

## Bear Springs Canal Group Preliminary Field Notes

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Bear Springs is both a major and reliable arid region **artesian** aquifier found on **Arizona State Lands** at **N 32.84969 W 109.94507** that once supported a hippy commune and stock ponds. While understudied to date owing to access issues and priorities, at least three historic canals are associated with this resource.

A key question is whether the known canals have prehistoric precedents. Given that the known prehistoric **Sand Canal** is within a mile and that dozens of proven prehistoric canals are in the reasonably nearby vicinity, it would appear unlikely that such a significantly unique water resource would have been ignored. Yet, definitive age proof still remains lacking.

One good source for Bear Springs info is this historic 1960 USGS map...



The largest of the three Bear Canyon canals disappeared from the topo maps long ago. The historical construct started from artesian sources found near N 32.85158 W 109.93849 and delivered to three ponds near N 32.88968 W 109.91163, over a distance of 5 miles or 8 kilometers.

#### - Bear Springs Group Log 1-



A modern satellite projection of the Bear Springs Canal looks like this...



And a newer topographical map here...



Elevations varied from 3160 down to 2900 feet. The historic construct or rebuild was quite large with a two meter cross section. Construction appeared to involve **Gradeall** class mechanics and clearly was not in the least energy efficient.

- Bear Springs Group Log 2-



This may have been some sort of an investment scam. In that the size of the constructed canal grossly exceeds any apparent possible artesian flow rate.

Approach local "urban lore" history with caution, as at least one source got the south to north terrain directed obvious flow direction backwards.

Portions of the route are hard to follow, owing to abandonment and erosion. The general route is somewhat to the east of an also disuesed 4WD maint track. A northern approach is often more accessible.

While the end cattle tank at **N 32.88968 W 109.91163** included a dam and a spillway, the three pond sizes and arrangement are somewhat suggestive of prehistoric field origins.

The **Bigler Canal** is a second Bear Springs area resource that seems much more likely to include remnant prehistoric technology, size, and energy efficiency.

The Bigler Canal satellite projection looks like this ...



Routing is from N 32.85200 W 109.93843 to N 32.85185 W 109.94869, a distance of 0.6 miles or 1.0 kilometers, with an elevation range of 3180 to 3160 feet. It is sourced by artesian wells and delivers to a pair of Bigler Ponds, one of which is disused.

This canal flows to this day. Portions are remarkably pristine and appear quite compatible with a prehistoric origin. As before, definitive proof of age still remains lacking. This remains a significant Gila Valley artesian resource.

This area might be under residental and possibly condo development and its future status is presently unknown. Access is currently restricted by a locked gate.

The Bigler Canal topo map looks like this ...

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#### **Click for KML**



The **Bear Flat canal** is somewhat further west and can be reached via a rough 4WD track near Bear Springs Knoll. It sources from a single artesian well near N **32.85790 W 109.96120** and appears to deliver to an apparent field found at N **32.85985 W 109.95839** Distance is 0.6 miles or 0.36 kilometers. Eleations range from 3080 to 3070 feet...



### - Bear Springs Group Log 4-



#### With this topo map...



Except for a beginning standpipe and an an ending modern but abandoned structure, the canal route appears apparently unmodified from a candidate prehistoric origin. Energy efficiency and 30 cm width and lack of significant historic improvements seem as expected.

The canal was recently flowing, but since has become subject to extreme drought and water table conditions.

There are huge and highly enigmatic areas northeast of the Bear Flat Canal suggestive of long failed ag ventures, probably owing to dramatically lowered water tables. Acme Mapper shows several possible traces that could be either cowpaths or canal routes that may or may not have prehistoric origins. One typical example can be found at N 32.89546 W 109.93751.

This entire area seems suitable for drone or ATV survey and definitely merits new study. Climatic reconstruction is another possibility.

More Hanging Canal Resources: http://www.tinaja.com/tinsamp1.shtml New Hanging Canal Developments: http://www.tinaja.com/whtnu17.shtml



Some observed features of the prehistoric Bear Springs area canals include...

N 32.81496 W 109.84920	Main artesian area and one time commune.
N 32.85875 W 109.93513	Typical canal and maint road routing.
N 32.85875 W 109.93513	Continuance of canal and maint road.
N 32.88931 W 109.91178	Triple destination ponds and possible fields.
N 32.81496 W 109.84920	Start of Bigler Canal in artesian area.
N 32.85168 W 109.94259	Water route simply goes down the road here.
N 32.85061 W 109.94605	Mid reach of Bigler Canal.
N 32.85190 W 109.94840	Bigler ponds destination.
N 32.85790 W 109.96120	Bear Flat canal artesian standpipe source.
N 32.85880 W 109.96025	Mid reach of Bear Flat canal.
N 32.85985 W 109.95839	Possible Bear Flat destination field.

Further Bear Springs area work might include...

- 1 Resolve access road and visitation issues.
- 2 Droning, videotaping, and photos of the known explored portion.
- **3** Expand search for prehistoric evidence.
- 4 Explore historical records for ownership and use.
- 5 Seek out distribution of potsherds and other cultural evidence.
- 6 Evaluate drought and climatic issues.
- 7 Use drone or ATV to explore northern ag sites.

You can click through on the above images to directly reach **Acme Mapper** at a higher resolution.

A hanging canal directory can be found **here** and its sourcecode **here**.

This field note is associated with directory **#60 BSC1 Bear Springs Canal**.

This document can be found here and its sourcecode here.



- Bear Springs Group Log 7-