

Frye Complex Bajada Hanging Canal Preliminary Field Notes

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Evidence is accumulating (but by no means yet proven) that an incredibly sophisticated prehistoric canal water **pre-distribution system** existed in the lower Frye Mesa area of Frye Creek. At present, water is thought to be diverted from Frye Creek above the falls near **N 32.74352 W 109.83988** and then be **watershed crossed** to merge with a then presumably large spring in Spring Canyon that is near **N 32.74565 W 109.84043...**



The Frye Complex portion of the canal delivery system is approximately 3 miles or 5 kilometers long with elevations ranging from 5800 down to 4200 feet, but not counting the selectable routing continuances of the **Robinson Canal**, or of the **Allen Canal**, and the **HS Canal**. These required slopes are far in excess of typical individual single canals lower in the hanging **bajada** canals system.

We note in passing that one spectacular and highly sophisticated watershed crossing elsewhere in the **hanging canal** system is credibly proven on the **Mud Springs Canal** at **N 32.79167 W 109.85378**, and another yet unproven one might exist at **N 32.77770 W 109.95548**.

Combining water with the spring in Spring Canyon could possibly have been intentionally diverted down the unimproved Spring Canyon channel to the Allen Canal tekein at N 32.78239 W 109.83549. No other reasonable Allen Canal potential reliable perennial water resource is presently known.

Alternately, the water could be selectively routed along upper Frye Mesa mostly east of the Frye Falls Road at N 32.74653 W 109.83909 to just south of the Frye Reservoir turnoff at N 32.75529 W 109.83532. At present, there is an active CNF Coronodo National Forest pipeline following this route and delivering to a tank found at N 32.75694 W 109.83482. This pipeline is felt to be one of many historic "steal the plans" or "borrow the blueprints" adaptions of prehistoric canal routes in the area.

The prehistoric Frey Mesa canal route is then believed to make an easterly turn, following a route along the extreme edge of the mesa to a pond or ponding area believed to be at N 32.75998 W 109.81156. There typically are numerous braided channels, such as at N 32.75954 W 109.81626.

Also typically, there appears to be significant **CCC** rework in the area. An example is found at **N 32.75855 W 109.81970**. Often, the prehistoric portions are believed to be **along channel**, while the CCC projects are short **cross channel** barriers. There are also apparently unrelated CCC water spreader projects in the area.

Another characteristic of this routing might be called **knife edging**. Where the canal is placed as near to the edge of a sloping mesa as possible in an attempt to preserve the absolutely required **unvaringly constant slope**. Other examples of knife edging appear on the **Deadman** and **Deadman East** canals.

Water from the ponding or diversion area can be routed east to the **Robinson**Canal or south to the spectacular **HS Canal**. While this beginning portion of the Robinson Canal has not yet been verified, it is rather clear on **Acme Mapper**, complete with **text callouts**.

The **HS Canal** is perhaps the most impressive in the system and quite possibly involves the most construction energy and the most rock rearrangement. Its significance is considered a "lifetime find" by one of the researchers. The HS Canal along with its companion **Aquaduct** and the **Culebra Cut** on the **Allen Canal**, represent by far the three most energy- and time-intense portions of the known canal system.

The HS Canal begins at N 32.75998 W 109.81156 and ends around N 32.75783 W 109.81510W, with 130 feet of steeply dropping elevations from 4304 feet to 4174 feet. It is quite large, being two meters wide and two meters deep. It is also exceptionally steep. Its obvious purpose seems to be to very carefully and very precisely return any remaining water unused by the Allen Canal and by the Robinson Canal to the Frye Creek drainage. There is no reasonable doubt that an exceptional amount time and energy has gone into this superb construct.

While the ultimate destinations for the HS canal remain unproven, candidates include local fields, the **Golf Course Canal**, the **Riggs Mesa** braids, the **Freeman Canal**, the **Lower Frye Construct** and some **Blue Pond** routings still under study.

The HS Canal is the strongest known example of **counterflowing**. In which the downslope aspect of the canal is intentionally routed **into** rising topography. On other canals in the system, minor counterflowing is occasionally used to ease the crossing of a wash. The intent and purpose here still remains unproven. Although counterflowing might ease the required slope or make additional bottomland fields available.

The Frye Mesa complex is located on **Coronado National Forest** and on **Arizona State Lands**.

One credible reason for returning the Frye Creek water might be that this Frye Mesa Complex seems to have diverted Frye Creek water from N 32.74359 W 109.83987 as previously noted. The Frye Creek bottom lands seem very much topographically unfavorable for other routings between N 32.74359 W 109.83987 and N 32.75724 W 109.81521. Also, should the spring in Spring Canyon be the only Frye Complex perennial source, it would appear to require an exceptional amount of reliable water flow.

At of this writing, the watershed crossing and Spring Canyon diversion still remain unproven, as does the precise routing near the Frye Falls Road. Owing primarily to difficult access and time spent on other system priorities. But **the compelling and undeniable presence of the HS Canal seems to demand an identical or else an unresolved and comparably sophisticated initial water source**.

The apparent complexity of the Lower Frye Mesa construct strongly suggest a management scheduling infrastructure orders of magnitude beyond the simple building and use of independent highly engineered bajada hanging canals. And thus appears to at least one the researchers to be truly unique and world class.

Some observed features of the Frye Mesa Complex include...

N 32.74359 W 109.83987	Possible Frye Creek diversion.
N 32.74541 W 109.83946	Mid route on possible watershed crossing.
N 32.74563 W 109.84045	Spring in Spring Canyon.
N 32.74563 W 109.84045	Start of raw diversion for Allen Canal water.
N 32.75034 W 109.83899	Possible route down Frye Falls Road.
N 32.75355 W 109.83709	Unchecked possible canal route.
N 32.75694 W 109.83482	Forest service tank believed historic adaption.



Continuing observed Frye Mesa Complex features...

N 32.75954 W 109.81626	Typical braided channels.
N 32.75776 W 109.82855	Examples of apparent CCC rework.
N 32.75793 W 109.82246	A possible "knife edging" example.
N 32.75998 W 109.81156	Pond or ponding area for diversion.
N 32.75985 W 109.80973	Start of Robinson Canal.
N 32.76165 W 109.80173	Well marked Robinson Canal continuance.
N 32.75998 W 109.81156	Start of HS Canal.
N 32.75927 W 109.81309	Mid reach of HS Canal.

Further Frye Mesa Complex work might include...

- 1 Verify possibility and actuality of above falls watershed diversion.
- **2** Droning, videotaping, and more photos of the known portions.
- **3** Secure additional evidence of sub Frye Mesa Falls road routing.
- **4** Tie in with CNF historians over pipeline route and history.

N 32.75783 W 109.81510 Delivery end of HS Canal.

- **5** Seek out distribution of potsherds and other cultural evidence.
- **6** Evaluate prehistoric water flow rate issues.
- **7** Determine HS Canal destinations, especially the **Golf Course**.
- **8** Seek stronger proof of HS Canal water source.
- **9** Find additional evidence for more speculative observations.





HSCAN1_MAP – This close up image of the HS Canal reveals its extreme construction effort and exceptionally superb engineering. Apparently every effort was made to return unused water to the original Frye Creek channel to service several additional canals downstream. Centered on N 32.75927 W 109.81309.

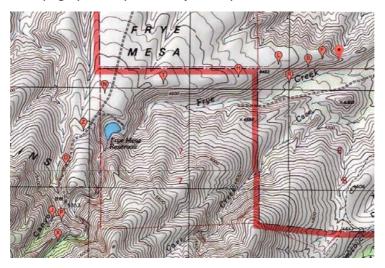
More Hanging Canal Resources: http://www.tinaja.com/tinsamp1.shtml New Hanging Canal Developments: http://www.tinaja.com/whtnu16.shtml







Here is a topographic map of the Frye Complex Canals...



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 #20 FMC1 Frye Mesa Complex.

This document can be found here and its sourcecode here..