40 and 60 cm bs, suggesting the probability of at least one and possibly two, buried, intact components. A total of 436 artifacts were documented during an intensive surface observation of an area comprising 40 m² (see Table 9-1).

In addition to significant four-wheel drive and other vehicle defacement along the eastern edge of the site, shoreline wave action, caused by wind and periodic inundation and exposure due to fluctuating reservoir levels has eroded, and will continue to erode the bluff edge along the northern and western portions of the site. Recreational activities such as fishing, hunting, camping, etc., and likely, surface artifact collecting, have also disturbed the site. A private fence line forms the southern and western artificial boundaries of the site as mapped. The artifact scatter extends beyond the fence line, but the portion of the site on private property was not surveyed.

Although this site is gradually being destroyed by natural and artificial causes, its research value is still considered significant. The presence of buried, cultural material in two possibly discrete components suggests that there is a high probability of finding intact, buried features and associated material which have the potential of providing significant information on the paleoenvironment, site formation processes, subsistence, and settlement patterns. Therefore, this site is recommended for further investigations in order to better evaluate its integrity (see Chapter 12).

Figure A-181. Site map of 41TG106.

41TG109

41TG109 was previously registered as 41TG5 by Willis (1958), and later formally investigated by Green (1959). It is a large (25,420 m²) prehistoric open campsite with 29 fire-cracked rock hearth features, a wide variety of stone tools, a dense lithic scatter, and a shell midden. It is spread across a limestone bluff at around 1,910 feet ASL, and along a gradual slope to the edge of Spring Creek (Figures A-182 and A-183).

CAR-UTSA tested the site with ten shovel tests, dug to a maximum depth of 50 cm bs. Four of the ten were positive, with data from Shovel Tests 5, 8, and 9 suggesting a possible discrete cultural deposit between 10 and 20 cm bs (see Appendix B). Diagnostics recovered from the site include a Late Archaic Pedernales point (Willis 1958) and an Early Archaic Andice or Late Paleoindian Angostura point (CAR-UTSA; UI #66, Figure A-182, and Appendix F) from the surface, and 27 Early, Middle, and Late Archaic points from excavations (Green 1959). A total of 2,496 artifacts were documented within a selected and intensively inspected 8 m² surface observation area; a density of 312 artifacts per 1 m².

As part of a public recreation area, this site is subjected to heavy vehicular traffic, fishing, camping, and artifact collecting. The fluctuating reservoir levels have deflated and displaced the hearths and artifacts, leaving them palimpsest on the surface. However, limited shovel testing near the center of the site, specifically Shovel Tests 5, 8, and 9, suggest there still may be intact cultural deposits between 10 and 20 cm beneath the surface. Therefore, the potential is considered high, and additional testing is recommended in this area to further evaluate the integrity of those deposits (see Chapter 12).

Figure A-182. Site map of 41TG109.

Figure A-183. Area A of site 41TG109, showing concentration of hearths.

41TG110

Located on the edge of Spring Creek, at around 1,910 feet ASL, this site is a large (38,330 m²) prehistoric open campsite with a wide variety of stone tools, a dense lithic scatter, and three areas of densely concentrated hearths (Figure A-184). It was previously registered as 41TG6 by Willis (1958), and then formally investigated by Green (1959).

CAR-UTSA tested the site with eight shovel tests, dug to a maximum depth of 80 cm bs, and one auger test to 140 cm bs. Only Shovel Test 1 contained cultural material, with a flake, fire-cracked limestone, and a clear glass sherd recovered between 0 and 10 cm bs. CAR-UTSA collected a Late Archaic Baker or Frio-like medial point fragment (UI #32; Figure A-184 and Appendix F). A total of 364 artifacts were documented within two selected surface areas comprising 56 m² (see Table 9-1).

Because of heavy recreational use, cattle grazing, and periodic inundation and exposure due to fluctuating reservoir levels, this site is heavily eroded and deflated, and limited shovel testing has revealed no evidence of intact cultural deposits. Therefore, no further testing of this site is recommended (see Chapter 12).

Figure A-184. Site map of 41TG110.

41TG117

41TG117 is a large (15,570 m²) prehistoric campsite situated on a flat terrace on the east bank of the South Concho River, at around 1,955 feet ASL (Figure A-185). Occasionally it becomes an island when the reservoir rises and the South Concho flows around both sides. A low, gravelly knoll rises nearly two meters above the south end of the terrace. The estimated surface visibility was about 55 percent, with mesquite, oak, cactus, brush, and sparse grasses moderately covering the surface.

When Creel (1979) originally recorded this site he observed small concentrations of burned rock, mussel shell, and debitage. Our 1999 survey of the site nearly approximates Creel's. A debitage concentration area was noted on the upper northwestern knoll and on the southern portion of the site. Debitage, mussel shell, and small pieces of fire-cracked rock were ephemerally distributed across the site, in no apparent discrete patterns. Artifacts noted on the surface included cores, tested cobbles, primary, secondary and tertiary flakes, quarry blanks, pre-forms, unifaces, and retouched flakes, but no diagnostics. Chert cobbles were present in the gravels and in the conglomerate outcrops in the South Concho channels.

Although seven shovel tests were dug to a maximum depth of 50 cm bs, and three contained a single flake each, the flakes were within the upper 10 cm (see Appendix B and Figure A-185). Given its heavily eroded and deflated nature, and apparently shallow depth, no further investigations are recommended (see Chapter 12).

Figure A-185. *Site map of 41TG117.*

41TG118

This prehistoric campsite with fire-cracked rock and lithic debitage was first documented by Creel (1979). Sitting above the west bank of the South Concho River at around 1,950 feet ASL (Figure A-186), it extends onto private property, so that CAR-UTSA was able to map only a small portion of it (690 m²). It is generally open and grassy with a few mesquite trees and brush scattered around the area.

Recent artificial disturbances include a modern fence line, two-track roads, cattle and sheep trails. Additionally, increasing slope erosion is encouraged by animal trails and vehicles. Because of the heavily eroded and deflated condition of the portion of the site that is now on Bureau of Reclamation property, no subsurface testing was done by CAR-UTSA, and no further testing is recommended (see Chapter 12).

Figure A-186. Site map of 41TG118.

41TG159

This prehistoric campsite covering approximately 14,310 m² was previously recorded by Creel (1979). The site sits within an alluvial terrace along the South Concho River at around 1,955 feet ASL and the south pool of Twin Buttes Reservoir backs up to it when the water level is high. At very high water levels the northern tip becomes an island (Figure A-187). The deep soils support pecan trees, walnut trees, sagebrush, and chisumwood trees, as well as sparse grasses, briars and brambles, thus providing only about 15 percent surface visibility.

Creel (1979) reported seeing a couple of hearths exposed on open spots on the surface, but most of the material was visible only along the eroding stream banks. During the CAR-UTSA survey we observed no intact hearth features on the surface; only ephemeral sporadic fire-cracked rocks were seen scattered across the surface of the site. However, the South Concho River was flowing at such a rate that the cutbanks could not be inspected in any detail. A subjective evaluation of artifacts visible on the surface in 1999, predominately exposed in eroded areas and a two-track road cut, included a core, ten primary flakes, 20 secondary flakes, 30 tertiary flakes, two retouched flakes, and two utilized flakes, but no diagnostics.

Seven shovel tests were dug to a maximum depth of 70 cm bs (see Appendix B). A flake was found in Shovel Test 4 between 0 and 10 cm bs, and a flake was recovered from Shovel Test 3 between 30 and 40 cm bs, suggesting the potential for a buried cultural deposit. However, no other artifacts were found in the five additional shovel tests placed at the site.

The potential for site 41TG159 is considered to be high. It is recommended that further reconnaissance and shovel testing be conducted closer to the river cutbanks, during low water levels to investigate the possibility that the buried hearths referred to by Creel are still intact in those areas (see Chapter 12).

Figure A-187. Site map of 41TG159.

41TG160

41TG160 (Figure A-188) is a moderate sized (4,190 m²) prehistoric campsite with a historic farmstead built on it (see Area A discussion in Chapter 11). It sits along the west bank of the South Concho River at around 1,950 feet ASL. The terrain is open and grassy with a few mesquite trees scattered around the area. This site was previously documented by Creel (1979), and described as an extensive area of buried hearths eroding along the river bank and exposed in a ranch road that ran through the site. CAR-UTSA's survey did not extend across a recently constructed private fence line to the west, therefore we were not able to examine the ranch road area. Along the bluff overlooking the river channel we observed only one hearth.

CAR-UTSA tested the area around the hearth feature (Area B, Figure A-188) with two 50 cm deep shovel tests. Neither revealed evidence of subsurface prehistoric cultural deposits.

This area is used for recreational activities and livestock grazing, causing increased erosion along the bluff. Based on limited shovel testing and heavy erosion, the narrow portion of the site that is on Bureau of Reclamation land has minimal research value and no further investigations are recommended (see Chapter 12).

Figure A-188. Site map of 41TG160.

41TG243

Etchieson (1985) documented a site at this location consisting mainly of primary flakes, with no burned rock, tools, or cores, but a large quantity of gravels. Mauldin and Nickels (CAR-UTSA) revisited the location in November 1999, and only a single flake was found in a two-track road (Figure A-189). One shovel test was dug to 50 cm bs; no cultural material was found, but there was evidence of prismatic silt deposits to 15 cm bs. It appears that the reservoir has either covered the site, or washed it further downstream into the Spring Creek channel. As such, no further investigations are recommended (see Chapter 12).

Figure A-189. Site map of 41TG243.

41TG244

Etchieson previously recorded this campsite in 1985, but his description is very different from our observations 14 years later. Based on a broad distribution of fire-cracked rock and lithic debitage, we recorded it as encompassing 78,210 m². It is situated in an upland setting above the north edge of an outside meander of Spring Creek, at around 1,920 feet ASL (Figure A-190). There is a large borrow pit in the center of the site, and otherwise approximately 35 percent visibility with immature willows, salt cedar, mesquite trees, and dense grasses covering most of the ground surface. For management purpose, we divided the site into Areas A and B.

It is not known whether particular portions of the site were used as a borrow pit for dam repair after Etchieson recorded the site in 1985, but he noted that the area was a gravel pit on the 1957 Knickerbocker quad map. Etchieson noted a possible burned rock midden on the northwestern portion of the site, and commented that larger, early stage reduced lithics were prevalent. CAR-UTSA (1999) observed that there is now *some* fire-cracked rock in the area mentioned by Etchieson, however erosion has obviously disturbed that area as well as the rest of the site. CAR-UTSA also noted that the lithic representation was now primarily tertiary flakes. This is probably a result of lake-effect erosion due to fluctuating reservoir levels. Other artifacts observed on the surface included cores, tested cobbles, bifaces, unifaces, and retouched and utilized flakes. An Early Archaic Guadalupe adze was found by CAR-UTSA on the surface in the northern portion of the site (UI #319; see Figure A-190 and Appendix F).

CAR-UTSA tested the site with 22 shovel tests (6 in Area A; 16 in Area B) dug to a maximum depth of 50 cm bs, or to the calcrete base (which at times was encountered as shallow as 5 cm bs — see Appendix B). In Area A, flakes and fire-cracked rocks were found in two of the six tests, however they were in the upper 10 cm, except for a single flake between 10 and 20 cm in Shovel Test 1. In Area B, flakes and/or fire-cracked rocks were found as deep as 30 cm in six of the 16 shovel tests (see Appendix B). Three selected surface observation areas were intensively inspected and inventoried with the following results: Area 1 was 28 m² containing 286 artifacts; Area 2 was 360 m² containing 85 artifacts; and Area 3 was 230 m² containing 23 artifacts (see Appendix D).

The gravel pit appears to have destroyed the greater part of the site, and this site, like many other sites in the Twin Buttes Reservoir area is subject to recreational use and the impacts of camping, fishing, and artifact collecting as a network of two-track roads makes this area very accessible. However, limited shovel testing indicates there is still a moderate potential for buried, intact cultural material to exist in the southern portion of the site. Therefore this site is recommended for further testing (see Chapter 12).

Figure A-190. Site map of 41TG244.

41TG245

This large (33,200 m²) prehistoric campsite previously documented by Etchieson (1985) consists of a concentration of fire-cracked rock hearth features associated with a wide variety of stone tools. It sits in an upland environment at around 1,920 feet ASL, and is approximately 83 m southeast of Spring Creek (Figure A-191).

Etchieson originally described this site as an ephemeral scatter of lithic debris confined to a small knoll, and a drainage on the southwestern portion of the site. He found no worked items, burned rock, or features on the site, and the debitage was predominately larger primary flakes. However, CAR-UTSA's survey 14 years later, after periodic inundation and exposure due to fluctuating reservoir levels, revealed 17 exposed fire-cracked rock features with associated bifaces, unifaces, and retouched and utilized flakes found in the low visibility, dense grass area. A surface debitage concentration extends north from the hearths approximately 350 m, and other artifacts are most visible in a two-track road running parallel to the river. Yet, despite the high number of tools, no diagnostics were observed.

CAR-UTSA tested the site with five shovel tests, dug to a maximum depth of 70 cm bs (see Appendix B), but no cultural material was found below the surface in any of the tests. A total of 169 artifacts were documented in a 590 m² surface observation area (see Appendix D).

The artifacts and hearth features are now exposed on the surface due to lake-effect erosion and deflation. They have been further disturbed from heavy use of this site as a public recreation area. Further, limited shovel testing has revealed no evidence of subsurface cultural material. Therefore, no further work is recommended (see Chapter 12).

Figure A-191. *Site map of 41TG245.*

41TG246

41TG246 is located in an upland environment at around 1,910 feet ASL, and slopes towards the northwest. The Spring Creek channel is approximately 49 m to the northwest (Figure A-192). Etchieson (1985) initially recorded this open campsite and estimated it to be of moderate size. However, 14 years later CAR-UTSA observed lithic debitage extending over a much larger area, approximately 22,710 m². The presence of artifacts on the surface over an extended area may be caused by fluctuating reservoir levels. The site has not changed entirely in that time—Etchieson noted the heavily eroded knolls capped with gravels on the western portion of the site, and they appear about the same. CAR-UTSA archaeologists also observed nine fire-cracked rock hearth features and collected a Late Paleoindian, Angostura-like point midsection from the surface (UI #35; see Figure A-192 and Appendix F).

Etchieson recommended limited shovel testing, and CAR-UTSA tested the site with four shovel tests, dug to a maximum depth of 70 cm bs (see Appendix B). Only one flake was found—in Shovel Test 1, between 0 and 10 cm bs (Figure A-192).

As part of a public recreation area, this site has been subjected to heavy traffic. Several two-track roads make the site and the area around it accessible to hunters, fishermen, campers, and artifact collectors. The artifacts and hearth features, due to lake-effect erosion and deflation, are now exposed on the surface and heavily disturbed. In addition, limited shovel testing has failed to provide evidence of intact cultural deposits beneath the surface. Therefore, no further work is recommended (see Chapter 12).

Figure A-192. Site map of 41TG246.

41TG247

This site is a very large (111,175 m²) campsite with a very dense lithic scatter (Figure A-193). It is situated on the east edge of Spring Creek, between 1,900 and 1,910 feet ASL. There is a large borrow pit in the center of the site, and otherwise, about 30 percent of the ground surface is visible — more in the road cuts and cutbank, less on the upper surface. The vegetation consists of cedar saplings, low ground covering weeds, and moderately dense grasses.

Etchieson (1985) previously recorded this site and noted the possible remains of a burned rock midden on high ground in the center of the site, surrounded by a modern quarry operation. CAR-UTSA's survey (1999) did not observe evidence of a midden; perhaps it was destroyed by later quarrying for dam repairs. However, CAR-UTSA did note 27 hearth features associated with formal stone tools and debitage. Lake-effect erosion that has occurred since Etchieson documented the site in 1985 has apparently exposed the hearths and prolific quantities of debitage in the northern, lower portion of the site. An Early Archaic Martindale-like point base (UI #57) and a Late Archaic Frio-like medial fragment (UI #71) were found in the hearth concentration (Area A), on the north end of the site (see Figure A-194 and Appendix F). Other artifacts observed on the surface included cores, tested cobbles, bifaces, unifaces, retouched and utilized flakes, ground stone, and thousands of primary, secondary and tertiary flakes.

For management purposes CAR-UTSA divided the site into three areas and then tested the site with 18 shovel tests dug to a maximum depth of 50 cm bs (see Appendix B). Although 8 of the 18 contained cultural material, it was all within the upper 10 cm.

Because of the heavily eroded and deflated condition of this site, and with limited shovel testing providing no indication of buried deposits below 10 cm, further work is not recommended (see Chapter 12).

Figure A-193. Site map of 41TG247.

Figure A-194. Concentration of hearths in Area A at site 41TG247.

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41TG249

41TG249 is a moderate sized (2,800 m²) lithic scatter that was previously documented by Etchieson (1985). It is approximately 82 m east of the South Concho River, at about 1,945 feet ASL (Figure A-195). Moderately dense vegetation consisted of mesquite and cedar trees, sotol and prickly pear cacti, and sparse grasses, allowing for about 60 percent surface visibility.

Apparently this site has changed little in the 14 years since Etchieson first recorded it. He observed burned rocks and lithics, predominately on the northern, lower edge of the site, which had been inundated by the reservoir. CAR-UTSA surveyors observed the same, with no discernible features. A subjective evaluation of the low density artifact assemblage observed on the surface included four cores, one tested cobble, two primary flakes, three secondary flakes, three tertiary flakes, and a retouched flake.

No discrete occupations were observed across the surface, and three shovel tests dug to a maximum depth of 18 cm bs (to the calcrete base) yielded no evidence of subsurface cultural material.

Although about 60 percent of this site remains intact, limited shovel testing indicates no cultural deposits below the surface in the shallow soils. Additionally, this site has no features or diagnostics, therefore no further investigation of this site is recommended (see Chapter 12).

Figure A-195. Site map of 41TG249.

41TG250

41TG250 (Figure A-196) is a moderate sized (8,490 m²) prehistoric lithic scatter. It was previously investigated and documented by Etchieson (1985). CAR-UTSA's survey of the site in 1999 documented little change from Etchieson's assessment, except in size. Our extension to the south and east is based on an ephemeral scatter of lithic debitage that is now exposed, probably due to slope erosion. The site lies in an upland environment approximately 98 m south of the South Concho River at about 1,950 feet ASL. Ground covering vegetation consists of mesquite and cedar trees, assorted cacti, and sparse grasses. As recommended by Etchieson, we undertook a more intensive examination of the surface.

Artifacts observed on the surface included cores, tested cobbles, primary, secondary and tertiary flakes, and a biface tip. These were found thinly scattered across the surface in no recognizable pattern, and no discernible features were observed.

CAR-UTSA conducted limited subsurface testing by digging five shovel tests to a maximum depth of 30 cm bs (to the calcrete base). Although three flakes (1 utilized) were recovered from two of the shovel tests, they were shallow — between 0 and 10 cm bs (see Appendix B). Thus, no discrete occupations were observed either in the shovel tests, or across the surface. A 550 m² surface observation area intensively examined and inventoried revealed 27 artifacts (see Appendix D).

Modern disturbances included a two-track road at the northern end of the site which allows access to vehicular traffic, hunters, campers, and artifact collectors. Shallow cultural deposits and slope erosion have left the site integrity in question. The selected surface observation has effectively mitigated the site against further impact and no further investigations are recommended (see Chapter 12).

Figure A-196. *Site map of 41TG250.*

41TG251

41TG251 (Figure A-197) is a large (50,750 m²) prehistoric lithic scatter that was previously investigated and documented by Etchieson (1985). The site lies at an elevation of 1,955 feet ASL, approximately 800 m east of the South Concho River channel. Vegetation at the site consists of young mesquite trees, assorted cacti, and sparse grasses.

Artifacts observed on the surface are predominately primary and secondary flakes, with some tertiary flakes and several cores, thinly scattered across the surface in no discrete pattern. A now-abandoned railroad grade has been constructed across the southeastern portion of the site.

CAR-UTSA conducted limited subsurface testing by digging nine shovel tests to a maximum depth of 50 cm bs (see Appendix B), however no evidence of cultural material was found in any of the tests, and no discrete occupations were observed on the surface. A total of 37 artifacts were documented in a selected, 410 m² surface observation area (see Appendix D).

Artificial disturbances include two-track roads on the eastern, western, and central portions of the site, and limited shovel testing failed to provide evidence for buried, intact cultural deposits. Additionally, no features or diagnostics were observed. Therefore, no further investigations of this site are recommended (see Chapter 12).

Figure A-197. Site map of 41TG251.

41TG252

41TG252 (Figure A-198) is a very large (122,210 m²) prehistoric campsite with at least one prehistoric fire-cracked rock hearth feature, other scattered fire-cracked rock, and a wide variety of stone tools. It sits at around 1,980 feet ASL, high above the Middle Concho River approximately 80 m to the east. It was previously recorded by Etchieson (1985), who noted that the site appeared to be relatively intact, with a single dirt road on the western portion of the site. However, when CAR-UTSA visited the site in 1999 it was crisscrossed with numerous four-wheel drive roads and motorcycle trails, causing significant gullies of erosion. Etchieson estimated the site size as moderate, and recommended a more thorough surface examination and subsurface testing. Our 1999 survey of the heavily eroded surface with sparse vegetation indicates the surface artifact distribution extends further than what he could see at the time. He also noted a sandstone slab-lined pit on the northeastern portion of the site. CAR-UTSA surveyors could not locate this feature, but did note several small pits in that portion of the site that appeared to have been recently dug with a backhoe.

For management purposes, the site was divided into five areas (see Figures A-198 through A-203). Thirty-two shovel tests were dug to a maximum depth of 60 cm bs, and three auger tests were drilled to a maximum depth of 104 cm bs (sandstone base) (See Appendix B). Although only three of the shovel tests contained cultural material, in all cases the material was found between 10 and 20 cm below the surface, and all three tests were in Area 2, associated with a hearth feature and a surface artifact concentration. In sum, no discrete occupations could be discerned either across the surface, however there may be a discrete and intact deposit in Area 2. Two surface observation areas selected to be intensively inventoried revealed 89 artifacts in a 770 m² area, and 56 artifacts in a 1,280 m² area (See Appendix D). Unique items were collected from 41TG252 in Areas 3 and 5. In Area 3, a bifacial scraper was collected as UI#325 (see Figure A-201 and Appendix F). In Area 5, a Plainview-like midsection was collected as UI#60, and a Frio point base was collected as UI#323 (see Figure A-203 and Appendix F).

As stated, numerous two-track roads now cut through the site and recreational vehicle activity has heavily damaged much of the site, inducing significant erosion. However, limited shovel testing indicates that there may be a buried, intact deposit of moderate potential in Area 2. Therefore, CAR-UTSA recommends additional testing in Area 2 of site 41TG252 (see Chapter 12).

Figure A-198. Site map of 41TG252.

41TG252 Area 1

- negative shovel test
- site boundary

Figure A-199. *Area 1, 41TG252.*

41TG252 Area 2

- negative shovel test
- positive shovel test
- site boundary

Figure A-200. Area 2, 41TG252.

Figure A-201. *Area 3, 41TG252.*

Figure A-202. *Area 4, 41TG252.*

Figure A-203. *Area 5, 41TG252.*

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41TG253

41TG253 is a multi-component site consisting of an open campsite and a historic dam across Spring Creek. The dam structure is discussed in Chapter 11. The prehistoric campsite sits on a terrace adjacent to the creek at 1,940 feet ASL (Figure A-204). Approximately 40 percent of the ground surface is visible amidst several species of cactus, mesquite trees, agave, thorny brush, and sparse grasses.

Etchieson (1985) previously reported on the dam, but also noted bedrock mortar holes above and below the dam. With CAR-UTSA's examination of the adjacent terrace campsite, we have expanded the size of this site to 35,315 m², encompassing 26 hearth features and an extensive lithic scatter (see Figures A-204 through A-207). Five mortar holes were documented in the limestone bedrock in the channel, just east of (below) the dam (see Figure A-207). A subjective evaluation of the artifacts observed at this site included approximately 40 cores, 500 primary flakes, 1,000 secondary flakes, 3,000 tertiary flakes, 30 bifaces, 10 unifaces, 40 utilized flakes, and an untypeable dart point, collected as UI#75 (see Figure A-205 and Appendix F). The 26 prehistoric hearths are found, for the most part, eroding out of the cutbank along the southeastern portion of the site, and all are associated with high artifact densities. A 30 m² surface area selected for intense examination and inventory revealed a total of 345 artifacts; 11.5 artifacts per square meter. Nine of the ten shovel tests placed across the site were positive (Figure A-205), and the data indicate a possible intact prehistoric component as deep as 40 cm beneath the surface.

Portions of the site have been heavily disturbed by the deeply cut, intricate two-track road network, trash disposal, modern camping, and other recreational activities that have occurred. Additionally, fluctuating reservoir levels have incited shore erosion along the terrace edge, causing it to sluff into the road and an abandoned irrigation channel. There are also bioturbated areas where burrowing activity is displacing artifacts. Despite the erosional and recreational factors, the research value of this site is still significant, with approximately 40 percent of it remaining intact, particularly beneath the surface as indicated by the shovel test data. Therefore, the site is recommended for further testing in order to better evaluate its integrity (see Chapter 12).

Figure A-205. Location of shovel tests in Area A, 41TG253.

Figure A-206. Location of hearths in Area A, 41TG253.

Figure A-207. Location of mortar holes in Area B, 41TG253.

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41TG344

41TG344 consists of a prehistoric lithic scatter and historic farmstead (see Figure A-208). The prehistoric component was previously investigated and recorded by Espey, Huston & Associates (1993:6-2). During the current survey CAR-UTSA included the historic component and thus expanded the site boundaries. The farmstead component is discussed in Chapter 11. The combined site is a large area (13,010 m²) that lies 710 m east of the Middle Concho River, at around 1,950 feet ASL. A lithic debris concentration occurs on a heavily eroded knoll in the western portion of the site, disturbed by cattle and goats. The surface visibility on the knoll is fair due to its eroded condition, and it is moderately covered by a couple of large mesquite trees, assorted cacti, agave, yucca, and sparse grasses.

The prehistoric artifacts observed on the surface consisted primarily of cores and flakes ephemerally scattered across the small area. The prehistoric artifacts were mixed with historic artifacts. Espey, Huston, & Associates conducted six shovel tests on and around the knoll with negative results. No subsurface testing was done by CAR-UTSA. A total of 86 artifacts were documented in a selected 380 m² surface observation area on the knoll (see Appendix D).

The prehistoric component at 41TG344 is confined to western portion of the site, primarily on a low knoll. Limited shovel testing by Espey, Huston, & Associates indicates shallow soils (<10 cm) on the knoll, and no cultural material in deeper soils around the knoll. No diagnostics or features were present. The potential of this site is considered minimal, therefore, no further work is recommended (see Chapter 12).

Figure A-208. Site map of 41TG344.

Summary of Prehistoric Site Attributes

The following table (Table A-1) contains information on 191 of the 192 prehistoric sites recorded on Twin Buttes Reservoir. Site 41TG91, excavated by Creel (1990), is not included as no systematic observations were made on this site during the current survey. It is probable, given Creel's work, that archaeological material with some significance remains on Bureau of Reclamation lands at 41TG91, but little data are currently present on the surface at this location.

Table A-1 contains 21 columns, each of which is explained below.

Column 1: 41TG_.	Texas site number.
Column 2: Site Area.	This figure is in square meters.
Column 3: Site Type.	Designation given to sites on Texas Archaeological Site Forms.
Column 4: # Hearths.	Number of hearth features on the site classified as prehistoric.
Column 5: # Mortar.	Number of mortar holes observed on the site.
Column 6: FCR.	Presence/ absence of fire-cracked rock on the site. Presence=1; absence=0.
Column 7. Drainage.	The nearest major drainage to the site.
Column 8. Km to Water.	Distance, in kilometers, to the nearest major drainage named in column 7.
Column 9. Elevation.	Central elevation, in feet above sea level, of site.
Column 10. L. Prehist.	Presence of Late Prehistoric diagnostic artifacts.
Column 11. L. Archaic.	Presence of Late Archaic diagnostic artifacts.
Column 12. M. Archaic.	Presence of Middle Archaic diagnostic artifacts.
Column 13. E. Archaic.	Presence of Early Archaic diagnostic artifacts.
Column 14. Paleo.	Presence of Paleoindian diagnostic artifacts.
Column 15. Debitage	Presence/ absence ofdebitage on site. Presence=1; absence = 0.
Column 16. Cores.	Presence/absence of cores and tested cobbles on site. Presence=1; absence=0.
Column 17. Bifaces	Presence/ absence of bifaces on site. Presence=1; absence = 0.
Column 18. Unifaces	Presence/ absence of unifaces on site. Presence=1; absence = 0.
Column 19. Utilized/Ret.	Presence/absence of utilized and/or retouched flakes on site. Presence=1; absence=0.
Column 20. Ground	Presence/ absence of ground stone on site. Presence=1; absence = 0.
Column 21. Div.	Number of different types of the six major artifact types listed in columns 15 through 20 that are present on the site.

Table A-1. Summary of attributes for prehistoric sites

41TG	Site Area	Site Type	# Hearths	# Mortar	FCR	Drainage	Km to Water	Elev.	L. Prehist.	L. Archaic	M. Archaic	E. Archaic	Paleo.	Debitage	Cores	Bifaces	Unifaces	Utilized/ Ret.	Ground	div
105	8970	Campsite	1	0	1	Middle Concho	2.48	1980	1	1				1	0	0	1	1	0	3
106	5670	Lithic Scatter/ Campsite	0	5	1	Spring Creek	0.05	1940						1	1	1	1	1	0	5
109	25420	Campsite	29	0	1	Spring Creek	0	1910		1	1	1	1	1	1	1	1	1	0	5
110	38330	Campsite	45	0	1	Spring Creek	0	1910		1				1	1	1	1	1	0	5
117	15570	Campsite	0	0	1	South Concho	0.05	1955						1	0	0	0	0	0	1
118	690	Lithic Scatter	0	0	0	South Concho	0.03	1950						1	1	1	0	1	0	4
159	14310	Campsite	0	0	1	South Concho	0.07	1955						1	0	0	0	0	0	1
160	4190	Campsite	1	0	1	South Concho	0	1950						1	0	0	0	0	0	1
243	0	Lithic Scatter	0	0	0	Spring Creek	0	1900		1				.	.	.	.	.	.	
244	78210	Lithic Scatter/ Campsite	0	0	1	Spring Creek	0.08	1920				1		1	1	0	0	0	0	2
245	33200	Campsite	17	0	1	Spring Creek	0.83	1920						1	1	0	0	0	0	2
246	22710	Campsite	9	0	1	Spring Creek	0.49	1910					1	1	1	1	0	0	0	3
247	111175	Campsite	26	0	1	Spring Creek	0	1900		1				1	1	1	0	0	0	3
249	2800	Lithic Scatter	0	0	0	South Concho	0.82	1945						1	1	0	0	1	0	3
250	8490	Lithic Scatter	0	0	0	South Concho	0.98	1950						1	1	1	0	0	0	3
251	50570	Lithic Scatter	0	0	0	South Concho	0.8	1955						1	1	1	0	0	0	3
252	122210	Lithic Scatter/ Campsite	1	0	1	Middle Concho	0.79	1980		1			1	1	1	1	1	1	0	5
253	35315	Campsite	28	5	1	Spring Creek	0.08	1940						1	1	1	1	1	0	5
344	13010	Lithic Scatter	0	0	0	Middle Concho	0.71	1950						1	1	0	0	0	0	2
359	2840	Lithic Scatter	0	0	0	Middle Concho	3.2	1970						1	1	0	1	0	0	3
360	4590	Lithic Scatter	0	0	0	Middle Concho	3.1	1950						1	1	1	1	0	0	4
361	5600	Lithic Scatter	0	0	1	Middle Concho	2.9	1960						1	1	1	1	0	0	4
362	3300	Lithic Scatter/ Campsite	1	0	1	Middle Concho	2.7	1955		1		1		1	1	1	1	1	1	6
363	5790	Lithic Scatter	0	0	0	Middle Concho	2.7	1950						1	1	1	0	1	0	4
364	860	Lithic Scatter	0	0	0	Middle Concho	2.65	1980			1			1	1	1	1	1	0	5
365	1980	Lithic Scatter	0	0	0	Middle Concho	2	1980		1				1	1	1	1	1	0	5
366	300	Lithic Scatter	0	0	0	Middle Concho	2.6	1920						1	0	1	0	0	0	2
367	1570	Campsite	0	0	1	Middle Concho	2.7	1920		1				1	1	1	1	0	0	4
368	2630	Campsite	0	0	1	Middle Concho	2.6	1940						1	1	1	1	1	0	5
369	2610	Campsite	4	0	1	Middle Concho	2.5	1940				1		1	1	1	1	1	0	5
370	1990	Lithic Scatter	0	0	0	Middle Concho	2.25	1940					1	1	1	1	1	1	0	5
371	8500	Lithic Scatter	0	0	0	Middle Concho	1.8	1980						1	0	0	1	0	0	2
372	1740	Campsite	2	0	1	Middle Concho	2.2	1930						1	1	1	1	1	0	5
373	520	Campsite	2	0	1	Middle Concho	2.1	1910				1		1	0	1	0	1	0	3
374	225	Campsite	1	0	1	Middle Concho	2	1910						1	0	0	1	0	0	2
375	1270	Lithic Scatter	0	0	1	Middle Concho	1.7	1910			1			1	0	1	1	0	0	3
376	540	Lithic Scatter	0	0	0	Middle Concho	1.4	1910						1	0	0	0	0	0	1
377	2230	Campsite	2	0	1	Middle Concho	1.5	1900						1	1	1	1	1	0	5
378	12170	Campsite	6	0	1	Middle Concho	0.9	1920					1	1	1	1	1	0	0	4
379	11590	Campsite	0	0	1	Middle Concho	0.75	1900						1	1	1	1	1	0	5
380	11890	Campsite	3	0	1	Middle Concho	0.95	1900						1	1	0	0	0	0	2
381	4580	Campsite	2	0	1	Middle Concho	1.3	1900						1	0	0	0	0	1	2

Table A-1. continued...

41TG	Site Area	Site Type	# Hearths	# Mortar	FCR	Drainage	Km to Water	Elev.	L. Prehist.	L. Archaic	M. Archaic	E. Archaic	Paleo.	Debitage	Cores	Bifaces	Unifaces	Utilized/ Ret.	Ground	div
382	10770	Campsite	13	0	1	Middle Concho	1.15	1900		1				1	0	1	0	0	1	3
383	7010	Lithic Scatter	0	0	1	Middle Concho	0.55	1900						1	1	0	0	0	0	2
384	14850	Campsite	8	0	1	Middle Concho	0	1900						1	1	0	1	1	1	5
385	128850	Lithic Scatter	0	0	0	Middle Concho	0.31	1920						1	1	0	0	0	0	2
386	1190	Lithic Scatter	0	0	0	Middle Concho	0.95	1970						1	1	1	0	1	0	4
387	4990	Lithic Scatter	0	0	0	Middle Concho	0.47	1910						1	1	1	0	1	0	4
388	8830	Campsite	23	0	1	Middle Concho	0	1900				1		1	1	1	1	0	0	4
389	6600	Campsite	9	0	1	Middle Concho	0.1	1920	1	1				1	1	1	1	1	1	6
390	5000	Lithic Scatter	0	0	1	Middle Concho	0.53	1950				1		1	1	1	1	1	0	5
391	8550	Campsite	2	0	1	Middle Concho	0.45	1950		1				1	1	1	1	1	0	5
392	8780	Lithic Scatter	0	0	0	Middle Concho	0.57	1940						1	1	1	0	0	0	3
393	36300	Lithic Scatter	0	0	0	Middle Concho	0.3	1930						1	1	1	1	0	0	4
394	150	Campsite	1	0	1	Middle Concho	0	1900						1	1	1	0	0	1	4
395	2920	Campsite	1	0	1	Middle Concho	0.09	1905						1	1	1	1	0	0	4
396	7430	Lithic Scatter	0	0	1	Middle Concho	0	1910						1	1	0	0	1	0	3
397	5620	Lithic Scatter	0	0	0	Middle Concho	0.7	1930						1	1	1	0	0	0	3
398	1840	Lithic Scatter	0	0	0	Middle Concho	0.47	1925						1	1	1	0	0	0	3
399	2600	Lithic Scatter	0	0	1	Middle Concho	0.34	1935						1	1	1	0	1	0	4
400	11040	Lithic Scatter	0	0	0	Middle Concho	0.28	1930						1	1	0	0	1	0	3
401	2970	Campsite	2	0	1	Middle Concho	0	1920						1	1	0	0	0	1	3
402	360	Shell Midden	0	0	0	Middle Concho	0	1910						1	0	0	0	0	0	1
403	730	Campsite	2	0	1	Middle Concho	0	1920						1	0	0	0	0	0	1
404	29490	Lithic Scatter	0	0	0	Middle Concho	0.36	1960		1				1	1	1	1	1	0	5
405	36700	Campsite	2	0	1	Middle Concho	0	1955		1				1	1	1	1	1	0	5
406	2900	Campsite	4	0	1	Middle Concho	0	1935						1	1	0	0	1	0	3
407	470	Lithic Scatter	0	0	0	Middle Concho	0	1925						1	1	0	0	0	0	2
408	18600	Lithic Scatter/ Campsite	0	0	1	Middle Concho	0	1950						1	1	1	1	1	0	5
409	4480	Lithic Scatter/ Campsite	0	17	1	Middle Concho	0.04	1950		1				1	1	1	1	1	1	6
410	410	Lithic Scatter/ Campsite	1	0	1	Middle Concho	0	1940		1				1	1	0	1	0	0	3
411	1010	Lithic Scatter/ Campsite	1	0	1	Middle Concho	0	1940						1	1	1	0	1	0	4
412	9980	Lithic Scatter/ Campsite	0	0	1	Middle Concho	0.02	1945		1				1	1	1	1	1	0	5
413	770	Campsite	1	0	1	Middle Concho	0	1940						1	0	0	0	0	0	1
414	3250	Lithic Scatter/ Campsite	0	5	1	Middle Concho	0	1950						1	1	1	1	1	0	5
415	1050	Campsite	3	0	1	Middle Concho	0.01	1930						1	0	0	0	1	0	2
416	3710	Lithic Scatter	0	0	0	Middle Concho	0.27	1930						1	1	0	0	1	0	3
417	170	Lithic Scatter	0	0	0	Middle Concho	0	1920						1	1	0	0	0	0	2
418	2620	Lithic Scatter/ Campsite	0	0	1	Middle Concho	0.34	1940		1				1	1	1	1	1	0	5
419	22500	Lithic Scatter/ Campsite	2	0	1	Middle Concho	0.03	1930						1	1	0	1	1	0	4
420	3850	Lithic Scatter	0	0	1	Middle Concho	0.62	1940						1	1	0	1	0	0	3
421	600	Lithic Scatter	0	0	0	Middle Concho	0.85	1945						1	0	0	0	0	0	1

Table A-1. continued...

4ITG	Site Area	Site Type	# Hearths	# Mortar	FCR	Drainage	Km to Water	Elev.	L. Prehist.	L. Archaic	M. Archaic	E. Archaic	Paleo.	Debitage	Cores	Bifaces	Unifaces	Utilized/ Ret.	Ground	div
422	1240	Lithic Scatter	0	0	0	Middle Concho	0.47	1940						1	1	0	0	0	0	2
423	710	Lithic Scatter	0	0	0	Middle Concho	0.23	1930						1	1	0	0	0	0	2
424	116290	Campsite	59	0	1	Middle Concho	0	1920	1	1		1		1	1	1	1	1	1	6
425	8420	Campsite	12	0	1	Middle Concho	0	1915						1	1	1	1	1	0	5
426	5550	Campsite	9	0	1	Middle Concho	0	1900						1	1	0	1	1	0	4
427	21350	Campsite	25	0	1	Middle Concho	0	1920		1				1	1	1	1	1	0	5
428	2690	Lithic Scatter/ Campsite	0	0	1	Middle Concho	0	1900						1	1	1	0	1	0	4
429	4920	Campsite	12	0	1	Middle Concho	0	1900						1	1	1	0	1	0	4
430	35340	Lithic Scatter/ Campsite	0	0	1	Middle Concho	0.1	1920						1	1	1	1	1	0	5
431	150	Campsite	1	0	1	Middle Concho	0.32	1915						1	0	0	0	0	0	1
432	1750	Lithic Scatter	0	0	0	Middle Concho	0.49	1920						1	1	0	0	0	0	2
433	3740	Campsite	2	0	1	Middle Concho	0	1900						1	1	0	0	0	0	2
434	40	Campsite	1	0	1	Middle Concho	0	1900						1	0	0	0	0	0	1
435	24380	Campsite	6	0	1	Middle Concho	0	1900						1	1	1	1	1	0	5
436	1700	Campsite	1	0	1	Spring Creek	0	1905						1	1	0	0	0	0	2
437	3800	Campsite	0	27	1	Spring Creek	0.18	1920						1	1	1	1	0	0	4
438	1610	Campsite	2	0	1	Spring Creek	0	1905						1	1	0	0	0	0	2
439	6020	Campsite	2	0	1	Spring Creek	0	1905						1	1	1	0	0	0	3
440	4430	Campsite	1	0	1	Spring Creek	0	1920		1				1	1	1	1	1	0	5
441	700	Lithic Scatter	0	0	0	Spring Creek	0.26	1920						1	1	0	0	0	0	2
442	360	Lithic Scatter	0	0	0	Spring Creek	0.36	1920						1	1	0	0	0	0	2
443	990	Lithic Scatter	0	0	0	Spring Creek	0.42	1925						1	1	0	0	0	0	2
444	1770	Lithic Scatter	0	0	0	Spring Creek	0.41	1925						1	1	0	0	0	0	2
445	9750	Lithic Scatter	1	0	1	Spring Creek	0.3	1925						1	1	1	0	0	0	3
446	640	Campsite	1	0	1	Spring Creek	0	1920						1	1	0	0	0	0	2
447	29180	Campsite	27	0	1	Spring Creek	0	1925						1	1	1	1	1	0	5
448	1360	Lithic Scatter	0	0	1	Spring Creek	0.65	1935						1	1	1	1	1	0	5
449	2930	Campsite	0	0	1	Spring Creek	0.08	1925				1		1	1	1	0	1	0	4
451	2670	Lithic Scatter	0	0	0	Spring Creek	0.34	1935						1	1	1	0	0	0	3
453	490	Lithic Scatter	0	0	0	Spring Creek	0.05	1945						1	1	0	0	0	0	2
454	2990	Campsite	2	0	1	Middle Concho	0	1950						1	0	0	0	0	0	1
455	5560	Campsite	1	0	1	Middle Concho	0	1950						1	0	0	0	1	0	2
456	40420	Lithic Scatter/ Campsite	2	0	1	Middle Concho	0.72	1965						1	1	1	1	1	0	5
457	460	Campsite	0	0	1	Middle Concho	0	1950						1	0	0	0	0	0	1
460	1070	Campsite	0	0	1	Middle Concho	0	1950						1	0	1	0	0	0	2
461	3210	Campsite	6	0	1	Middle Concho	0.05	1910						1	1	1	1	1	0	5
462	8640	Campsite	15	0	1	Middle Concho	0	1900						1	1	1	1	1	0	5
463	2750	Lithic Scatter	0	0	1	Middle Concho	0	1900						1	1	1	1	1	0	5
464	3250	Campsite	4	0	1	Middle Concho	0	1900						1	1	1	1	0	0	4
465	4490	Campsite	1	0	1	Spring Creek	0.96	1930						1	1	0	1	1	0	4

Table A-1. continued...

41TG	Site Area	Site Type	# Hearths	# Mortar	FCR	Drainage	Km to Water	Elev.	L. Prehist.	L. Archaic	M. Archaic	E. Archaic	Paleo.	Debitage	Cores	Bifaces	Unifaces	Utilized/ Ret.	Ground	div
466	15720	Lithic Scatter	0	2	0	Spring Creek	0.39	1920						1	1	1	1	0	0	4
467	13120	Campsite	16	0	1	Spring Creek	0.05	1920						1	1	1	1	1	0	5
468	2940	Campsite	12	0	1	Middle Concho	0	1910						1	1	1	1	1	0	5
469	450	Campsite	1	0	1	Spring Creek	0.18	1935						1	1	1	0	0	0	3
470	2230	Lithic Scatter	0	0	0	Spring Creek	0.52	1945						1	1	0	1	1	0	4
471	2740	Campsite	2	0	1	Spring Creek	0.11	1925						1	1	1	1	1	0	5
472	2290	Campsite	10	0	1	Spring Creek	0.08	1905						1	1	1	1	1	0	5
473	2230	Lithic Scatter	0	0	0	Spring Creek	0.21	1930						1	1	0	0	1	0	3
474	8230	Campsite	5	0	1	Spring Creek	0.23	1920						1	1	0	1	1	0	4
475	1890	Lithic Scatter	0	0	0	Spring Creek	0.07	1920						1	1	0	0	0	0	2
476	2280	Lithic Scatter	0	0	0	Spring Creek	0.5	1930						1	1	0	0	0	0	2
477	3270	Lithic Scatter	0	0	0	Spring Creek	0.75	1935						1	1	1	0	1	0	4
478	18650	Campsite	0	0	1	Spring Creek	0.58	1940						1	1	1	1	1	0	5
479	10800	Lithic Scatter	0	0	0	Spring Creek	0.54	1940						1	1	0	1	1	0	4
480	1700	Lithic Scatter	0	0	0	Spring Creek	0.85	1935						1	1	1	0	1	0	4
481	1670	Lithic Scatter	0	0	1	Spring Creek	0.98	1935		1				1	1	0	1	1	0	4
482	3730	Lithic Scatter	0	0	0	Spring Creek	0.78	1940						1	1	1	1	0	0	4
483	880	Lithic Scatter	0	0	1	Spring Creek	0.7	1940						1	1	0	0	0	0	2
484	5000	Lithic Scatter	0	0	0	Spring Creek	0.47	1935						1	1	0	0	0	0	2
485	33520	Campsite	3	0	1	Spring Creek	0.18	1940						1	1	1	1	1	0	5
486	11650	Campsite	1	0	1	Spring Creek	0.15	1930						1	1	1	1	1	0	5
487	9600	Lithic Scatter/ Campsite	1	0	1	Spring Creek	0	1935						1	1	1	1	1	0	5
488	4350	Lithic Scatter/ Campsite	0	0	1	Spring Creek	0.39	1940			1			1	1	1	1	1	0	5
489	55330	Lithic Scatter/ Campsite	0	0	1	Spring Creek	0.26	1940		1				1	1	1	1	1	1	6
490	380	Lithic Scatter	0	0	0	Spring Creek	0.34	1940						1	1	1	0	0	0	3
491	2550	Lithic Scatter	0	0	0	Spring Creek	0.18	1945						1	1	0	0	0	0	2
492	800	Lithic Scatter	0	0	0	Spring Creek	0.21	1945						1	1	0	0	0	0	2
493	3030	Lithic Scatter	0	0	1	Middle Concho	0.98	1945						1	1	0	0	1	0	3
494	7280	Campsite	1	0	1	Middle Concho	1.14	1950						1	1	0	0	1	0	3
495	5240	Lithic Scatter	0	0	0	Middle Concho	1.2	1945						1	1	0	1	1	0	4
496	3220	Lithic Scatter	0	0	0	Middle Concho	1.2	1945						1	1	0	1	0	0	3
497	8250	Lithic Scatter	0	0	0	Middle Concho	1.1	1945		1				1	1	1	0	1	0	4
498	1520	Lithic Scatter	0	0	0	Middle Concho	1.1	1950						1	1	0	0	1	0	3
499	550	Campsite	1	0	1	Middle Concho	0	1950						0	1	0	0	0	0	1
500	3250	Lithic Scatter/ Campsite	0	0	1	Middle Concho	0.03	1880						1	1	1	0	1	0	4
502	3165	Campsite	5	0	1	Middle Concho	0.03	1885						1	1	0	1	1	0	4
503	275	Lithic Scatter	0	0	0	Middle Concho	0.86	1940						1	1	1	0	0	0	3
504	64690	Campsite	7	0	1	South Concho	0	1940		1		1		1	1	1	1	1	0	5
505	3260	Lithic Scatter	0	0	1	South Concho	0.18	1940						1	1	1	1	1	0	5
506	30820	Campsite	0	3	1	South Concho	0.05	1945	1		1			1	1	1	1	1	0	5

Table A-1. continued...

4ITG	Site Area	Site Type	# Hearths	# Mortar	FCR	Drainage	Km to Water	Elev.	L. Prehist.	L. Archaic	M. Archaic	E. Archaic	Paleo.	Debitage	Cores	Bifaces	Unifaces	Utilized/ Ret.	Ground	div
507	2730	Lithic Scatter	0	0	1	South Concho	0.87	1940						1	1	0	0	0	0	2
508	1460	Campsite	2	0	1	South Concho	0.59	1935						1	0	0	0	1	0	2
509	8850	Campsite	5	0	1	South Concho	0	1930						1	0	1	0	0	0	2
510	3450	Campsite	2	0	1	South Concho	0.55	1930						1	0	1	0	0	0	2
511	10010	Campsite	2	0	1	South Concho	0.03	1930						1	1	0	0	1	0	3
512	620	Campsite	1	0	1	South Concho	0.01	1930		1				1	1	1	1	1	0	5
513	13080	Campsite	1	0	1	South Concho	0.24	1930						1	1	1	1	1	0	5
514	20010	Lithic Scatter	0	0	0	South Concho	1.22	1980						1	1	1	1	1	0	5
515	4260	Lithic Scatter	0	0	0	South Concho	0.53	1945						1	1	1	1	1	0	5
516	44810	Lithic Scatter	0	0	0	Spring Creek	0.15	1890						1	1	1	1	1	0	5
517	12030	Lithic Scatter	0	0	1	Middle Concho	0.2	1910		1				1	1	1	1	1	0	5
518	13100	Lithic Scatter	0	0	1	Middle Concho	0.11	1900		1				1	1	1	1	1	0	5
519	76600	Campsite	0	4	1	Middle Concho	0	1880						1	1	1	1	1	0	5
520	13180	Lithic Scatter	0	0	0	Spring Creek	0.55	1895						1	1	0	0	0	0	2
522	410	Lithic Scatter	0	0	0	Spring Creek	0.73	1900						1	1	0	0	0	0	2
523	23780	Lithic Scatter	0	0	0	Spring Creek	0.34	1905					1	1	1	1	0	0	0	3
524	18730	Lithic Scatter	0	0	0	Spring Creek	0.98	1905		1				1	1	1	1	1	0	5
525	12450	Campsite	2	0	1	South Concho	0.03	1910		1				1	0	1	0	0	0	2
526	16300	Lithic Scatter	0	0	0	South Concho	0.12	1910		1		1		1	0	1	0	0	0	2
527	5270	Lithic Scatter	0	0	0	South Concho	0.59	1930						1	1	1	0	0	0	3
528	1320	Lithic Scatter	0	0	0	South Concho	0.36	1910						1	1	1	0	0	0	3
529	880	Lithic Scatter	0	0	0	Middle Concho	2.15	1985		1		1		1	1	1	0	0	0	3
530	1360	Lithic Scatter	0	0	1	Middle Concho	1.74	1965			1	1		1	1	1	1	1	0	5
531	1890	Lithic Scatter	0	0	0	South Concho	0.03	1945		1				1	1	1	1	0	0	4
532	870	Lithic Scatter	0	0	1	South Concho	0.03	1945						1	1	1	1	1	0	5
533	4010	Lithic Scatter	0	0	0	South Concho	0.03	1950						1	1	1	0	0	0	3
534	4575	Campsite	2	0	1	South Concho	0.03	1950		1		1	1	1	1	1	1	1	0	5
535	950	Lithic Scatter	0	0	0	South Concho	0.03	1945		1				1	1	1	0	0	0	3
540	4990	Lithic Scatter	0	0	0	South Concho	0	1900						1	0	0	0	0	0	1