

**APPLICATION FOR PERMIT
NO. 74-16008
LYNN HERBST**

**PHOTOGRAPHS FROM FIELD VISIT ON
JULY 29, 2014
ROB HARRIS**



L-31 DIVERSION (LEMHI RIVER IN THE BACKGROUND)

This diversion is west of Highway 28.



L-31 DITCH JUST BELOW HEADGATE



Measuring Device After L-31 Goes Under Highway



Staff Gage

At .7 on the staff gage, the rating chart shows an amount of 9.8 cfs.

This amount includes the L-31 water and some reach gains upstream of the gage from springs on the Herbst property and just south of it.



Reach Gains Just Above Measuring Device



Looking back towards Highway 28 from Measuring Device

See following slide. Elevation at this location does not appear to support possibility that the spring flows returned to the Lemhi River at this location.

THE GILMORE AND PITTSBURGH RAILROAD

by Lyle Longhurst

At the turn of the century transportation in Lemhi County left a lot to be desired. Although the automobile had been invented, no one could predict the future of cars and trucks. Water transportation was non-existent. Freight wagons could cover ten to fifteen miles in a day. It was a two day ride on a stage coach over Lemhi Pass to Armistead. Better and faster transportation was of prime importance if the area was ever to develop. The only answer was rail transportation. The G&P appeared to be the answer, and served the Lemhi and Salmon River valleys for thirty years.

The Union Pacific and Central Pacific joined tracks at Promontory Point, Utah, to complete the first transcontinental railroad on May 10, 1869. The first railroad in Idaho began as the Utah Northern in 1874. It became the Oregon Short Line, a subsidiary of the Union Pacific. The Oregon Short Line was completed from Salt Lake City to Butte, Montana in 1881. In 1884 the OS&N completed a line across southern Idaho. The Great Northern completed its transcontinental line across northern Idaho in 1883, followed by the Chicago, Burlington & Quincy in 1884, and the Chicago, Milwaukee & St. Paul in 1899. By the early 1900's four transcontinental railroads crossed Idaho. But Central Idaho was still without a railroad. For a time there was a frantic race to see who would be the lucky concern to build a railroad into the area. Surveyors swarmed over all of Central Idaho.

The winners of this struggle incorporated in 1907 as the Gilmore and Pittsburgh Railroad company. Corporate officials were W. A. McCutcheon, President, Thornton, Pennsylvania, from Pittsburgh, Pennsylvania were R. B. Little Vice President, J. H. Crehan, Secretary, and C. H. McCracken Director. W. F. Stone was the Director from Gilmore, Idaho.

McCutcheon owned 696 shares in the in the corporation and the other four men each owned one share. It was McCutcheon who financed the building of the G&P until the Northern Pacific loaned the G&P four million and put up other monies from time to time to help cover expenses.

Construction began in 1909. The original line ran from Armistead, Montana to Leadore, with one branch to Salmon and another to Gilmore. In addition to this original line, they planned many more miles of track.

The most impressive of their plans was a line from Salmon down the Salmon River to Riggins and on to Lewiston and the west coast. A branch from this line was to run through Dixie, Elk City and Stites to Lewiston. Just below Riggins there is only seven miles separating the Salmon and Snake Rivers, but the Salmon is about four hundred feet above the Snake. Plans and surveys were made for a tunnel from the Salmon to the Snake. Water flowing through this tunnel would power a large power plant to operate the train on its

run from Salmon to Riggins.

From Salmon, a branch was planned to run up the Salmon River to Stanley Basin. From there it would continue on to Boise. A branch of this line was to run up Morgan Creek and down Panther Creek to the Salmon River and join the line going down the river. Another branch was to run up the Pahsimeroi, and down the Lost River to join the Boise line. A branch was planned to leave Leadore and, utilizing a long tunnel, cross the mountains to the Pahsimeroi Valley and join the line coming up the valley. From North Fork a branch was planned to go over the mountains to the Big Hole and join the line coming from Horse Prairie. Most of the above mentioned track was surveyed and tied with the State of Idaho. Many other branches in southern Idaho and Montana were planned, and others were planned but never completely surveyed.

The railroad arrived in Salmon in April 1910, and an impressive golden spike ceremony celebrated its coming. The honor of driving the golden spike was given to Frank Sharkey, one of the discoverers of Leadore.

There were great expectations for growth in the area with the coming of the railroad. The mining industry



The Salmon railroad line (where the highway is now located) was completed in 1910. It does not appear that the spring gains that run into L-31 originally went back to the Lemhi River, and even if they may have, the spring flows have not returned back to the Lemhi River (other than through Agency Creek) for over 100 years.



Small Spring Channel Feeding into L-31 Ditch



Private Springs and Ponds on Herbst Property



Another View of Private Springs/Pond



Another Spring Channel (reach gains) running into L-31



More Springs flowing into L-31



More Springs flowing into L-31



Reach Gains Bubbling Up



Flows in L-31 now with Spring Reach Gains

We observed a significant increase in flow.



Check Dam on L-31 for Diversion Into Lateral



Seepage Springs/Wastewater near Check Dam



More Seepage running down to L-31



Springs Behind Foliage

You could barely see the springs, but you could definitely hear them.



Irrigation on Bench Above Check Dam Area

Return flows from this irrigation appear to contribute to flows in L-31.



Water Coming Onto Property from L-31A Ditch

Waste water from this diversion also feeds L-31 flows.

Sandhill cranes are on the right portion of the photo.



Continuing Down L-31 Ditch



Location of Water Flow Measurement

Rob Harris conducted a “quick” flow measurement. Ditch was estimated to be approximate 9 feet wide and 2.5 feet deep. A leaf traveled 10 feet in 9 seconds. Based on these criteria, the flow was estimated to be approximately **25 cfs** (9 ft X 2.5 ft X 1.11 ft/sec).



**Slide check just downstream from “quick”
measurement spot**

There is a check slide—this could be used as a measurement location for a staff gage or other measuring device to determine reach gains.



Looking upstream from check slide



Check slide is just east of a sign on Highway 28

The road is Viola Lane



Just down from check slide, there is a culvert. This photo is looking north.

This culvert could be a place where a measuring device could be placed.



Looking south at the same culvert.

L-31 +
REACH
GAINS



AGENCY
CREEK

Herbst Diversion. Agency Creek water coming in on the right, and L-31 water + reach gains on the left.



Herbst Headgate

AGENCY
CREEK



L-31 +
REACH
GAINS

**Looking upstream from the Herbst diversion.
Agency Creek water coming in on the left, L-31 +
reach gains on the right.**



Looking downstream at Agency Creek at Herbst diversion.



Looking upstream from Agency Creek at Herbst Diversion



Looking downstream from Herbst Diversion towards fish screen



Culvert under berm with water flowing toward fish screen.



Fish Screen

There is a 10" return pipe back to Agency Creek/Lemhi River (I can't remember exactly which one) at this fish screen.



Fish Screen



Looking up L-31 towards Herbst headgate



**Culvert downstream from fish screen.
Water seen here by Rick Sager is what raised complaints
from him.**

Road in background is Tendoy Lane.



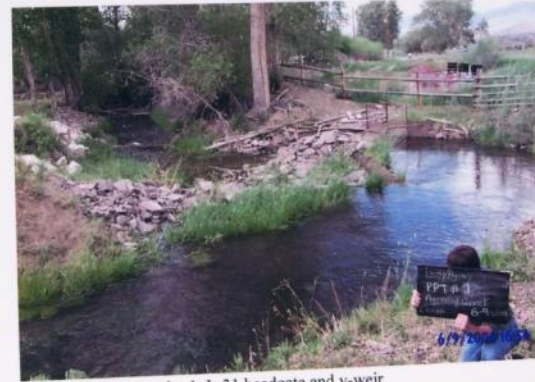
Water in Agency Creek Upstream from Herbst Headgate



June 1997. Preproject Photopoint 1. L-31 headgate and diversion structure.



May 2001. Photopoint 1. L-31 headgate and v-weir.



Before/After Pictures of L-31/Agency Creek Junction Prior to Fish Screen Work