

MEMORANDUM

To: AJ files 29-4088, 29-11312, 29-11313
Permit file 29-7437

Fr: Bryce Contor

Date: 7/26/01

Re: Physical operation of system.

Based on field inspection and interview w/ Mr. Norm Self, done on 7/20/01 by me, accompanied by Mr. Self and Bob Willey of Simplot Co. and Tribal Engineer Elise Tetou of Shoshone-Bannock Tribes, the claimed POC on attached contractor lay out is correct. Mr Self did not reference any use in New 1/4 of 8, as claimed in 29-11313. I neglected to ask; this was not on my list of questions I had prepared.

There is a 200 hp pump in a sump, located approx. as shown on attached map. I took a GPS reading but the download failed. Theoretical Capacity is calculated later in this memo.

Sump is supplied by a 12" line from plant

Under Post-1987 ~~AF~~ ~~map~~ WR permit 29-7437. Contributions to sump are measured by Krohne mag meter & data-logger @ sump and used in calculating charges from city of Pocatello, as this is a deduction from waste stream that otherwise would be treated by the city.

Sump also receives water from slough. This can include spring water claimed under 29-11312 and Portneuf River water diverted into slough, upstream.

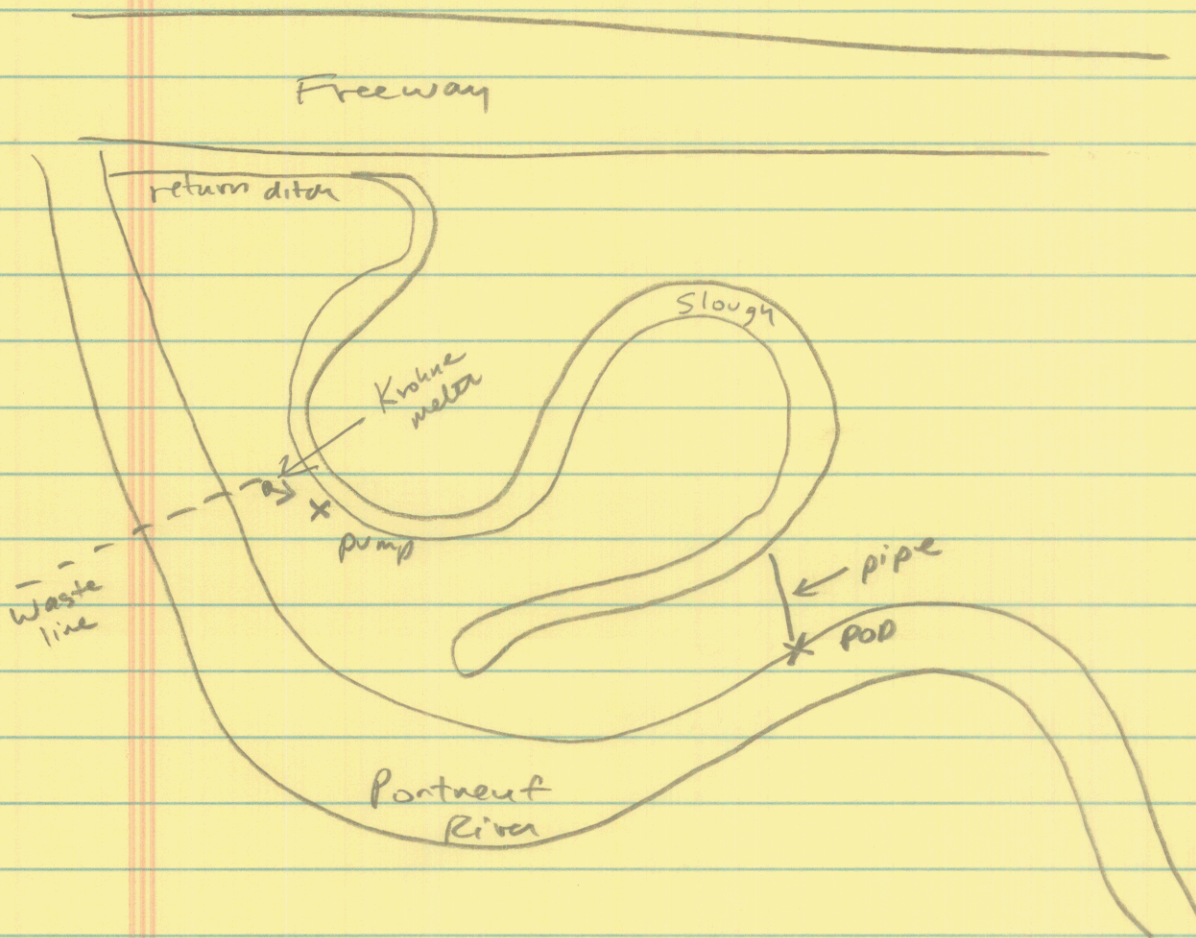
Slough has return flow to river on North. Spring-water contribution could be quantified by measuring this return flow after sufficient period of no pumping and no diversion to slough.

Portneuf river diversion is approximately as located on map. Water flows through pipe to slough, GPS reading and photo were taken at slough end of pipe but download of GPS failed. Slough conveys water around to sump.

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This schematic sketch (not to scale)
describes operation:



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Theoretical Calculations

KW demand on meter = 3.92

CT coils appeared to be "200;" assume multiplier = $200/5 = 40$

Demand then = $3.92 \times 40 = 157$ KW. This is reasonable for 200-hp motor.

Observed discharge was 95 psi (lower gage) but only 33 birds were running. Assume more typical discharge ≈ 60 psi.

Assume efficiency (wire-to-water) = 60% per Kielstrom study. Assume 5 ft lift, 15 feet friction.

$$TDH = (5 + 15 + 2.31 \times 60) \approx 158 \text{ ft}$$

$$\text{Water hp} = 157 \text{ KW} \times 1.34 \times 60\% \approx 126 \text{ hp}$$

$$\text{GPM} = \frac{\text{Water hp} \times 3960}{TDH} = \frac{126 \times 3960}{158} = 3180 \text{ GPM}$$

$$\approx 7 \text{ cfs}$$

Bae 7/21/01

Water Right Claim Number A29-04088
Township , 6S34E

09/20/2000



 Irrigated Area

 Place of Diversion

 Section Line

 Quarter Section Line

 Roads

 Streams and Canals

Legend

