The Ever-Changing Bonneville Salt Flats

Fall 2018 Crossroads Chapter presentation report by Steve Allison.

I first met Dr. Brenda Bowen in 2018 at a Geology open house at the University of Utah. She presented her findings on the changing Salt Flats to faculty, students, and visitors (like me). I was fascinated.

Among her many interests she studies the change in the salt flats and graciously agreed to present some of her findings to our Fall 2018 Crossroads Chapter meeting.

Dr. Brenda Bowen

Dr. Bowen is an interdisciplinary geoscientist and Director of the Global Change and Sustainability Center and an Associate Professor of Geology and Geophysics at the University of Utah. She is interested in the links between biology, geochemistry, sedimentology, and human activities in extreme environments.

Lake Bonneville

The Great Salt Lake Desert and the Great Salt Lake (GSL) are what is left of ancient Lake Bonneville which covered a vast area in the Great Basin. About 17,400 years ago, the lake broke through Red Rock Pass in southern Idaho and began to drain creating the Columbia River Gorge. Since then, Lake Bonneville has shrunk to its present size with two remaining prominent features: The Great Salt Lake (red outline) and the Great Salt Lake Desert with the salt flats (blue outline). A rise in the geology separates the GSL from the salt flats and keeps the water in the lake from moving westward onto the salt flats.

To learn more about this ancient flood see:
http://hugefloods.com/Bonneville.html
Over 76 million tons of salt has been removed.

The Salt Flats are Deteriorating

Can they be restored?

For decades various companies have been removing potassium and magnesium from the salt flats. In the process they removed over 76 million tons of salt too. The removal of salt and changing weather conditions have been deteriorating the salt flats. In 1997 the BLM and Reilly Industries, Inc. began a project to pump salt water back into the salt flats in an effort to restore them. Dr. Bowen and her team of researchers have found that the pumping effort has not made much of a difference in the salt flat thickness. [Web Link]

Salt (sodium chloride) is a mineral that is dissolved by water. Over the years the salt flats built up a top crust of salt. In some places it is several feet thick, in other places it is only an inch or two thick. When the Donners first saw the salt flats from the Wasatch Mountains they rejoiced that they would have some flat ground to cover. But when they and others drove their covered wagons with thin, iron-clad wooden wheels across the salt crust and broke through, they soon saw the flat surface as a curse. In some cases, oxen fell through too. Some wagons got stuck and un-stuck (through great effort) only to get stuck again.

Where the salt flats came from

In this video Dr. Bowen describes how the salt flats are continually changing: [Web Link]

The salt flats are the leftover bottom of Lake Bonneville. The GSL is salty because three rivers (Bear, Weber, Jordan) and various creeks flow into it but no water flows out. These tributaries add about 2 million tons of minerals to the lake each year. Because the lake has a such a large surface-area-to-volume ratio, about 2.6 billion gallons of water evaporate from it each day leaving behind minerals, including salt. This evaporation occurs on the salt flats too. After a rain storm small, shallow lakes form on the salt flats. The winds blow these “lakes” around where they can move a mile or more a day.

Water dissolves the salt, thinning the crust. When the temperature rises, evaporation begins. When it is hot in the summer, the crust will transfer the heat into the upper layer of the mud and sediment below and cause the water there to be pulled up and evaporated too. As the water evaporates, the salt crust thickens. This process has been going on for over 10,000 years.

To learn more about salt flats artifacts visit the Donner-Reed Museum in Grantsville, Utah. [Web Link]
Lansford W. Hastings was dead wrong.

It was not a “nigher route”

*Hastings Cutoff* was 125 miles longer and far more difficult for wagons than the Humboldt route.

James Reed was convinced that the Hastings Cutoff was a “nigher route”. Hastings said they could cross the salt flats in a day if they hurried. Most of the wagon companies took at least four days to get across. Once they got to Donner Spring on the western edge of the salt flats, most rested a bit, filled whatever they could carry with water, and went back onto the salt flats to rescue friends, relatives, and livestock and carry whatever they could back to Donner Spring.

In 1846, no wagons from the groups that crossed the salt flats made it all the way across the Sierra Nevada Mountains. Most of those who survived the long trek from the salt flats to west of the Sierras into California, arrived with only the clothes on their backs. Many were starving. The Donners were late in coming and did not make it past Donner Lake before winter set it. The salt crust is dissolving and reforming continually so it is impossible to determine with any accuracy how thick or thin the crust was in 1846. But every group on the salt flats had great difficulty.

Oh, the Mud!

Here is a link to a modern-day story of being stuck on the salt flats:

[https://saltflats.com/stuck.htm](https://saltflats.com/stuck.htm)

“It is very expensive to get a tow out there.”
A Silent Trail

Terry Welch

Even the casual reader of western history will soon develop a feel for what those who trekked west experienced as they dealt with the terrain, provisions, animals, the elements, etc. One trail aspect not often mentioned is that of silence.

The setting for this experience is centered around the east to west trek of John C. Fremont as he crossed the salt desert in 1845—a year before Donner Party’s infamous trek. No one in Fremont’s group nor those he consulted had experienced this desert crossing. This included a local Indian band in Skull Valley. What follows is a brief segment of what was experienced as they were about two days away from Donner Springs. By the way, it was during this trek that Fremont pronounced a mountain top above Donner Springs as Pilot Peak.

“The Salt Desert under a scorching sun is forbidding enough, but the Salt Desert by moonlight is absolutely uncanny. There is neither bush nor tree no blade of grass, there is no sound of bird or insect, there is apparently nothing ahead, nothing behind, nothing to the right not the left. The desert stretches out before, white and interminable, where one seems to be walking on a treadmill, constantly moving yet never arriving anywhere.

Even those hardy explorers, accustomed as they were to the unusual, were affected by the eerie silence. Little wonder then that the Indian who had accompanied them became so frightened that his knees rattled together and he was unable to speak. On account of his terror he was useless as a guide, so Fremont gave him his wages and he vanished into the night like a frightened rabbit, never looking back.” (Salt Desert Trails, Charles Kelley, p. 20)

Emigrant to California

Thomas Rhoades - He went through Utah, on to California, and back to Utah.

Connie Bauer

Thomas Rhoades and his large group of family and friends were with the four known larger groups that traveled through what is now Utah on their way to California in 1846. The Bryant/Russell Party of nine men, all riding mules, was the first of the four to enter Utah and the first to reach California. The Harlan/Young Party was the second group and included the Thomas Rhoades group. Following closely after them was James Mathers and his small family group. The third group was the Lienhard/Hoppe Party which followed close behind the Harlan/Young Party. It is thanks to Heinrich Lienhard’s record-keeping, that we know more about these parties. The fourth group was the Donner-Reed Party.

In 1845, when a copy of The Emigrants’ Guide to Oregon and California (Hastings, 1844) came into George Harlan’s hands, he decided to sell his farm in Michigan and migrate to California. He gathered his family and by the spring of that year the group had reached Westport, Missouri, near Independence.
According to Korns and Morgan (1951), "In Missouri the Harlan company was further enlarged to include Peter L. Wimmer and his family. Wimmer had married Harlan’s daughter, Mary Polly, and although he remarried after her death, taking the widow Elizabeth Jane 'Jennie" Cloud Bays [Biaz, Bayse] as his wife, he remained on good terms with his father-in-law. The addition of the Wimmers and their five children to the Harlan party is the more interesting in that they are said to have been Mormon converts and thus were among the small number of Mormons to see the Salt Lake Valley before Brigham Young had arrived there with his Pioneers."

The memorial page associated with Jennie Wimmer’s grave states that she “is of particular interest because she was perhaps the most instrumental person in starting the California gold rush at Sutter’s Mill. Having panned for gold in Georgia with her brothers, she knew what gold looked like. The nugget her husband Peter Wimmer and James Marshall found was thought to be pyrite [fool’s gold] or mica, but she knew it was gold and tested and verified it in a pot of lye soap” (Find A Grave 2018a).

In his Nebraska History article, Kenneth Davies called Thomas Rhodes the “Forgotten Mormon Pioneer of 1846” (1983). "Also intending to join the overland emigrants was a large Rhoades family group from Crooked River in Ray County, Missouri. It was led by the prolific, aging, and now almost forgotten patriarch Thomas Rhoades. Born July 13, 1796 in Muhlenberg, Kentucky, Rhoades had married Elizabeth Forster and, following service on the western frontier in the War of 1812, moved to east central Illinois in 1820, pioneering in Edgar County. He eventually became involved in surveying and construction of the national pike as it threaded its way toward the Mississippi. Zion's Camp, under the leadership of Mormon Prophet Joseph Smith passed through the area in 1834."

This Mormon (The Church of Jesus Christ of Latter-day Saints) group was on its way from Kirtland, Ohio, to render aid to members of The Church of Jesus Christ in Jackson County, Missouri, on the western frontier. While this group wasn't able to accomplish their goal of providing aid, they evidently opened up missionary work in Illinois.

Rhoades joined the church the following year and shortly thereafter moved to Missouri, where he bought land in the Crooked River area of Ray County. After Missouri Governor Lilburn Boggs issued the Extermination Order in 1838, requiring members of The Church of Jesus Christ of Latter-day Saints to leave the state or be "exterminated". Rhoades was able to remain in Missouri, which is a mystery. Perhaps the fact that he was a reasonably well-to-do slave owner exempted him from having to leave.

The Rhoades family eventually headed west in 1846, crossing the Missouri River at St. Joseph on May 6-7. They feared being persecuted as members of The Church of Jesus Christ of Latter-day Saints, so they sought to remain anonymous as they traveled. After traveling for some time in a company of sixteen wagons, they broke off with their own ten wagons east of Fort Laramie, Wyoming, and caught up to and joined with a thirty-wagon company headed for California. The Rhoades family had arrived at Fort Laramie two weeks ahead of the Donner party. The Rhoades family is not recorded by name in any of the known journals of the day (except for Lienhard’s journal), evidence of their success to remain incognito.
They immediately began working their way through this rugged choke-point

Part of the Rhoades group took the Sublette Cutoff and headed northwest to Fort Hall, Idaho. Others went southwest to Fort Bridger where they would have joined with the Harlan/Young Party, which "was a loosely affiliated group of forty wagons that began to exist after it left Fort Bridger, Wyoming". Latecomers joined between Fort Bridger and the valley of the Great Salt Lake, raising the number to fifty-seven wagons.

This group used the Weber Canyon route, which was the choice of James M. Hudspeth, a Missourian and experienced mountain man working with Lansford W. Hastings. Hudspeth rode back from guiding the Bryant/Russell Party to the mouth of Weber Canyon to convince the Harlan/Young group to follow them down. Hastings was further back to look (sic) after stragglers and by the time he rejoined the Harlan/Young group, they were already well into the canyon. The upper part of the canyon was not bad, but the lower part caused serious difficulties, calling for the use of winches for both animals and wagons at some point" (Topping, 1998).

In his Overland Journal article, Jess Petersen (2018) discussed the 1846 Weber Canyon travels. "It was probably sometime on July 29th that the leading wagons of the Harlan/Young Party reached the Devils Gate Narrows, and it is probably safe to assume that they immediately begin working on ways to get through this rugged choke-point.... It was probably on August 4, 1846, that the Harlan/Young Party finally made it through the Devils Gate Narrows.... It is this author's assumption that it was likely on either the 4th or 5th that the Harlan/Young Party turned south from the mouth of Weber Canyon.... When the Harlan/Young Party left their campsite on August 6th, they continued south along the base of the mountains until they passed an area known as Warm Springs. Shortly after that they turned west and crossed the Jordan River at the site of what would become the North Temple Bridge. But since no one in the Harlan/Young Party left a record, how can we be sure that this was the route they followed?

The Rhoads family joined the small community of New Helvetia, California

We know it because a year later, William Clayton, a member of the first party of Mormon emigrants to enter Salt Lake Valley, found the tracks of the Harlan/Young Party and wrote about it in his diary. From their crossing of the Jordan River the Harlan/Young Party veered a little to the southwest and continued to the northern tip of the Oquirrh Mountains, which are located on the western edge of the Salt Lake Valley....On August 7th they traveled the twelve miles to . . . Adobe Rock in Tooele Valley. Here they made camp next to the spring that can still be found just west of this isolated rock formation. And we know that Hastings was once again with them because it was here that one or two days later James Reed of the Donner/Reed Party caught up with them and requested Hasting's help in finding a road through the Wasatch Mountains. These groups crossed the Salt Flats and eventually connected with the traditional route into California along the Humboldt (Mary's) River. They entered California the first part of October, well in advance of the Donner-Reed party, as did that portion of the Rhoades family going by way of Fort Hall and the Humboldt. When the Rhoads family arrived in California, they joined the small Anglo-Saxon community in John Sutter's New Helvetia with its capital at Sutter's Fort, the future Sacramento.
Two of Thomas' sons, John and Daniel, participated in the heroic but only partially successful attempt to rescue the survivors of the Donner tragedy. The bevy of Rhoades' daughters was a welcome addition to the community where a dearth of women existed. Several of them married prominent bachelors (Davies 1983). Rhoades returned to Utah in the fall of 1848 along with the Mormon Battalion "boys" and others. Amasa Lyman, an apostle in The Church of Jesus Christ of Latter-day Saints, recruited Rhoades to serve as the captain of a train being formed - a gold train to take gold to the struggling pioneer community of Salt Lake City. The 49ers could hardly help wondering why someone would leave the gold diggings of California for the barren wastes of the Great Basin. The receipt of the gold made possible the re-opening of the Mormon mint. Rhoades gave nearly $28,000 in gold dust to Brigham Young to help support the economy of Utah.

[This is Part One of Two. Part Two will continue to follow the life and adventures of Thomas Rhoades.] See References below.

References


Jennie Wimmer Tested Gold in Her Soap Kettle, Anne Dismukes Amerson https://www.geni.com/people/Thomas-Rhoades-1/3932045404090071482 GENi, Thomas Foster Rhoades, 1; Managed by: Louisa Stephens

Last Updated: May 24, 2018
While traveling north along highway 89 between Garden City, UT and Fish Haven, ID one may notice a historical marker on the west side of the road that reads (additions by author):

“The first covered wagons came into the Rocky Mts. in 1830, they made their way as far west as Fort Washakie in Wyoming. Efforts were made to find passable wagon trails through the Mountains to the Pacific Coast, which goal was finally reached (in 1840). At that time the entire northwest Mt. area was known as the Oregon Country, & western travel was either to the “Oregon” or “California” regions. While early maps give the Probable location of the first Oregon Trail north of here, well-marked wagon ruts & stories of Indian & Settlers (of this region) indicate the first wagon migration to Oregon followed the Southwesterly shores of Bear Lake. Leaving this valley through a canyon to the Northwest, (they proceeded) then to the upper reaches of the Bear River. Additional color is given to this belief because this was the site of an important trappers rendezvous as early as 1827, & well marked trails were followed for many years in & out of this valley.”

Historical Summary of the area: Early descriptions of the Bear Lake Valley paint a picture of waters filled with fish and a land overflowing with bear, beaver, deer, and elk. Alfred B. Hart, a resident of Bloomington in 1864 described his hunting and fishing experience: ..."four head of elk was the most I ever killed in one day, and I remember killing nine head of deer in one day...I have captured in my time 109 bear.... Beaver were so numerous that trappers could average four ever day...My fishing and hunting experiences commenced in 1864 by taking a thirteen-pound trout from Bloomington Creek." Early Trappers discovered this same area of prosperity and were instrumental in defining what would later become the Oregon Trail.

- 1812: Joseph Miller may have been the first modern white man to see the Bear Lake Valley. Leaving Henry’s Fort (about 7 miles north of present-day Rexburg, ID) in company with John Hoback, Jacob Rezner, Edward Robinson, and Martin Cass, they moved south along the Snake to the Portneuf River then headed east and discovered the Bear River (which was given the name of “Miller River”). With a good catch of furs they traveled along the east side of the river through Soda Springs and Montpelier, ID and on their way east discovered the South Pass in Wyoming. While trapping along the Missouri River they were robbed twice and they retreated north until they were found almost naked and destitute by the David Stuart expedition who was headed back from Astoria towards St. Louis. Miller joined with them and showed them the South Pass which became part of Stuart’s written report.

- 1819: Donald McKenzie and his men from the Northwest Fur Company became interested in the Bear Lake Area through the reports of David Stuart. McKenzie wrote a note to a friend entitled: Black Bears Lake (September 10, 1819). This is the first record of the name of the lake which was afterwards shortened to Bear Lake. Miller River was renamed Bear River for the same reason. McKenzie and his men became the first white traders in the region. As a result of McKenzie’s success the area became a favorite haunt of the fur men.

- 1827: A trapper’s rendezvous was held on the south shores of Bear Lake, near present day Laketown, UT. Those who attended were notables such as Jedediah Smith, David Jackson, and Milton Sublette with Jim Bridger making his appearance on July 4th.

- 1832: Captain Bonneville with a caravan of 110 men and 20 wagons became the first group to take wagons over South Pass and into the Bear Lake Valley, opening the road that would become the Oregon Trail.

- 1836: The Whitman and Spalding groups came through the valley and with their correspondence and assistance the Oregon Trail became a roadway.
Following established trails from the early trappers and Indians, it has been assumed that the first Oregon Trail crossed into Utah from Wyoming at about the area where the Bear River crosses the border. The trail then went west around the southern end of Bear Lake and through the site of the rendezvous of 1827 at Laketown. It then proceeded north through Garden City and followed along the west side of Bear Lake and into the area between Bennington and Georgetown.

There is no direct evidence that the Spalding-Whitman party took this route. The Diary of Narcissa Whitman mentions specifically that they followed the Bear River and camped at Thomas Fork on 27 July 1836, passed through Soda Springs on 30 July and arrived at Ft. Hall on 3 August. Eliza Spaulding, writing on the same dates makes no mention of the route they followed but concludes that they arrived in Soda Springs on 3 August. Commenting on the journey following their encampment at the Daniel, WY rendezvous site, Drury states the following: The Hudson’s Bay party and the missionaries left the Rendezvous on July 18. The Nez Perces decided to accompany them as far as Fort Hall. On this part of their route, McLeod, McKay, and the missionaries adapted their manner of travel to that of the Indians who were accustomed to make but one camp a day of about fifteen miles. The mixed company of traders, Indians, and missionaries followed a trail that led in a southwesterly direction for about sixty miles to Smith’s Creek in the vicinity of what is now Cokeville, Wyoming. This was reached on July 25...On the twenty-seventh they reached Bear River, ... near what is now Montpelier, Idaho. They arrived at Soda Springs on July 30 and on the third of August they reached Fort Hall.

It seems obvious that further research is needed to verify that a wagon trail actually existed on the west side of Bear Lake and how it came about. It does seem possible that native trails existed in the area, all of which became forerunners of the Oregon Trail.

References
1 Information for this article was taken from: History of Bear Lake Pioneers, compiled by Edith Haddock and Dorothy Hardy Matthews’ Daughters of Utah Pioneers, Bear Lake Co., Id, 1968, ix-xiv; Dr. Russell R. Rich (Professor of History of Religion, BYU), Land of the Sky-Blue Water, 1963, 1-11
3 Wikipedia.org/South Pass
4 Where Wagons Could Go; edited by Clifford Drury, University of Nebraska Press, 1963, 74-75.
5 Ibid, 194-195
6 Ibid. 70
7 Please submit any comments and further insight on this article to the author at williamsdg44@msn.com

Trapper’s Rendezvous site, Bear Lake.
https://www.uen.org/utah_history encyclopedia/a/b/BEAR_LAKE.shtml
Web Link
News from Redlum Spring: The Water!

Who cares about that horrible mud hole in the middle-of-nowhere?

Steven Allison

Maybe some birds, a cow to two, and other middle-of-nowhere creatures care about Redlum Spring, but not us humans. Apparently though, that is not quite true; the Haynes Land and Livestock Company and the BLM care about it.

In November 2018 my grandson Spencer and I rode ATVs from Redlum Spring to the Greyback Mountains and back on the Hastings Cutoff. The BLM has greatly improved the dirt roads across Skull Valley, the access road to Redlum Spring, and up and over Hastings Pass. There is new BLM sign at the top of the pass too. (Very cool).

History and Info

Pioneer journals describe Redlum Spring as being “a salaratus spring” (Skinner, 1850), “attractive to look at” but was so salty the stock would not drink it (Lienhard, 1846), and a spring that should be avoided because it was “not good for cattle or emigrants” (Reed, 1846). In West From Fort Bridger, Schindler, et al, noted that water could be “had in many places here by digging for it.” They also noted that it was sulfur-tainted.

It was the last water hole along the Hastings Cutoff before reaching what became known as Donner Spring, Utah, at the base of Pilot Peak, Nevada, about 80 miles away across the salt flats. There is an excellent historical review by Roy D. Tea located on our Crossroads web site at this link: https://www.utahcrossroadsocta.org/the-hastings-trail-from-grantsville-utah-to-donner-spring-utah

Freemont was at Redlum Spring in 1845. In the summer of 1846 the Bryant-Russell, Harlan-Young, Lienhard, and the Donner-Reed parties were there.

I found a photo of Redlum Spring taken in 1960 at the Utah State Historical Society web site https://collections.lib.utah.edu/ark:/87278/s64x5gwd.

The jeep and the rusted water tank are gone now. The area has looked pretty much the same for the last 15,000 years until recently.

At the National Geophysical Data Center Listings (http://www.hotspringsenthusiast.com/Utah.asp) Redlum Spring is listed as 1 of 116 hot springs in Utah.

“not good for cattle or emigrants”

Geocaching

In more recent times Redlum Spring has been a place for geocaching and bird watching. In the Geocaching community, Redlum Spring has been the site of a cache since at least 2015. One Geocacher found the cache on November, 21, 2015 and posted this picture of the spring. Others found the cache (a small container) in January 2016. But in March of 2017, one explorer looking for the cache could not locate it. In April 2018, another explorer could not locate the cache either. They thought the cache was gone. (Something to get excited about if you care about such
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It also proves that between 2015 and 2018, at least four humans visited Redlum Springs. (https://www.geocaching.com/geocache/GC1GVEH_redlum-springs?guid=2c0744af-7828-4f7b-a289-ecf7131aec65)

**Birdwatching**

It makes sense that one can find a number of bird species at Redlum Spring. On Aug. 27, 2018, Danielle Finlayson observed 12 species at the spring. She saw sparrows, warblers, an oriole, bunting, lark, finch, flycatcher, hawk, and a dove all within a 45-minute period. Her observations may be seen at: https://ebird.org/view/checklist/S48121649

**T Rail Marker**

In 2000, our chapter placed a T-Rail marker on the rise above the spring. Spencer and I took a selfie there on Nov. 15, 2019. Spencer’s comment about the T Rail was, “Why would someone put that thing here?” After I explained the why, who, and how to him, he was about as impressed as a 14-year-old teenager could be. “Cool,” he said.

**Rail Marker info:**

HU-14 Hastings Cutoff – Redlum Spring
N 40° 39.415’ 12 T 0338457
W 112° 54.654’ 4507661
I had read the pioneer accounts of Redlum Spring so I was surprised to find a nice wellhead and a good flow of clean, cool water. Obviously, someone had put underground feeder pipes in the small valleys that feed into Redlum ravine. Those pipes apparently join a main line that leads to a new wellhead. Haynes Land and Livestock Company owns the land allotment and the water project was completed by them in 2018. Here is my depiction of the water pipe layout. (Since I cannot see underground and I left my witching wand at home, this is my best guess.)

Approximate pipe layout – Steve Allison – Google Earth Image

The water flows east out of the canyon across BLM land and then back onto Haynes Land and Livestock Company land again.

In a phone interview with Grant McFarland, the husband of Shirley Haynes, I learned that the water flows from the wellhead about 700 feet into a pond. From there pipes take it 1.5 miles northeast to a cattle trough. Currently they have the water rights to .05 cubic feet per second at Redlum Spring. When they re-worked the spring last year, they were surprised to get 10 to 20 times that flow! They are applying for more flow. And while the water may not be good for domestic use, the cattle drink it freely. It is good stock water. Currently they run about 700 head of cattle in that area. Now the big issue is not water for the cattle, but forage (grass). To increase their herd, they will have to spread the cattle out over a larger area. They have about 54,000 acres of allotment land to use. They need to pipe the water from Redlum Spring to various areas to the northeast and southeast. They are in the early planning stages with the BLM on the future use and development of the valuable Redlum Spring water resource. As yet they do not know how the flow will hold up during the summer months but that may not matter since they move the cattle to their summer range in Summit County.

According to Grant, in order to get an allotment in the desert, you have to have a ‘base land’ summer range. In 1932 the Haynes moved from Salt Lake City to Summit County and purchased 10,000 acres of land. Once they had their base land, they could purchase desert range land allotments to winter their cattle on. Redlum Spring is the only water source in their desert allotments.

In 1914 the Standard Horse and Mule Company bought the allotments and the water rights. In 1932 the Haynes Land and Livestock Company acquired them.
Needless to say, if the pioneers in the 1800’s had had access to this much clean water, perhaps the trek across the salt flats would not have been so arduous.

If you should be in the Redlum Spring neighborhood any time soon and your oxen are thirsty, see if they will take a drink. I did not taste it to see how ‘salaratus’ it may be. If you are brave enough to try it, let me know how it tastes.

Video of the well head flow: [https://www.screencast.com/t/MdCCjYcKj](https://www.screencast.com/t/MdCCjYcKj)

Thank you for reading the Crossroads Chronicle.
Please address any comments to Steve Allison sallison9999@gmail.com

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**Events and Announcements**

- **150 Year Transcontinental Railroad Celebration** – May 8-12 See: [https://spike150.org/](https://spike150.org/) for information.
- **California Trail Interpretive Center Golden Spike 150th Anniversary Events**, Elko, NV. 775-738-1849 [https://www.californiatrailcenter.org](https://www.californiatrailcenter.org)
- **Cache Cave** open to the public, 3rd Saturday, June. We’ll send out an email about our tour there in April.
- **2019 OCTA Convention**, Sept. 3-7m 2019, Santa Fe, New Mexico. [https://www.octa-trails.org/octa-events/september-3-7-2019/](https://www.octa-trails.org/octa-events/september-3-7-2019/)
- **Crossroads Chapter Fall Meeting**: Thursday, Sept. 19th, 6 PM Barbeque. Fort Douglas, U of U
- **Local Trails Tours** listing will be emailed soon.