

**SPECIAL EDITION OF TRANSACTIONS OF
THE 58TH REGIONAL ARCHAEOLOGICAL
SYMPOSIUM
FOR SOUTHEASTERN NEW MEXICO
AND
WESTERN TEXAS**

Camp Meyers Spring (41TE724)

West Texas Archeological Society

(2025 update)

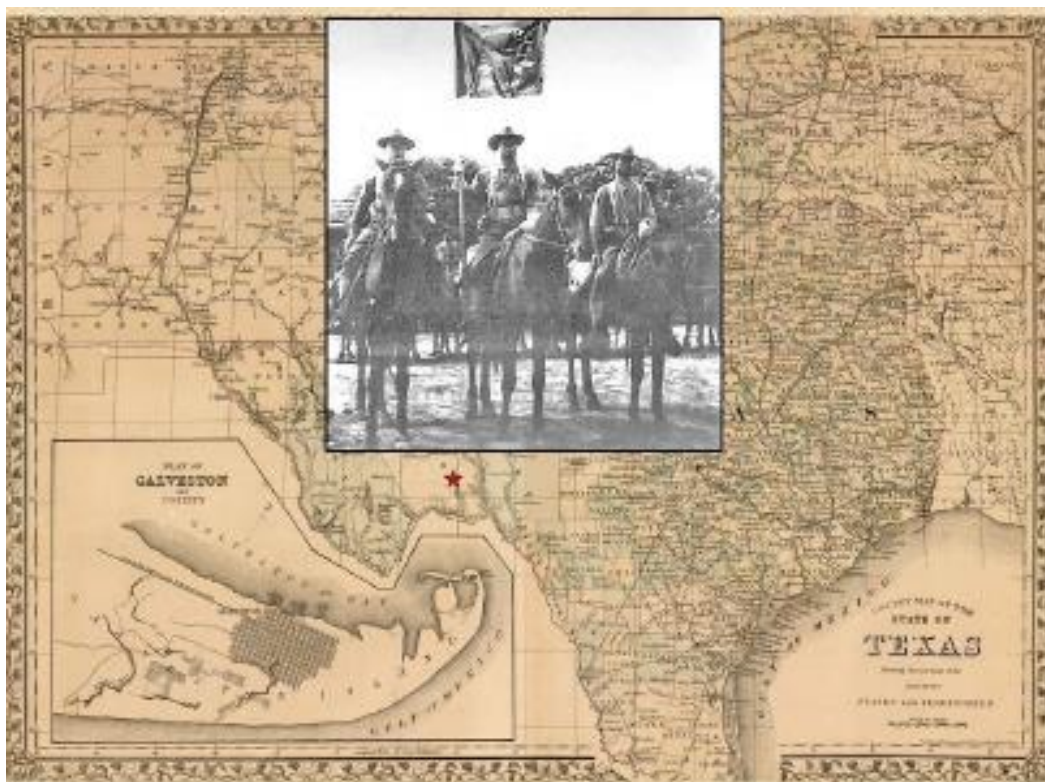


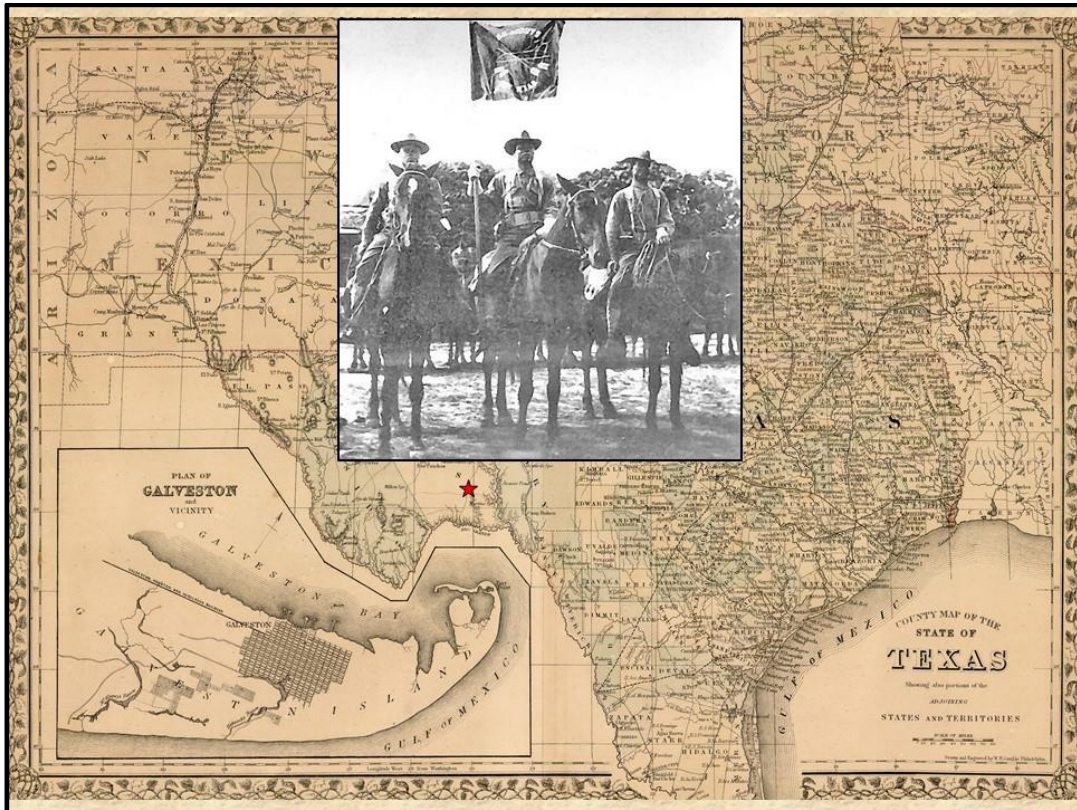
Table Of Contents

Introduction	1
Acknowledgments	2
History	2
Camp Layout	4
The Earliest Scouts and Cavalry To Meyers Spring	5
A Question of the Name	8
John Lapham Bullis	9
The Early Black Seminole Indian Scout Camp & Lieutenant Bullis	10
The First Official Unit – The Infantry Camp	17
Black Seminole Indian Scout Camp	27
Cavalry Camps	35
U.S. Army Field Bake Oven Test Site	46
Pecos Land And Cattle Company Lease	49
Thurston Rail Depot For Camp Meyers Spring	61
Additional Artifacts	62
Conclusion	74
End Notes on Imagery Interpretation	75
References	77
Appendix A: Pertinent extracts from the diary of Lieutenant Francis Henry French	80
Appendix B: Pecos Land And Cattle Company	84
Appendix C: Timings Of Units At Camp Meyers Spring	85
Appendix D: Land Title Abstract of section purchase including Camp Meyers Spring	87
Appendix E: Names of Black Seminole Scouts enlisted during the Camp Meyers Spring Occupation	88
Appendix F: Reconstruction Precipitation (May – June), Texas Climate Division 7 (1,550 – 2,000 A.D.)	90

Camp Meyers Spring (41TE724): Archeological Study

West Texas Archeological Society

(2025 update)



Introduction

This report goes beyond the previous archeological studies of this historic site, attempting to not only report on obvious artifacts and features of this area but also to forensically determine the entire layout and purpose of the various areas of Camp Meyers Spring over the many years of its occupation. When we started, we had no idea the enormity of this project. It is now a three-year project. We use a technique known in military terms as fusion analysis. We fused all sources in order to tell the most detailed story possible for this camp and its many occupants. The primary key to the success of this project was the analysis of satellite and drone imagery. By analyzing this imagery, along with extensive military records, the diary of Lieutenant French, artifact mapping, and ground reconnaissance, we found a multi-layered story covering many military (and civilian) units with various missions and occupying various locations. Metal detection has also been a key factor in the success of this project. It allowed us to find artifacts previously missed by other studies and helped validate the identification of the occupying units and their objectives. We used our skills and understanding of this particular period in history, built up from 17 years of field experience, as well as military knowledge of tactics and strategies, to tell not only what we found but what we believe it meant in the story of the units and men making this camp their temporary home for their deployments from the 1870s to 1884. Because the landowner requested this study to assist in understanding the camp, we use standard units of measurement instead of metric throughout the report.

Acknowledgments

This project began in February 2022 with C.A. Maedgen, Tom Ashmore, and landowner Thad Steele. However, it grew over the years as a core group of West Texas Archeological Society members continued expanding field reconnaissance trips and finding the extent of this camp to be much more than anyone imagined. This project is now going on three years. The primary military camps cover around 40 acres, but the total surrounding area of support activity encompasses around 200 acres. We want to thank this group who put so much time and effort into those many field trips and many hours of research to help us bring out the entire story of this military camp and its many layers of occupation.

Primary Archeology Team: Thad Steele (landowner and team member), Tom Ashmore, C.A. Maedgen, Kinley Coyan, Jack Woodrow, Johnny Gurley, Henry Dusek, Roberto Gonzalez.

History

Camp Meyers Spring was a military sub-post to Fort Clark, officially from 1881 to 1884. The Seminole Negro Indian Scout Detachment (official name) was probably occupying Camp Meyers Spring as a forward camp of operations for scouting patrols from around 1876 when Lieutenant John Bullis began leading the Black Seminole Scouts through this area. In November and December 1877, Lieutenant Bullis camped with Captain S. B. M. Young and two troops of the 8th Cavalry, one 10th Cav, and a detachment of 25th Infantry at “Myers Spring” before and after a campaign march into Mexico. Bullis commanded 37 Scouts in camp with him at the time. (Young, Phelps)

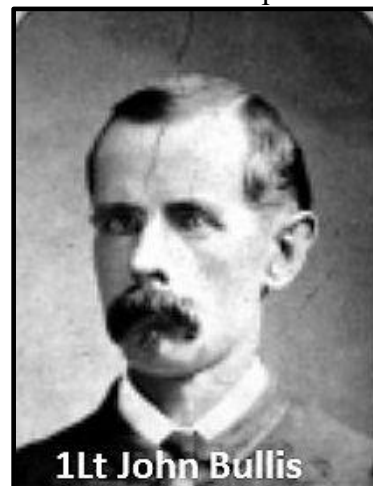
Bullis purchased the land from the railroad in May 1877 (see Appendix D). There is also graffiti at the pictograph site of cavalry and infantry units camping there from Fort McKavett as far back as 1877. So, we know the cavalry units knew of and were using this area long before it was officially made into a military sub-post. Finally, we found the camp Bullis and his scouts used in these early days, which is part of the update in this report.

The home sites and main camp for the Black Seminole Indian Scouts was located along Los Moras Creek, just south of Fort Clark, Texas. A report entry by Lieutenant Bullis indicating Los Moras Creek was not only the personal homes but also the main scout camp was when Bullis reported gathering his scouts at that location to depart for a patrol on January 31, 1879. That patrol ended up lasting 80 days as they chased Apache raiders all the way to the reservation near Fort Stanton, New Mexico. (McCright)

The earliest official record that can be loosely tied to Camp Meyers Spring as a base camp is a July 1880 Fort Clark post report stating that Lieutenant Bullis and 34 Seminole Indian Scouts left Fort Clark and were listed on “detached service West of the Pecos River.” This reporting repeated each month until mid-January 1881 when Bullis and his Scouts returned to the post. At that point, Lieutenant Bullis prepared for a military duty transfer and was relieved of his duties commanding the Scouts.

Camp Meyers Spring is 18 miles west of the Pecos River at its closest point and is the best clean-water camping location until Pena Colorado Spring, 79 miles further west.

Although the detachment was listed as a scouting detachment belonging to an infantry company – first under the 24th, later under the 22nd and 19th Infantry Regiments. Lieutenant Bullis commanded the scouts as a



fighting cavalry unit. They distinguished themselves with great success against raiding Indian parties both above and below the border. They were credited with over 27 field deployments and 12 engagements against hostile raiders, with hundreds of horses and cattle returned to their owners in Texas. Their interdiction of raiding parties had devastating consequences for the raiders they encountered.

The period of Lieutenant John L. Bullis and his 27 deployments - some into Mexico - brought the raiding from Mexico to a practical halt, and Camp Meyers Spring became a strategic stronghold of military presence with continued patrolling for any Indians with thoughts of either raiding into Mexico or from Mexico into Texas. Scouting patrols continued on a much-reduced schedule as reports of raiding parties became few and far between.

The first confirmed deployment by the Scout detachment to Camp Meyers Spring was after Lieutenant Bullis was transferred in July 1881. This began a series of second lieutenants as temporary commanders. The first to take over was Second Lieutenant Frank B. Jones, who ordered the unit to be detached to "Camp Meyers Spring." This deployment began on August 20, 1881, and lasted three and a half months. From that point, a series of rotating deployments began between the Seminole Scout detachment and regular cavalry units.

The records show that Company A of the 1st Infantry Regiment first took command of the camp in September 1880, staying until April 1881. From September through Jan 16th 1881, Lieutenant Bullis and his Scouts were listed as on "detached service west of the Pecos." So, it may be they were at this location at the same time. The 1st Infantry Regiment was transferred on special orders from Fort Randall, South Dakota, to the Department of Texas in June 1880. Three of the six companies were tasked with building a road through the Lower Pecos region to Fort Davis, Texas. These companies were initially set up at the mouth of the Pecos River. (Wright) Two others were sent to Fort Sam Houston and Fort Ringgold. Company A's primary mission was to build a wagon-accessible road from the camp down to the main springs. This was needed for future deployments to bring water up from the springs. Company A's personnel rosters indicated they were severely undermanned during this time. They usually had only 25 to 30 men for duty at any one time. However, they did list five to six teamsters and a blacksmith contracted in September and October. In November they added a stonemason.

After completing their road construction, 1st Regiment companies were folded into the 22nd Infantry Regiment and distributed to Forts Davis, Clark, Stockton, Ringgold, and Sam Houston. On departure, Company A was transferred first to Fort McKavett and soon thereafter to Fort Davis. (Fort Clark Post Returns) There are no records of any infantry companies to replace them or occupy the camp from then on. Only 8th Cavalry companies or the Black Seminole Scout detachment were listed as occupying the camp during their rotations through the area. This was their base camp for patrolling.

Records indicate Company H, 8th Cavalry, took over the camp in May 1881 after Company A, 1st Infantry Regiment, departed. A rotation of cavalry companies continued for six months. During the first three months, the scouts were not in camp.

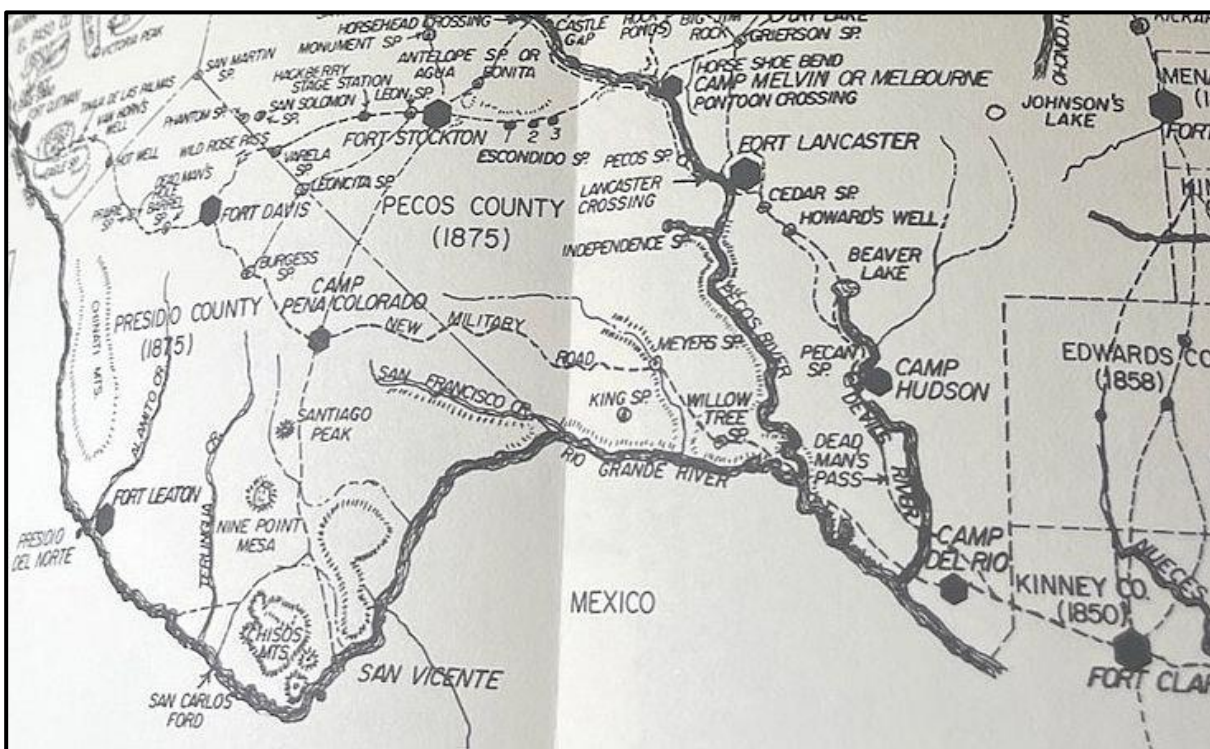
In early 1882, the camp was only occupied for a few short trips by small units of scouts. In May, a rotation of cavalry Troops began, lasting six months. The scouts were not in camp with the cavalry Troops, and from that point on, the camp was only occupied by the 8th Cavalry or Seminole Scout detachments separately. This supports that the Seminole Scout detachment was being used as its own cavalry patrol unit instead of acting as scouts for the deployed cavalry troops. A complete listing of units occupying the camp can be found in **Appendix C**.

The Black Seminole Indian Scout Detachment was deployed to the Mouth of the Pecos from May through August 1882 while railroad construction made its way slowly from the east. During this time Camp Meyers Spring was occupied by companies of the 8th Cavalry. Their rotations lasted through October 1883. In November the Scouts took over the camp again for a six month deployment. The railroad was completed near the mouth of the Pecos River in January 1883. The camp began to wind down with shorter rotations for both Cavalry and Scouts in late 1883 and 1884, but continued until July 16, 1884, when it was officially shut down.

Camp Layout

Camp Meyers Spring was essentially divided into seven camp areas. These are: an early infantry camp, two adjacent Black Seminole Indian Scout camps, cavalry areas #1, #2, #3, and another overflow camp #4. These camps were all occupied at different times. There was also an extensive ring of guard posts, most of which were placed by the infantry company during its construction period at the camp. Cavalry area #1 was the main cavalry area for deployed troops. Cavalry areas #2 and #3 were overflow areas for other cavalry units from Fort Clark or Fort Concho (San Angelo), Fort Mckavett (near Menard), Fort McIntosh (Laredo), or Fort Duncan (Eagle Pass). The cavalry defensive guard posts differed from the earlier infantry ones. These were set up with four posts to protect the flanks of the cavalry camp.

This was a substantial camp. Although portions were not often occupied, the total camp area covers around 31 acres, 43 acres if we include all outlying guard posts. The infantry camp covers around four acres. The cavalry area #1, with the flanking guard posts, covers around 5 acres. Cavalry Area #2, west of Cavalry Area #1, covers two and a half acres. The remaining two overflow camps cover around 14 acres. When Seminole Scouts were in camp, they occupied only about and a half acres. The early Seminole Scout's camp covers around four acres, including their picket/grazing area.



Road to Fort Davis through Meyers Spring (Clayton Williams, Never Again Vol. 3)

The average number of soldiers when cavalry units were occupying the camp was around 60. According to Fort Clark post returns, the number varied between 35 and 40 men at any time when scouts were in camp. The most the camp had at one time for regular deployments was in the fall of 1881, with two cavalry troops plus the scouts. That was probably around 150 soldiers. That means there were around the same number of horses, and probably 8 – 12 mules. There were two cavalry troops together again in the fall of 1882.

In addition to freighting supplies from Fort Clark, additional supplies and forage for horses and mules were provided by contract with the Torres Farm in Langtry. This was a 45-mile wagon drive for the freighters. They provided hay once per week. In December 1883, it was noted there were 50 tons of hay on hand at the corral. The Torres brother's farm also supplied poultry, pork, and vegetables when requested. Additional food was acquired through hunting, which the scouts were highly skilled at.

In addition to the main camp(s), there were two outlying water collection camps for cavalry in 1883 and 1884. One camp was located above the main spring basin, where the water was freshly running out of the springs. It consisted of a squad dedicated to only collecting water and getting it into the water wagon running between their location and the main camp. This camp is about a mile from the main camp area. The second camp was in the west canyon above the main spring basin. This camp consisted of another squad and was also at a location where spring water was flowing directly out of the ground.

Finally, we also found the early camp for Lieutenant Bullis and the Black Seminole Indian Scouts, which had been occupied for years before the Army officially created the latter camp. This camp lies just outside and to the east of the rear portion of Cavalry Camp #1. It is described in detail later in this report.

The Earliest Cavalry And Scouts To Meyers Spring

We found a rock redoubt two hundred forty yards west of the main spring basin and up on a rock shelf overlooking the main spring basin and pictograph area. A redoubt is a stack of rocks in a semi-circle, usually built for guard positions. This is a highly unusual place to find one. All other redoubts were found either protecting the infantry or cavalry camps up on the flat. This one looks right down on the spring basin by the pictograph wall. It is at the base of a rocky slope leading up to the top of the plateau. This appears to have been a reconnaissance overwatch position of the spring basin area. An overwatch position is a position to spy on an area being used by enemy forces, in this case, potential Indian raiding parties. Military reconnaissance units are usually small and under orders to watch and not be seen. They report back to the main headquarters on their reconnaissance results.

Over an area of about half an acre, we found a scattering of Sharps carbine 50-45 and 50-55 cartridges. The Sharps carbine was one of the two early cavalry rifles used from 1866 until the transition to the Springfield Trapdoor carbine in late 1873. The later Springfield Trapdoor carbine used the 45-55 ammunition.

The 50-70 is the more well-known Sharps cartridge, but it had its own shorter carbine version of 50-55, similar to the later Springfield Trapdoor 45-55. It was identified as 50/55/430. It had the same casing, but 55 vs 70 grains of powder and a 430 vs 450 grain bullet (Cartridge Collector's Exchange). Similar to the later 45-55 cartridges, we found, they were not stamped. Most were Benet internally primed, but we also have one that is an external Remington primed, but still unstamped. There is no external way to tell the difference to the higher grain 50-70 cartridge.

The shorter 50-45 Carbine 'Cadet' was tested by the military in the early 1870s for cavalry carbines. These cartridges were found in a relatively small bounded area, along with a single dropped 56-50 Spencer cartridge.

In addition, we found one dropped Spencer 56-50 cartridge, two 44 caliber lead balls directly across the canyon from where these other cartridges were found, and four Smith & Wessen 44 cartridges one hundred thirty yards further to the west in a grassy draw. This was likely a grazing area for their horses.

Halfway between the redoubt and the spot where the 44 S&W cartridges were found, we discovered a military coat button. Analysis from the Fort Concho curator, an expert in military buttons, gave us the following analysis: "The presence of two stars is a Civil War backmark, could mean that it was used into the early to mid-1870s as surplus." This area is a natural rock shelf around the base of the hill which is an easy walking path between the two areas.

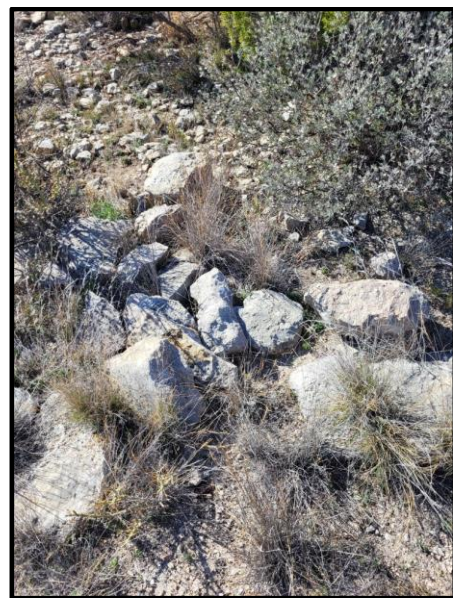


Button found between redoubt and 44 S&W cartridges

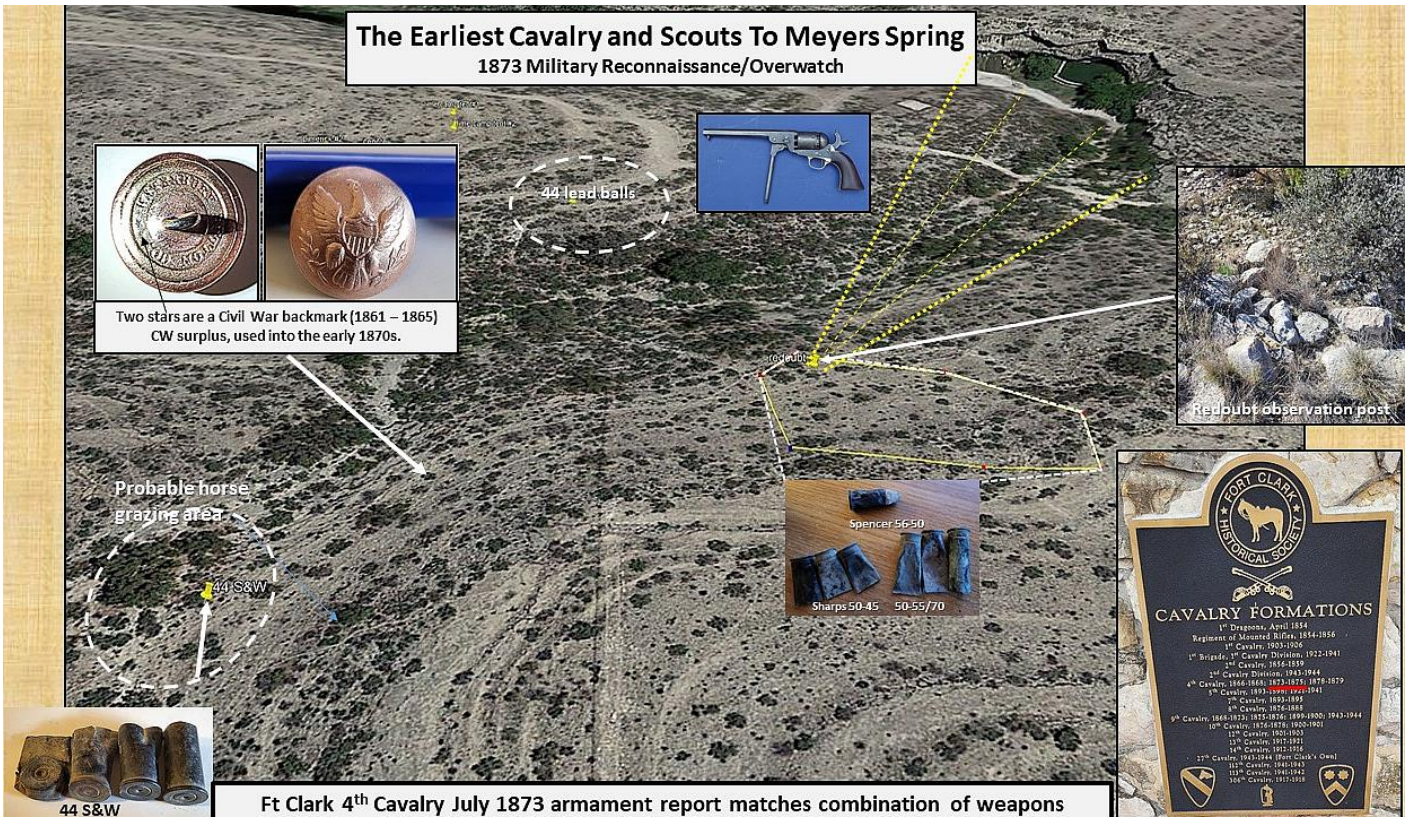
Two stars are a Civil War (1861 – 1865) backmark, which means it was used into the early-to-mid 1870s as CW surplus.



56-50 (top) 50-45 Carbine (left) 50/55/430 Carbine (right)

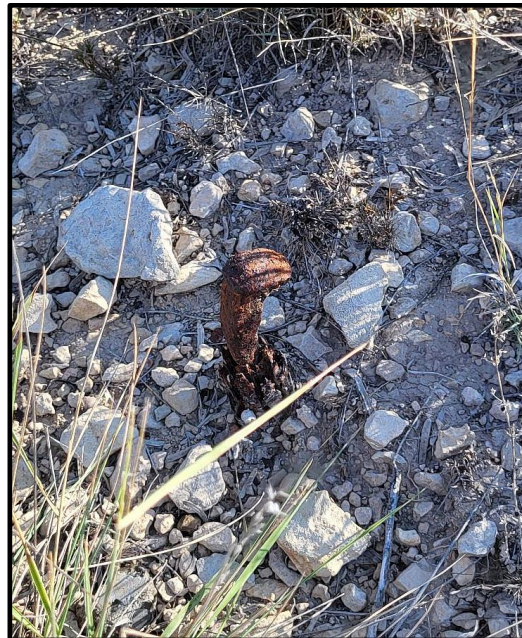


Military Redoubt Guard Post

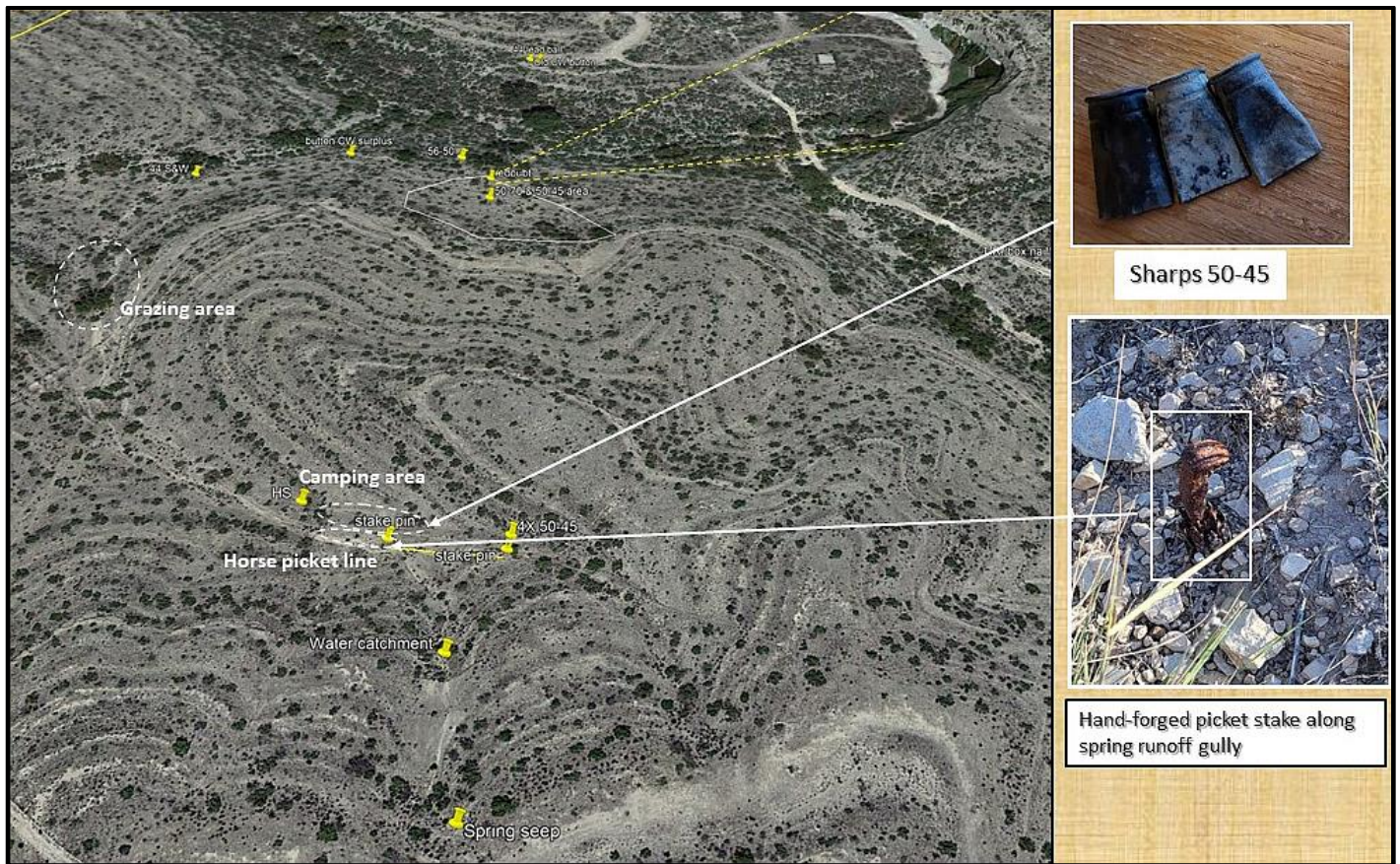


General Area of Early Overwatch Camp

The sloped area where the 50-caliber cartridges were found had no tent or camp platforms. We discovered their camping area 450 yards away, around the mesa, and in a draw. We identified the camp through more 50-45 cartridges and a heavy stake placed along a small creek bed and just below a spring drainage. We believe this was for a picket line. The small amount of space allowed for a camp in this draw indicates this patrol was probably a detachment rather than a full company. The 50-45 cartridges were found behind what would have been the picket line, and on the limited level ground.



Probable In-Ground Picket Line Stake



Cavalry Camping Area

This was a well-chosen location for a stealthy reconnaissance of the spring basin. Likely, some of the earliest of the Fort Clark Black Seminole Indian Scouts from Fort Clark led this unit.

Based on the Sharps 50-55/50-45 cartridges, Smith and Wesson 44 cartridges, and two 44 revolver balls, we assess this patrol was probably a Fort Clark cavalry detachment on patrol. The dropped Spencer cartridge could have come from the Black Seminole Scouts, which were initially issued Spencer carbines. (Guinn)

The 4th Cavalry Regiment arrived at Fort Clark in early 1873, and armament reports from July of that year match the combination of weapon artifacts found at this location. (4th Cavalry) This presents a strong probability that a detachment from one of the 4th Cavalry companies was the reconnaissance unit at this site. Half the Black Seminole Indian Scouts were assigned to Fort Clark during this period, and probably were acting as scouts for any patrols in the region. This would have been before Lieutenant Bullis moved to Fort Clark and took command of the Fort Clark Scouts in 1874.

This is the earliest known period of the military at Meyers Spring. The 4th Cavalry began changing to the Springfield Trapdoor carbines with 45-55 ammunition in the third quarter of 1873 and were fully transitioned by the first quarter of 1874.

A Question of the Name

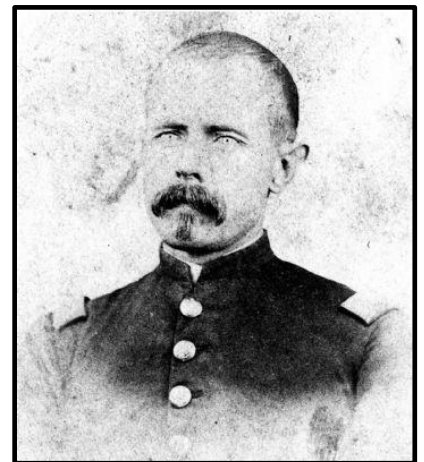
The name of this camp and spring has long been a mystery. Initially, it was called Paint Rock Springs, documented in an 1877 scouting report by Captain S.B.M. Young, 8th Cavalry (Young), an 1879 Fort Concho scouting report, and an 1879 scouting report by Lieutenant Maxon, 10th Cavalry. We know this was the correct location identified because Captain Frederick E. Phelps was on that same campaign as Captain

Young, named the location Myers Spring in his 1950 memoirs. (Phelps) There are many theories as to how it became Meyers Spring, and we explored each of them. Lieutenant Bullis was the property owner and was also the one who convinced the military to use the property as a sub-post for the patrols required in the Lower Pecos region. Thus, the name must have come from his reporting of it to the military. The military consistently reported it as Mayers Spring(s) from that point on. We checked every ranching family, explorer, Black Seminole Scout name, pictograph wall graffiti, and military names that were ever in this area in the 1870s period or earlier. None match up to a name, first or last, of Mayer, Meyers, or Myers. In particular, we reviewed Mayer Halff, a very large rancher in West Texas, and particularly the Big Bend region. But there is no indication he ever had any interest in land east of the current town of Marathon and the water source of what became known as Pena Colorado Spring, just south of town. Given this research was negative, a new theory emerged. And that is, it may not be a name at all.

The Black Seminole Indian Scouts came out of Mexico, and all spoke Spanish. In fact, many did not speak English at all, especially in the early days. Even in Lieutenant French's 1883 diary, he mentioned that most could not read or write. The closest word we can find to Mayer in Spanish is 'mayor,' translated as 'biggest,' 'largest,' or 'main.' This may have been the name chosen by the scouts - 'tinaja mayor' meaning largest or main spring - and the one Bullis took back with him in his report to the military. When transliterated by the military clerks it may well have been written in reports as Mayers Spring. Our guess is that over the years, it somehow ended up being changed to the other spelling of Meyers Spring. Since Bullis never reported it as to his choice of name, this theory will probably never be proven, but we think it is the best theory at this point.

John Lapham Bullis

Although raised as a Quaker, John Bullis was drawn to the military. His opportunity came one year into the Civil War. He enlisted in August 1862, on his 21st birthday, and was mustered into service as a corporal with Company H, 126th New York Volunteer Infantry Regiment. The unit was quickly sent into the fight in Virginia. He saw some of the worst fighting of the Civil War. On September 15th, 1862, at Harpers Ferry, he was wounded and captured, along with 12,700 other Union soldiers. Probably due to the extraordinary number of prisoners, they were sent to a parole camp in Annapolis, Maryland, the day after their surrender. (126th New York Infantry Regiment)



A parole camp was a place where Union or Confederate soldiers on parole were kept by their own side in a non-combat role. They could be restored to a combat role only if prisoners of war were traded to the other side, enabling them to return to combat in exchange for the newly freed prisoners of war. (Parole Camp)

Bullis soon rejoined his unit after a prisoner swap. However, not long after rejoining, he ended up in the bloody Battle of Gettysburg. He was again wounded and captured by Confederate forces, this time spending three grueling months in the infamous Libby Prison before again being sent to the parole camp in Annapolis. Bullis passed an officer commissioning examination during his second tenure at the Annapolis Parole Camp. On August 17, 1864, he was commissioned as a captain in the 118th Colored Infantry Regiment. The 118th was transferred to the Dutch Gap Canal building project. (Wallace) The canal project was to allow ships to

bypass the loop of the James River around Farrar's Island, Virginia, which Confederate batteries controlled. (Dutch Gap Canal)

Bullis was discharged at the war's end but reenlisted in the regular army a few years later as a second lieutenant. On September 3, 1867, he returned to Texas, where he had been discharged and where his Civil War regiment had been stationed for Reconstruction duty following the war's end. (Tate) They were now the 41st Infantry Regiment.

In 1869, the 41st and 38th Infantry Regiments were combined into the 24th Infantry Regiment and reassigned to Fort McKavett as their headquarters. Bullis went with them into the Texas frontier. Bullis distinguished himself in several skirmishes out of Fort McKavett, but the 24th Infantry was mainly used to escort and protect stagecoach stations or work construction projects. When the opportunity arose to take command of the newly formed Black Seminole Indian Scouts at Fort Duncan on the Rio Grande, Bullis volunteered, knowing he would be back in the saddle, doing what he did best – leading horse soldiers against Indian raiders. Those horse soldiers were now going to be the Indian scouts.

As Bullis took command of half the Black Seminole Indian Scout Detachment in 1873, the clash between western expansion and Native American Indians was exploding all across the Texas-Mexico border. The Mescalero Apache were jumping their New Mexico reservation and raiding throughout West Texas and down to the border. The Lipan Apache and Kickapoo were raiding up from Mexico into South Texas. Livestock were stolen from ranches and cattle drives, stagecoaches were attacked, and any emigrant wagon trains heading west were easy targets of opportunity. The pressure back in Washington, D.C., to do something was intense.

Colonel Ranald S. Mackenzie was one of the few on the North Texas frontier who had successfully taken the fight to the Comanche in 1871 and 1872. Because of his success, he was transferred, along with the 4th Cavalry Regiment, to Fort Clark in 1873, with orders to stop the raids out of Mexico, using whatever means necessary. Those orders came directly from the President of the United States, Ulysses S. Grant. The orders were considered so important (and sensitive) that they were given in person to Colonel Mackenzie at Fort Clark by the Secretary of War, William Belknap, and General Phillip Sheridan.

Colonel Mackenzie knew Lieutenant Bullis from their time together in the 41st, later the 24th Infantry 'Buffalo Soldier' Regiment. He ordered Bullis to get the Black Seminole Indian Scouts ready to lead a secret large-force movement into Mexico to deal a blow to the Lipan and Kickapoo on their home ground. This became the now infamous Remolino Raid, 40 miles inside Mexico. (Hamilton, Sobota) Bullis and his Scouts were credited with successfully leading this large force through uncharted mountainous territory to the objective and returning safely.

Bullis and his Scouts continued patrolling out of Fort Duncan for the next few years and leading larger forces for Colonel Mackenzie. Mackenzie transferred him and the Fort Duncan Scouts to Fort Clark in 1874. He promoted Bullis to first lieutenant, gave him full command of the consolidated Black Seminole Indian Scout Detachment, and authorized him to conduct patrols independently with the full detachment.

The Early Black Seminole Indian Scout Camp & Lieutenant Bullis

The first weapon artifact found in the area and pointing directly to the Black Seminole Indian Scouts was a dropped 44 Colt cartridge. This precedes all the other cartridges contemporaneous with the official camp period. Colt's Patent Firearms developed the 44 Colt cartridge for use in cartridge revolvers based on the

1860 Army percussion revolver. The cartridge was briefly adopted by the United States Army around 1871. The Army used it until 1873 when it was replaced by the better-known and more powerful 45 Colt cartridge used in the Colt Single Action Army revolver. According to the weapons issuing document for the second quarter of 1873 (Appendix F), the Fort Clark cavalry were still carrying the 44 Colt at that time. Some were even carrying the cap and ball version. However, they transitioned to the 45 Schofield soon thereafter. The Black Seminole Indian Scouts were provided with used uniforms and older weaponry when they began their enlistment contracts in 1872. Lieutenant Bullis took over the Fort Clark Scouts in 1876. They were likely issued the older 44 Colt revolvers, and this cartridge was probably accidentally dropped during one of those early periods patrolling out of Meyers Spring.

Three lead bullets were found within what we believe was the early scout camp, and these point directly to Lieutenant Bullis and the scouts' early period at Meyers Spring. These are revolver bullets and are 44 caliber. The only military that would have been carrying 44-caliber revolvers prior to the official creation of the camp was Lieutenant Bullis and the Scouts. They would have been the last ones to convert to the 45-caliber Scofield, which was found in all the other cavalry camp areas. Additionally, we found from the guard posts that the 1st Infantry Regiment's Company A was carrying the 45 Colt, based on cartridges found in their camping area. Two of the 44 caliber bullets at the early Bullis camp received minor rounded, blunt trauma, indicating an accidental discharge into the ground. Early Colt revolvers were well known for this accidental discharge problem. Both bullets measure out in size and weight to be 44 Colt. Thus, we believe the scouts were all carrying 44 Colt revolvers prior to the later official camp period. The minor blunt trauma indicates a discharge directly into the ground, which helps define this site as the location of the discharge rather than some other location as the originating firing point.



Black Seminole Indian Scout with Cartridge Belt Holster Dug Up Colt 44 Cartridge and example

Meyers Spring was likely one of the early discoveries by the Black Seminole Indian Scouts, and Lieutenant Bullis made it his primary forward base of operation long before the area ever became an official military camp. This early Scout camp is in a location slightly separate from the later official camp.

As we determined from the later official camp, the Black Seminole Indian Scout camp is laid out in a semi-circular fashion, upholding the Seminole Indian tradition. This camp was first revealed in the same manner as the other camps. That is that the ground splotching in the 2015 imagery is visible in front of what were tent locations. This camp must have been used over and over again, with the tents set up at the exact same places over many patrols to this site. Essentially, they were using it as a forward-operating base camp long before the official main camp was created.

The tent placements are very much like the semi-circle found at the later period Black Seminole scout camp. Additionally, the inner and outer rings, unique to that camp, are also in the layout for this camp. The inner ring was very likely the sergeant's tents, with lower-ranking soldiers in the outer rings. The commander was placed in the middle of the circle. There are 20 tent sites, plus one central tent. At two men per tent, this matches Bullis' reported detachment manning of 37 - 40 scouts.

Our metal detecting had limited positive findings in this area, but enough to support the camp analysis. It appears that much of the metal can trash was being dumped in a nearby ravine. Findings in one particular area just outside the circle of tent sites indicated it was probably a wagon unloading area. This is based on in-ground supply box nails, tin can pieces, and horseshoe nails.

Additionally, the wagon trace can be seen in the imagery leading up to this area and stopping, which means every time they brought the wagon in to establish the camp, they did it exactly the same way. This would be the reason the trace is still visible.

Although surface trash could not be used to be definitive to this site, we found several tent sites with in-ground, unused horseshoe nails next to tent sites. Cavalry soldiers were required to carry spare horseshoes and could reshod their mounts while on patrol. In between two sites, we found a buried fire striker which was definitely a site-specific artifact. Until the invention of the friction match the use of flint and steel was a common method of fire ignition.



The camp itself sits at the eastern edge of the flat, in front of the only easy draw that leads down into the canyon that then leads down to the main spring. This is a logical place to set up a patrol camp where, at the time, wagons were not capable of making it all the way to the spring. In fact, this is the reason Company A, 1st Infantry was brought in from February to April 1881 – to create a wagon-capable road to the spring.



Near the wagon parking area of this camp is an unusual three-sided ground scaring in the imagery that forms a rectangle. This looks very much like a possible kitchen/dining area. The area is 15 X 30 feet, which would be correct for two square dining fly tent covers. This would explain the man-made rectangular disturbance in that area.

Finally, all three 44 caliber bullets we believe were from accidental discharge were found within the camp area. As stated earlier, the 44 Colt was well known for accidental discharge if the hammer was over a loaded chamber. The bullets were blunted as if fired directly into the soft ground.

Probably the most significant artifacts found in this area were four pieces of an Ironstone dishware. Two of the pieces had the maker's mark on them, and with that we could identify the manufacturer and probable year. It was made by a well-known potter's family in England that produced many items for shipment to America. That was J&G Meakin and Co. An identical dish and maker's mark we found in our research is stamped 1868. The maker's mark changed from year to year, giving us confidence the year of 1868 is representative of this dish. The pieces were found just 30 feet away from what appears to have been the kitchen/dining area, and next to the stopping point of a wagon track, making that a loading/unloading area.

Wagons were used by cavalry units coming into this area for this forward operating camp. With these dish pieces next to the camp, and a probable wagon unloading spot, we can safely speculate the only person that might have such a set of personal dishes would be Lieutenant Bullis. Although only a lieutenant, Bullis married into a family of wealth, which was how he was able to purchase this and many other sections of land in the Lower Pecos region.

With a wagon unloading area within feet of these dish pieces, it is reasonable that this type of item could be a personal luxury being carried to this location. We have seen other cases where unit commanders brought along these types of personal luxury items on long patrols.

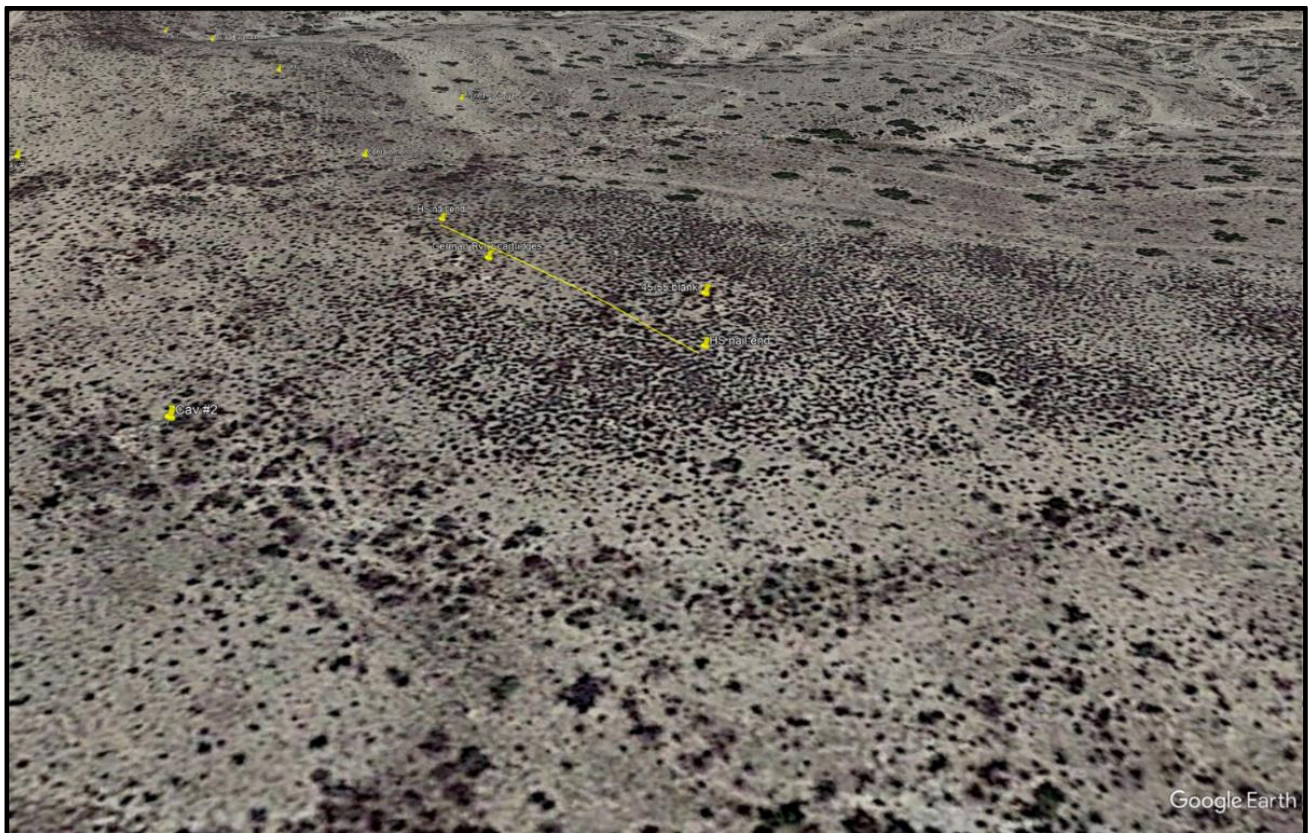


Ironstone Dish Pieces



J&G Meakin Ironstone Dish with 1868 stamp (example)

A nearby knoll 135 yards north of the Bullis camp is covered with Chino Grama grass and is very likely the area where the Black Seminole Indian Scout detachment picketed their horses while at this camp. It is still the heaviest concentration of Chino Grama grass in the area. From the USDA: “Cattle, horses, sheep, and goats graze Chino Grama. Sometimes limited amounts are harvested for hay. It is an important conservation grass because it is adapted to sites on which few other species will grow.”



Knoll covered with Chino Grama and a long line of horseshoe nails in the center

We found a straight line of horseshoe nails, both used and unused, in the center of the knoll that measured 150 feet. Picket ropes (lariats) were measured out to 30-foot sections. Tied together, that is five ropes. For 40 horses, plus eight mules, that would be 24 animals on each side of the picket line, giving them just under 7 feet of picket line each. This would work for a night picket. They could turn them loose in the day, or possibly hobble them in the one-acre knoll. The knoll makes a natural corral, with rocky slopes around 90 percent of the area.

The book ‘History of the Ninth New York Cavalry’, by Newell Cheney, gives a good picture of what the standard way to feed horses might have been. “No sooner had the picket ropes been stretched and the horses been unsaddled and hitched, when the men hurried to an adjacent field of wheat, ready cut and bound, and brought enough to feed the horses liberally...” (Cheney)

This quote specifically describes the common way that that cavalry fed their horses when not on the march. They would “Stretch the ropes” and then manually cut enough hay for their own mount. Other similar accounts of this being the case can be found throughout other first-hand sources of federal cavalry of the period. It also makes sense that all shoeing would be done while on the picket rope line. In addition to the horseshoe nails, we found two saddle horse shoes – one near the picket area and one within the grazing area.



Saddle horseshoe found in grazing knoll

We found five expended revolver cartridges on this hill. Three were 10.4mm Italian Revolver and two were 44 Smith & Wesson Russian. The 10.4mm Italian was developed for the 1874 Service Revolver. It is similar to the 44 S&W Russian. (Barnes) This indicates testing was being done with these two types of ammunition for the 44 Schofield revolver. Two of the 10.4mm were severely split. One 44 S&W was partially split in the test fire. The 44 S&W was the most popular cartridge of its day. A theory is that Lieutenant Bullis was testing the 44 Schofield revolver, while the scouts were all issued the 44 Colt Revolver.



An additional find in a nearby gully supports this being an active forward-operating camp. Approximately 80 yards from this grouping of tents we found a dump of blacksmithing items. There were no wagon roads to this location, meaning the trash was walked out to this location and dumped. As was with the later Black Seminole Indian Scout camp, there would have been a blacksmithing operation for this forward-operating camp. A unique item to these left-over pieces was a piece of forge slag. A blacksmith would have required a portable forge.



Blacksmithing dump items



Portable period-correct forge (example)

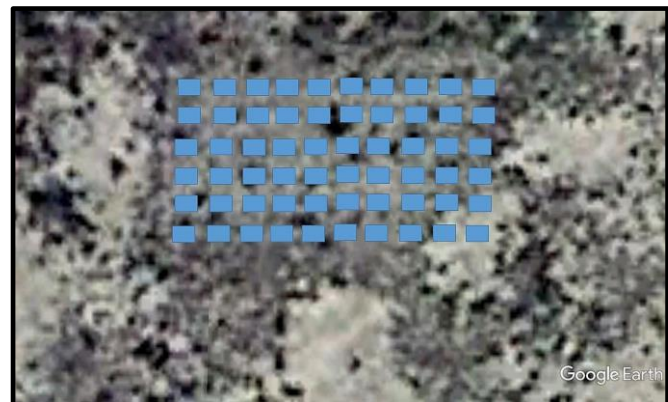
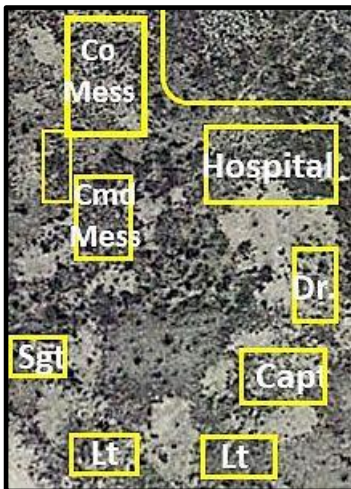


Slag from mobile forge

The First Official Unit – The Infantry Camp

Company A, 1st Infantry Regiment was brought in with the main mission of cutting a wagon road down to the main spring. The camp was broken down into four main areas: command compound, corral, infantry tent area, and perimeter guard posts.

Command Compound: The command compound sits right next to the modern ranch road, off the northeast corner of the stone ranch house. The key to understanding the compound is what first appears to be light-colored ground splotches in the 2015 satellite imagery. These splotches are actually heavily traveled areas into and out of tents. With this understanding, we can then determine the tent layouts around the central rectangular open area of the command section, which was essentially an assembly pad. The original infantry command compound consisted of the captain's tent, a doctor's tent, a hospital tent, two lieutenant's tents, a first sergeant's tent, and a command dining tent. These tents were set up around the 30 X 50 foot rectangular assembly/formation pad. This open area would have been an assembly area when the commander needed to address the troops in a formation. This is a common design to this day for military field command compounds. The pad will hold a formation of about 60 men, which is the size of a company at that time.



Probable Command Compound with Assembly/Formation Pad (Google Earth)

Most command officers would have a Type 1 Officer's Wall Tent (10'6"w x 11'2"l x 7'h w/45" wall). However, the hospital tent would be larger (14'w x 14'l x 11'h w/45" wall). Lieutenants would have a Type 2 Officers Wall Tent (8'9"w x 8'6"l x 8'6"h w/45" wall). Sergeants would have a Shelter Half Tent (67"w X 66"h). The command dining tent would probably be a Type 1 Wall Tent. (19th Century)



Officer's Wall Tent

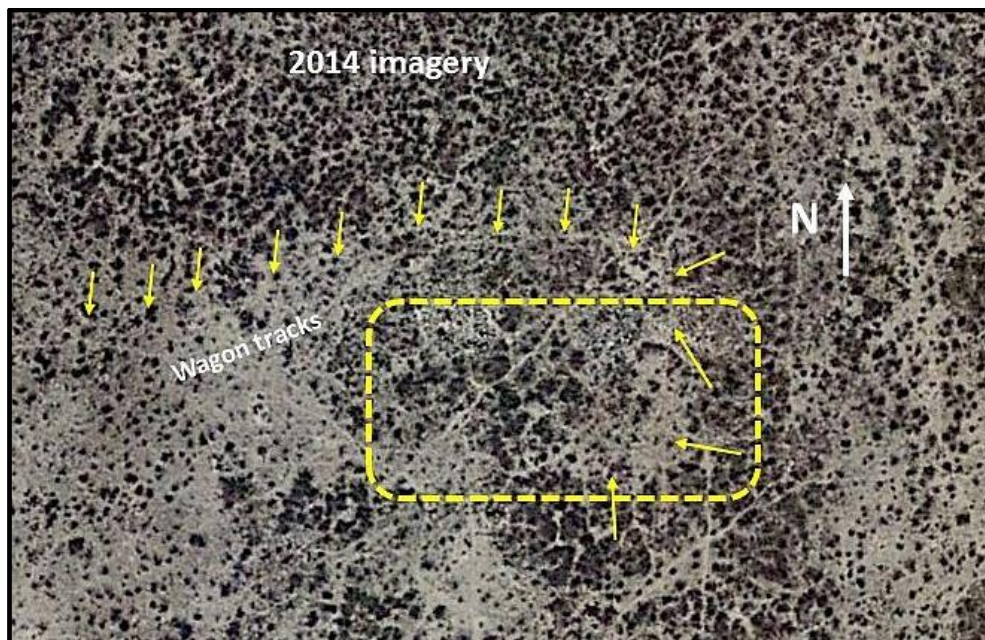


Hospital Tent

(Examples)

Behind the command compound and the officer's dining tent was a probable camp mess tent. This was a much larger tent (35 X 20). There is a very large scaring leading into this tent area. In between the officer's dining tent and camp mess tent was probably a common kitchen tent.

Corral: The infantry corral was constructed between the enlisted tent area and the command compound. The ground-scared area is approximately 130 X 60 feet. A good indicator of this area being the corral are wagon tracks leading into and out of the corral (most visible in a 2014 satellite image below). In the 2008 Texas Tech reconnaissance, several horse and mule shoe fragments were collected from the southeast corner of this area. After the infantry company departed, this area continued to be used by the Black Seminole Indian Scout detachment, which referred to it as the "stables" in Lieutenant French's diary.



Infantry/Seminole Corral with Wagon Road Annotated

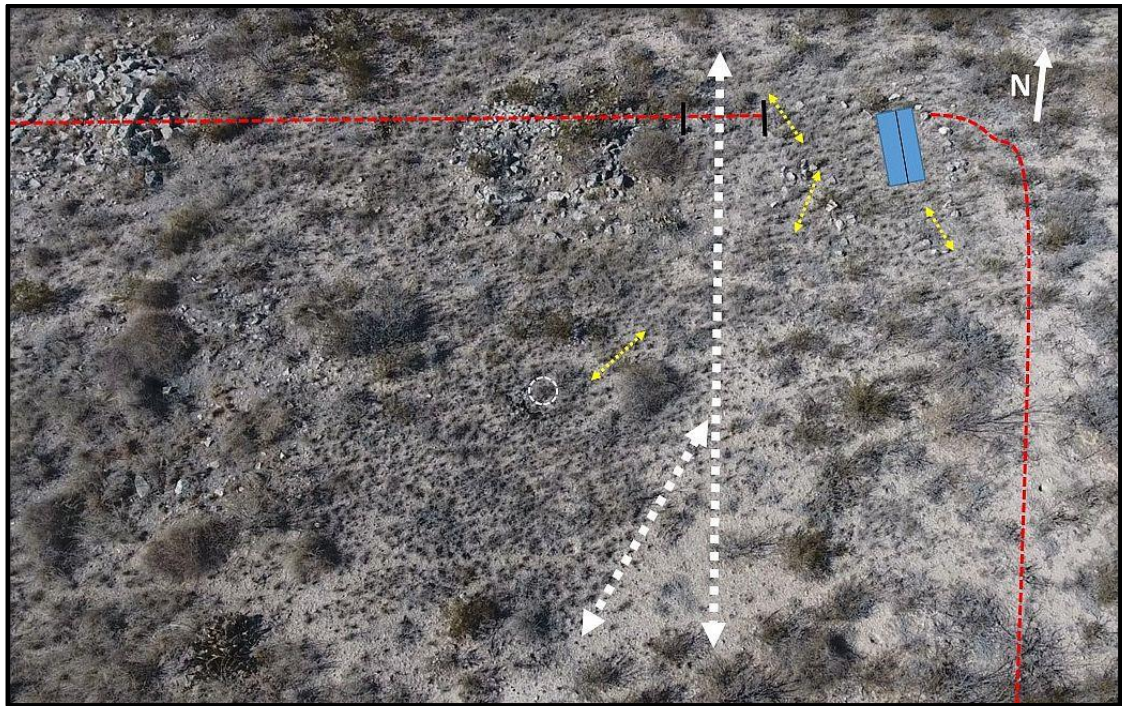
The corral area is the most confusing area to understand because it has remnants of four stone features within the confines of what would have been the corral fencing, originally constructed by Company A. Of those four features, two were probably related to the original corral, and two were from the post-military period and related to the Pecos Land And Cattle Company. The remnants of a small stone building, which is the farthest west, is very visibly constructed in an extremely professional manner, with double-stacked cut stones. According to Lieutenant French diary, the first two constructions in the area were for the cattle company's contracted stone mason and carpenter's quarters and the Lougee family. The first stone structure was located just east of the main house, now along the ranch road. Although it was well built of cut stones, it appears to have been put together quickly, which is what the diary said. We believe the two stone buildings within the former corral area were additional construction for the cattle company after the military departed. The other two remnants of wall features within the corral area were probably from the original military occupation. Most of the stones from the original military walls were repurposed for the more crudely constructed stone structure, probably another laborer's quarters for the cattle company. This building was within feet of the two previous infantry company wall structures.

The wagon trace revealed in satellite imagery shows it drove into the corral and made a right turn to a turnaround. It could then drive right next to the circle with the depression. Or the wagon could park at that point, ensuring they could release or harness up the mules while inside the corral.

A large square boundary of large rocks on the most eastern side of the corral sits next to the entrance gate area to the corral. This feature has a large tent stake on the outside of the north side of the feature. It is currently a single ground-level row of large rocks that measures 17 feet cross. On the northwest, southeast, and southwest areas of this circle are three rock-lined entrances into the feature. The entrances are four feet wide. The northwest entrance was probably outside the corral entrance gate. By using the northwest and southwest entrances, anyone could enter the corral without having to open the gate. This matches with the fence line trace in the satellite imagery. With this identified we can see the fence line trace runs through the post-military rock structures, further supporting the position these were not built as part of the military occupation. It is likely the tent area was encircled by a stacked rock wall, but the stones from the wall were taken over to the adjacent rock structure after the military departed. This wall would have been about three to four feet high and would have been for the person in charge of constant care and maintenance of the mules and horses.

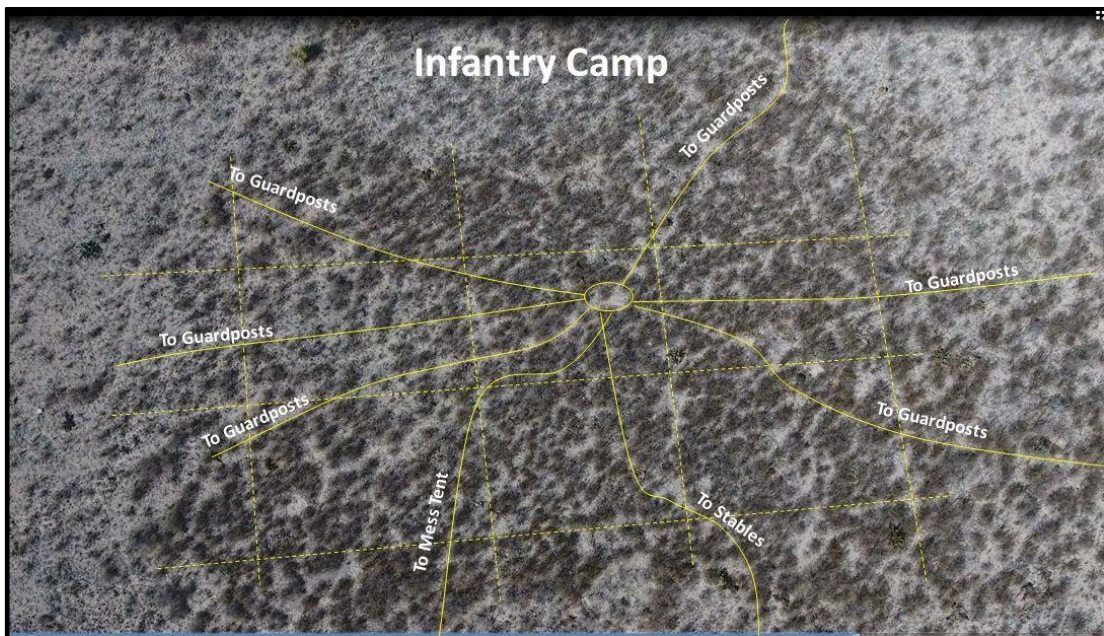
The remnants of a square building of stacked rocks sits immediately adjacent former corral gate. It was originally 15 feet square. This was constructed after the military abandoned the camp in 1884.

To add to the confusion of this group of features is a fourth circular line of large stones immediately south of the square building feature. This feature is also now only a row of stones on the ground and probably was higher walls when constructed. Those stones were probably also removed to build the square building in the post-military period. It measures 17 feet in diameter and is depressed ground in the center. There is a depression about 14 inches deep at the center. The depression suggests this was probably a watering area for the animals. The wall would have been to protect the water source, probably held in a half barrel, from animals wandering in on their own. In addition to the depression, a large barrel strap was found very close to this feature, which helps support this theory. During the Company A occupation of this camp the large spring in the canyon was not accessible by wagon since this company was the one working on the road to the canyon spring. Their only source of water would have been a small spring in the draw 100 yards to the northwest, and two more spring runoffs in a draw 450 yards to the northeast.



Overhead of corral. Note fence line runs through stone buildings, which shows they had to have been built after the military departed. (Drone image)

Infantry Company Tent Area: The area where most of the private's tents were set up is north of the corral. This area was laid out in a surveyed block grid format, similar to an area we found at the 1859 Camp Van Camp expeditionary camp. Wagons were used to lay out the grid in a surveyed pattern. The company was then assigned grid areas for camping. Extending from a central point are walking trails. Most of those trails head in the directions of the guard posts. Two of them head in the direction of the corral and mess tent. The trails to guard posts indicate shift reliefs for the guard posts walked from camp.



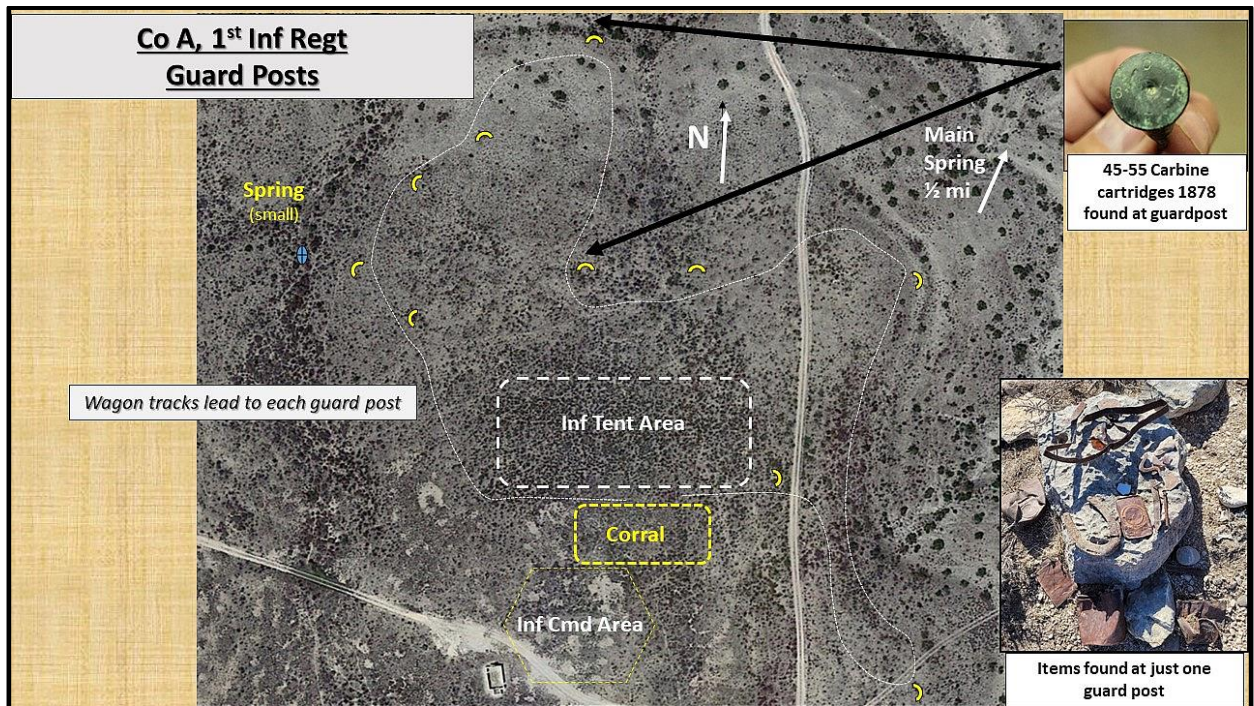
Infantry Camp Visible Surveyed Layout with Walking Trails (Google Earth)

Records show Company A only remained in area for three months. No other infantry company deployed to this camp after they departed; all subsequent occupants other than the Black Seminole Indian Scout were cavalry units. An infantry company at the time consisted of approximately 60 privates, a captain, two lieutenants, a sergeant, and several corporals. As part of their own encampment requirements Company A built the guard posts and the corral, later used by the scouts. As stated earlier, their primary mission was to cut a road to the main springs, which had the most abundant source of water. Large water barrels carried by wagon would be a requirement for future deployments. After an extensive satellite review of the area, the only reasonable way from the camp to the spring in this very hard canyon terrain is the same ranch road route today. Although the wagon road used the same draw, they constructed it slightly differently than the modern ranch road because they needed to use the easiest slope possible for the wagons. To do this they essentially wound the road down the initial draw in a series of S curves to cut the angle to a reasonable decline. The rest of the current ranch road to the spring is mostly on top of the old wagon road.

Infantry Company Guard (Picket/Sentinel) Posts

Expeditionary infantry companies are laid out to hold and protect a territory, and in the process protect themselves from attack. Camp Meyers Spring was added as an official sub-post in order to give the cavalry and Black Seminole Indian Scout patrolling units a base of operations closer to the trouble spots than they would have had from a garrisoned fort. It was the best clean source of sufficient water for a large camp in the Lower Pecos River area, making it a strategically important location.

In order to maintain the infantry camp and protect themselves, they were required to maintain picket/sentinel guard posts surrounding the encampment on a 24-hour basis. This was a hapless but necessary duty. Camp Meyers Spring was no different in this regard, and there were many guard posts surrounding the camp. Guard posts were usually manned on four-hour shifts. This was to ensure the guards kept their vigilance. Guard posts were also spaced to be within communication distance of each other. In this case, most were between 35 and 100 yards from each other and were also between 50 and 150 yards from the boundary of the camp. This security strategy adheres very closely to the basic principles in a 1907 military primer presented for the fourth cadet class of the United States Military Academy. (Marshal and Simonds) Wagon tracks can still be seen today in overhead imagery running between guard posts, and in some cases are still visible on the ground. The layout shows both an outer and inner ring of guard posts. This was a very well-thought-out defensive plan, probably owing to the fact this company had just come from the Dakotas and a very active and aggressive war with the Sioux Nation. After the infantry company departed, all of these particular guard posts were abandoned.



Guard Posts Surrounding the Infantry Camp (Google Earth)

As stated earlier, the trails within the infantry tent camp area indicate the shift reliefs to and from the guard posts were walking from camp. Since wagon tracks are still visible in imagery between guard posts this means the wagons were for delivering ration supply boxes to the guard posts. This is supported by many pieces of supply box bands and can trash at most of the guard posts. Guard posts consisted of large rocks stacked in a semi-circular shape facing the threat, called a redoubt. This kept from exposing a silhouette and was a defensive wall in case of attack. Guards probably sat on a box. On slopes, the position is built up with smaller rocks and dirt to make a level platform. In every case, the large rocks have become deflated from wind and weather over the many years. Some were swept down the hill directly below the former guard post. It is quite obvious they are not natural to the close surrounding area and were brought from nearby creek beds. Most of the remaining ones are scattered within feet of the platform and large bushes are often growing into the site due to the additional soil disturbed from the platform construction. At all the guard posts we found various amounts of period military supply ration and personal trash scattered around the position or washed down the slope directly in front of the position. Much of this was bottle glass and tin cans, mostly ‘Hole In Cap’ cans. (Busch)

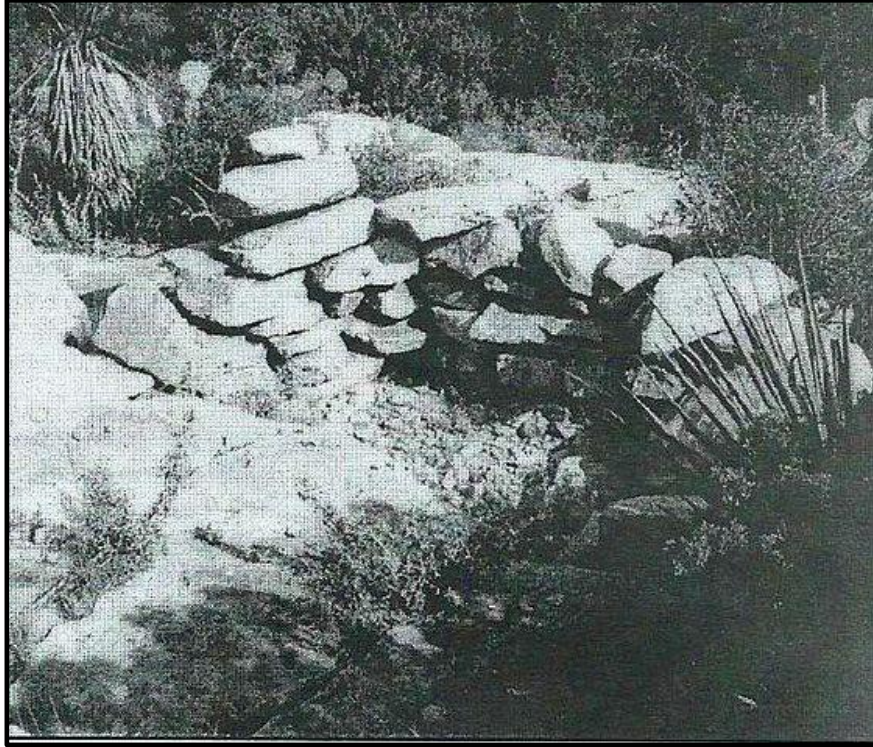


Ration Supply Box Band, Guard Post #7



Remains Of Defensive Stone Redoubt, Guard Post #9

These posts are mostly set up on high ground over watch points. Several guard posts were set up to oversee draws that lead up to the camp that would be considered a threat of sneak attack.



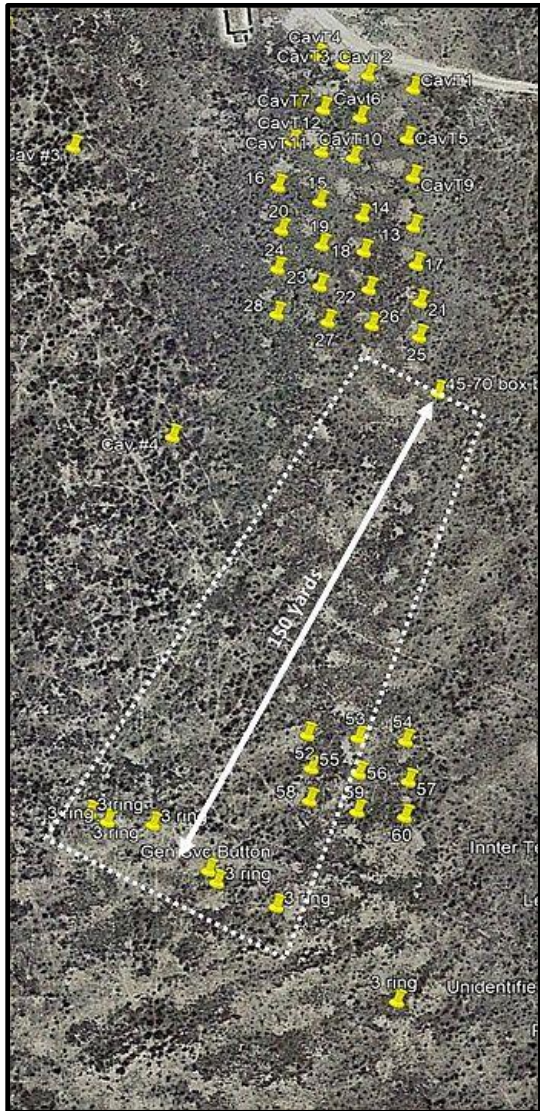
Example Of Intact Redoubt At Grierson Spring From Same Period



Remnants of a wagon road between guard posts



Vista View from a Guard Post



While metal detecting the main wagon road on the south end of Cavalry Camp #1, we came across what we determined to be the target practice range for Company A of the 1st Infantry Regiment. This was a target practice range prior to the arrival of the cavalry. Thus, it runs through the later cavalry camp at an angle to the tent layout. A cluster of 45-55/70 lead bullets in various conditions of impact was found in an angled east-west line, with some outlier errant bullets from the main area. In all, 14 bullets were found. Working our way back from this area we found the firing position at 150 yards. This was determined by a 45-70 brass pouch flap button that had been dropped, along with an unfired, deformed 45-55/70 bullet that had been dropped. A partial 45-55 cartridge was also found in this area. The distance for this firing range is 150 yards, which is considered to be the proper range for accuracy and minimal bullet drop for both the Springfield Trapdoor 45-55 carbine and rifle. A general service Indian Wars military button was also found in the area of the spent bullets

Infantry firing range across later cavalry camp



(example) 45-55/70 Ammo Box (Pouch) With Brass Flap Button Ammo Pouch Flap Button

The unusual findings of both this firing range and the infantry guard posts is the fact that it appears this company was firing carbine rather than rifle cartridges, all with either no stamp or 1877 or 1880 head stamps. From the Cartridge Collector website research: “The Benet primed cases were loaded with 70 gr. black powder load and a 405 gr. bullet. The carbine load used the same bullet, but a 55gr. charge with 7 wads inserted to take up the space. The bullets for the carbine load were seated to the same depth as the rifle load and once out of the packet, there was no way to distinguish which was which, until it was fired and apparently the recoil was excessive when a rifle load was fired in a carbine rifle. The rifle/carbine identification problem was solved in March 1877 when the arsenal started applying headstamps to the cases. The first were head stamped R 77 3 F (Rifle / 1877 / 3rd Month / Frankford Arsenal) and C 77 3 F (Carbine).”

There is no documentation of this infantry unit as to whether they carried the 45-70 rifle or 45-55 carbine. However, it is generally accepted that infantry units carried the rifles. The most likely explanation for this is that they were issued carbine cartridges for their rifles due to a shortage of rifle cartridges in the Fort Clark Quartermaster’s supply. The carbine cartridges were essentially the same accuracy from the rifle as the carbine at the standard range of 150 – 200 yards, but carry 55 grains of gunpowder rather than 70 grains. In our discussion with armament experts, this is considered the most likely. In support of this theory, we did find two stamped rifle 45-70 cartridges at an infantry water collection camp (next topic in this report). These two cartridges were stamped 1879 and 1880.



Nearby Springs and Infantry Water Collection

Although A Company’s assignment was to cut a wagon road to the spring runoff area above the main spring basin, while they were on this task they also needed a good source of water reachable by wagon for their own needs. They found this source from two small springs near their main camp. One was just behind the camp in a small draw, and the other was 400 yards north in a similarly small gully. The closer one was more of a seep spring and easy to get to by wagon. In both locations they built catchment pools. They must have been filling water barrels on wagons on its many round trips.

Sixty yards below the second spring are the remaining abutment stones from the catchment dam. Wagon traces goes directly to both these locations and then returns to the corral. Many 45-70 cartridges were found in the second area, but two were stamped as rifle cartridges. These were only used by infantry. The cartridges that were stamped included 1878, 1879, and 1880. As stated earlier, the period of this camp was early 1881. Additionally, we found one Civil War-era coat button with

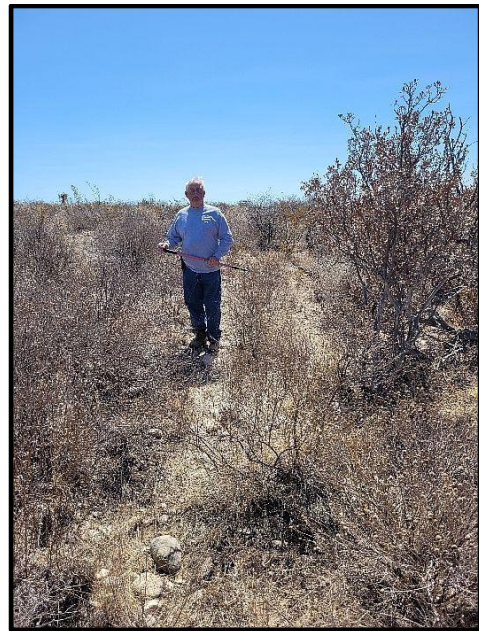
an 'I' in the shield, indicating infantry. On the wagon road we found various wagon parts shaken loose while crossing the rocky ground.

Two 38 Short rimfire cartridges were also found. Earlier, these same type cartridges were found at the edge of the main infantry camp. These were probably from a personal weapon carried by one of the soldiers. It would be for an 1871 New Model Revolver.

The close-in pool would have been about 14 X 15 feet and about 14 inches at its deepest point. This pool was also used by the Black Seminole Indian Scouts after they created their camp, which was 100 yards above the pool.



Dam Rocks Placed To Pool Spring Water



Wagon Road Leading To Gully In Front Of Spring Pool

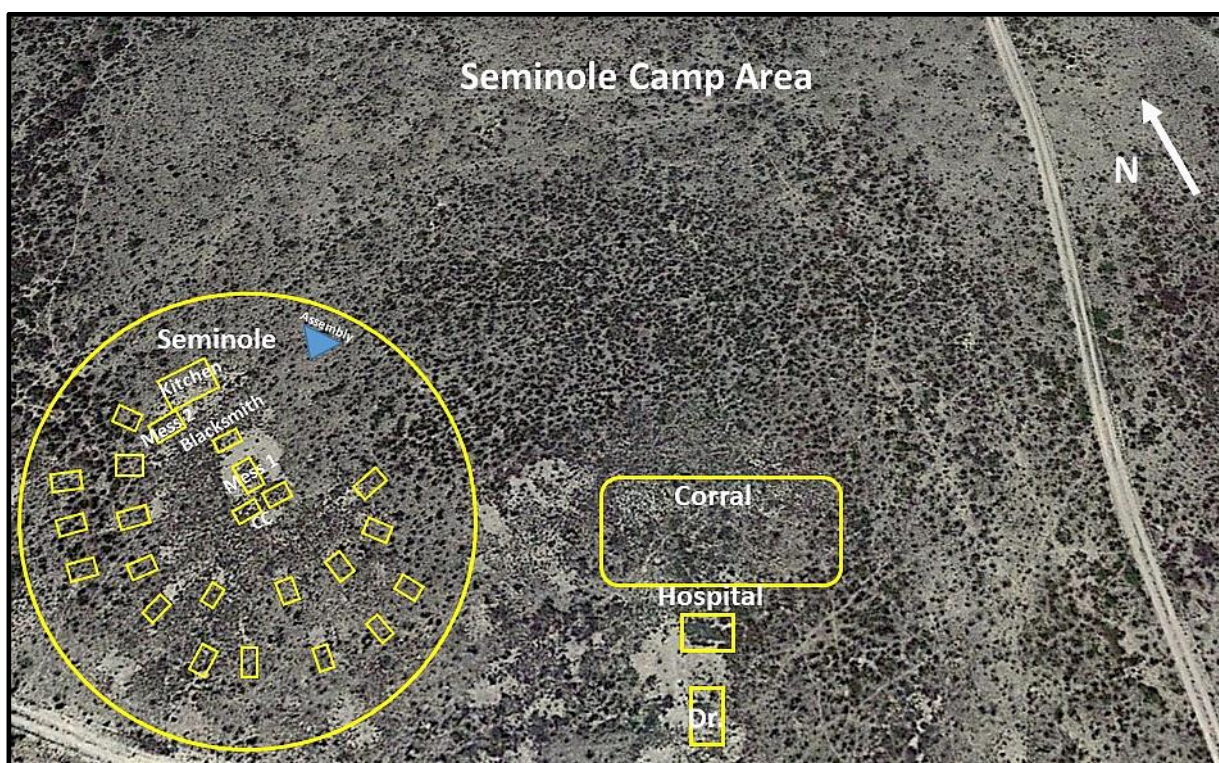


Fracture spring source for second infantry water collection area 400 yards from infantry camp

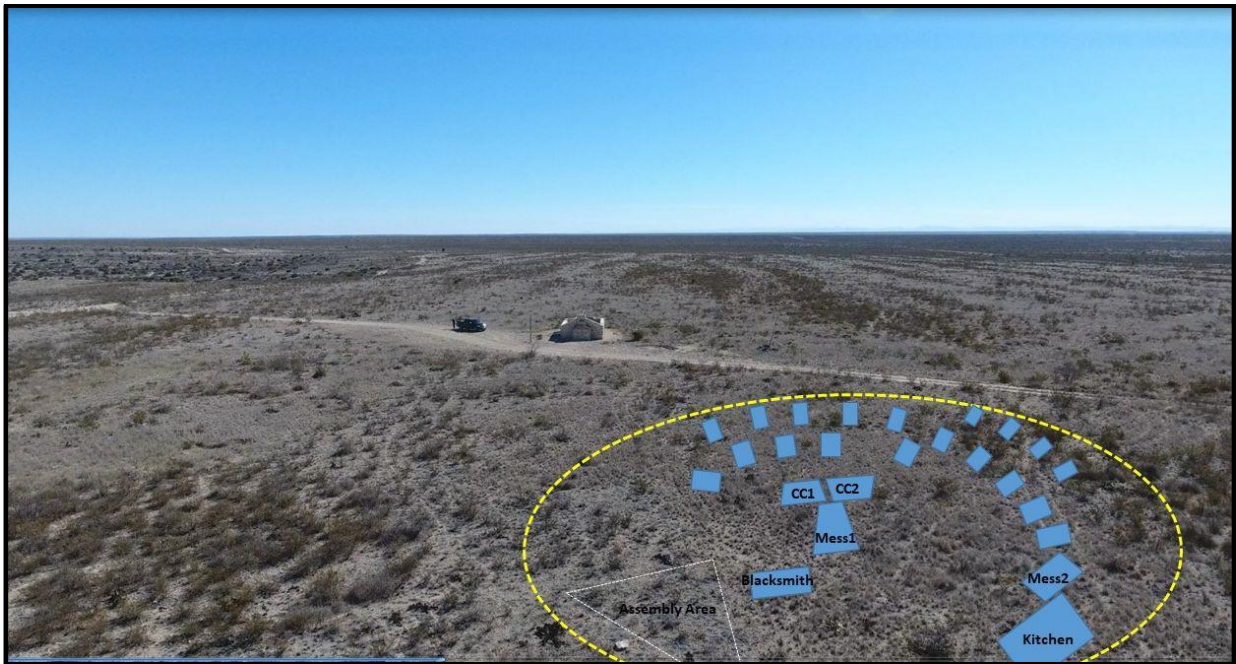
Black Seminole Indian Scout Camp

The Black Seminole Indian Scout detachment was the first to establish itself in Camp Meyers Spring. However, their final camp location was probably the last to be established after the infantry company departed. Cavalry units were deployed there for the first three months. The scouts were then deployed, along with the cavalry, for the next three months. However, the camp probably wasn't fully established until the 22nd Infantry detachment (a probable engineering unit) assisted in the final camp laydown in April 1882. (See Appendix C)

The ground scarring in the satellite imagery of the camp is different than a regular military unit, maintaining a distinctive circular design. It is laid out in a series of inner and outer rings surrounding the leader. The tent location analysis came initially from analysis of the high-traffic entrances to the tents, and later from on-ground reconnaissance and metal detecting for clusters of trash that expose a tent spot. There appears to have been a total of 19 enlisted tents, two mess tents, a kitchen tent, a blacksmith work area, the commander's sleeping and dining tent. The mess and kitchen tents match with the French diary that the men had their own cooking facilities. The commander's tents were placed in the middle of the tent rings. According to Lieutenant French's diary, he had his officer's wall tent, but also had a separate dining tent, which he often had guests of the doctor, cattle baron Mr. Lougee, and his general manager. He also stated his tents were wall tents, which were enhanced with wooden walls toward the end of his assignments. He had a wood-burning stove put into the dining tent for more comfort for him and his guests. On November 22, 1883, French stated he moved an extra wall tent over to the kitchen area as a second mess tent (for the NCOs). There were at least five sergeants in the detachment during his 1883/84 deployment. The main mess tent was in the center of the compound, just behind the commander's tents. This is where the most foot traffic is evident. Given the number of scouts in monthly reports over the years, the most likely scenario for this setup was two men per tent, depending on the number in the detachment each month.



Black Seminole Indian Scout Detachment Layout (Google Earth)



Black Seminole Indian Scout Detachment Layout (drone image)

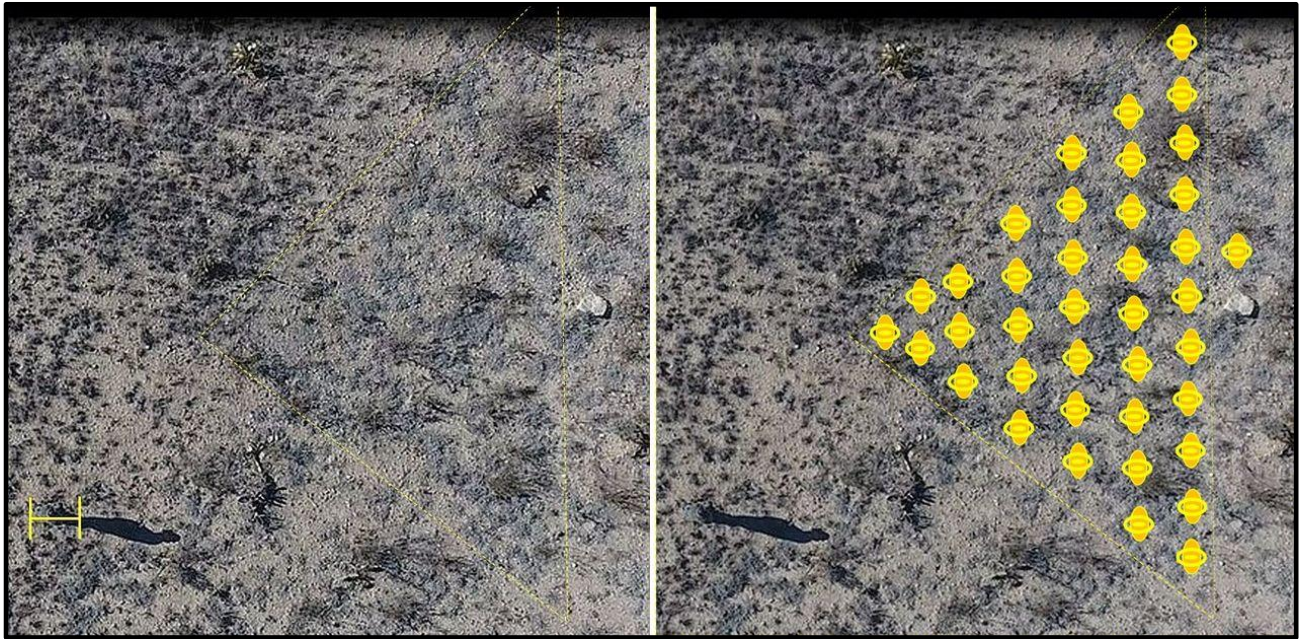
Black Seminole Indian Scout Assembly/Formation Area

On the outer edge of the circular camp area sits a very large flat rock. This rock is the only one in the entire area and was obviously brought up from the canyon area. It measures 20 X 15 X 5 inches. In front of the rock is an area of disturbed earth in the shape of a perfect triangle, which can be seen in drone video imagery looking directly down. The stone sits exactly in the middle of the base of the triangle. This was very likely an assembly/formation area for the troops with the stone being used as a step-up podium for the commander to address the troops. Assembly was a common practice in military field deployments. It was usually conducted daily after breakfast. It is a way for the commander to communicate the orders for the day. He would then turn it over to the first sergeant to assign specific duties. The reason this area can still be seen from above is that it was specifically measured out and dressed into this formation by cleaning and grooming in a military manner. The daily assembly of men within the triangular assembly would have imprinted this space in the triangular shape from that time on. We believe this stone and the assembly area in front of it adds to the imagery analysis of the circular tent layout, in that it is in the one area of the circle that is completely devoid of any other activity or occupation. We have given the nickname for this stone the 'Podium Stone.'



'Podium Stone'

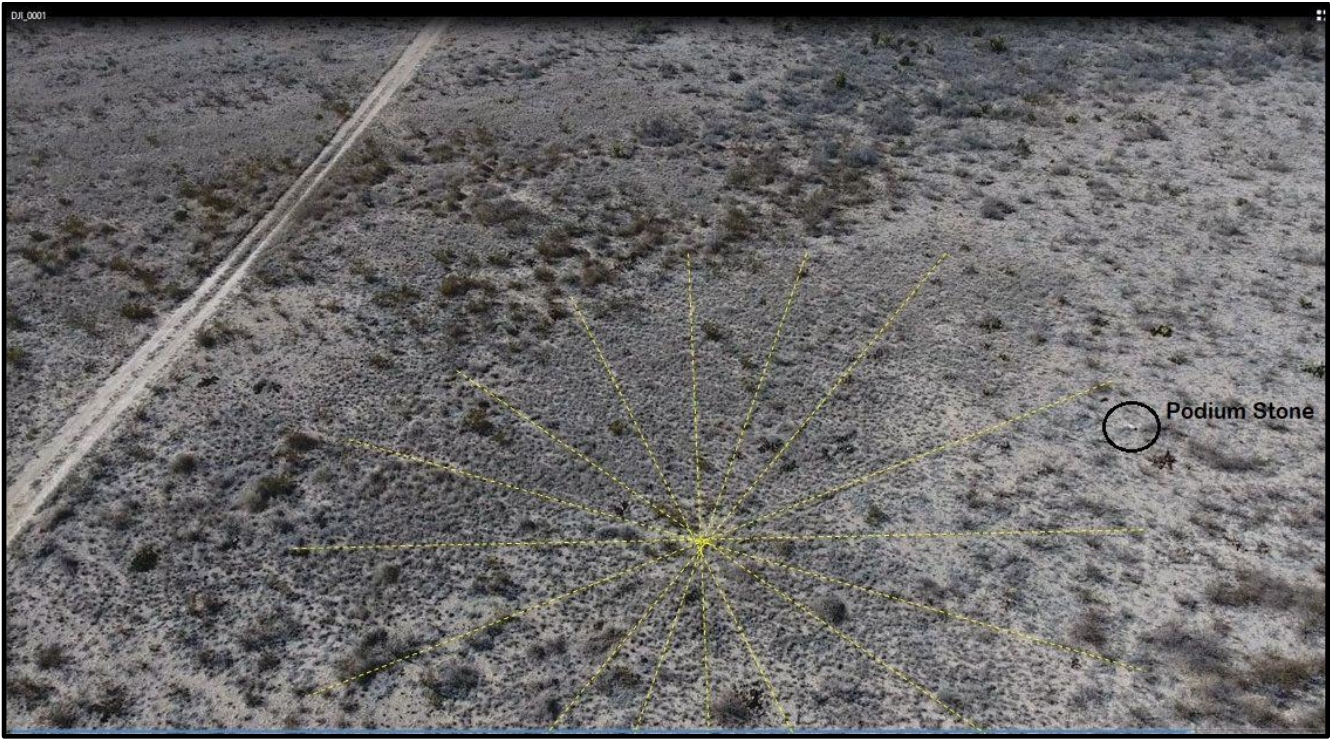
A measurement of the number in assembly was conducted by placing one of our members next to this location and applying that measurement, looking from above, in rows within the triangle. The rows come out to 11 in the first row, then 9, 7, 5, 3, 2, 1. This adds up to 38 plus the first sergeant that would be standing next to the commander, making 39. From March 1882 to May 1884 the average number of scouts in camp was 38 men.



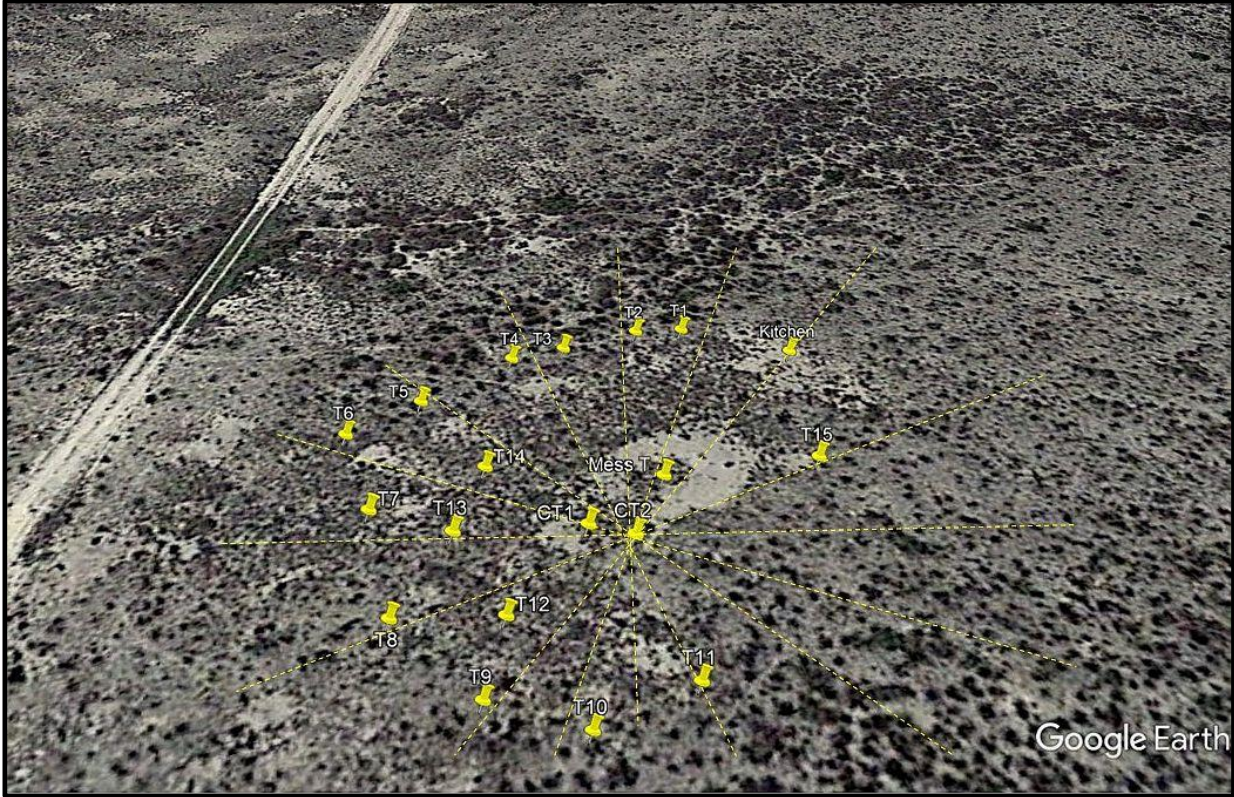
Assembly Area Before/After Measurement (drone image)

Although the Seminole Scout camp was designed in a non-traditional military circular fashion, it was not a haphazard layout. It was designed with engineering precision, using surveying techniques. This was revealed with the drone overhead imagery. They used surveying markers to make perfectly straight lines, starting with perfect 90-degree cross lines, extending to what would be the perimeter of the camp. The lines can still be seen in the earth from above. They then bisected the four lines of the cross to make eight, then bisected the eight lines to make sixteen. At the center, they placed the commander's tent and they used the lines extending out from the hub like spokes in a wheel to place the outer tents. Close to the center they placed a large mess tent. And across from that tent, they placed the kitchen tent. The assembly area with the 'podium stone' referenced above was placed at the outside edge of the circle in a quadrant that was otherwise unused.

This analysis raises the question, how could the scouts have accomplished this level of engineering detail in a camp design? And the answer is, they didn't. It was accomplished by a detachment of the 22nd Infantry Regiment that accompanied Lieutenant Jones and his scouts from Fort Clark on a 19-day deployment (11 work days - March 28th to April 7th, 1882.) The infantry detachment was probably an engineering crew with surveying skills to lay out the camp per the lieutenant's design. A month prior to this Lieutenant Jones came up to the area with just eight scouts. This was probably his initial inspection trip to choose the specific location that was to become the formal camp, taking into account the other sections of the camp already laid out by cavalry companies that had been deploying to this location for the last six months.

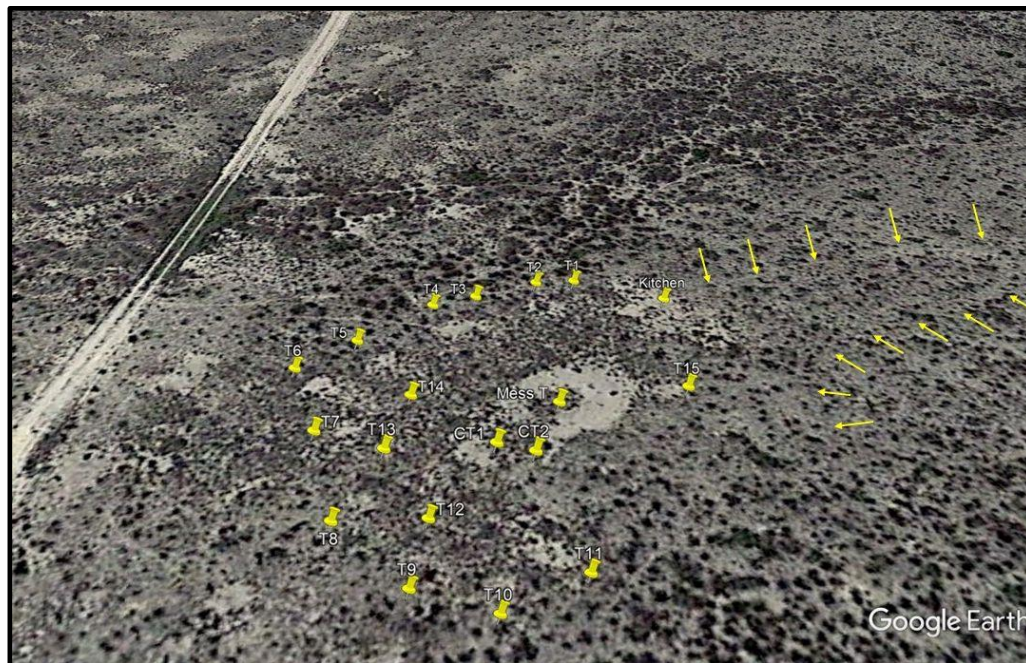


Seminole Camp Design (laid out in still visible lines from wagon tracks) (drone image)



**Seminole Camp Design Using Exact Same Lines Identified By Drone Overlaid and With Previously Identified Tent Locations from Disturbed Earth Markings (Google Earth)
(Notice Commander's Tents 'CT' In Exact Center)**

The kitchen tent location is supported by not only the larger size of the foot traffic area and typical trash, but also a still visible delivery wagon road drives right up to the back of the tent area and stops.



Delivery Wagon Road Up To Rear of Kitchen Tent

Tonkawa Indian Scouts

For a very short period the Indian Scout Detachment included Fort Clark Tonkawa Indian scouts at Camp Meyers Spring. The months were the end of March, into April 1882. At the end of March there were five Indian scouts reported. In April it increased to six. The Tonkawa were known from their earlier period as scouts at Fort Griffin in north Texas, and were also known for retaining their Plains Indian cultural ways. This included living in their traditional teepees.

At Camp Meyers Spring, on the far northern edge of the camp perimeter, are three Teepee rings and one smaller size for a day-shade shade teepee. They sit on a flat area just below what was the abandoned northern guard posts of Company A of the 1st Infantry Regiment. They also sit near what was a small running spring-fed creek at the time. This creek was from the same spring source we found below the Black Seminole Indian Scout camp. This undoubtedly was their source of clean water. The teepee rings measure 15 feet in diameter, which is the proper diameter for the smaller, mobile Teepees. The rings are formed by large, flat rocks that would have been used to hold down the tent poles. Three teepees probably housed two men each. In the same area we found ceramic military chow hall-type whiteware, a horseshoe nail, a boot heel nail, and a 45 Colt cartridge. This is the same type of whiteware used by the military units in their chow halls while in garrison and by officers and non-commissioned officers in the field. It is commonly found at military expeditionary campsites. There is no good alternative explanation for whiteware and these other items being in this area so far away from the main camp other than it was being used by the Tonkawa scouts.

The 45 cartridge found is particularly interesting because we never found any bullets or cartridges within the official Black Seminole Indian Scout camp. We know from the earlier Bullis scout camp that they were using the early 44 Colt revolvers during that mid-to-late 1870s period. Since the

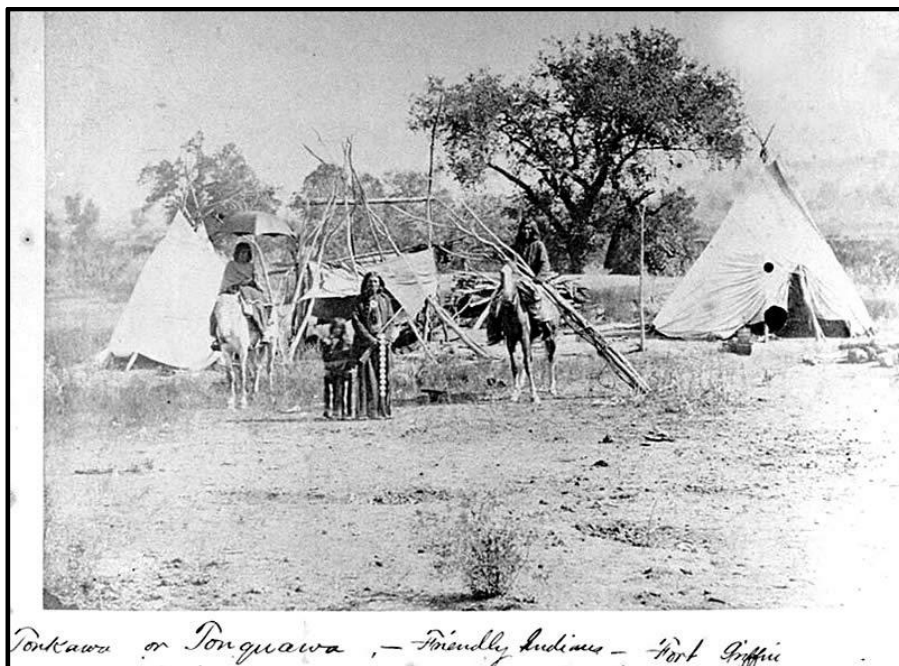
Tonkawa would have been issued the same as the Black Seminole Indian Scouts, we can know that all scouts had been upgraded to the 45 caliber revolvers by the 1882 period.

The Tonkawa Indian scouts at this camp for such a short period of time is unusual. The total time in camp was determined from military records to be only 11 days. During that time the 22nd Infantry Detachment that accompanied the scouts was surveying out the formal camp layout with the oversight of Lieutenant Jones.

This was the only deployment of the Tonkawa with the Black Seminole Indian Scouts to this camp. However, there was probably a second deployment to this camp in May and June, this time with Troop L, 8th Cavalry. During those two months the Black Seminole Indian Scouts were sent to the mouth of the Pecos River to patrol and guard the railroad workers coming from the east. Eighth Cavalry Troops were deployed to Camp Meyers Spring to patrol and protect railroad workers coming from the west. The Tonkawa were reported to be on detached service, but not with the Black Seminole Indian Scouts. Although it does not state where they were detached to, the only deployment would have been for scouting for the 8th Cavalry units.

We found two more teepee rings 90 yards from the original rings and next to a spring runoff gully, separate from the original teepee camp. Two teepees would accommodate four men, similar to the original camp. After this deployment, all Tonkawa were discharged from service at Fort Clark.

The Tonkawa were originally from north Texas. They were expert trackers in the north Texas-Oklahoma plains of the Llano Estacado. However, the Lower Pecos and Big Bend area has a much different topography, requiring different tracking skills. It is very likely the Tonkawa's were brought to Camp Meyers Spring to learn the tracking skills of the Black Seminole Indian Scouts in this difficult Lower Pecos region of Texas. This short period was probably used to expose the Tonkawa scouts to their unique tracking skills. They then spent two months at the camp on their own tracking for the cavalry units. After the two railroad crews met up near Comstock, Texas, the military at Fort Clark must have been determined that the Tonkawa scouting services were no longer required.



Note the day-shade teepee in this camp. Courtesy of texasbeyondhistory.net



Teepee Ring #1



Teepee Ring #2



Teepee Ring #3



Day-Shade Teepee Ring



Whiteware and 45 Colt near Teepee Ring #3

Cavalry Camps

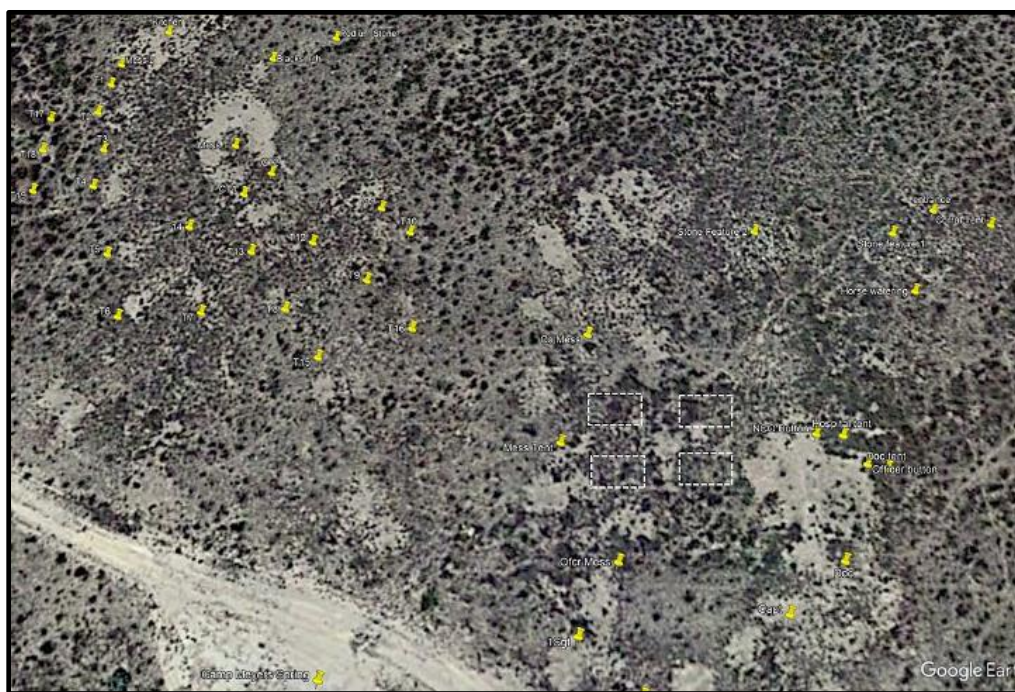
Cavalry camps were laid out in columns of two, three or four. The ground scarring of tents is quite visible in 2016 imagery. Similar to the infantry camp, the key to these encampments are the light-colored splotches that are man-made scars on the ground. They are easy to see and completely unnatural. These light-colored splotches are the entrances to tents that were constantly being stirred up by foot traffic, exposing the lightly colored sandy soil beneath the vegetation. To this day, that soil has not been able to grow back properly.

The splotches layout in four, three, or two columns across each row, depending on which area. There are four separate camp areas. We know that on at least two occasions, Aug/Sep 81 and Sep/Oct 82, two Fort Clark Troops were together at the camp. We also know that in 1877 there were three cavalry companies and one infantry company and one infantry detachment at this location for a number of days – before and after their campaign into Mexico. According to the report, “...in all, eight officers, one hundred and sixty two enlisted men and two guides...” This was in addition to lieutenant Bullis and 37 Seminole Scouts. (Phelps)

Texas cavalry units were fixed officially at 64 privates as of 1869, and it would hold this structure officially for the remainder of the Indian wars. (Ekhardt) Fort Clark's post reports support this. But as was often the case, units were hard-pressed to keep their number up to this official number. Sixty privates, give or take a few at any one time, was the average. For example, in May 1883 Troop H transferred into Fort Clark with 55 enlisted and 3 officers. Troop L listed 62, including officers. This is important to know while analyzing the cavalry camp areas.

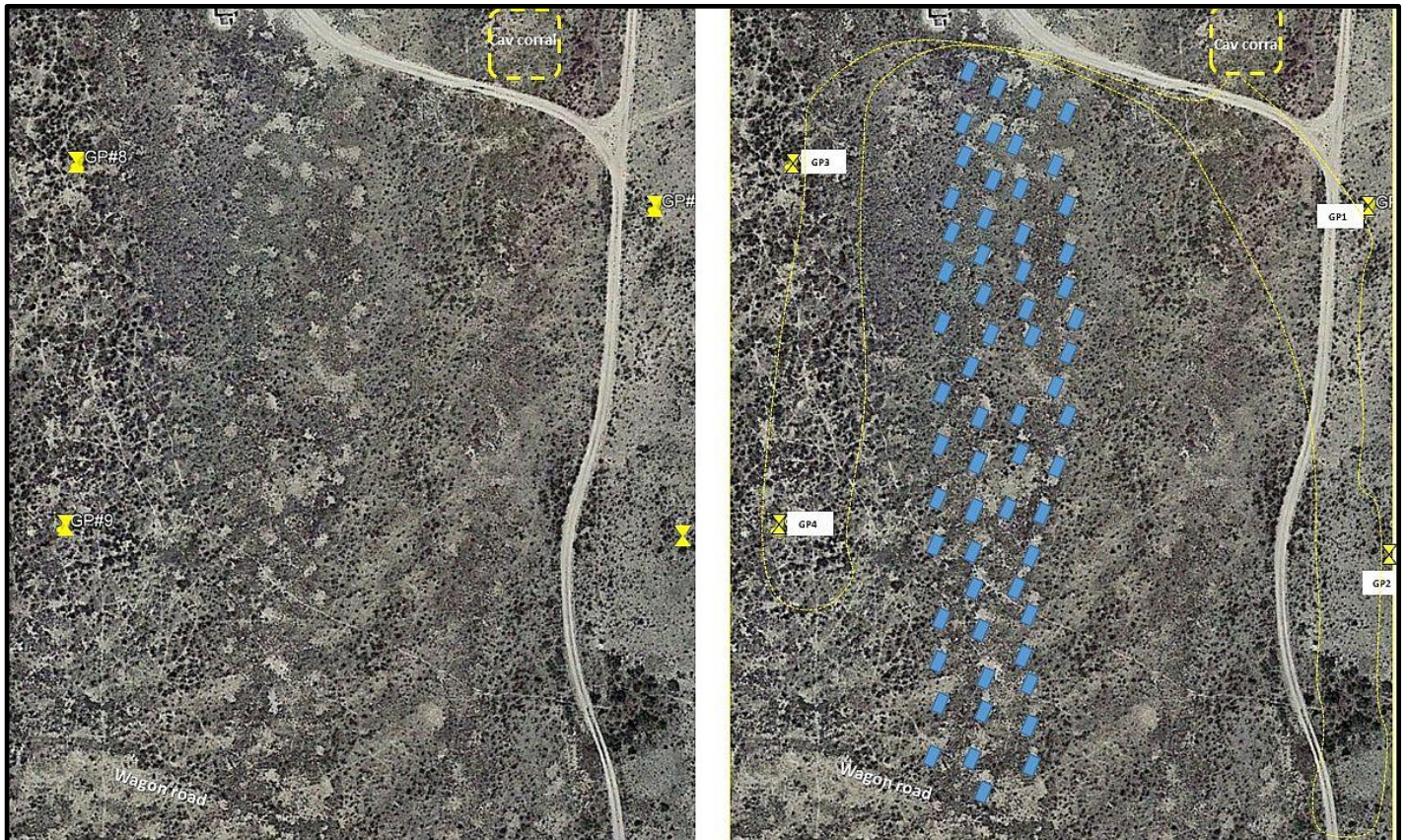
Although there are no documented organizational units below Troops (companies) for the time, it is highly likely that due to the small numbers of that period, Troops were likely divided into two platoons. Those were again divided into two squads each, making a squad of about 12 - 15 privates and a platoon of around 26 – 30 privates.

In this particular forward operating camp, the Troop command during the official sub-post period occupied four large tents in the general area that was previously the Company A, 1st Infantry Regiment command compound. When the Troop was relieved by the Black Seminole Indian Scout detachment they would turn over their command tents to the Scout detachment. These four tent sites were found during ground reconnaissance in the same area as the previous infantry command compound, but set up in an unrelated layout to the previous compound. This is verified in Lieutenant French's diary of the procedure followed during the handover of the camp from cavalry troop to scout detachment.



Cavalry Camp Area #1

Area #1 soldier tents begin just south of the current east/west ranch road. Once you realize the linear splotches of disturbed earth are scars from tent entrances you can determine the tent orientations. These were single-man dog tents used by cavalry. The rows begin in groups of four, but south of a middle section, they change to groups of three across. The southern boundary of the area #1 camp was a heavily used wagon road that crossed southeast to northwest. This was the main road used to and from the Pecos River Crossing and also continued to eventually reach Fort Davis. This was what was identified by Lieutenant French as the “Davis Road,” as it continued northwest to Fort Davis. It is quite visible in the satellite imagery. The entire camp area was 245 yards long and 50 yards wide.

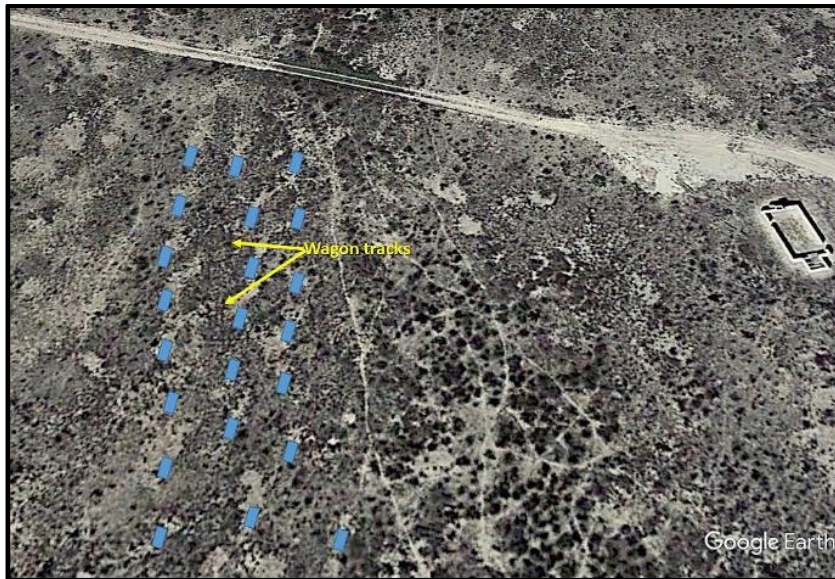


Original image (Cavalry Area #1)

Tent placements (Google Earth)

Cavalry Camp Area #2

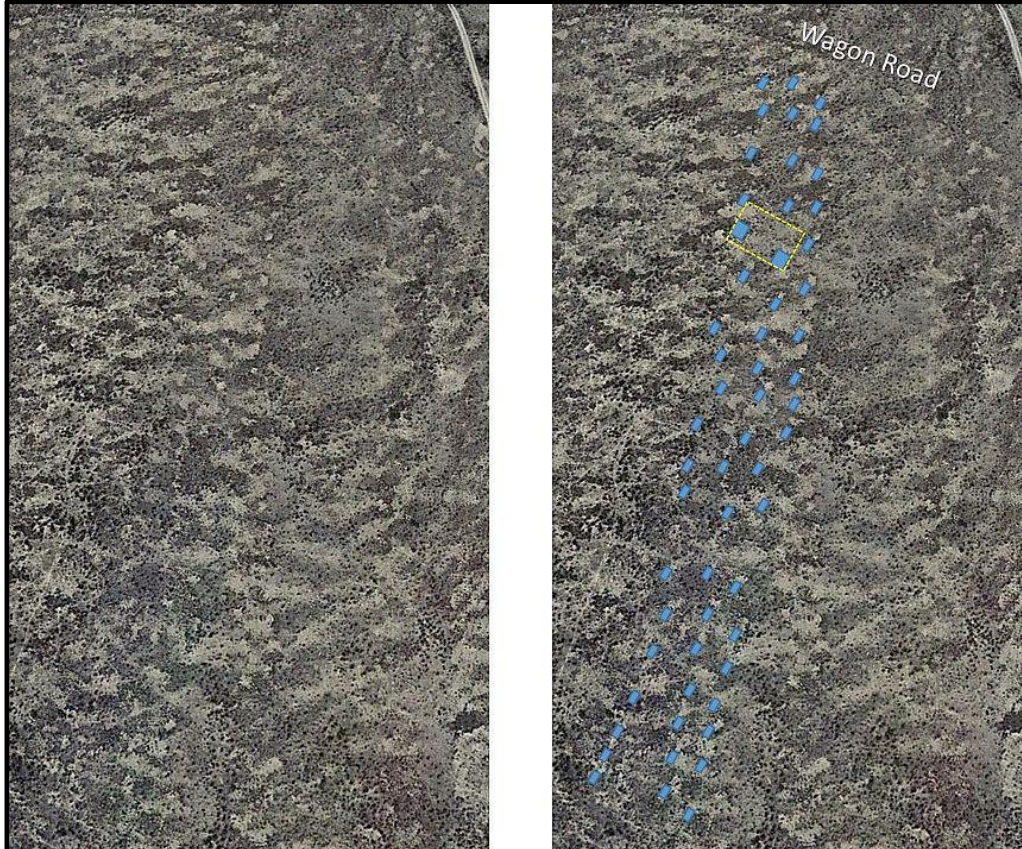
Area #3 sits to the west of Area # 1. The tent spaces are in columns of three. The following image only shows a portion of the area, but it needed to be zoomed in to properly see the scars clearly. Metal detecting of this area revealed several in-ground 45-55 carbine cartridges, dated 1877, 1878, and 1880. Additionally, a tent grommet and probable haversack rivet turned up at the tent site at the head of the far right column.



Cavalry Area #2

Cavalry Camp Area #3

Area #2 follows the same pattern as Area #1, beginning just south of the wagon road. However, rows are in groups of three throughout, with 57 tent sites identified. Although infrequently used, we validated this camp with metal detecting finds of two fired Scofield 45-caliber cartridges (in-ground), one unfired intact Scofield 45-caliber cartridge, a metal undershirt/pants suspender button, and several supply box nails. These items were well into the camp area and at tent sites identified through the overhead imaging.



Original image (Cavalry Area #3)

Tent placements (Google Earth)

Camp Area #4

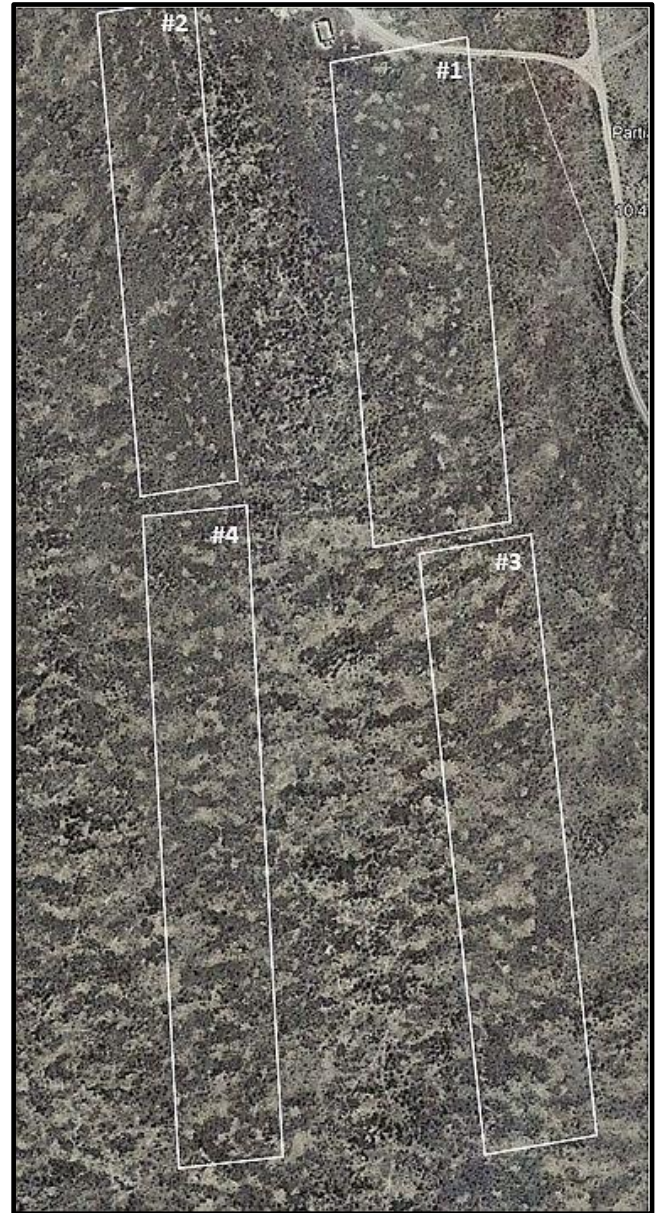
Area #4 may have been occupied by a 25th Infantry Regiment (Buffalo Soldiers) company during a large-scale 23-day expedition in November 1877, reported by Captain S.B.M. Young, 8th Cavalry Regiment, Fort Clark. (Young) In his report, two 8th Cavalry Regiment companies, one 10th Cavalry Regiment (Buffalo Soldiers) company, a 10th Infantry Regiment detachment, and the one 25th Infantry Regiment company, camped with Lieutenant Bullis and his 37 Black Seminole Indian Scouts at Meyers Spring before and after an expedition chasing Apache Indian raiders that took them into Mexico. The 10th Infantry detachment remained in camp awaiting the return of the expedition.

Cavalry Guidon

In addition to the regimental standard, individual cavalry companies carried swallow-tailed flags called guidons. At the beginning of the Civil War cavalry guidons featured two horizontal bars, red over white. In 1862 the military regulations changed and cavalry guidons featured red and white stripes with a blue canton in the same design as the National colors. Although the

regulations did not authorize cavalry regiments to carry the National colors, many did, carrying either a scaled-down version similar in size to their standards, or a swallow-tailed guidon in the pattern of the National colors, but without company or regimental designations painted on. (Guidons)

The cavalry guidon changed from the stars and stripes to the red over white with regiment and company identification in 1884. Thus, the guidon flag during the period of Camp Meyers Spring was the swallowtail with national colors. In column formation, the guidon was directly behind the commander so the column could always guide on” the flag. When in camp the guidon continued to be placed in the same position. The unit camped in column formation – in this case, columns of four. We found the circular rocks identifying the guidon flag position, still undisturbed, at the head of the camped column, between tent site #1 (first row) and site #2 (second row), leftmost column. This is the exact position it should be in, which validates the analysis of the cavalry camp layout.

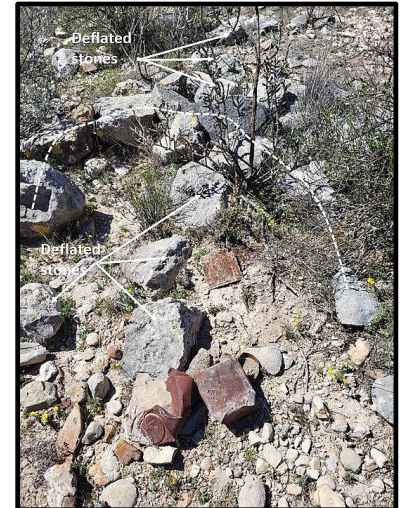




Period Guidon Flag in Cavalry Area

Cavalry Guard Posts

Cavalry Area #1 was the primary camp. We found four guard posts, two on each flank. Given the overhead observable route of the supply wagon, we designated them one through four from north to south, right side, and then left side. Right flank guard posts were at very good overlooks to see east, both down and out for miles. The left side redoubts were on the flat area looking west. Trash around the redoubts support the locations and the reason for the wagon tracks that run right by them. Guard post #3 redoubt stones, just 56 yards away, were accidentally repurposed by unknowing stone workers when reconstructing the stone house in 2013. Two of these stones were inscribed by cavalry privates standing guard duty in 1882. This is supported by the fact that the stone building was constructed between December 1883 and January 1884.

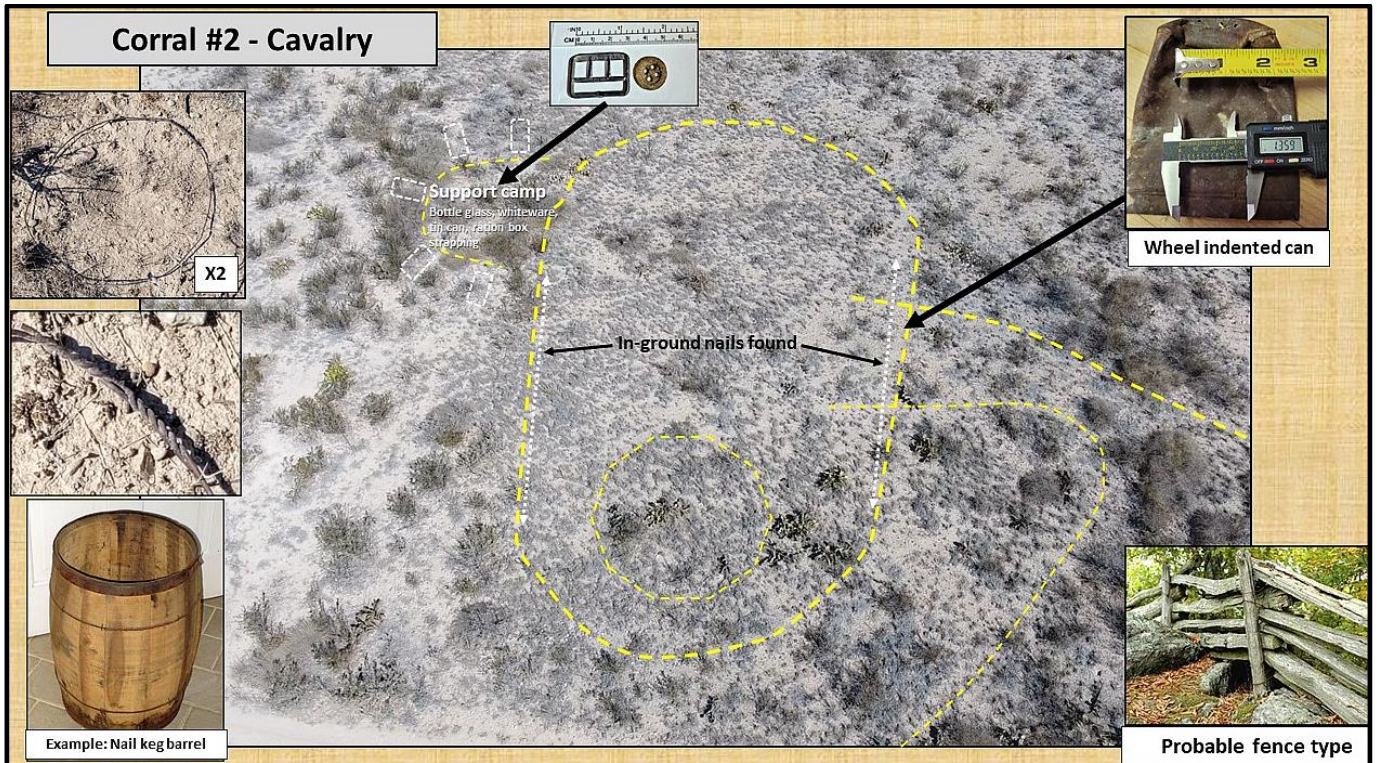


Guard Post #2

Cavalry Corral

A second corral was constructed by the cavalry units. It sits to the northeast of Cavalry Area #1. A cluster of horse and mule shoe fragments was found in the southern area of the corral by the Texas Tech archeological reconnaissance team in 2008. This area also has ground scaring consistent with the size of a corral and the impression of the corral fencing which can still be seen from above by drone, along with the wagon tracks leading into and out of the corral. The vegetation imprint also indicates a round pen was built inside the corral. The round pen is the shape of a 10-sided decagon. This makes sense as a way to separate horses and mules for maintenance. Some of the maintenance would include grooming, harnessing, saddling, farrier work, etc. Cavalry were required to maintain their own horses twice per day, as it was their most important asset. They would have to do this while separated from the rest of the remuda.

The corral is fairly large. It is a racetrack oval shape measuring approximately 100 X 50 feet. The round pen measures approximately 20 feet in diameter. The most likely fencing technique, given the primitive resources of this area, would be a two-post rail fence. On the northwest side of the corral, outside the corral fence is what looks in imagery like there was a small five-tent camp. These would have been the men dealing with all the duties of maintaining the wagons, horses, and mules. Trash around this site confirmed it was a camp.



Cavalry Corral Looking North (drone image)

The main wagon trail leads into the corral and toward the round pen area. Another entrance can be seen leading into the main corral. Many nails were found around the perimeter, indicating the fencing was removed, dropping pulled nails during the removal. It is likely the fencing went down to the lower spring area where sheep pens were later built, probably around the turn of the century.

It would make sense that the cavalry units wanted to maintain their horses and mules separate from the Black Seminole Indian Scout horses and mules. It was closer to the cavalry bivouac area and if they were in camp at the same time it would be a recipe for confusion if they were combined. It is documented that the scouts were in the camp at the same time as Fort Clark cavalry companies during the months of August through November 1881. Although both units considered maintaining their horses as their highest responsibility, the traditional cavalry standards were very strict and did not allow for mixing horses and mules with non-cavalry units. Scouts were designated as (mounted) infantry by the military.

Water – The Most Critical Camp Concern

According to the National Park Service, a mule drinks approximately 10 gallons of water per day. A horse drinks approximately 15 gallons per day. This means that a typical cavalry company of that period needed around 980 gallons of water per day or 16.6 full barrels of water. Even a conservative number below this would still be a huge amount of water required on a per-day basis. A four-mule team can probably pull a maximum load of four full 59-gallon barrels of water, given some of the roads from either the spring or the dams were an uphill climb. A minimum of four full wagons of water per day were probably needed for a cavalry company carrying four barrels. This gives a very good look at the importance of water conservation and gathering for an expeditionary camp of this size.



Although rainfall records for 1881 – 1884 period of the lower Trans-Pecos area are non-existent, there are a few sets of data that give us a hint that the 1882 and 1884 years were probably at least leading into dry years. One is a tree ring study of the San Antonio area, indicating a severe draught in the mid-1880s (Cleaveland) (Appendix F). Whatever San Antonio was experiencing would have been greater, and potentially earlier, in the Lower Pecos region. A second source is a rainfall data set for the El Paso area, indicating a higher than average dry year in 1882 (El Paso). Although there was spring water in many locations around Camp Meyers Spring, it appears that for the years of 1882 through 1884 there was a concerted effort in daily water collection. By the number of sites and wagon roads to them, we estimate as much as half the cavalry Troop (company) may have been devoted to full-time water collection efforts while in camp.

There were also multiple wagon routes to various water catchment areas being used throughout each day by the regular cavalry that were active at this camp. Although the earlier infantry company created a wagon road down to the main spring, there was also a local wagon route that traversed the hills just below the camp to access three separate water catchment areas in gullies, and a second wagon road to the west canyon branch above Meyers Spring basin. The catchment areas had small stone dams laid over the gullies in order to pool the water from fresh-water springs or rain runoff.

Cavalry Water Catchment Dams #1 and #2

We found remnants of two small, loose stone dams in a steep gully below and to the east of the cavalry camp. These dams resemble a very similar construct of two small dams we found in a similar gully at the 1859 expeditionary Camp Van Camp, outside Fort Stockton. (Ashmore) Both dams have been blown out from the many heavy rains over the last 140 years or so, but the side abutment piles of extremely large rocks remain. In the case of Camp Van Camp it was a spring feeding into the gully. We can't be sure if this is for rain or spring runoff. It is speculative, but it is likely that the purpose for the upper dam was for drinking water and the lower dam was for everything else (i.e. washing, animals, etc.)

Next to the dams we found a row of 45-55 carbine cartridges, as if someone was doing some target practice. The large spring was just under a mile down the canyon. If the men could find and use something locally, it certainly would be an important site.



Dam remnants in the gully below the camp

Catchment Dams #3 and #4

Through additional scouring of the nearby draws to the east of the cavalry camp we found two more stacked-rock containment dams in small run-off draws or gullies. Additionally, we found a faint trace of wagon road running along a natural shelf below and between them. We were able to follow it between the dams and back to the road source, which turned out to depart from and return to the cavalry corral. On the road we found a various wagon parts, helping to validate the wagon trace. Thus, we were able to determine dams #3 and 4 were created by the cavalry units and were being used to contain runoff water to be picked up and brought back up by wagon to the corral area. It appears to have been accomplished in addition to the long drive down to the spring. Given the fact, they had around 60 horses and probably eight mules to water, every bit of water they could contain would be precious.

All four stacked rock dams were using a very similar type of limestone that were not from within the local draws they were being stacked in. It may have been brought in by wagon from down in the canyon area. The similarities point to these all being constructed by the same group.



Wagon route to/from the corral and locations of containment dams (one through four)

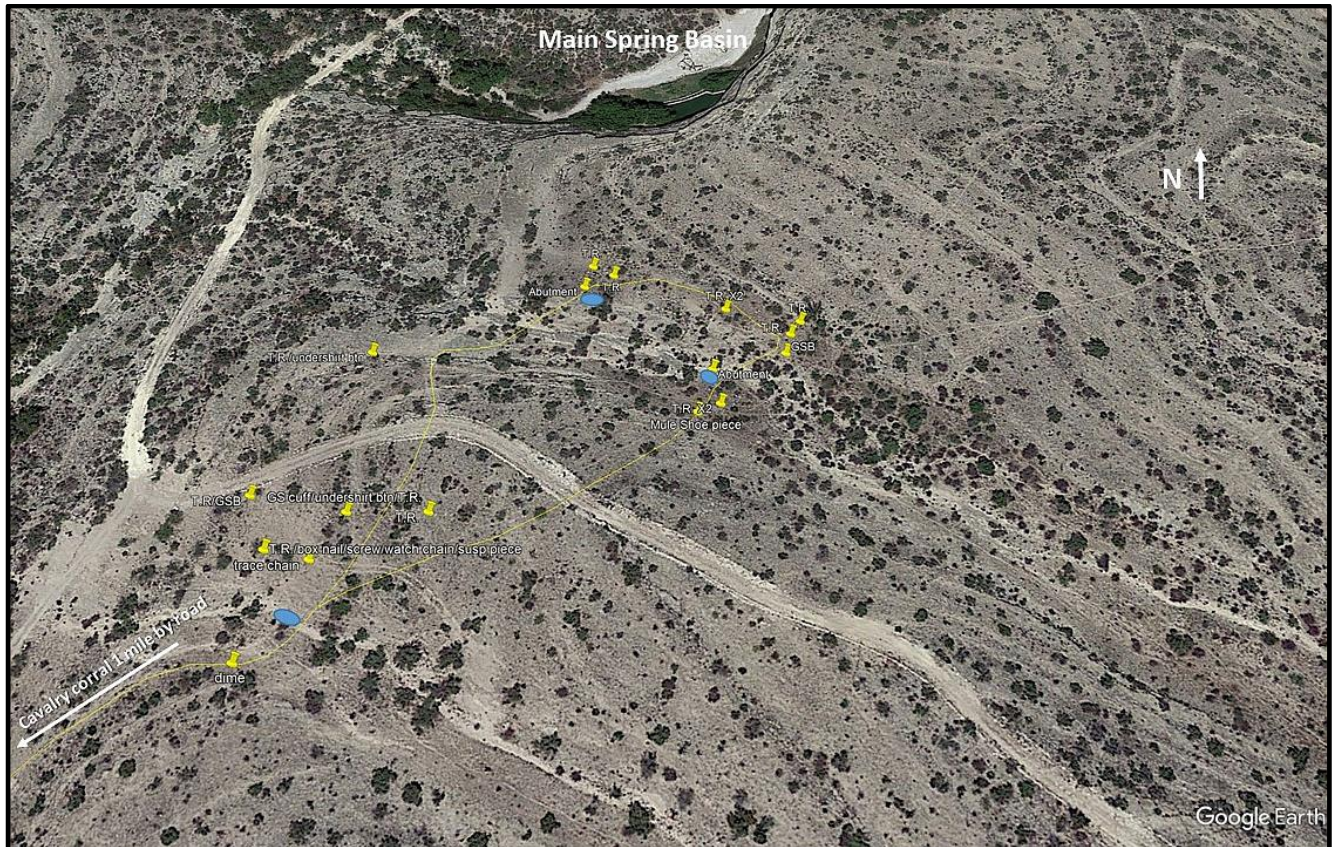
Main Spring Water Collection Camp

We found a water detail camp of squad size (15 tent sites, identified by large rocks for holding down tents), covering the main spring runoff gullies located above the current spring basin. This collection area appears to be the extent of the infantry-constructed road. The goal was not to reach down into the spring basin pool, but instead to intercept the fresh spring runoff in the gullies before running down into the pools. The current ranch road running down into the basin area was a later ranch effort.

Note: We did find a separate way into the spring basin area 180 yards west of the current ranch road. Military buttons, mule shoe nails, and broken mule shoe pieces validated that this was the route used. This pass through road, not being significant for water collection, was probably only fully constructed for wagons some years after the infantry unit departed. It was definitely needed for the Pecos Land and Cattle Company stone quarrying and water tank construction. (See Pecos Land & Cattle Company Water Tank)

The tent locations at the water collection camp indicated the men were divided to cover two main runoff gullies, and they had created at least three catchment pools, using large rocks for partial dams and catchment pools. Throughout these sites were found general service buttons,

undershirt/pants suspender buttons, 45-55 carbine cartridges, period Scofield revolver cartridges (external primer versions – 1882 and later), a probable pocket watch chain, a broken wagon trace chain, a broken mule shoe, a piece of suspender, small box nails, a small flathead screw, a tobacco tag, and an 1874 seated dime. Most of the personal items were very near the tent sites. A trace chain and mule shoe were on a visible wagon road. At the locations of probable pools we found stacked large-stone abutments on the side of the gullies.



Water Detail Camp and Wagon Road

West Canyon Water Collection Camp #2

Five hundred yards up the west canyon from the main spring basin we found a second water collection pool and camp established by the cavalry. Camp artifacts indicate the same time period as the camp above the main spring (1882 – 1884). The camping area was established 51 yards above the collection pool on a level shelf area. We counted 13 single-man tent sites, making this another squad of the cavalry troop. The overall camp area measured 70 X 50 feet. Tent sites were set randomly around a central cooking/campfire area built up of large, stacked stones. The stones were constructed in a way for a fireplace-type cooking area with stone blocking on three sides and open to the west, with another campfire area on the opposite side that was open to the east.



Fireplace Cooking Area



Campfire Cooking Area

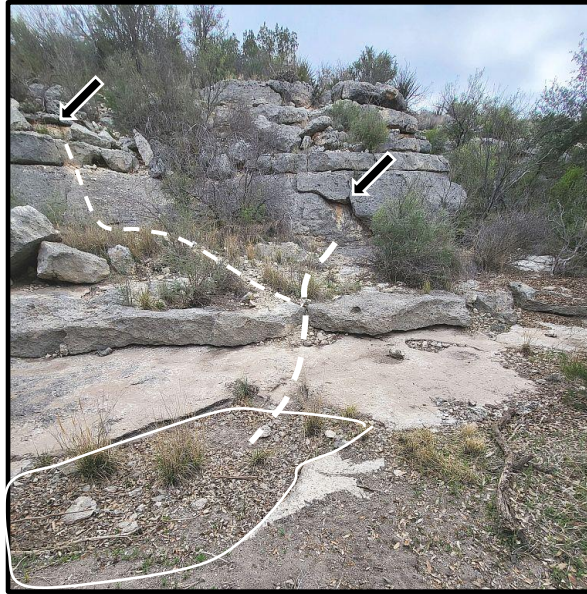
The site was littered with the same type of trash as the other water collection camp, including 1882+ Schofield externally primed cartridges and 45-55 carbine cartridges. The cans indicate the same period of time, dating by the crimped edges but still solder sealed.



Typical Can Trash at Water Collection Camp

The water collection area below the camp was a bedrock pooling area below a former spring source coming out of the rock wall at two locations. The entire area measured 45 feet long by 11 feet wide. The soldiers had dammed up the lower end to increase the pooling, and then cleaned out a natural depression area on the bedrock for their collection area. This smaller area made their dipping depth

approximately 20 inches in an area of about 9 by 5 feet. A wagon road came to within 35 feet of this pool.



Spring Source and Water Collection Area



Bucket Collection Area

As shown in Appendix C, regular cavalry units were rotating through this expeditionary camp from May to November 1882, 1883, and also in February and May 1884. In September and October of 1882 there were two full Troops deployed to Camp Meyers Spring. At some point their daily requirement for water was so high that two squads (half a Troop) were probably taking turns doing nothing but water collection and distribution while in camp.

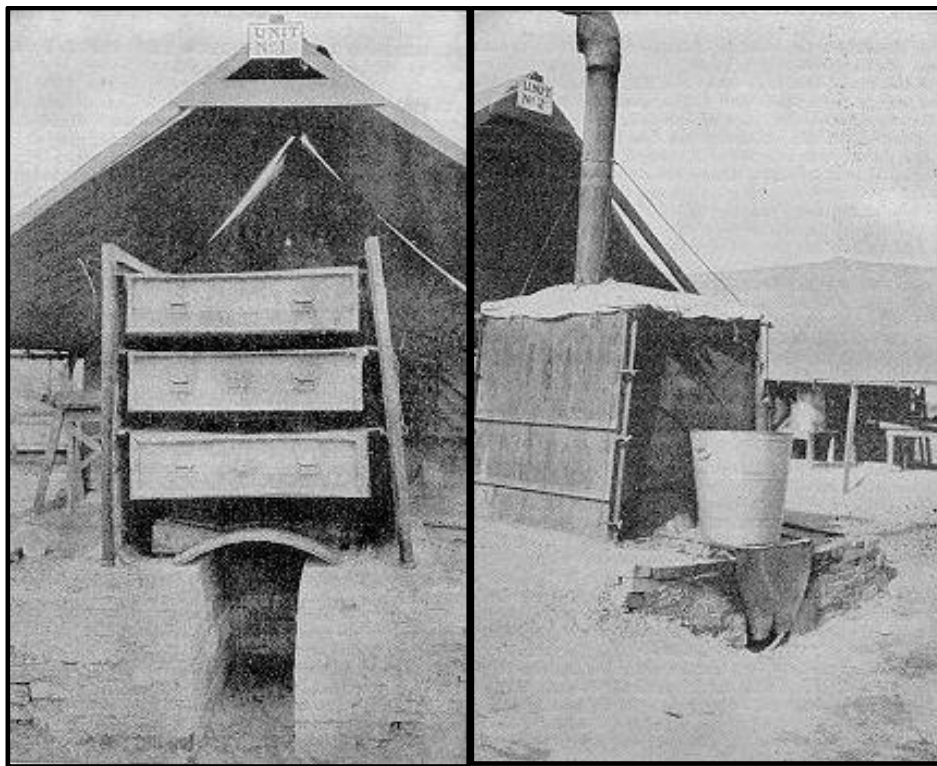
U.S. Army Field Bake Oven Test Site



FIELD BAKE OVEN
FT. RILEY KAS
19. 1910

There is a Fort Clark post report that Troop G left the post from July 7 through 24, 1883 for field testing a new 'field bake oven.' The report did not give the location of the test site, but did report the unit traveled 255 miles round trip. Another report by the Seminole detachment indicated the distance from Fort Clark to Camp Meyers Spring is 126 miles, making it the round trip 252 miles. We believe this is no coincidence, and that the test site for the field bake oven was Camp Meyers Spring.

The first field bake oven was documented in the 1916 edition of the Manual For Army Bakers. (Seebee) "The field oven, No. 1, is a portable, knockdown type, for continuous baking. It will bake approximately 3,500 pounds of issue bread, and 2,000 pounds of field bread, per day if operated continuously. Each of the 12 metal parts of which the oven is constructed, including the stovepipe and hood, is designated by number. This number, cut from sheet metal, is riveted to each separate part... To set up the oven -- Level a piece of ground 6 by 8 feet. In the center of the leveled ground dig a clean-cut trench, 8 feet long, 20 inches wide on top, 16 inches wide on the bottom, and 24 inches deep. At the firing end of the trench extend the cut sufficiently to make a convenient fire pit. "



Partial construction (left) and completed construction (right) of field bake oven, Fort Riley, KS

On our reconnaissance between cavalry camps #1 and #3 we came across a shallow dug pit. This is the only place in all our reconnaissance we came across such a pit. We believe this was the site of the field bake oven test location, with the infantry detachment occupying the former cavalry camp #3, adjacent to this location. Given that it took approximately five and a half days to reach the camp from Fort Clark, this would have left them six days to conduct the field test. The dug pit measures 7 X 5 feet, the same measurement as shown in the Army Field Manual. It currently is 11 inches deep, but it could have been originally deeper due to soil filling up over the years of weather. There were many large tin cans in the area, indicating a lot of cooking activity, larger than anything else in the surrounding area. Nearby is a large broken spoon handle. Finally, we found three cut, flat-sided limestone pieces in the bottom of the pit that had been heat affected on one side. This rock would have been for lining the heat trench described in the Army Field Manual. Since our

project was not planned to do any formal excavation we are left only to speculate what may be underneath the large amount of loose soil surrounding the pit, but it is likely there is much more fired rock beneath the surface.



Heat Affected Limestone Found In the Pit



Large Spoon Handle



Probable Oven Bake Test Site with fired limestone in the center

It is likely that Troop G in the report was only an escort detachment for an infantry detachment that was to conduct the test. That would have included the cooks for the test, wagon drivers, and any other privates to provide miscellaneous labor in support of the test, such as collecting limestone and preparing the cooking trench. These personnel would have needed a campsite. We found just such a site to the west of the bake oven site. The site extends about an acre and a half, sitting on top of what was originally a cavalry camp. We know this because the cavalry camp was laid out in column formation, but this camp was in a rectangular layout, extending far beyond the cavalry columns. A final item that points to the proper period is the tin cans found among the trash. There is a mixture of older hole-in-cap and later period solder seam cans. The solder

seam cans began being produced in 1883, the same year as this field bake oven site expedition. (Historic Artifact Identification Guide, Busch)



Large Solder Seam Can



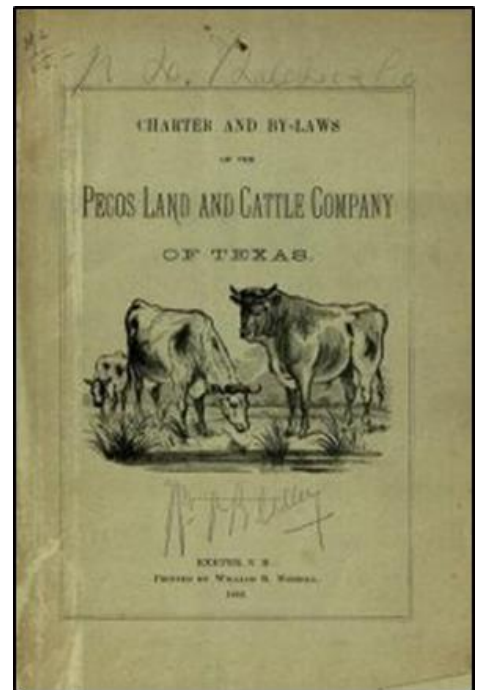
Kitchen Trash From Camp Site

Pecos Land And Cattle Company Lease

Lieutenant John Bullis was the first owner of the property after the title was transferred from the Texas Western Narrow Gauge Railroad Company to him in August of 1879. While the camp was still occupied by the military, Bullis leased much of the ranch to the Pecos Land And Cattle Company, represented by the co-owner Mr. Lougee (pronounced Lou Zhay) of Attleboro, Massachusetts. The purpose of the lease was to find water sources aside from the spring for the large cattle herd that was being put together. Soon after arriving in November 1883 a stone mason, carpenter, other workers, and ranch manager ‘Captain’ W.W. Simonds arrived with supplies to begin building his stone home adjacent to the camp. Later, Mr. Lougee’s stone mason and workers also built the stone water containment tank at the spring basin area.

Six things are apparent from records of the Lieutenant’s French diary and Fort Clark post returns (**pertinent excerpts in Appendix A**).

1. No stone structures were occupied by the military. All military, including officers, were in tents.
2. Mr Lougee recruited and paid for all services of the stone mason, carpenter and all other assistants to build his stone home and other stone structures.
3. The Lougee stone home included a substantial fireplace.



4. The stone mason and carpenter first built a small stone building close to the main house construction for their occupation. They built this 75 yards away from the main building site (on the other side of the designated cavalry camp.)
5. Fort Clark post records show no contracted stone masons or carpenters were ever sent to Camp Meyers Spring for any construction.
6. The Lougee home was very near both the lieutenant's and military-contracted doctor's tents, as indicated in Lieutenant French's diary.

The Fort Clark post records are very detailed about exactly what work all contractors were assigned to. So it can be considered an accurate record that no stone masons or carpenters were sent to Meyers Spring. According to Lieutenant French's diary, Mr. Lougee decided to build his ranch house on the edge of the military camp. Since the military was not leasing the land, the current leaser was legally allowed to build anywhere he wished. On December 19th, 1883 Lieutenant French writes in his diary that after dinner he "went over to the house to see how the chimney was progressing." Again, this indicates the house and the stone fireplace was substantial.

A "small house" was also constructed near the military camp by the workers. This house was constructed in a matter of days and was for the workers themselves. This was very likely the 15 X 24 foot foundation that sits 75 yards east of the main ranch building, just off the current ranch road

We know from the Lt French diary that this building was constructed by the stone mason and carpenter (identified as Shultz) hired by Lougee before they began building the main house. It was to be their shelter while working on the house. Lougee actually stayed in tents with the general manager, Mr. (former police captain) Simonds, while they were visiting during the main building's construction.

Thursday, Nov 29 1883: "Mr. Lougee ate over at Thurston. They brought over their carpenter, engineer, and more workmen who came up this morning."

Saturday, Dec 1 1883: "They commenced to build a small house on the corner of their land nearest camp and got it partially completed by night."

Sunday, Dec 2 1883: "The men worked a little on the new house today and it was necessary too for their comfort to get into [it] as soon as possible."

Monday, Dec 31 1883: "Stopped to go over to meet Mrs. Lougee who came with her husband & maid. Found her a real pleasant lady. Their house being unfinished, the Doctor put his tent at her disposal & has moved in with me. "

The Lougee home and the smaller stone structures were all made of worked and quarried stone, probably from the canyon and quarry area. While searching the hillside above the canyon we found a very obvious rubble pile from stone shaping remains. We were also able to find a wagon trace going past this pile and down into the canyon. There was also wagon trace coming back up from the canyon, using a slightly easier climb out. This is very likely the route used by the stone workers to transport back and forth the stones used for the construction. This route makes quite a bit of sense to use rather than the previous road constructed by the military company because it makes its way up and down by crossing the hillside in gradual rises, interspersed with level areas. This would give the mule team time to rest in between their pulls up the hill with the enormous weight of these quarried stones.



Reconstructed Lougee Home

The French diary also indicates there was a corral built behind the home.

Sunday. January 20 1884: "After dinner Doctor & I walked over to the house and made a short call & then Lougee joined us in a walk to the tank. Coming back saw Mrs. L. & maid at the corral and walked over there. L. did not see them as they hid from him. When we went around the house they came out. Mrs. L. acted queerly as if she was rather afraid of L. & he did seem a little vexed."

Friday. January 25 1884: "Stopped by the house & helped Lougee fix up a manger..."

Current overhead imagery does not give a good indication of the remnants of this corral. But there is a trick that can be used in these circumstances. Sometimes older images that have much less detail bring out old ground scaring that more detailed current imagery cannot discern because there's just too much detail. The 2008 imagery clearly shows a square right behind the house that would have been the corral boundary.

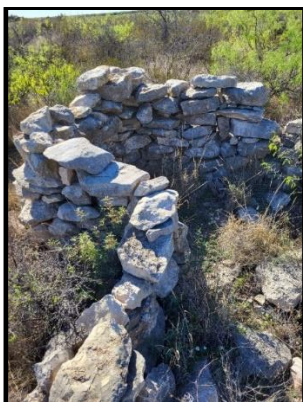


Lougee Ranch House With Corral Scaring (right) (Google Earth)

All military structures for the camp were tents. This is quite apparent from the French diary in which he describes his own abode as a tent with a wooden floor. He also had a separate dining tent. He also references multiple times the military-contracted doctor's tent. Fort Clark had two civilian doctors contracted. These two would rotate deployments to the camp in the same fashion as the lieutenants that were rotating command of the scouts. These were the senior personnel in the camp and they never occupied a stone structure. (For more on the Pecos Land and Cattle Company see Appendix B)

Pecos Land & Cattle Company Cowboy Line Camp

One outlying loose-stone wall structure, just under a half mile from the main spring, was used as a cowboy line camp. The period-can trash indicates it was the same time frame as the early cattle company operations. A full metal detecting effort brought forth no military cartridges which we found at all other military camps. The stacked stones were set up as a wind break, and it sits close to what was a large water pool in the runoff from the main spring a half mile upstream. It was designed to accommodate two men. It sits in a natural terrain trap, with the canyon walls on one side in a horseshoe shape and rocky high ground all around. The natural trap covers 37 acres. This was probably some of the first of the Pecos Land And Cattle Company's herd in that area.



Loose Stone Wind Break Wall



Former Spring Runoff Pool



Natural Cattle Trap Area

Pecos Land & Cattle Company Water Tank

In addition to building the Lougee house and the three small stone laborer's buildings nearby, Mr. Lougee contracted to have a water catchment tank built at the main basin below the springs. In addition to using his hired work force, he also hired some of the Black Seminole Scouts to help in the construction. This was documented in the Lieutenant French Diary.

Tuesday. December 12, 1883: ...the Doctor and I walked out to the house and on to a water hole which all hands were engaged in cleaning out. it is their intention to scrape off all the dirt down to the solid rock, build a stout dam across the bottom, cement all the [sic] put a layer of earth on the bottom to retain the moisture and put in solid banks. Then when the rains have filled the hole, they hope to be able to hold the water some time. Saw them make one blast

Wednesday. December 12 1883: A cold steady rainy day prevented the men from working on the brush shelter they are making for the animals and prevented our neighbors from working on their tank.

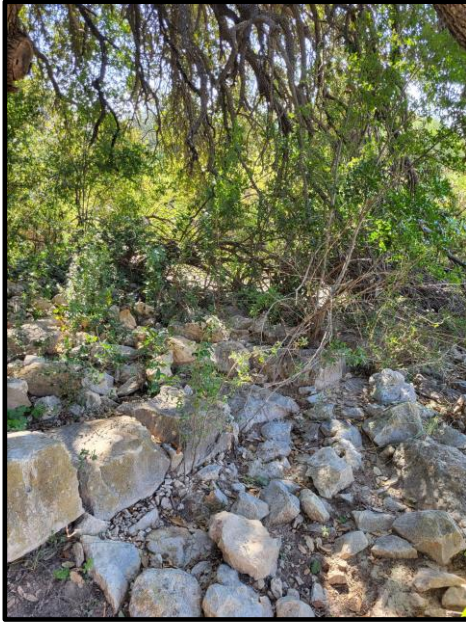
Tuesday. December 18 1883: Went out to see the tank and found some of the Seminoles at work, which I had permitted them to do, Lougee hiring them. But they had four mules and the wagon and were working the mules without saying anything to me. Told Lougee the mules could not work anymore.

Wednesday. January 9 1884: Went over to the house & walked down to the new tank with Lougee this afternoon.

The Lougee tank remnants now sit to the right of the later tank, built by Major Bullis in 1902. The stones are large cut blocks and were originally two blocks high. The tank wall can be traced to a 90 degree angle on the west side and then back to the natural wall face. The east side has been deflated by the floods and construction of the later 1902 tank.



Lougee tank area, next to later 'Bullis' tank that was built in 1902



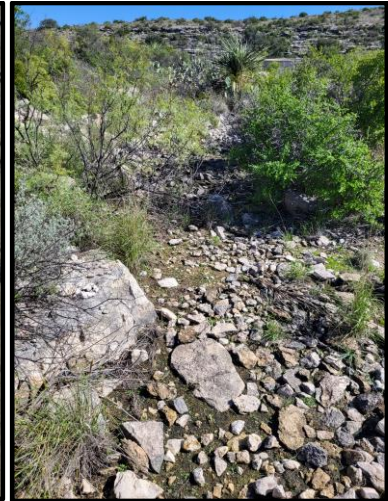
Lougee tank remnant blocks

Pecos Land and Cattle Company Quarry Sites

The tank blocks were quarried locally and cut to shape. The quarry area is just up the hill, 150 yards northwest of the tank. It is a shelf of limestone that wraps around the hill in a horseshoe shape, covering a half acre. There are multiple wagon trails cut through it. The wagon trails are quarried sections of the approximate depth of the stone blocks. These trails made it easier to load blocks from where they were cut and hoisted directly onto the wagon. The drill marks for breaking the stones were found at both the quarry site and on the blocks of the tank. We also found a piece of broken pry bar and angled bar, called a ‘feather,’ inside some of the drill holes. The feathers were used for cracking the blocks apart.



Drill hole



Wagon trail cut



Quarry Drill Holes



Wagon Trails Through Shelf Stone Area Show How Much Stone Has Been Removed

We found two military buttons in the wagon road alongside a quarry section of the shelf. Both were crushed from being run over by a wagon. This supports Lieutenant French's diary. The road we found on the west side of the quarry was especially treacherous, and the lieutenant's decision to not allow the military mules to be used may well have saved the mules from serious injury. The fact that one button is Civil War era, with the other late 1870s to mid-1880s, indicates they came from two different men. The Seminole Scouts were driving the wagons for the Pecos Land and Cattle Company, and we believe these buttons were from their uniforms while working the wagons, and potentially the hoisting of quarry stones.



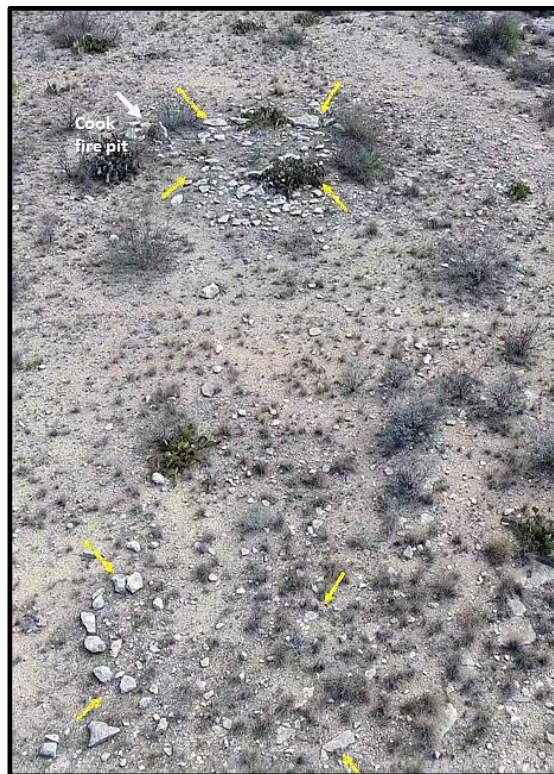
Indian Wars Coat Button Crushed Flat (Henry V. Allien & Co., N.Y. , late 1870s to the mid-1880s)



Indian Wars Coat Button Crushed Flat (Horstmann Button Co., Philadelphia, 1859 – 1863 (Civil War surplus))

Pecos Land & Cattle Company Lime Rick Camp

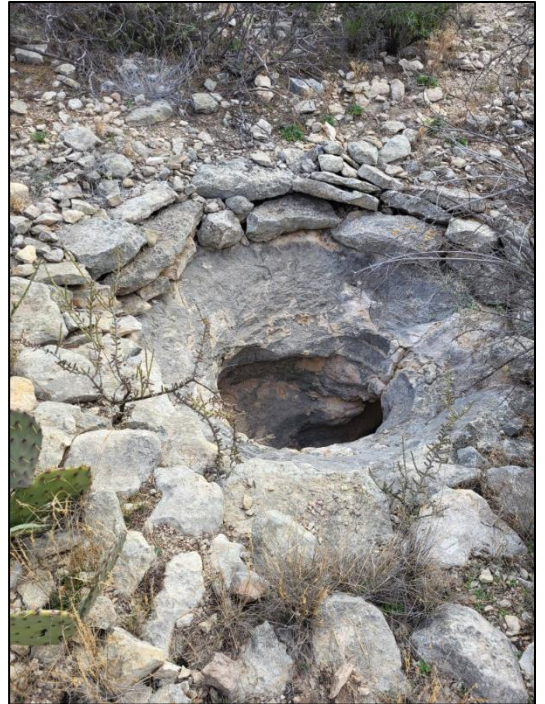
One hundred yards up the hill from the quarry site is a former lime rick camp, dedicated to creating quicklime by burning limestone into calcium oxide. This final process for creating construction mortar from quicklime is called wet lime slaking. Although common knowledge of making quicklime is in a kiln, an older method is burning is in a lime rick, or specialized limestone-layered bonfire.



Tent Locations

The nearby campsite supporting this operation consisted of two large stone rectangles of stones for tent tie-downs (for extra support from high winds). The two tent rectangles measured out to be approximately 11 X 7 feet, the size of standard wall tents. Various pieces of bottle glass, square nails, whiteware, wire, and a tent grommet were found around the tent sites.

Also near the camp is a small natural cenote, about 20 inches in diameter at the opening. The cavity depth is about 5 feet underneath the opening. It tunnels back in a cave-like fashion about 23 feet. At the top of the cone-shaped opening are three-to-four layers of flat stones that were laid around the edge to create a wall. Although the stones are now flush with the surface, they probably created a kind of lip around the circular edge, keeping rain runoff soil and debris from mixing with the clean spring water being used by the laborers for their drinking and cooking.



Cenote near Lime Rick Burn camp

One hundred feet northwest of the tent sites are two large burn areas side-by-side and on the bedrock. Each burn area measures 12 feet in diameter. A small amount of burned limestone is scattered throughout the burned areas. However, this is not an Indian midden, many of which are throughout the area. Most of the burned rocks are completely missing. These are areas of the former burn ricks. Two areas would have given them the ability to have a continuous production schedule for the quicklime being used for the construction of the stone buildings and the water tank.

Lime ricks were very common for creating quicklime in the 18th and 19th centuries when they only needed the mortar for limited projects and did not need or want to construct a lime kiln.

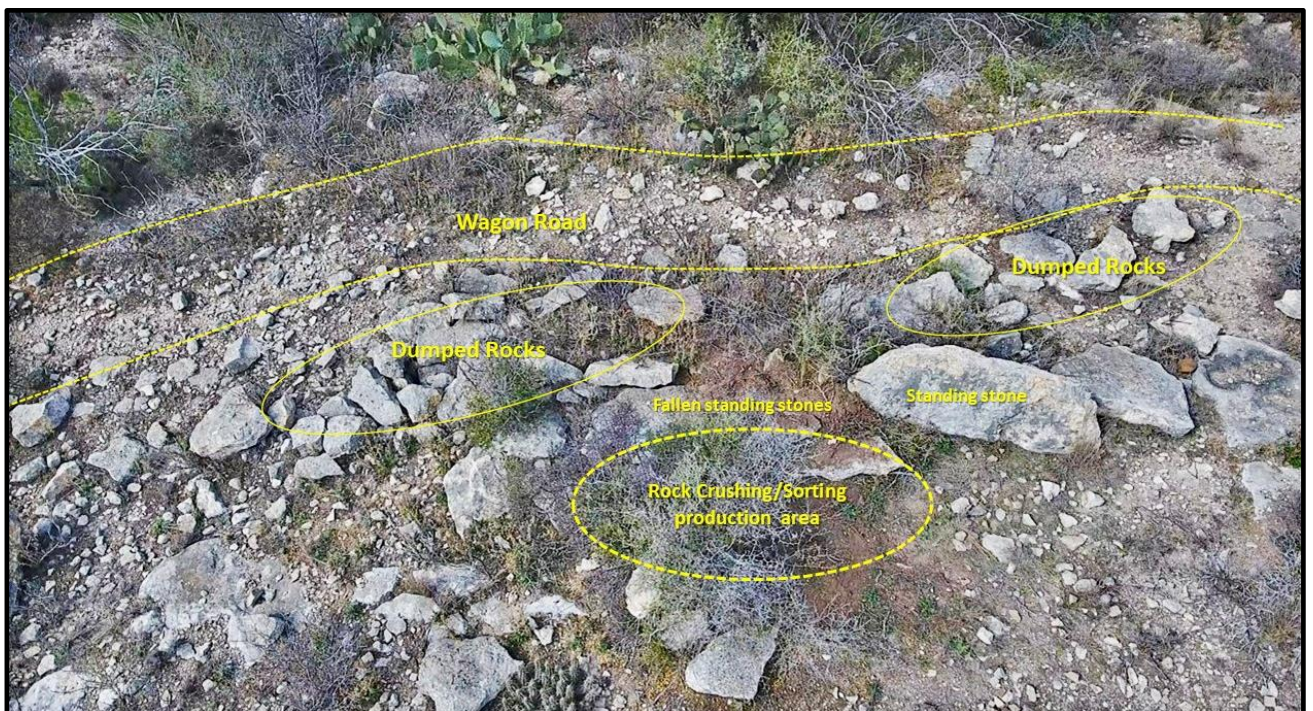
The lime rick consists of multiple layers of wood and limestone, with everything pointing to the center. Limestone is layered in between wood layers. A very large wick of vertical branches is set running up the center to start the fire. It is lit from the top and burns down into the rick. It is extremely hot, getting to around 1,600 degrees Fahrenheit. It burns out the carbon dioxide so that the limestone can later be crushed and made into a quicklime by adding water, called lime slaking. Lime slaking makes the slurry for mortar. Sand is added to make the final mortar.



Experimental archeology example of a lime rick with oyster shells instead of limestone, conducted at George Washington's Ferry Farm

The lime rick burn is dangerous due to pollutants. Pollutants released are Sulphur oxides (SO_x), nitrogen oxides (NO_x), volatile organic compounds (non-methane VOC and methane (CH₄)), carbon monoxide (CO), carbon dioxide (CO₂), nitrous oxide (N₂O) and particulate matter. (Lime Production) During the burn the lime is reduced to calcium oxide. Laborers needed to stay out of the smoke path. According to Lieutenant French's diary, the Lougee home and the stone tank were built in December 1883 through January 1884. The winter winds in this area are either from the south or north. The camp tents are positioned so that either way of the winds blow, it will push the burn rick smoke away from the camping area.

Probably related to the lime production process are large, flat stones that had been propped up on their sides. Some looked to have previously been propped up, but have since fallen down. They were probably natural broken parts of the rock shelf and were propped up in place. They were probably propped to block the south wind while processing the burnt limestone into power. Although burned limestone can become a slurry just by placing it in water, crushing it into a small gravel or powder will speed up the process. The crushing process also identifies and removes any stones that have not been completely converted by the burn. This area was likely a crushing and sorting site.



Limestone Burn Production Area

In order to validate this as a crushing/sorting area, we conducted a dig into an area that has an anomalous amount of soil right next to the upright flat stones. After just a few inches of clean soil, we ran into a large amount of broken-up and burned limestone to about seven more inches depth before hitting flat bedrock. Breaking open these pieces revealed visually that the limestone had been through the burning process. It appears the small particles of quartz, feldspar, chert, pyrite, siderite, and other minerals normally found internally (King) have been severely transformed. These were probably changed by the firing process. These may have also been rejected in the sorting process for not being fully cooked to the proper temperature. We did not have the scientific equipment to test this, but the visual differences are striking.



Untouched Limestone



Limestone dug from the crushing/sorting site

Next to the probable crushing/sorting site was also a pile of large limestone rubble stones that looked to have been dumped off the wagon. These rubble stones were brought from the quarry area to be further broken up and used in the limerick burn, but were left behind when they were no longer needed.

It appears wagons were used not only for delivering the block stones to the tank construction area, but also to deliver rubble the quicklime production area. According to the diary, the Lougee house was completed around January 3rd and the water tank was completed around January 9th. So, construction was being conducted concurrently.



Large limestone rubble piled near the burn area

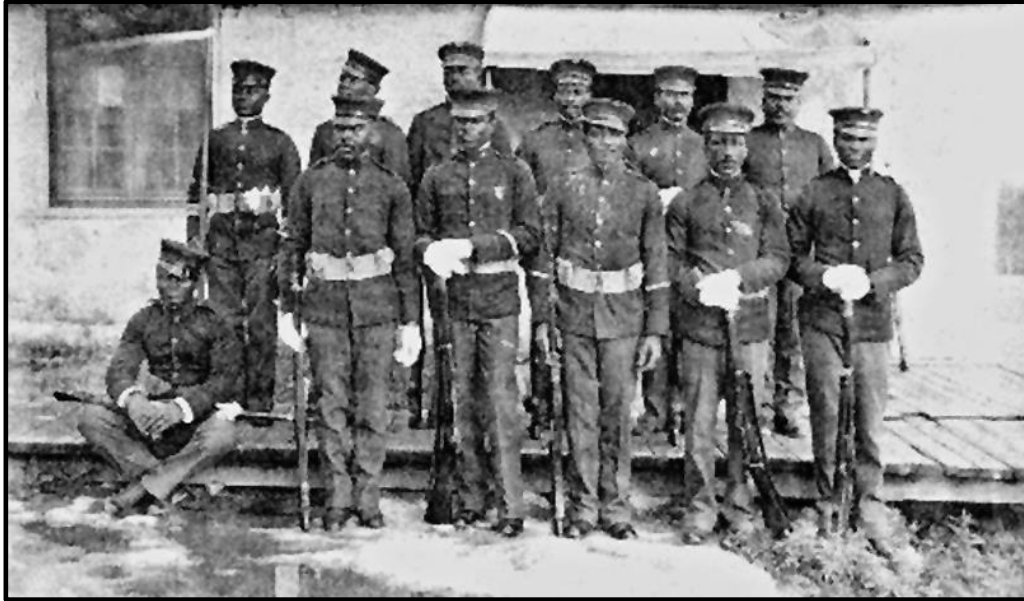


Knife buttcap on example knife

Lieutenant French also revealed in an earlier diary entry that one of the detachment scouts, William Wilson, was the primary wagoner. While metal detecting the lime rick tent camp area we found a home-made knife handle buttcap with a hand-etched 'W' on each side. The buttcap was probably made from spent cartridges. This buttcap was about 40 feet downslope from the wagon trace coming out of the quicklime production area. We believe it belonged to William Wilson. Wilson enlisted 16 times but chose to remain a private. He stayed with the scouts until they were disbanded in 1914.



Handmade Knife Buttcap

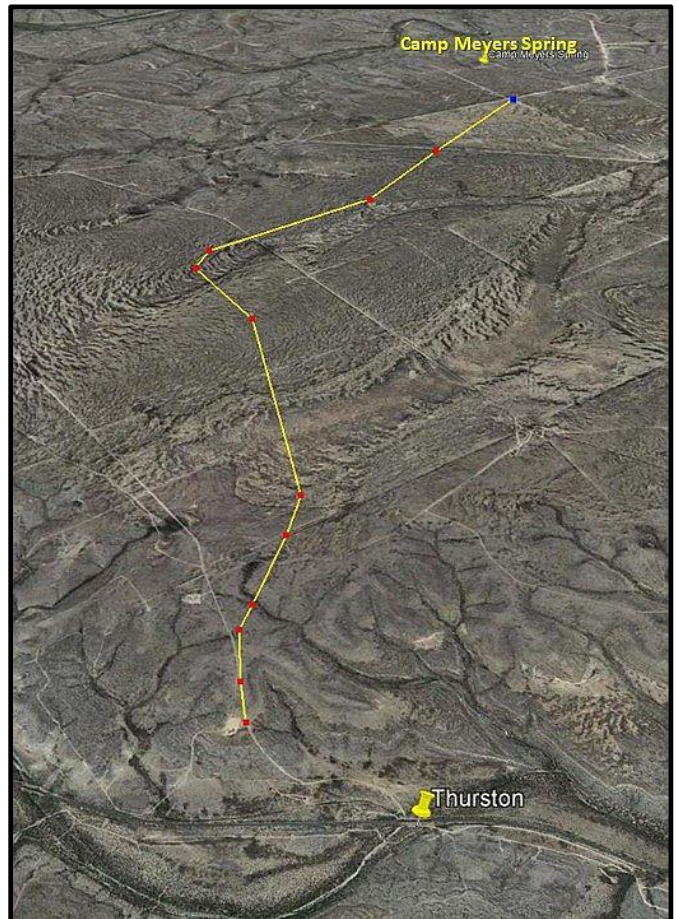


1910 photo: William Wilson is second row, second from right

Thurston Rail Depot For Camp Meyers Spring

The east-west Galveston Houston San Antonio Railroad construction through the lower Pecos area took place in 1882 and early 1883. The railroad was completed by connecting the two construction projects from east and west, just west of the mouth of the Pecos River in January 1883. (Werner)

A Thurston railroad siding was created for the convenience of the military at Camp Meyers Spring, and to take care of that section or track. The full name was 'Roadmaster Thurston of the Galveston, Harrisburg and San Antonio Railway.' (Thurston Canyon) The Thurston Siding was located four miles south of Camp Meyers Spring. It was used by the Camp Meyers Springs military for supplies, and for communications back to and from Fort Clark. It was used daily until the camp was disbanded. It was also used by the Pecos Land and Cattle Company during their period on the ranch.



Wagon Road to Thurston Rail Depot (Google Earth)



1920 Railroad Map with Thurston Identified (distance matches location)

According to Lieutenant French's diary, prior to the military departure, the depot hosted a small Chinese railroad maintenance crew, a telegraph car on a siding, and a cattle pen with loading chute.

The Thurston depot was shut down sometime after the departure of the military and the Pecos Land and Cattle Company, but that portion of track is still the main line for the Southern Pacific transcontinental Sunset Route between New Orleans and Los Angeles.

Additional Artifacts

The 2010 Texas Tech 'Inventory and Assessment of the Historic Cultural Resources at Meyers Spring' report (Walter, Johnson) covered details of period trash extensively. Our efforts were focused on finding specific items or patterns of items missed that would help to support the locations identified through our historical research and imagery interpretation in order to properly explain the makeup and the purpose of this extensive layout. In many areas, we looked at just enough to validate our assessment as to the area's occupation. In other areas, like the Black Seminole Indian Scout camps, we were very thorough. We highlight here a few of the items.

General Item Artifacts

Throughout the entirety of all the camp areas were found an inordinate number of baking powder tin can lids. These were also reported in the Texas Tech reporting. These were mostly used for making biscuits, which appears to have been taking place extensively throughout all the camps.



Baking Powder Tin Lids (cavalry site (left), Black Seminole Indian Scout camp (right))

Company A, 1st Infantry Regiment Artifacts: The trash throughout both the tent camp area and the guard posts was the general kind of food and cooking implement type trash we expected. However, at one guard post was an unfired 45-55 cartridge, and another a spent 45-55 cartridge. Both were identified as carbine cartridges. One had a date stamp on it of 1878. At the water collection camp we did find two 45-70 rifle cartridges. One was an unusual stamp with a manufacturer W, identifying Winchester as the manufacturer. Although it is reported that Winchester began making 45-70 cartridges in 1886, this indicates a much earlier manufacturing date of 1879, and may be one of the few stamped cartridges found that early.



The second diagnostic item was a broken beer bottle bottom with the manufacturer's stamp. The stamp is CV Co. No 2 MILW. This is a quart beer bottle from the Chase Valley Glass Factory #2, Milwaukee, Wisconsin. We have found that no matter where they were, guards were able to get their beer to help pass the lonely hours of guard duty.

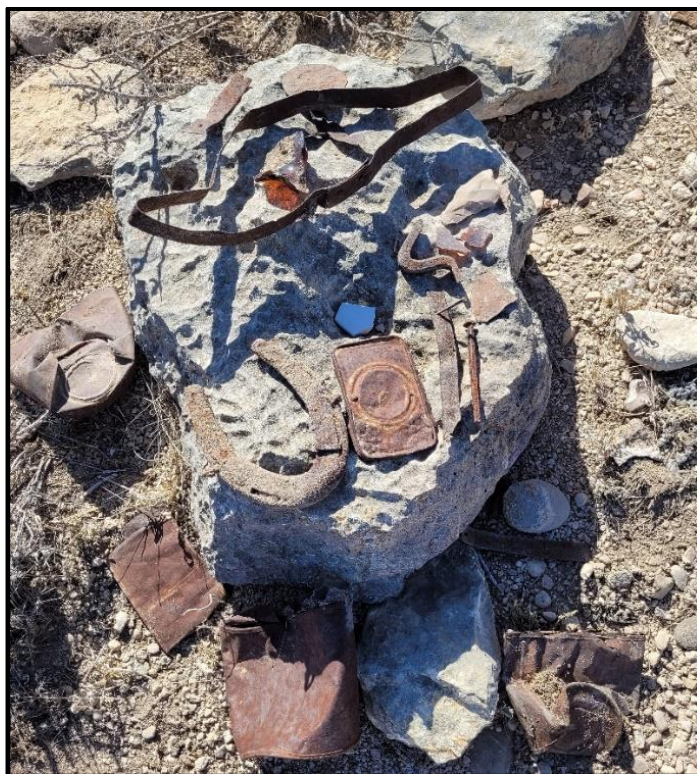


In the same water catchment area as the 45-70 rifle cartridges we found an infantry cuff button with the letter 'I' in the shield. The lettered uniform buttons were halted in 1873. Remaining buttons would only be found on uniforms of off sizes (extra small or large) in the 1881 period.

Another unusual find in the guard post areas was a piece of a lantern. Guard posts should not have had lanterns that would give away their positions at night and cause night blindness for the guards. However, the wagon probably needed to make deliveries at night and would need a lantern to see the way. We assume this came off a delivery wagon, possibly falling off, breaking, and then was discarded. This is the portion that would have held the wick.



A good example of the kind of trash found in and around the guard posts was at the one overlooking the small spring area. Not only did we find typical trash, but we also found a large mule shoe, a broken wagon rivet, and a broken wagon bed hook. This shows how hard it was on the wagons constantly going over this rocky ground.



Artifacts near Infantry Guard Post

Near one of the infantry guard posts we found this 1861 Seated Quarter. This would have been a half day's wages for a private.



1861 Seated Quarter

Black Seminole Indian Scout Camp Artifacts: A thorough search, both visual and metal detection, was conducted at this camp. Surface trash of tin cans, box strapping, bottle glass, and box nails was extensive. In addition to the main camp, behind the kitchen area is a slight slope where a great deal of trash had been washed down over the years from storms. Some of this appeared to be specifically from food preparation, such as large cans, heavy wire for picking up oven lids, large bucket pieces, long neck bottle tops, deer bone, jagged cut can tops, etc. However, some items from the blacksmith area, which sat just 25 feet in front of the kitchen, were also washed down this slope. An item we found throughout the camp was unused horseshoe nails. Each man was required to carry his own extra horseshoe and conduct his own farrier work while on patrol. We also found many large nails at most camps. We assume these were being used as tent stakes for the smaller trooper-type tents.



Large Nail (possibly for tent staking)



Wagon part downslope from blacksmith area

Commander's Tent Area: The unusual thing about the area known to be the commander's tent area was a high number of medium-sized nails. These are larger than box nails, but not as large as the ones thought to be for tent staking. The commander's wall tents had wooden floors and wooden walls. These nails were likely from the deconstruction of those tents when the camp was decommissioned.

Blacksmith Area: This was a surprise to find in the middle of the camp. We expected to find this type of trash in the corral. The only structure in the corral referenced by Lieutenant French was a brush shelter for the horses to help get them some cover. The most telling items here are the cut-off ends of horseshoes, which would have been for adjusting to hoof size. Also, all but one of the horseshoe nails in this dug hole are used. The broken rivet and heavy metal bracket piece are wagon items.



Undershirt/Pants Button: The metal undershirt/pants suspender button was dug at a tent site along with other miscellaneous box nails. This is a standard metal button found at other military camp sites.



Full Baking Power Can: This full can was intentionally buried and forgotten. It was found at an outer ring tent site six inches down, in a vertical position.



Salt Shaker Lid: This was found at the same tent site as the baking powder can. The drill holes in this appear to be machine-made. The Texas Tech team also found one identical to this one, but the location was not identified.

Candle Holder Can: A unique item found on our surface search was a homemade candle holder can. The can is quite obviously hammered to crimp over the rock placed into the bottom of the can. The rock does not sit flat, so the holder was made to sit in the dirt.



44 Colt Cartridges: Two 44 Colt cartridges were found. One was picked up by the former landowner and there is no way to be sure of its location. The

other was south of the Black Seminole Camp, but given the period of probable use, it is probably unrelated to that particular camp. The 44 Colt cartridge was developed by Colt's Patent Firearms for use in cartridge revolvers based on the 1860 Army percussion revolver. The cartridge was briefly adopted by the United States Army around 1871. The Army used it until 1873, at which time it was replaced by the better-known and more powerful .45 Colt cartridge used in the recently adopted Colt Single Action Army revolver.

Lieutenant John Bullis took command of the Fort Clark Black Seminole Indian Scouts in 1876 and began his patrols with them as a fighting unit. It is highly likely this cartridge was accidentally dropped during one of those early patrols at Meyers Spring. The Black Seminole Indian Scouts were provided used uniforms and older weaponry in the early period of their enlistment contracts.



44 Colt Cartridge



Antique 44 Colt Revolver (example)



Pipe Stem



1871 – 1880 Dress Helmet Emblem

Found just west of the Scout camp, the helmet for this emblem should never be found at a field expeditionary site. These helmets were only worn with the dress uniform for in-garrison parades and ceremonies. Our theory is that it was kept as a keepsake by one of the scouts or lieutenants. The design was changed in 1881. The camp was established in 1882 and disbanded in mid-1884.

Infantry Command Compound Artifacts

Military Coat Buttons: An Indian Wars General Service coat button and Officer's Staff Coat Cuff Button were found very close to each other and in the area believed to have housed the contracted doctor's hospital tent in the command compound. Although the original hospital tent location was determined to be for the infantry company, a military-contracted doctor continued to remain at the camp throughout the occupation by Fort Clark units. In the Lieutenant French diary, it states the doctor had two tents. One of these tents was very probably a hospital tent. In the diary, it also states the Fort Clark paymaster - a major - and his nephew would come to the camp each month to conduct payout for the troops. He did not have his own tent. He would have used the doctor's extra tent to conduct his business and as his sleeping quarters as long as there were no patients. If there were patients they would share the doctor's and lieutenant's or a cavalry captain's tent. The location of the buttons matches the imagery interpretation of the hospital tent location, which would be close to the doctor's tent. (See Appendix A, Jan 10 1884 entry)



Civilian Buttons And Crockery: A civilian suspender's button, a woman's Mother Of Pearl blouse button, and a piece of brown crockery was found across from the Lougee house. Brown, glazed crockery is not something found in a military camp. Mr. Lougee, his wife, and some of his workers were often visiting back and forth with the doctor and this was probably where these came from.



Infantry Water Collection Camp: We found two 45-70 rifle cartridges and one infantry cuff button near the water collection area.



Cavalry Camps Artifacts

Cavalry Camp #1: This would have been the primary cavalry camp. In most cases, there was only one Troop at a time in camp. This camp is also closest to the cavalry corral and camp doctor.

45 Caliber Cartridges: Five 45 caliber Scofield cartridges, four fired and one unfired, were in the middle of the camp area near tent sites. None have head stamps. The early Scofield cartridge was known for its Benet internal primer and shorter cartridge. The Army Scofield revolvers were the standard for cavalry. It was developed by Smith & Wesson for their S&W Model 3 Schofield top-break revolver. While the 45 Colt had more power, the speed at which a cavalryman could reload a Schofield (while on horseback) was less than 30 seconds, which is half of the time for a Colt 45.



1882 Indian Head Penny: Found 75 feet from cavalry guard post #3. This was very likely part of a private's pay. Most dropped coins during field expeditions were dropped when men needed to relieve themselves.



Cavalry Camp #2: The layout of tents for this site is most like site #1. A preliminary search revealed typical tin can trash on the surface. Two fired and one dropped Scofield 45 cartridges were found, along with a metal undershirt/pants suspender button, supply box nails, and miscellaneous tin can trash.

Cavalry Camp #3: This camp had the faintest ground scaring of the three. However, it is definitely a cavalry bivouac area. It was also the very probable area of the field bake oven test camp, with infantry camping there for that specific test period. As with other infantry areas, the area was littered with bottle glass trash, along with the typical tin can trash. We found one 45 Colt, indicating infantry. For the cavalry, we found several 45-55 carbine cartridges. One cartridge is a UMC contract-load cartridge, different from most other Benet primed cartridges, but still unstamped.

Cavalry Water Detail Camp #1 (above main spring basin)

1874 Seated Dime: In addition to general service buttons, Scofield 45 cartridges (issued 1882+), 45-55 carbine cartridges (one 1877 issue), spent bullets, wagon parts, a pocket watch chain, metal undershirt/pants suspender buttons, and a partial mule shoe, we found this seated dime. It was discovered

away from the tent sites and water catchment work area. Most dropped coins during field expeditions were dropped when men needed to relieve themselves. This appears to have been the case for this coin, as it was in a separate area from tent or work sites. A private's pay was about 50 cents per day.



Cavalry Water Detail Camp #2 (west canyon)

This camp had the same period Schofield 45 cartridges (1882+) and 45-55 carbine cartridges throughout, as found in Water Collection Camp #1. Standard can trash was strewn about, along with a wagon-crushed coffee pot.

Boyd's Battery Necklace Piece (patent date Jan. 17, 1878): A popular medical medallion called a Boyd's Battery. The battery was a disc, about 1¼ inch in diameter, meant to hang from one's neck on a cord and that used the "soft and gentle" galvanic action of electricity to purportedly cure a host of diseases. For more information, see the link story.



Central piece to Boyd's Battery Necklace Completed Necklace found at Washington's Ferry Farm (example)

<https://livesandlegaciesblog.org/2018/04/19/boyds-battery-an-electrifying-ferry-farm-story/>



Pocket watch pieces



Unidentified kit ring

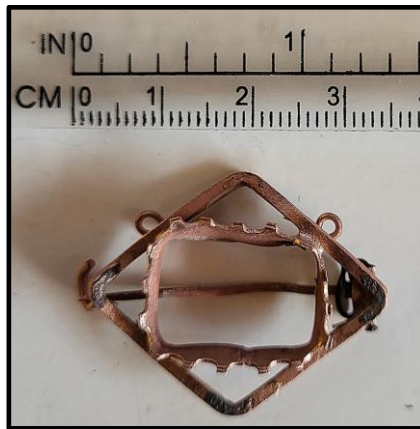


Sardine can be made into soap dish



Brass Rivets (cleaned) (used on various types of military gear)

Mourning brooches were common in the 1800s, carried by their deceased loved ones. They often would have a lock of hair in an ornamental casing. This would never be allowed on a uniform but allowed and respected as a personal carry item.



Mourning Brooch

Infantry/Seminole Scout Corral Artifacts

Water Barrel Band: This barrel band was found next to the circular stone feature with a depression in the middle. We believe this was for a half-water barrel that sat in the middle of the feature for watering the mules and horses.



Gate Area: In the middle of the circular feature we believe was both a gated area walk through and a tent site for a soldier assigned to care and maintenance of the animals we found through metal detecting a great number of small nails used for ration food boxes. On the surface, we found box strapping and tin cans. This, along with the heavy stake still in the ground, helped to validate that the tent in this circle was a soldier's tent and very likely Company A, 1st Infantry Regiment.



Tent Stake

Cavalry Corral Artifacts

Nail Keg Barrel Wire Strapping: Two two-foot diameter, heavy gauge wire loops were found near the cavalry corral. These two loops match a nail keg barrel, based on an antique example we found in research. We believe it was related to the construction of the corral fencing



Nail Keg Barrel Bands

keg barrel (example)

Wheel-Indented Tobacco Can: On the eastern side of the corral, we found a tobacco can that had been run over by a wagon. The wheel indentation is a narrow 1.36 inches wide. This is the width of the all-metal wheel wagon that was found at the canyon spring area and now sits near the stone building. This is a later, turn of the century wagon. It was likely it was used to carry the disassembled fencing down to the spring area for reuse. There is extensive cedar post fencing in that area, reported by Texas Tech in their 2008 study.



Corral Support Camp: Next to the cavalry corral, just outside the fence line and on the northwest side, we found a probable corral support camp. It appeared to have five tent spaces, based on the disturbed earth. At this location, we found a 6-inch round can lid, ration box strapping, a solder-handled can, food tin cans, and bottle glass, as well as the items below.



Vest 'Solide' back buckle and undershirt/pants suspender button



Probable canteen strap pieces

Conclusion

Camp Meyers Spring was a significant camp covering over 40 acres in total capacity. The totality of all support roads, water catchments, and water camps encompasses around 200 acres. The size changed as units came and went, and also by which sections were occupied under different deployments. Toward the end of the military occupation, the cattle company and its support structures came into the picture, as both were occupying the property at the same time. This expanded the territory and various encampments significantly.

The overall site was a perfect location for a base of operations and it had a good supply of clean water. The area they chose is just under a mile by road from the spring and was located on high, flat ground with a long-distance view looking in all directions. Although not the most desirable location to camp, it is strategically and tactically the best. Lastly, it was located only six miles from the main east-west road running from Del Rio up to Fort Davis, referred to as the 'Davis' road. The east-west road later became a main highway, which the railroad also followed.

Strategically, it was a perfectly placed base of operations for the patrolling that was needed in the wild region of the Lower Pecos and Big Bend. It was halfway between Fort Clark and Fort Davis. So it filled a gap they needed to patrol out of. It was 100 miles closer than Fort Clark to the Comanche War Trail, with its stopping point of Pena Colorado Spring, south of current Marathon. It was about 20 miles from the Pecos River and about 50 miles from the Devils River, both of which were being used by Kickapoo and Apache raiders coming up from Mexico into Texas. A relatively short patrol could discern any raiding activity and follow raider's trails to or from Mexico. Finally, it was also closer to the Apache strongholds such as the ones in the Sierra Del Carmen Mountains, Mexico, where Bullis and the 8th Cavalry made one of their incursions. Lieutenant Bullis and his Scouts knew this better than anyone else in the military at the time, and they took advantage of it when allowed the leeway to develop their own forward base of operations. The evidence is that Lieutenant Bullis was using this camp at least as early as 1877. The number of successes and the total cessation of raids by 1881 proved he knew exactly what he was doing when he created this camp.

This was possibly the only location where a military camp shared the same piece of land with a commercial cattle operation (at least for a short while). This is because the land was not being leased by the military. It was owned by Lieutenant Bullis, who allowed the military to use it without lease. However, he did least to the Pecos Land and Cattle Company. By 1884, when the cattle operation was getting fully under way, it was time to wrap up the military operations. The Lougee home and the original worker's stone building were built while the military continued their base of operations. They stayed on, working together for another six months before the military moved out. After the military departure, the additional stone structures were built within the area previously occupied by the corral, partially using stones from existing walls in the corral area created by the military. The large stone Lougee house was probably abandoned in 1886 when the cattle company moved its headquarters to Dryden, It was possibly reoccupied by John Bullis himself when he returned to the property around 1901 to upgrade the property, and particularly to rebuild the water tank in 1902 that still stands today.

End Notes on Imagery Interpretation



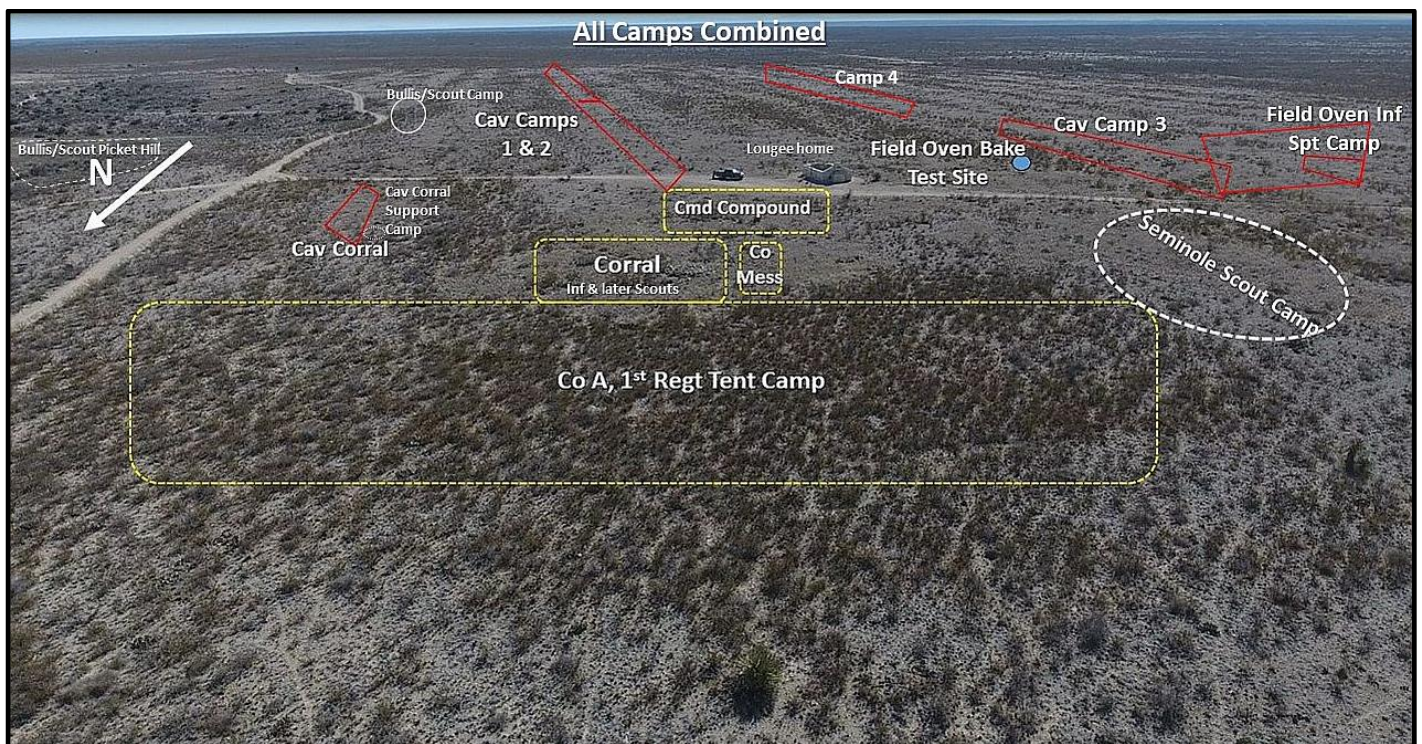
Much of this camp and its road structures were first found through analysis of Google Earth satellite imagery. Satellite and high-altitude aerial imagery interpretation has been a skill set taught in military intelligence since World War II. It only became available to the general public when Google Earth became available in the 1990s, and has only been used in archeological studies for the past 15 – 20 years, most of that within the last 10 years. What cannot be seen on the ground can often be seen from high-altitude, and even low altitude drone, when the ground surface has been heavily modified, but then abandoned. Essentially, the surface retains the lines of man-made features, whether they are wagon roads, buildings, or even corrals and heavily used animal trails. The vegetation either never grows back, or tends to follow the shapes that were forced on it over long periods of time. Learning to understand how to properly interpret these changes takes many years of study of overhead imagery. To assist in the interpretation, Google Earth allows for multiple years of imagery on the same location. This imagery can also be manipulated to various altitudes and angles that make some features more visible. When looking at a location with the historical imagery capability you can move through the many years of images, looking at the exact same piece of earth from the exact same altitude/angle and find the one that will show the trail trace or ground-scarring best for that piece of ground. For verification, the interpreted features must be confirmed through a ground reconnaissance with identification and mapping artifacts to be sure the features being interpreted are correct.

If the ground is hard enough, trails can be made out to the point of seeing the separate ruts of the wagon wheels. But in other areas, the vegetation grows differently due to the influx of water in the depression.

Using satellite imagery, especially with multiple image periods of the same location in Google Earth's 'Historical Imagery' tool, a trained eye can find the trace of these ground scars and vegetation changes. Often the images are in different seasons, helping or hurting the visibility. Google Earth also used different satellites each year for their mapping. Some are better for interpretation purposes than others.

When working with military camps, having a good understanding of military standard operating procedures, tactics, and strategies is critical to understanding what the imagery and subsequent field reconnaissance is showing.

As it pertains to this military camp, the wagon trails tend to be for wagon supply runs from or to the guard posts or water collection areas. The wagon trails lead through the main camp to those areas. Supply runs were performed by what Lieutenant French called the 'Light Wagon' in his diary. For ground scaring, if the soil beneath the surface is a sandy soil, then heavy foot traffic will disturb the area, and the sandy soil will not let vegetation grow back, or grows back very differently because it has been so damaged. This is the case with the tent locations of Camp Meyers Spring. The heavy foot traffic areas reveal the sites of the tent entrances.



References

- 126th New York Infantry Regiment
2024 [https://en.wikipedia.org/wiki/126th New York Infantry Regiment](https://en.wikipedia.org/wiki/126th_New_York_Infantry_Regiment)
- 19th Century (1800s) Tents Civilian & Military*
2023 <http://www.ushist.com/set-dressing/tents.shtml>
- 4th Cavalry
1873 Armament Reports
<https://catalog.archives.gov/id/453249332?objectPage=119>
- Ashmore, Tom
2021 *Camp Van Camp, West Texas: The Pecos Expedition*
<https://assets.zyrosite.com/AzGE74rO66UMXrKb/camp-van-camp-ALpJBpao4lfjLpjG.pdf>
- Barnes, Frank C.
2006 *Cartridges Of The World: 11th Edition*. Gun Digest Books
- Busch, Jane
1981 *An Introduction to the Tin Can.* *Historical Archaeology* 15, no. 1
<http://www.jstor.org/stable/25615391>
- Cartridge Collector's Exchange
2010 *Those confusing .50 Carbine cartridges*
<https://www.oldammo.com/january10.htm>
- Cheney, Newell
1901 History of the Ninth Regiment, New York Volunteer Cavalry, War of 1861 to 1865
https://archive.org/details/bwb_P8-AUE-212/page/n5/mode/2up
- Cleaveland, Malcolm
2006 *Extended Chronology of Drought in the San Antonio Area*, Geosciences Department, University of Arkansas
<https://www.gbra.org/wp-content/uploads/2021/04/TreeRingStudy.pdf>
- Dutch Gap Canal
2024 https://en.wikipedia.org/wiki/Dutch_Gap_Canal
- Eckhardt, C.F.
2006 *THE WHIRLWIND, Lt. John Lapham Bullis*
<http://texasescapes.com/CFEckhardt/Whirlwind-Lt-John-Lapham-Bullis-and-the-Seminole-Negro-Scouts.htm>
- El Paso
El Paso Monthly Precipitation Totals, National Weather Service
https://www.weather.gov/epz/el Paso_monthly_precip
- Fort Clark, Post Returns
1880 - 1884 <https://www.ancestry.com/>
- Guidons
1999 <https://www.cavhooah.com/pages/guidons>
- Guinn, Jeff

2002 *Our Land Before We Die*, Penguin Group, New York, New York

Hamilton, Allen Lee

2023 <https://www.historynet.com/mackenzies-raid-mexico/>

Historic Artifact Identification Guide, Bureau Of Land Management National Training Center

2016 <https://www.ntc.blm.gov/krc/uploads/904/HistoricArtifactIDGuide.pdf>

1999 *45-70 Govt: The Ultimate Guide To What You Need To Know*

<https://thebiggamehuntingblog.com/the-45-70-government-html/>

2000 *45-70 GOVERNMENT*

<http://cartridgecollector.net/45-70-government>

King, Hobart

Limestone: What is Limestone and How is it Used?

<https://geology.com/rocks/limestone.shtml>

Lime production

2009 EMEP/EEA emission inventory guidebook 2009

<https://www.eea.europa.eu/publications/emep-eea-emission-inventory-guidebook-2009/part-b-sectoral-guidance-chapters/2-industrial-processes/2-a-mineral-industry/2-a-2-lime-production.pdf>

Lt. John Bullis, National Park Service

1999 <https://www.nps.gov/amis/learn/historyculture/bullis.htm>

Marshal, Francis C. and Simonds, George S

1907 *A Military Primer: An Outline Of The Duties Of The Military Profession and An Elementary*

Discussion of the Principles and Practices of the Services of Security and Information

https://ia800905.us.archive.org/7/items/militaryprimerin00marsrich/militaryprimerin00marsrich_bw.pdf

Mcaulay, John

2013 *Excels All Others: The Spencer Carbine*

<https://www.americanrifleman.org/content/excels-all-others-the-spencer-carbine/>

McCright, Grady E

2012 *THE WHIRLWIND, John L. Bullis and his Seminole Negro Scouts*, Amazon Kindle ebook,

Parole Camp

2024 https://en.wikipedia.org/wiki/Parole_camp

Phelps, Frederick E. and Frank D. Reeve

1950 *Frederick E. Phelps: a Soldier's Memoirs*, New Mexico Historical Review 25

https://www.seminolenegroindianscouts.org/_files/ugd/02105e_82dd780c7f2e4f31baf707229226e56f.pdf

Seebee

1916 *Manual for Army Bakers: Army Field Bake Oven No. 1*

http://www.seabeecook.com/equipment/field/afbo_no1.htm

Sheridan, Philip

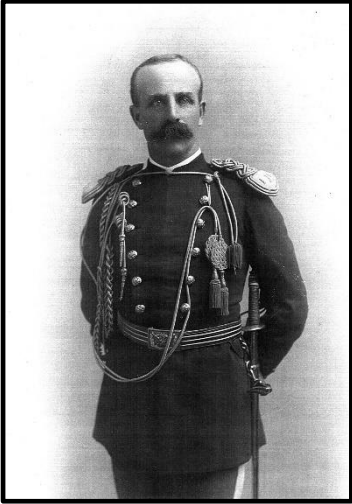
1873 Library of Congress, Philip Henry Sheridan Papers: General Correspondence, 1853-1888; 1873; Mar.

1-17

- Sobota, Scott (Major, Army National Guard)
 2014 *RANALD S. MACKENZIE AND THE FOURTH CAVALRY CROSS-BORDER RAID ON THE MEXICAN KICKAPOO INDIANS, 17-21 MAY 1873*, School of Advanced Military Studies, United States Army Command and General Staff College Fort Leavenworth, Kansas
<https://apps.dtic.mil/sti/tr/pdf/ADA612202.pdf>
- THURSTON CANYON, Texas State Historical Handbook Of Texas Online
 1995 <https://www.tshaonline.org/handbook/entries/thurston-canyon>
- Walter, Tamra and Johnson, Faith
 2010 *Inventory and Assessment of the Historic Cultural Resources at Meyers Spring, Terrell County, Texas*, Occasional Papers in Archeology, Number 2, Department of Sociology, Anthropology, and Social Work, Texas Tech University, Lubbock, Texas
- Werner, George C.
 1995 *GALVESTON, HARRISBURG AND SAN ANTONIO RAILWAY*, Texas State Historical Handbook Of Texas
<https://www.tshaonline.org/handbook/entries/galveston-harrisburg-and-san-antonio-railway>
- Wright, W.M.
 1896 *First Regiment of Infantry*, The U.S. Army Center of Military History
<https://history.army.mil/books/R&H/R&H-1IN.htm>
- Young, S.B.M, Capt, 8th Cavalry
 1877 Winter Campaign Report
https://www.seminolenegroindianscouts.org/_files/ugd/02105e_8299fb9c09a54cdbc02da630ee1b06ff.pdf
- Tate, Michael, *Bullis, John Lapham (1841–1911)*
 1952 <https://www.tshaonline.org/handbook/entries/bullis-john-lapham>
- Wallace, Edward
 The Southwestern Historical Quarterly, vol. 54, no. 1, 1950. JSTOR,
<http://www.jstor.org/stable/30241838>

Appendix A

Pertinent extracts from the diary of Lieutenant Francis Henry French, 19th Infantry, commanding the Seminole Indian Scout Detachment at Camp Meyers Spring, Texas 1883-84



Lieutenant Francis Henry French

Notes:

Thurston is train station 4 miles south of camp.

Mr. Lougee is the owner of the Pecos Cattle Company leasing the Bullis property.

Captain Simonds is W.W. Simonds, Pecos Land And Cattle Company manager (former police captain)

Schultz: Probable carpenter working for Lougee

Mr. Nason is civilian accompanying Lougee, (offers investment opportunities to Simonds and French for when they depart from the military).

Maj Bash is regiment paymaster.

M. Torres is contracted by military to provide hay, grain and other food supplies from the local area.

C. (Cessario) Torres is brother and senior in business of contract out of Langtry, TX.

Wednesday. November 21, 1883

My quarters consist of two wall tents put together to make one room, framed & floored with a box stove.

Thursday. November 22, 1883

After returning to camp had some extra tents taken down & put away for further use, move a wall tent up to the kitchen for our dining tent and had some extra property stored away.

Monday. November 26, 1883

... was interrupted by the arrival of Capt. Simonds who was here last January with Mr. Nason. He comes this time with Mr. Lougee (a name somewhat like this) who are [sic] bringing lumber and supplies intending to locate here and bring their families, if they can only find water for cattle on the large tract of property they own in this vicinity... Had a stove put up in the dining tent which makes our meals more enjoyable. ...

Tuesday. Nov. 27 1883

... Capt. Simonds & Mr. Lougee came over in their wagon. After dinner went to stables & then we met in Doctor's tent and talked until bedtime. They are to sleep in my tent where beds were prepared for them. I have my cot fixed up. Ice formed last night at the spring.

Thursday. November 29 1883

... Mr. Lougee ate over at Thurston. They brought over their carpenter, engineer and more workmen who came up this morning. ...

Friday. November 30 1883

While playing with Mr. Lougee saw that he was worried about the lumber for their house as their carpenter and other men came last evening. Torres who was to furnish a team to haul the lumber did not send it. So offered them the wagon & mules, if they would pay Wilson the driver, which they were glad to accept.

Saturday December 1 1883

They commenced to build a small house on the corner of their land nearest camp and got it partially completed by night.

Sunday. December 2 1883

The men worked a little on the new house today and it was necessary too for their comfort to get into [it] as soon as possible.

Monday. December 3, 1883

In the evening went out to the house again...

Sunday. December 9 1883

... After readjusting the loads rode for Mayer's Springs reaching camp about 2-30 o'clock & found Dr. B. & Capt. Simonds waiting in the Doctor's tent. He had a fire in my tent.

Tuesday. December 11 1883

... Then the Doctor and I walked out to the house and on to a water hole which all hands were engaged in cleaning out. it is their intention to scrape off all the dirt down to the solid rock, build a stout dam across the bottom, cement all the [sic] put a layer of earth on the bottom to retain the moisture and put in solid banks. Then when the rains have filled the hole, they hope to be able to hold the water some time. Saw them make one blast and then strolled about a mile farther from camp...

Wednesday. December 12 1883

A cold steady rainy day prevented the men from working on the brush shelter they are making for the animals and prevented our neighbors from working on their tank... The Captain slept in the Doctor's tent, & Lougee in mine.

Monday. December 17 1883

... In the afternoon Torres completed the stack. After measuring it, C. Torres came into my tent leaving his brother out. The former is much better to get along with than the latter, and I was glad that M. Torres was not in the tent. I estimated 50 tons, which was not satisfactory to Torres. So I receipted to him for a stack of the dimensions measured, and made a copy of the receipt and sent it with a letter to Vedder who is to decide the amount. ...

Tuesday. December 18 1883

... Went out to see the tank and found some of the Seminoles at work, which I had permitted them to do, Lougee hiring them. But they had four mules and the wagon and were working the mules without saying anything to me. Told Lougee the mules could not work anymore.

Wednesday. December 19 1883

... After dinner went over to the house to see how the chimney was progressing.

Tuesday. December 25 1883

... Then walked over to the house. Invited Schultz to dinner as all the other whites from the house were invited out, but he declined to come.

Monday. December 31 1883

Stopped to go over to meet Mrs. Lougee who came with her husband & maid... Their house being unfinished, the Doctor put his tent at her disposal & has moved in with me... Lougee is sleeping with his wife in Dr's tent. They will mess & stay with us until their house is completed.

Friday. January 4 1884

Lougee and wife breakfasted at their house this morning & have left our mess for good.

Sunday. January 6 1884

...After dinner Doctor & I went over to the house by invitation and had some cake and eggnog both of which were very nice. Sat and talked until nine o'clock & then returned...

Wednesday. January 9 1884

... Went over to the house & walked down to the new tank with Lougee this afternoon.

Thursday. January 10 1884

Sent wagon over to train to meet Paymaster Bash & nephew this morning. Moved into Doctor's tent and let Maj. B. & clerk have mine. In the afternoon the men were paid off, & I received the pay of the absentees.

Tuesday. January 15 1884

Started out with the Sergeant & Luce on ponies and found a small spring about a mile south of camp. Measured the water and located it as well as possible. The Indians put up a pile of rocks to mark it,

but were shrewd enough to put them about 500 yards from the water. In the same way they put up a pile on a white mound of earth to mark the water near our camp but some little distance away.

Sunday. January 20 1884

After dinner Doctor & I walked over to the house and made a short call & then Lougee joined us in a walk to the tank. Coming back saw Mrs. L. & maid at the corral and walked over there. L. did not see them as they hid from him. When we went around the house they came out. Mrs. L. acted queerly as if she was rather afraid of L. & he did seem a little vexed. ...

Friday. January 25 1884

... Stopped by the house & helped Lougee fix up a manger ...

Monday. January 28 1884

... Made out part of the receipts for turning over the property to Capt. Randlett. (Capt Randlett was Company D commander, taking over the camp.)

Saturday. February 2 1884

... After dark found Mr. Lougee in the men's kitchen paying them for work done for the Pecos Land & Cattle Co. Witnessed some signatures for him & then went over to the house where he gave me a check for \$41 to pay Corp'l. Fay \$6, and Pvt. Woryner \$35, & 50 cts. for Pvt. H. Williams. ...

Thursday. February 7 1884

After breakfast prepared papers to turn over property and packed up my things. Doctor was the first to discover the new troops coming. Had all the property laid out as soon as the Troop came in sight. Soon afterward "D" Troop came with Capt. Randlett and Duff. ...

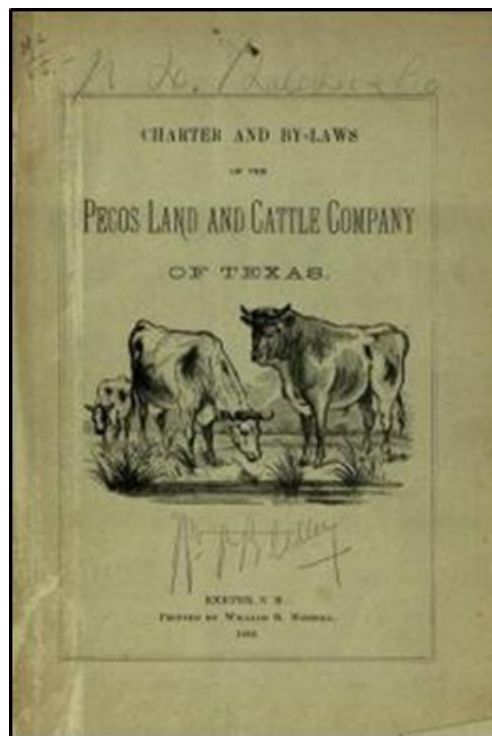
Appendix B

Pecos Land And Cattle Company

The Pecos Land and Cattle Company was organized in 1884 by investors from Attleboro, Massachusetts, who hoped to turn a good profit. Headquarters were located near Meyers Spring. Although the owners had no experience in ranching, they bought 106 checkerboard sections, or 67,840 acres, of land from the Galveston, Harrisburg and San Antonio Railway for a dollar an acre. In 1884 the company purchased a nearby recently established ranch, the King Spring Cattle Company. Sometime later the company added the cattle of the KL brand and the O Bar brand to its holdings. The headquarters of the Pecos Land and Cattle Company were then moved to Dryden, where the management built three structures north of the railroad and opposite the depot. In 1886 W. W. Simonds, general manager of the ranch, patented the section of school land where the town site of Dryden was laid out.

One of the problems the management of the ranch faced was that of providing water for the large herds. They leased land surrounding Cedar and Meyers springs from John L. Bullis, giving access to those natural sources. Water was also taken from King Spring and from the Rio Grande.

Although the ranch showed a profit in good years, it lost money in poor ones. The owners had chosen to enter ranching on a large scale at the end of the open range. They paid top dollar for land, whereas earlier cattlemen had used free grass to build fortunes. In 1892 D. R. Baret moved from Atlantic City, New Jersey, to replace Simonds as general manager of the company, but the company was already fading by this time. In 1895 it was dissolved.



<https://www.tshaonline.org/handbook/entries/pecos-land-and-cattle-company>

Appendix C: Timings Of Units At Camp Meyers Spring (sourced)

Camp Meyers Spring Occupation	Seminole	# Seminole	Seminole Cmdr	Inf	Cav	Tonkawa
Winter 1877 (intermittent)	Yes	37	1Lt Bullis	-	-	-
Summer/Fall 1880 (intermittent)	Yes	37	1Lt Bullis	-	-	-
1880 Sep – 1881 Apr	No	30	1Lt Bullis	Co A, 1Inf Reg	-	-
1881 May	No	32	1Lt Bullis	-	Co H, 8 Cav	-
1881 Jun	No	19	1Lt Bullis	-	Co A, 8 Cav	-
1881 Jul	No	14	1Lt Bullis	-	Co A, 8 Cav	-
1881 Aug (20th+)	Yes	33	2Lt Jones	-	Co G & Co D, 8 Cav	-
1881 Sep	Yes	25	2Lt Jones	-	Co G & Co D, 8 Cav	-
1881 Oct - Nov	Yes	25/29	2Lt Jones	-	Co D, 8 Cav	-
1881 Dec	No	32	2Lt Jones	-	-	-
1882 Jan (25th+) (Poss inspection)	Yes	8	2Lt Jones	-	-	-
1882 Feb (-8th)	No	32	2Lt Jones	-	-	-
1882 Mar (28th+)	Yes	35	2Lt Jones	22 nd Inf Detach	-	5
1882 Apr (-7)	Yes	34	2Lt Jones	22 nd Inf Detach	-	6
1882 May	No	33	2Lt Jones	-	Co L, 8 Cav	3
1882 Jun	No	33	2Lt Jones	-	Co L, 8 Cav	4
1882 Jul	No	34	2Lt Jones	-	Co E, 8 Cav	-
1882 Aug	No	34	2Lt Jones	-	Co E, 8 Cav	-
1882 Sep	No	36	2Lt Jones	-	Co G & Co L, 8 Cav	-
1882 Oct	No	37	2Lt Jones	-	Co G & Co L, 8 Cav	-
1882 Nov (20th+)	Yes	39	2Lt Guest	-	-	-
1882 Dec	Yes	37	2Lt Guest	-	-	-
1883 Jan	Yes	37	2Lt Guest	-	-	-
1883 Feb	Yes	39	2Lt French	-	-	-
1883 Mar	Yes	40	2Lt French	-	-	-
1883 Apr	Yes	41	2Lt French	-	-	-
1883 May	No	40	2Lt French	-	Co E, 8 Cav	-
1883 Jun	No	40	2Lt Guard	-	Co E, 8 Cav	-
1883 Jul	No	40	2Lt Guard	-	Co F, 8 Cav	-
1883 Aug	No	40	2Lt Guard	-	Co F, 8 Cav	-

1883 Sep	No	27	2Lt French	-	Co L, 8 Cav	-
1883 Oct	No	37	2Lt French	-	Co E, 8 Cav	-
1883 Nov (18th+)	Yes	40	2Lt French	-	-	-
1883 Dec	Yes	39	2Lt French	-	-	-
1884 Jan	Yes	37	2Lt French	-	-	-
1884 Feb	No	37	2Lt French	-	Co D, 8 Cav	-
1884 Mar	No	40	2Lt French	-	Co D, 8 Cav	-
1884 Apr (17th+)	Yes	37	2Lt Cunningham	-	-	-
1884 May	Yes	38	2Lt Cunningham	-	-	-
1884 Jun	No	37	2Lt Cunningham	-	-	-
1884 Jul 16 (abandoned)						

Assignment of Land Certificate.

State of Texas,
County of Dallas

For and in consideration of the sum of Twenty Five
(25.00) Dollars, to me in hand paid, me hereby sell
and convey unto John D. Bullis, Heir of John D. Bullis Land
Scrip No. 4512 for Six Hundred and Forty Acres, issued to the TEXAS WESTERN NAR-
ROW GAUGE RAILROAD COMPANY, on the 10th day of May, 1877, by the Commissioner of
the General Land Office, warranting the title to the said Land Scrip unto the said John D. Bullis
John D. Bullis, Heir of John D. Bullis heirs and assigns.

In Witness Whereof, me hereto sign, this 28th day of August,
A. D. 1877

J. H. Canlaw V. P.

Witnessed:
J. G. Tracy Secy

State of Texas,
County of Harris

Before me, the undersigned, this day personally appeared Thos: H. Scarless, Vice Pres
J. G. Tracy Secy to me well known, and declared that they executed the foregoing transfer for the
uses, purposes and considerations therein expressed

Witness my hand and official Seal, this 28 day of August

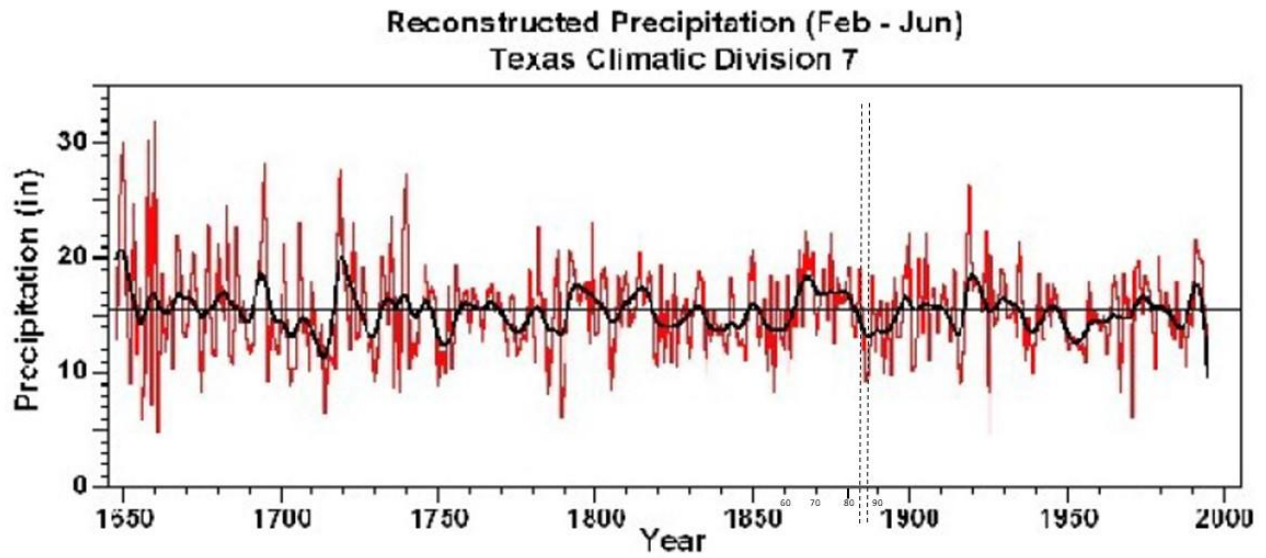
A. D. 1877
Wm C. Simmer
Notary Public Harris County Texas
112641

Appendix E: Names of Black Seminole Scouts enlisted during the Camp Meyers Spring occupation

	Martiriano	
Aguirre	Aguirre	1878 to 1882
Barra	Juan Barra	May 26, 1880 to June 6, 1882.
Barrera	Espetacion	April 25, 1878 to June 6, 1881
	Barrera	
Bowlegs	David Bowlegs	May 1, 1873 to May 12, 1882. December 1, 1872 and ending December 26, 1885.
Bowlegs	Friday Bowlegs	
	Harkless	
Bowlegs	Bowlegs	May 14, 1881 to August 31, 1884.
Brady	Jewel Brady	March 5, 1877 to August 8, 1881
	James (Jim)	
Bruner	Bruner	November 9, 1871 to July 11, 1881
Bruner	Peter Bruner	August 2, 1872 to August 19, 1881
	Luce (Louis)	
Cassas	Cassas	May 9, 1880 to February 28, 1889
Cook	Joe Cook	August 2, 1872. He died on December 16, 1886
Daniels	Charles Daniels	October 7, 1871 to October 4, 1909
Dixon	Joe Dixon	August 30, 1883 to August 31, 1884
Factor	Demdo Factor	February 8, 1878 to January 22, 1883
Factor	Dindie Factor	August 16, 1870 to June 12, 1881
Fay	Adam Fay	August 16, 1870 to August 31, 1884
Fay	Sandy Fay	September 10, 1872 to April 27, 1905
Frausto	Gregorio Frausto	March 3, 1878 to August 31, 1884
Frausto	Quirino Frausto	March 1, 1878 to August 31, 1884
Gordon	Isaac Gordon	December 5, 1873 to January 17, 1887
Grayson	Renty Grayson	October 7, 1871 to July 13, 1893
Griner	Dallas Griner	September 9, 1872 to May 25, 1888
Hall	Morell Hall	September 1, 1875 to August 31, 1884
Hoskins	Thomas Hoskins	December 27, 1883 to August 31, 1884
Jewell	Brady Jewell	March 5, 1877 to August 8, 1882
July	Ben July	September 21, 1882 to January 19, 1907
July	Billy July	May 29, 1884 to January 10, 1913
July	Carolina July	1874 - 1882
July	John July	June 5, 1875 to March 3, 1900
July	Sampson July	March 4, 1875 to May 12, 1884
Kibbetts	Robert Kibbetts	September 16, 1870 to April 26, 1905.
Longorio	Julian Longorio	May 5, 1879 to June 3, 1889.
Longorio	manuel Longorio	May 6, 1880 to January 5, 1886
	Natividad	
Mariscal	Mariscal	September 12, 1876 to May 14, 1884.
Payne	Isaac Payne	October 7, 1871 to January 21, 1901.

Perryman	Isaac Perryman	May 1, 1873 to July 10, 1908.
Perryman	James Perryman	May 1, 1873 to December 25, 1884.
	Pompey	
Perryman	Perryman	February 8, 1878 to March 16, 1894.
Remo	Joe Remo	October 23, 1875 to July 1, 1911
	Archibald	
Shields	Shields	May 14, 1881 to November 4, 1888.
Simmons	George Simmons	August 12, 1872 to August 31, 1884.
Thompson	John Thompson	August 16, 1870 to August 7, 1883.
	Joseph	
Thompson	Thompson	August 2, 1872 to April 28, 1894
	Prymus	
Thompson	Thompson	January 24, 1877 to June 11, 1902.
Ward	John Ward	August 16, 1870 to October 4, 1894.
	Henry	
Washington	Washington	November 20, 1882 to September 25, 1895.
Williams	Bill	1881 - 1907
Wilson	Tony Wilson	October 7, 1871 to December 15, 1882.
Wilson	William Wilson	September 9, 1872 to January 8, 1887.
Woryer	Henry Woryer	December 27, 1882 to December 26, 1884.

Appendix F:



Central Climactic Division Feb - Jun

Extended Chronology of Drought in the San Antonio Area
Revised Report March 30, 2006
Malcolm K. Cleveland, Professor of Geography
Tree-Ring Laboratory, Geosciences Department
University of Arkansas
Fayetteville, AR 72701