

# Bunker Hill & Sullivan Mining & Concentrating Company.

MINES AND WORKS AT WARDNER, IDAHO.

REED TUNNEL WATER.

POSTOFFICE ADDRESS,

KELLOGG, IDAHO,

Nov. 22nd, 1899.

F. W. Bradley, Esq., President,  
Bunker Hill & Sullivan Mining & Concentrating Co.  
Crocker Building, San Francisco, California.

Dear Sir,-

I have your letter of 20th inst. from Portland in regard to the Reed Tunnel water; also received your telegram of 19th. Folsom came up on Monday, and together we prepared affidavits which were sent by yesterday's mail to Judge McBride at Boise. The affidavits were four in number. Two being by Joseph Klever and Jack Keeley stating in substance that they have been familiar with the source of the supply of water used by us and by the Last Chance Company for a number of years past; that they know the amount of water which flowed out of the Reed Tunnel into the Last Chance Company's flume in 1891, and that at no time since has that quantity been diminished. After they identified the water flowing to the Last Chance, we measured it, and found it to be 12 cubic feet per minute, and we had this embraced in Keeley's affidavit. We also measured the total quantity of water from the tunnel, and found it to be 91 cubic feet per minute. Burch made an affidavit reciting the fact that he is familiar with the sources of supply etc., and that he knows of his own knowledge that in the general course of our mining operations, a considerable quantity of percolating water has been developed in the mine workings. That this water comes from the vein and country rock in the workings of the company at places distant from Milo Creek. That the water is percolating water, and is developed incidentally in the general course of mining development, and is not developed as the result of labor directly to the end that a larger supply of water be produced. That

F.W.B.#2. R.T.Water.

the water coming from the said workings runs out of the Reed Tunnel, and at the mouth thereof amounts, at the present time, to 91 cubic feet per minute. That this quantity is being constantly increased as the mine development is extended. That the water so developed is discharged at the mouth of the Reed Tunnel into two flumes, one leading to the Last Chance concentrator, and the other leading to the wheel in the machine shop of the Bunker Hill & Sullivan M. & C. Co.. That the amount of water diverted to the flume leading to the Last Chance concentrator amounts, at the present time, to 24 cubic feet per minute. That the remainder of the water discharged at the mouth of the Reed Tunnel, amounting, at the present time, to 67 cubic feet per minute, is conveyed to the machine shop. That the amount of water flowing from the Reed Tunnel into the Last Chance flume at the time he became familiar with the use of the water of Milo Creek has never been decreased, but at the present time the amount of water flowing into the Last Chance Company's flume exceeds that which flowed therein heretofore by twelve cubic feet per minute, for the reason that the Bunker Hill & Sullivan Co. is temporarily diverting water from Milo creek, above the Last Chance flume, for use upon its compressor, the amount so diverted being twelve cubic feet per minute, and the excess amount allowed temporarily to flow from the Reed Tunnel into the Last Chance flume, is equal to the amount temporarily diverted from Milo Creek, and is intended to compensate the Last Chance Company for the use of the water so diverted. But this diversion is temporary, and is necessitated by the destruction of the machinery of the Bunker Hill Co. on April 29th last, and that the said diversion will continue but a few weeks longer. That such diversion does not injure the Last Chance Co. by reason of the fact that the Bunker Hill Co. replaces the water so diverted by allowing an equal amount to flow from the Reed Tunnel in excess of that to which the Last Chance Co. is entitled from said source.

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It may seem that this affidavit is unnecessarily encumbered with this explanation of the diversion of water from Milo Creek by us, and its replacing by other water from the Reed Tunnel, but in discussing it with Folsom, we concluded that it would be wiser to show this, because, in the contempt proceedings, reference was made to water escaping from our works below the Last Chance flume, apart from the water coming from the machine shop wheel, and it appeared to mistify the Court somewhat. We concluded therefore that the best plan to adopt was to make a full explanation of all the circumstances. I also made an affidavit reciting the fact that in 1891 suit was brought by the Last Chance Co. to enjoin us from diverting the water of Milo Creek in such a manner as to carry the water past the mouth of their flume. That the case was tried on an agreed statement of facts, and decision was entered in favor of the Last Chance Co. That in obedience to said decree, we have at all times since it was made, allowed to flow from the Reed Tunnel into the Last Chance flume an amount of water equal to the amount which was flowing from the tunnel at that time, and that that amount did not exceed 12 cubic feet per minute. That since the time of said decree, we have, in the general course of our mining operations, developed a large quantity of water. That said water is percolating water, and has its source in the vein and country rock at places far distant from Milo Creek. That no work has been done, or is being done, for the purpose of developing water, but the water is produced as the natural result of the development of the mine. That the flow of water from the Reed Tunnel at the present time exceeds the flow at the time of the decree by 79 cubic feet per minute, and is constantly increasing as the mines are further developed. That this water in excess of the amount flowing from the tunnel in 1891 is conveyed by us to our machine shop for use upon a Pelton wheel; thence it is conveyed through the Brake Station flume to a point in the town of Wardner, and by

another flume in the course of construction, it is to be conveyed to the concentrator of the Bunker Hill & Sullivan M. & C. Co. on the south fork of the Coeur d'Alene river. That all of the water so used at the machine shop is developed in the mine workings of the Bunker Hill & Sullivan Co., and no part thereof flows from or in the natural channel of Milo Creek. I also explained the fact that we are allowing an extra quantity of water to flow to the Last Chance flume at the present time as compensation for the water taken from the Creek by us in the same way as in Burch's affidavit. I also explained the error in the testimony in the contempt proceedings as due to a confusion in the use of the terms "Inch" and "Miners Inch" by the person who measured the water before such testimony was given. That the statements made in the affidavit as to the total amount of water flowing from the Reed Tunnel at the present time, and as to the amount of such water flowing through the flumes leading to the Last Chance flume and to our machine shop, are correct, and were obtained by actual measurements. A plat is attached to my affidavit showing the relative positions of the various points involved in the controversy. I think these affidavits should be amply sufficient to prevent the issuance of an injunction, and when the case comes to trial on its merits, as I presume it will shortly do, the same parties will testify on substantially the same lines, and if it should be thought necessary, we can get a few more of the old timers who are with us, to testify as to the quantity of water which flowed from the Reed Tunnel in 1891. I do not think that this is the important point, however, as the other side has admitted that the quantity flowing from the Reed tunnel at that time was very small, and they seek now to get possession of the additional water developed by us since 1891. It seems to me that the all important point in connection with that is to show

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that the water is percolating water, and that our workings have not tapped the creek in the sense of having made a connection by raise, or otherwise, to the bed of the Creek. I anticipate that the application for injunction will be denied, and as soon as McBride returns, we shall be in possession of the complaint and affidavits made by the other side, and shall know just what points we have to meet. In the meantime I shall procure certified copies of the various water right locations involved in the controversy.

Yours truly,

*Edw. Purbridge*

November 21st, 1899.

REED TUNNEL WATER.

Quantity flowing to Last Chance flume from Reed Tunnel, and identified by Klever and Keeley as being the same quantity which flowed to Last Chance in 1891-2 = 12 cubic feet per minute or 8 miners inches.

Above water flowed through an opening  $1\frac{1}{2}$ " x 10" under  $12\text{-}5\frac{5}{8}$ " head.

Quantity allowed to flow to Last Chance temporarily=twice the above; = 24 cubic feet per minute, or 16 miners inches; flowing through opening 1" x 10" under a head of  $12\text{-}5\frac{5}{8}$ ".

The excess quantity allowed to flow now, above the quantity flowing in 1891-2 = 12 cubic feet per minute, and such excess is intended to compensate the Last Chance Company for an equal quantity of water taken from Mile Creek by us, temporarily, for use on our compressor. This use will stop in a few weeks when the new compressor is in operation.

Total quantity flowing from Reed Tunnel at this date = 91 cubic feet per minute, or say 60 to 61 miners inches. Measurements in flume D to machine shop = 12" wide, 9" deep (average), velocity of flow 100 feet in 71 seconds = 67 cubic feet per minute.

Total flow from Tunnel.....	91	cubic feet per minute.				
Due Last Chance Co. by decree.....	12	"	"	"	"	"
Balance due Bunker Hill Co.....	79	"	"	"	"	"
Amount allowed L.C. temporarily as compensation.....	12	"	"	"	"	"
Amount at present going to B.H. & S machine shop F by flume D.....	67	"	"	"	"	"