2190 Box 78

30

Item 77

WISCONSIN ZINC COMPANY

EASTERN OFFICE 55 CONGRESS ST. BOSTON

H. S. KIMBALL, PRESIDENT
F. KROG, VICE-PRES.
F. W. ROGERS, VICE-PRES.

MINES
EMPIRE, ACME, ROYAL, MITCHELL HOLLOW

S. E. FARWELL, TREASURER
C. E. SHEARER, ASST. TREAS.
F. W. BATCHELDER, SECRETARY

C. W. LANDRUM, GEN. MGR.

PLATTEVILLE, WIS. Oct. 10, 190[illegible].

536

Mr. W. G. Swart,

Denver, Colo.

My dear Swart:

Recent references have been made in a number of instances to a deposit of zinc carbonate ores near Good Springs, Nevada. Do you know anything about this ore and if not, can you find out anything for me? A recent reference was made to this deposit in the Sunday edition of the Joplin Globe of October 4th, and again in the Mining World, edition of October 10th.

Yours truly,

H S Kimball

HSK-H

File Under H 55
Subject Good Springs

Asked Busch Nov. 3
Says he doesn't know.

Copy for W. G. S.

Los Angeles, Cal. March 17, 1911.

536

File Under
Subject

Huff Electrostatic Separator Co.,

60 India St., Boston.

Dear Sirs:-

Please inform me if your separator will separate chalcopyrite from zinc blende. If you have any data on such separations showing assay of the ore separated and assay of each product obtained, I would be pleased to have same.

If you are satisfied it can be done, please give me price on an apparatus that will handle 15 tons of such concentrate per 24 hours. The assay of concentrates averages 14% Cu. and 33% Zn.

Yours very truly,

(Signed) G. A. Overstrom

507 Eugene Germain Bldg.,
Los Angeles, California.

COPY

COPY

Platteville, Wis.,

To

March 28, 1911.

Mr. C. O. Overstrom,

507 Eugene Germain Bldg.,

Los Angeles, Cal.

Dear Sir:-

Your favor of the 17th inst. to the Huff Company of Boston, Mass., and their reply of the 23rd has been referred to our Company. We are pleased to say that our separators make an excellent separation of chalco-pyrite from zinc blende. We are enclosing test covering this class of ore, in which you will see the separation made on chalco-pyrite from blende; also separation made at the same time on other minerals.

We note what you say in regard to handling 15 tons a day and would state that it is difficult to state any price for separation to obtain this result, without first knowing something about your ore, in regard to what sizes it will make, or in other words, how fine your concentrates are. In order to overcome this difficulty, it will be necessary for us to receive a sample, about 25 lbs., of your concentrates. As soon as this sample is received, we will proceed immediately to test out the same and will render you a report similar to the one we are enclosing.

At that time we will be in a much better position to give you

COPY

Platteville, Wis.,

To Mr. G. O. Overstrom - [illegible] March 28, 1911.

data on what machines you will require and the cost of same.

Hoping to receive your sample at an early date, we beg to remain

Yours very truly,

AMERICAN WIRE ARMORING CO.

HRL-OD

G. A. OVERSTROM
CONSULTING ENGINEER
MINING AND ORE DRESSING
507 EUGENE GERMAIN BLDG.

File Under: Gen

LOS ANGELES, CAL., Aug 29 1911.

Mr. W. G. Swart E.M.
1118 Foster Bldg
Denver Colo.

RETURN TO
W. G. SWART
DENVER, COLO.

Dear Sir.

A week ago went up to Good-springs to see how classifier and tables were doing. The classifier is doing remarkable work and so are the tables. Especially are the slime tables a revelation. The mill is working fine except the 20 mesh impact screen which does not have capacity.

R.R. from mine to mill is not yet finished so mill is only working 1 shift pr day.

I am more confident than ever that I have solved one of the problems in wet concentration.

G. A. OVERSTROM
CONSULTING ENGINEER
MINING AND ORE DRESSING
506 EUGENE GERMAIN BLDG.

LOS ANGELES, CAL., ... 19.....

If you know of any mills that need good classification and tables to suit the problem on hand please let me know. You need not hesitate for a minute to recommend them. I think Y. P. M. Co will testify to the same I have been telling you.

very truly yours.

G. A. Overstrom.

YELLOW PINE. GOOD SPRINGS, NEVADA.

August 30th, 1911. 196.

Owned by the Yellow Pine Mining Company. J. F. Kent Manager and largest stockholder.

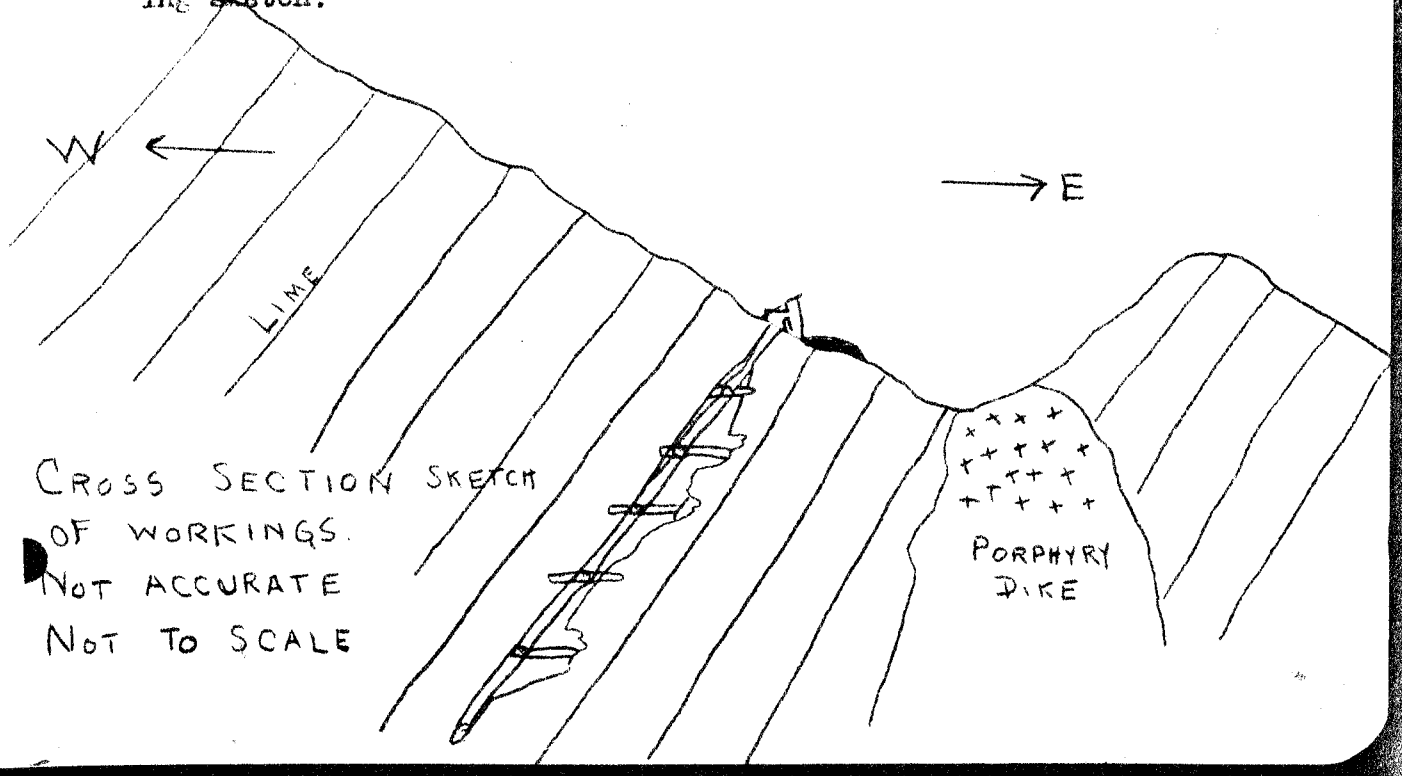
About four miles North and West of Good Springs and 12 miles from Jean station on Salt Lake road.

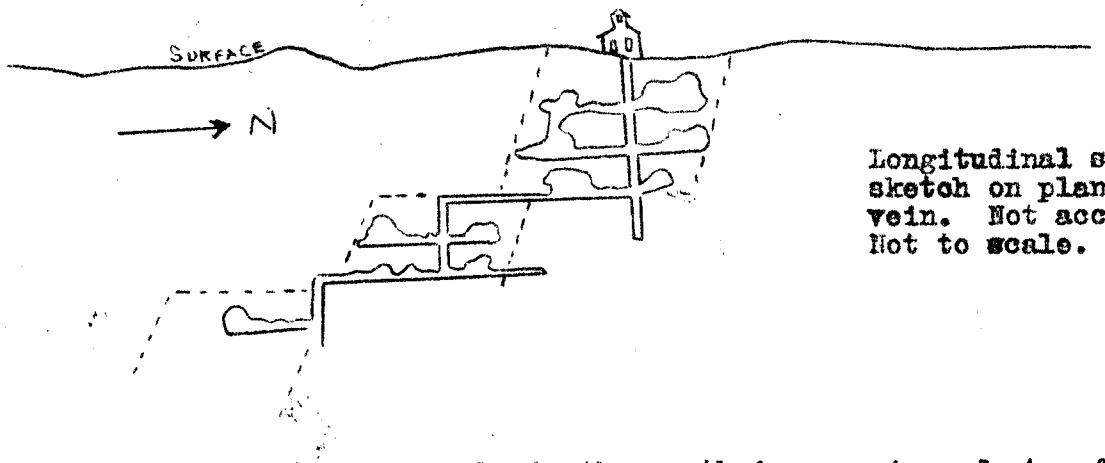
Kent bought the old narrow gauge railroad which formerly ran from near Searchlight to the Colorado River and has relaid it from Jean to Good Springs, eight miles. His grading from Good Springs to the mine, four miles further, is completed and he is now laying track. His wagon haul to the railroad at Jean has been $2.50 per ton. I doubt if on his tonnage the railroad will save him any money. The interest in the investment spent on the wagon road would probably have yielded a better return in the long run.

He bought an old copper leaching mill at Good Springs which he has converted into a concentrator. His railroad will bring the ore the four miles from mine to mill, then carry the concentrates (if any) from the mill the eight miles to Jean.

The mill is poorly designed and equipped. It's only redeeming feature is the Overstrom classifier which appeals to me as being sound in principal and pretty well worked out. This will not save the mill however, which in my opinion will fail. The scheme of concentrating these mixed carbonates of lead and zinc should have been thoroughly tried out on an operating scale before installing machinery.

I visited the mine on the 3rd of July, 1911, with Fred Hale, the Superintendent. The conditions are shown roughly in the following sketch:





Longitudinal section sketch on plane of the vein. Not accurate. Not to scale.

They claim the ore works to the south in a series of step faults as shown. The faults are in evidence, but I was of course unable to determine whether there are distinct steps or merely a general rake to the South. Steps are possible, as they seem to be not uncommon in the region elsewhere.

The ore shoot as exposed probably averages 100 feet long by 20 feet thick by 500 feet deep. This would give about 80,000 tons in sight, which cheks fairly well with Hale's and Kent's statements to me that there is 100,000 tons of ore now in sight. Mr. Hale says this entire body will average

Zinc 35% to 38%
Lead 8% to 12%

Some of the lead is in the shape of galena, but most of it is oxidized to carbonate.

The ore on which they started the mill would not go half the above assays. The ore underground looks as good as claimed.

The outcrop of this vein is small and inconspicuous. Twenty feet beneath the surface it widened out into lead stopes thirty feet thick. On the fifth level it is again wide, but the ore is the mixed lead and zinc which is characteristic of the entire district.

The bottom of the mine does not look good. This may be due to two big breaks in the lime which cross at this point. One of these breaks has however at one place about two feet of secondary zinc silicate assaying 50%, which goes on down. I should anticipate other large ore bodies below, altho' it might be necessary to do considerable prospecting to find them.

In the upper levels are still many showings of ore that ought to be developed. They will greatly increase the tonnage even if they do not lead to new large bodies.

YELLOW PINE. GOOD SPRINGS, NEVADA.

SHEET NO. 3.

DATE August 30th, 1911. INFORMATION SHEET FROM W. G. SWART DENVER. SHEET NO. 196.

Mr. Kent told me that the mine was not being offered for sale, altho' it could be bought. Some of his San Francisco stockholders are more than anxious to sell and so, really, is Kent himself. They put a price of one million dollars on the property. When the mill shuts down definitely the price will come down. Kent doesn't expect the mill to succeed, because he told me he knew the right way to treat the ore would be to turn it into oxide, and that friends of his stood ready to join him in putting an oxide plant on the coast using oil for fuel. This he proposed to do.

Thus if they do not gut the mine before these experiments are all concluded, it can eventually be bought at a reasonable figure. The New Jersey Zinc Company knows this and so does Schott of the American Metal Company, who visited the property shortly after I did and who recently talked to me about it in Denver. Apparently nothing can be done at present, except to keep as close track of events as possible, for which I have arranged.

W. G. Swart.

File Under O.
Subject Gen

Denver, Colo., Sept. 4th, 1911.

Mr. G. A. Overstrom,

507 Eugene Germain Bldg.,

Los Angeles,

Dear Mr. Overstrom:-

Much obliged for your letter of August 29th. Glad to get the information as to performance of the Good Springs mill. Hope they make a pot of money.

I note what you say about letting you know when I run across mills that need close classification and tables to suit. About every mill I see needs this combination, for no operator that I know of is suited with his present work. I have just come back from Kelly, N.M., for example, and at that place the Tri-Bullion people are running a mill on mixed lead and zinc. If your classification scheme and tables will ever do anyone any good it is there. Write to Mr. P.W.Bull, Manager, and tell him I told you to. Hope it does you both some good.

Should be very glad to get any literature you may have on your apparatus. With kindest regards and best wishes, I am

Very Sincerely Yours,

Consign shipments to RICHMOND, CAL. Address all communications to SAN FRANCISCO OFFICE

H. R. McGUINN, Secretary

L. BILODEAU, Manager

RICHMOND CHEMICAL COMPANY

BUYERS OF ORES AND CONCENTRATES

231 RUSS BUILDING

Phone DOUGLAS 1239

SAN FRANCISCO, Oct. 3, 1911.

536

Mr.W.G. Swart,
1118 Foster Building,
Denver, Col.

My dear Sir:-

Will you kindly let me know if you have examined the silver-lead-zinc mines of the Yellow Pine Mining Company four miles west of Good Springs, Nevada. If not, and you would be interested in the matter, I will be pleased to send you a report covering the property.

One of the owners tells me that the property has never been offered for sale before, but knowing that you were in that section of the country last summer, I feel rather dubious of his statement.

Trusting to hear from you at your earliest convenience, I am,

Yours very truly,

L. Bilodeau

G. A. OVERSTROM
CONSULTING ENGINEER
MINING AND ORE DRESSING
509 EUGENE GERMAIN BLDG.

File Under: O
Subject: Yellow Pine

LOS ANGELES, CAL., Oct. 7 1911

Mr. W. G. Swart.
1118 Foster Bldg.
Denver Colo.

My Dear Mr Swart.

Your favor of Sept 4th was duly received. I wrote Mr Bell, but have had no answer from him yet. Yellow Pine are now working the mill 2 shifts. Lead concentrate is about 60% Pb. and 9% zinc. Zinc concentrate about 35% zinc which can be increased to 38 to 40% zinc by doing picking out of lime stone on the picking belt.

Mr. Kent has resigned as Mngr. and there is considerable internal friction in the Co. I believe, although they are making money

G. A. OVERSTROM
CONSULTING ENGINEER
MINING AND ORE DRESSING
506 EUGENE GERMAIN BLDG.

LOS ANGELES, CAL., ... 19

I asked Kent why he did not sell out and take his profit, and after thinking it over he said he may if he could get enough of the others to sell also. In asking terms he said $800000.00 out of which 10% commission would be paid. I believe the mine is worth that and should sell at that figure.

Can we not go together and engineer that deal. Let me know what you think of it.

I have enough of the other stockholders lined up to agree to a sale, it takes 2/3 of the stock to sanction it.

Very truly yours.

G. A. Overstrom.

File Under "B"
Subject Yellow Pine

October 20th, 1911.

Mr. G. A. Overstrom,
#507 Eugene Germain Building,
Los Angeles, Calif.

My Dear Mr. Overstrom:-

I have just returned from an Eastern trip and find your letter of October 7th on my desk. Just to throw a little side light on the situation I will tell you that I have received two similar letters offering the Yellow Pine Mine. The owners must want to sell pretty bad. I will say once for all that having been through the mine, and knowing the conditions existing at the property and being able to figure pretty close their costs and extraction we would not be at all interested in the mine at a price of $800,000. I do not thing the mine is worth anywhere near one-half this figure. Of course I judge they would not listen to any reasonable offer, such as taking the property over under a working bond or some other fair way, which would be the only way I would consider the scheme at all.

I note you say in your letter they are making money, I would like to see you figures on this for I cannot figure out that they are making any money or that they ever will under present conditions.

Thanking you for bringing the matter to our attention and hoping to see you before long, I remain.

Yours very truly,

WGS-M.

L. Bilodeau
Yellow Pine

October 20th, 1911.

Mr. L. Bilodeau,

#231 Russ Building,

San Francisco, Calif.

536

Dear Sir:-

I have just retruned to Denver and have your letter of October 3rd. The Yellow Pine Mine has been offered to me at least four times, but at a most absurd price. I am familiar with the property and know very closely what the property is worth. Furthermore I know the owners and have discussed the matter with them and I do not think you can get any kind of a reasonable proposition from them on the property, still I do not see any objection to your getting a price on it if you want to, but before you start I know that you will not succeed in getting any kind of a reasonable price.

Yours very truly,

WGS-M.

G. A. OVERSTROM, PRESIDENT — EDWARD DOUBLE, VICE PRESIDENT — J. W. F. DISS, SECRETARY & TREASURER

THE G. A. OVERSTROM COMPANY, INCORPORATED

CENTRIFUGAL FILTERS, HYDRAULIC AND PNEUMATIC
CLASSIFIERS, SAND AND SLIME SEPARATORS.

506-7 EUGENE GERMAIN BUILDING
LOS ANGELES, CAL., U. S. A.

Oct. 23 - 1911.

Mr. W. G. Swart.
1118 Foster Bldg.
Denver Colo.

G. A. Overstrom
Yellow Pine, etc.

My Dear Mr. Swart.

Yours of 20th at hand.

Since writing you have figured a little on Y. P. M. Co and come to the conclusion that just about what you say is correct. A year ago I was in the mine, but could only roughly estimate ore blocked out and guessed it at 70000 tons. I hear they are now working mill 2 - 8 hour shifts and handling 45 tons in the 2 shifts. In a roundabout way heard they were clearing $300 and some odd pr day. Have also heard there is over

G. A. OVERSTROM, PRESIDENT — EDWARD DOUBLE, VICE PRESIDENT — J. W. F. DISS, SECRETARY & TREASURER

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506-7 EUGENE GERMAIN BUILDING
LOS ANGELES, CAL., U. S. A.

100000 tons blocked out, which I doubt.

On 70000 tons 45 tons per day = 1550 days at profit of 300 per day about $465000 net profit. Hence as I look at it, a price of $800000 is useless to talk of. Kent is not Mngr any more but was elected Prest at stockholders meeting. There is considerable internal friction in Co. I shall sound Kent & and see what he thinks of a working bond. I have a new slime canvas table in my head and partly on paper, and will have the apparatus out in a few months. It looks promising on paper but the rest remains to be prooven.

Yours very truly
G. A. Overstrom

COPY

Good Springs, Nev., Oct. 30th, 1911.

American Zinc Lead & Smelting Co.

Caney

Kansas

File Copy

Subject

336

Gentlemen;

We are producing a Zinc product containing 30 to 35% Zinc, 8 to 10% Lead and a little Silver, about 5 to 10 Oz. We expect, a little later to be in shape to produce about fifty tons of this product per day, and if you are interested in giving us a quotation on the stuff we shall be pleased to submit a small sample, and later if you desire, a trial lot.

If you are in a position to handle the entire output it might be well for you to submit figures with that in view.

Yours very truly

A. T. JOHNSON

General Manager

(YELLOW PINE MINING COMPANY)

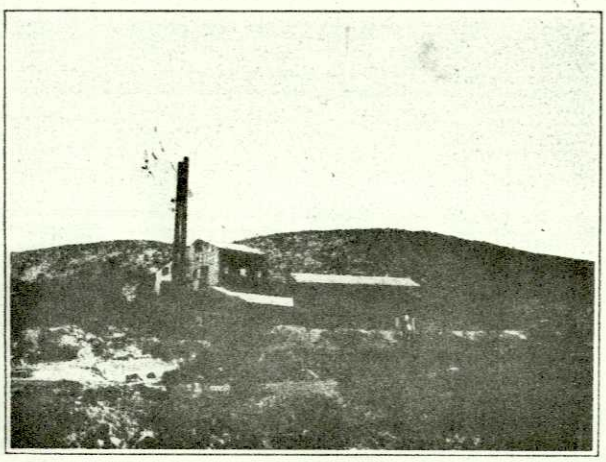
To Ford

Clark Co. Nevada

Developments in the Yellow Pine District, Nevada

By Fred A. Hale, Jr.

The Yellow Pine mining district, located in the central portion of Clark county, Nevada, has been the scene of considerable activity during the past 6 months, and bids fair soon to rank high among the zinc-producing camps of the west. The principal activity has been due to the Yellow Pine Mining Co., whose property lies 4 miles from the town of Goodsprings, which is the center and source of supplies for the district.



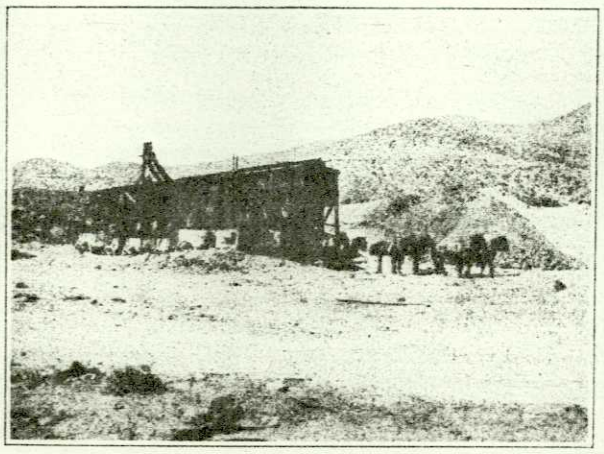
Yellow Pine Mill, Goodsprings, Nev.

This company has recently constructed a narrow-gage railroad 8 miles long from Goodsprings to Jean on the San Pedro, Los Angeles & Salt Lake railroad, and is now operating trains between the two towns. The gage is 36 ins., and a gasoline locomotive, manufactured by the Milwaukee Locomotive & Mfg. Co., is used for motive power. The railroad is now being extended to its mine, 4 miles west of Goodsprings, and will be completed within a very short time.

The mine has now reached a depth of about 600 ft., and large tonnages of lead-zinc-silver ore have been developed. The ore body is a metasomatic replacement in carboniferous limestone, dipping about 45° to the west. It varies in thickness from 10 to 30 ft., and, although faulted by a series of step-faults, it has been followed practically continuously from the surface to the lower workings. The average ore contains about 30% zinc, 15% lead, and 12 ozs. silver, although the relative percentage of lead and zinc vary considerably with depth, the ore near the surface containing a considerable excess of lead, and increasing its zinc content with depth. The ore is quite thoroughly oxidized, and contains no sulphides, with the exception of a small quantity of galena. No water level has been encountered in the mine.

The Yellow Pine Co. also have recently completed a mill at Goodsprings, which is unique in that it is designed as a separating mill rather than a concentrator, although a concentration of the lead is effected. The mill is designed to treat 60 tons in 24 hours and to separate the lead and zinc minerals in the ore. The ore is hauled from the mine in 6-ton side-damp steel ore cars and discharged into a receiving bin at the mill. From the bin, it is discharged onto a picking belt, by means of which considerable waste is eliminated, and conveyed to an 8 by 12 Blake crusher, which discharges into a storage bine. The crushing plant is designed so that all crushing may be done in one shift per day, and consequently, all picking may be done in daylight. Two sets of 16 by 30-in. rolls are used for the further crushing of the ore, which is subsequently screened by a set of two Colorado impact screens, into three sizes. The two coarser sizes pass through Harz jigs, where about 50% of the lead is drawn off as lead concentrate, the tailings being returned to the rolls for further grinding. The final product from the rolls, ground to about 20 mesh, goes to a 6-compartment Overstrom classifier, and the classified products to six Overstrom straight-line tables. The middlings from the tables are returned by an elevator to the rolls and again pass through the system, the final product from the tables being a lead concentrate, averaging about 60% lead, and a zinc "tailing," averaging 35 to 40% zinc. This mill contains the first installation of the Overstrom classifying and table system, and the system has proved peculiarly adapted to this difficult ore. The product from the tables are de-watered, and the water returned for re-use, as water is not plentiful in the district, although an ample supply has been developed by wells for the mill operating under these conditions. The company is now operating but one shift on the mill, but expects to put on three full shifts upon the completion of the railroad.

The other properties in the district have shown considerable progress in the past 6 months. The Potosi mine, in the northern part of the district continues to ship about four carloads of zinc ore per week, the ore being hauled 20 miles, by team, to Ardon. The Prairie Flower, which adjoins the Yellow Pine on the north, is continuing development work, and the property is now under lease to George Meacham. The Milford, under lease to H. J. Jarman and associates, continues to ship mixed lead and zinc ore, and a considerable ore body has been blocked out. The Ninety Nine, now owned by a Salt Lake corporation, has shipped several car loads of high-grade copper ore to the Salt Lake smelters, and is continuing active development. In addition, there is considerable work being



Ore Bins, Yellow Pine Mill, Goodsprings, Nev.

done at the smaller properties, and, on the whole, it would appear that the coming year would prove the most prosperous one in the history of the district.

Ten Months' Mine Dividends.

According to figures available to Mining and Engineering World there has probably been no period of equal length in the history of American mines and metallurgical works so prolific of dividend disbursements as has the 10 months of 1911, just ended.

From the reports made to Mining and Engineering World by 142 mines and works, dividend declarations, covering the period mentioned, totaled $71,711,748. This is a remarkable record in view of the fact that the year so far has been generally acknowledged as a period of general depression. That mining, when properly carried on, is an industry capable of returning regular dividends to owners of stock is evidenced in the total dividend disbursements of these 142 companies, which, since their incorporation, amounted to $748,104,685. This is equivalent to a return of 105% on the outstanding $7[illegible],286,973 share capital.

Not included in the declarations of the 142 companies mentioned above is the disbursements of eight securities-holding corporations which, during the 10 months of 1911, divided among shareholders $11,928,951, and since their incorporation, $129,682,148, a 40% return on their issued capital of $319,399,500.

Of the 142 companies mentioned above as having paid dividends in 1911, 111 are classified as gold-silver-lead-zinc producers, and holders of their stock were enriched to the extent of $32,248,218. Added to previous declarations this brings their grand total to $234,260,457, an 83% return on the outstanding $281,613,878 share capital.

Of the 111 gold-silver-lead-zinc companies 76 operate properties in the United States and these paid dividends during the year totaling $19,017,200; 18 are Mexican properties with the year's dividends totaling $4,003,116, while 16 are operated in Canada with $9,182,902 to their credit for the 10 months of the year.

Twenty-three copper properties, all but one in the United States, participated in the year's total to the extent of $27,741,702. Since incorporation these copper properties have yielded profits, in the shape of dividends, to the extent of $391,197,202, a 181% return on the $215,481,145, issued share capital.

The 22 copper companies, operating properties in the United States, during the 10 months just ended, divided among shareholders $27,593,776, and since incorporation $390,803,076, a 184% return on the issued share capital—$212,522,600.

Six metallurgical companies paid out in dividends during the 10 months of the year $11,561,828, and since incorporation $119,397,026, a 57% return on the issued share capital.

The accompanying table gives the amounts of dividends paid during October, the date of payment and the amount per share. For total dividends paid by these companies since incorporation, and for dividends paid by other companies previous to October, see tables elsewhere in this issue:

Name of Co.	Date.	Per share.	Amt.
Ajuchitlan, Mex.	Oct. 1	$0.25	$ 12,500
Am. Sm. & Ref. com.	Oct. 15	1.00	500,000
Am. Sm. & Ref. pf.	Oct. 2	1.75	875,000
Amer. Zinc, Mo.	Oct. 10	.50	40,160
Anaconda, Mont.	Oct. 18	.50	2,110,000
Arizona Copper	Oct. 28	.05	5,777
Bonanza Dev., Colo.	Oct. 1	.20	60,000
Buffalo, Ont.	Oct. 2	.05	50,000
Bunker Hill & S.	Oct. 4	.25	65,400
Calumet & Arizona	Oct. 3	1.00	628,512
Center Creek, Mo.	Oct. 5	.05	5,000
Copper Range, Mich.	Oct. 2	.75	288,138
Crown Reserve, Ont.	Oct. 15	.05	88,442
Daly-West, Utah	Oct. 10	.30	54,000
Elkton, Colo.	Oct. 1	.02½	37,500
Esperanza, Mex.	Oct. 12	.36	168,750
Fremont, Cal.	Oct. 28	.02	4,000
Frontier, Wis.	Oct. 10	2.00	2,478
Golden Cycle, Colo.	Oct. 1	.02	30,000
Goldfield, Nev.	Oct. 31	.50	1,779,574
Gemini, Utah	Oct. 1	6.00	30,000
Guggenheim Expl.	Oct. 2	2.50	519,833
Hecla, Idaho	Oct. 20	.02	20,000
Homestake, S. D.	Oct. 25	.50	109,000
Iron Blossom, Utah	Oct. 25	.07	70,000
Kendall, Mont.	Oct. 23	.02	10,000
Klar Piquett, Wis.	Oct. 16	.25	5,000
LaRose, Ont.	Oct. 20	.10	149,863
Lucky Tiger, Mex.	Oct. 15	.05	35,766
McKinley-Dar.-Sav.	Oct. 1	.10	224,693
Mines Co. of Amer.	Oct. 25	.25	124,142
New Idria, Cal.	Oct. 2	.30	30,000
Nipissing, Ont.	Oct. 20	.37½	450,000
North Butte, Mont.	Oct. 21	.30	123,000
Old Dominion Co.	Oct. 6	.50	146,622
Old Dom. Mg. & Sm.	Oct. 5	1.00	162,000
Pioneer, Alaska	Oct. 7	.03	150,000
Pittsburg-Idaho	Oct. 15	.04	40,000
Portland, Colo.	Oct. 16	.02	60,000
Scho'mherr-W'n, Mo.	Oct. 28	.20	2,000
South Eureka, Cal.	Oct. 15	.97	20,999
Success, Idaho	Oct. 5	.01	15,000
T. & H. B., Ont.	Oct. 14	3.00	23,283
Temiskaming, Ont.	Oct. 17	.03	75,000
Tom Reed, Ariz.	Oct. 28	.03	30,000
Tonopah, Nev.	Oct. 21	.40	400,000
Ton.-Belmont, Nev.	Oct. 2	.25	375,000
U. S. S. R. & M. cm.	Oct. 14	.50	175,505
U. S. S. R. & M. pf.	Oct. 14	.87½	425,288
United Verde, Ariz.	Oct. 4	.75	225,000
Vindicator, Colo.	Oct. 25	.03	45,000
Wasp No. 2, S. D.	Oct. 25	.02	5,000
Wettl'ufer-Lor., Ont.	Oct. 20	.05	76,830
Wolverine, Mich.	Oct. 2	4.00	240,000

Kentucky Coal in 1910.

By E. W. Parker.*

The total production of the state was 14,623,319 short tons; valued at $14,405,887, as against 10,697,384 short tons, valued at $10,079,917, in 1909, a gain of 3,925,935 short tons, or 36.7% in quantity, and of $4,325,970, or 42.92% in value.

The stoppage of work in the coal mines affected by the general strike of 1910 was of material benefit to the operators and miners in Kentucky, particularly in the western field. During the six months of idleness in the other states the shipments over the Louisville and Nashville railroad from the western Kentucky coal field increased nearly 70% over the corresponding period in 1909.

Notwithstanding the extraordinary demand upon the Kentucky mines, the labor supply was entirely adequate, as many of the miners who were thrown out of work by the strike in Illinois and the southwestern states sought employment in Kentucky and in other states not affected by the strike order. By thus making up the deficiency caused by the idleness in the competitive states the miners aided materially in securing their demands.

During 1910 the coal mines of Kentucky gave employment to 20,316 men, who worked an average of 221 days. Labor disaffections in the Kentucky mines were limited to short strikes in 14 mines.

Kentucky is one of the leading states in mining coal by the use of machines and ranks next to Ohio in the percentage of machine-mine output to the total production. In 1910 out of a total of 14,623,319 short tons, 9,362,851 tons, or 64%, were machine-mined.

So far as the records of early coal production in the United States are to be accepted, Kentucky was the third state to enter the list of regular coal producers. According to one of the early reports of the Kentucky Geological Survey, published in 1838, the first coal produced in the state was mined in 1827 on "the right side of the [Cumberland] river below the mouth of Laurel." The same report says that in 1828 five boat loads of coal from these mines arrived at Nashville, and that from 1829 to 1834 probably from 25 to 35 boat loads were sent out each year. The boat loads averaged about 1750 bushels, or 66 tons each.

By 1860, according to the census for that year, the production amounted to 285,760 short tons. Operations were necessarily somewhat interrupted during the civil war, but since 1870, after the state had begun to recover from the effects of the war, the production increased rapidly, as shown in the following table:

	Tons.
1860	285,760
1870	150,582
1880	946,288
1890	2,701,496
1900	5,328,964
1910	14,623,319

Estimates made by M. R. Campbell, of the U. S. Geological Survey, place the original supply of coal in Kentucky at 104,028,000,000 short tons. The total production to the close of 1910 has amounted to approximately 158,000,000 tons, representing an exhaustion of 237,000,000 tons, or 0.23% of the original supply.

*Advance report, U. S. Geol. Survey.

What Rhodesia's Mines Buy.

The subjoined table represents, according to the African World, the nature and value of the principal mining materials and stores imported into Southern Rhodesia from 1909 to 1910. Machinery and iron and steel, explosives and blasting equipment, cyanide and candles constitute the principal imports.

	1909. £	1910. £
Assay apparatus	3,638	7,216
Explosives	53,453	79,193
Candles	22,895	27,574
Cement	6,143	7,384
Coal	47	.....
Coke and patent fuel	882	1,331
Corn, grain and meal (native foods)	34,294	19,459
Cyanide of potassium	14,056	10,035
Cyanide of sodium	19,325	20,905
Detonators and fuse	13,738	18,995
Electric fittings	6,971	11,661
Grease, antifriction	2,401	2,780
Iron and steel	55,970	89,023
Lead	477	469
Lime	2,357	2,585
Machine oil	10,242	11,185
Machinery—Electrical	7,231	11,822
Machinery—Mining	134,575	182,502
Quicksilver	3,232	2,659
Ropes, wire	3,416	7,281
Salt, common	2,454	2,613
Wood, manufactured and unmanufactured	20,188	30,917
	417,985	547,589

Consign shipments to RICHMOND, CAL. Address all communications to SAN FRANCISCO OFFICE

H. R. McGUINN, Secretary

L. BILODEAU, Manager

RICHMOND CHEMICAL COMPANY

BUYERS OF ORES AND CONCENTRATES

231 RUSS BUILDING

Phone DOUGLAS 1239

536

SAN FRANCISCO,

Richmond 11-7-11

Mr. W. G. Swart
1118 Foster Bldg.
Denver, Colo.

My Dear Sir

Am in receipt of a letter from one of the main stockholder of the Yellow Pine Zinc Mine. They will reduce the price of the property to $600,000. Please write me by return mail if this would be interesting.

Very Truly yours

L. Bilodeau

File Name L. Bilodeau
Subject Yellow Pine

536

November 16th, 1911.

Mr. L. Bilodeau,

#231 Russ Building,

San Francisco, Calif.

My Dear Bilodeau:-

I though I had made it plain to you that we had thoroughly examined the Yellow Pine Mine, and if we did anything towards handling it, it would be on our own account. I am in close touch with the property constantly and know of the recent changes. The price of $600,000 is of no interest to us whatever, nor have I any idea they will be willing to take the actual value of the mine.

With best regards andbest wishes, I remain.

Yours very truly,

WGS-M.

Under ..... Gen

Subject .....

November 22nd, 1911.

536

Mr. A. T. Johnson,

General Manager,

Yellow Pine Mining Co.,

Good Springs, Nevada.

Dear Sir:-

Your letter of October 30th to our smelter at Caney, Kansas, has been referred to me. I do not think our people will be interested in taking an ore assaying eight to ten percent lead as yours does. I had hoped that you would be able to make a much better grade of product with the Overstrom system. I was in Good Springs last summer when Mr. Overstrom started the mill and have heard from him several times since that time, that the mill was doing remarkable work. Apparently it is not giving the grade of products that were anticipated by Mr. Kent and Mr. Hale.

I have spent a good deal of time in the Good Springs district at intervals, trying to see my way clear to handling some of your ore, but up to date I have not been able to see any money in the game. We are always ready to be shown, however, and will back our judgment with our money. If we can help you in any way, we are at your service at any time.

Yours very truly,

WGS-M.

There is a general impression among most agriculturists that saltpetre is an artificial or chemical fertilizer, and so hesitate in making use of it. In reality it is not what is generally known as a mineral fertilizer, but rather an organic one which has been concentrated by nature over thousands of square miles of territory between the costal range and the Andes of one section of Chile.

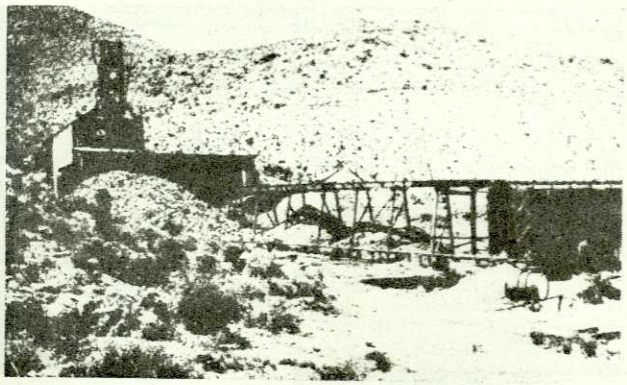
THE YELLOW PINE MINING DISTRICT, NEVADA.

Written for the Mexican Mining Journal.

By FRED A. HALE, Jr.*

The Yellow Pine Mining District is located in the western portion of Clark county, Nevada, and embraces an area some twelve miles in width, bounded on the east by the S. P., L. A. & S. L. railroad, and extending from Mt. Olcott, a distance of about 25 miles to the southward. The district is located in the southern extension of the Spring Mountain range, which extends in a northerly direction, and is bounded on the south by the McCullough mountains. The principal source of supplies for the district is Goodsprings, a town situated eight miles west of Jean, on the S. P., L. A. & S. L. railroad ,which is about 300 miles from Los Angeles. Jean also serves as the principal shipping point, although considerable ore is shipped from Ardon and Roach on the same railroad.

Mineral was discovered in the district a great many years ago, and, as early as 1870, the Mormons smelted some lead ore from the outcrop of the Potosi mine, for the purpose of making bullets Shortly after this several claims were located by early prospectors and some ore was later hauled 40 miles by wagon to Manville on the Santa Fe branch. However, owing to the lack of adequate transportation facilities, and to high smelter rates, it is only in the past few years that the district has come into prominence as a producer of base metals, although an adequate supply has been developed at Goodsprings for domestic and milling purposes.



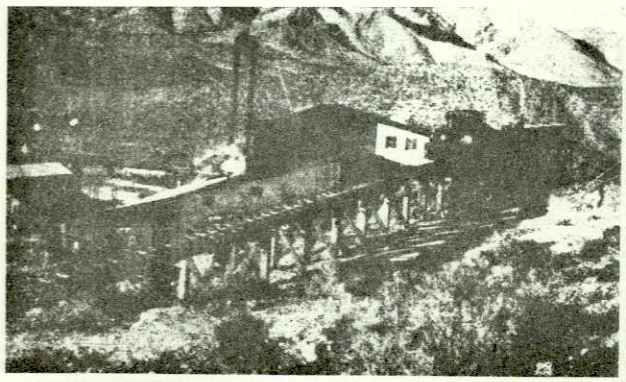
Yelow Pine Mine

Geology.

The geology is somewhat complicated by a series of faults, some of which have had extensive throws. The main fault extends throughout the center of the district in a northerly direction, and the displacement has been computed to be some 3000 feet vertically. The movement of the fault has thrown down the Triassic beds in the eastern portion of the district so that they abut a large series of upper Carboniferous or Pennsylvanian limestones. These Upper Carboniferous beds carry all the known ore bodies, no ore having been found to the east of the main fault. In addition to this fault, there are many of less importance, striking both parallel and at right angles to the main fault. Some of these are strongly mineralized, and ore bodies of workable size have also been found along the large fault. The Carboniferous limestones are cut in many places by dykes and intrusive sills of rhyolite porphyry and outcrops of a similar porphyry have been noted along the main fault, where the igneous rock has evidently been intruded up along the fault plane. The proximity of all the known ore bodies to these intrusive bodies is evident proof that they were the ultimate source of the ore.

Yellow Pine Mine.

The largest shipper in the Yellow Pine district at the present time is the Yellow Pine Mining Company, which operates a group of claims located four miles west of Goodsprings. At this mine the main ore body is a metasomatic replacement in a limestone bed, dipping 45 degrees to the west, and occurring about 50 feet below the lower contact of an intrusive sill of rhyolite porphyry. The stratum between the ore and the porphyry is a sandstone and the footwall is a coarsely crystalline limestone. The limestone in the ore zone has been very completely replaced for a thickness of ten to forty feet, by lead and zinc minerals; the zinc occurring as smithsonite, calamine and hydrozincite, and the lead in the form of cerussite, anglesite and some unaltered galena. The ore also carries considerable silver, which is evidently contained within the lead minerals; a fair average run-of-mine ore being 30 per cent zinc, 16 per cent lead and 12 ounces silver. The mine has attained a depth of about 600 feet and the ore continues completely oxidized, no water level having been reached in this depth.



Yellow Pine Mill

The company operates its own railroad, having a gauge of 36 inches, which runs from the mine to the main line at Jean, via Goodsprings, a total distance of 12 miles. On account of the steep grades Shay geared locomotives are used, and the ore is transported in 10-ton dump cars. At Goodsprings the company operates an 80-ton concentrator, which serves to separate the lead and zinc into different products. The ore which is to be milled is screened at the mine by means of a grizzley having 3-4 inch openings, to remove the fines in order to facilitate sorting at the mill. The coarse and fine material is then transported separately to the mill, where the coarse is carefully sorted on a picking belt, only waste limestone being thrown out. The coarse material passes from the belt into an 8x12 inch Blake crusher, where it is reduced to 1 inch size, and is further crushed in successive stages by two sets of 16x30 inch Gates rolls, the products of the rolls passing through Harz jigs to remove the coarse lead minerals, prior to regrinding. The final products from the rolls, crushed to 16 mesh, flow to an Overstrom classifier of the inverted type, designed especially for this ore by Mr. G. A. Overstrom of Los Angeles.

The classifier discharges six products of different size, which flow to six concentrating tables of the Overstrom Straight Line type, where a final separation

*Mining Engineer, Good Springs, Nevada.

of the lead is effected. The products from the tables flow to separate bins and are dewatered for shipment, the water being returned for re-use.

This mill is the result of a long series of tests, as the specific gravity of the minerals to be separated are so close that ordinary methods of concentration effect a poor separation. The success of the mill is due largely to the specialized method of classification and table work. From a head carrying 30 per cent zinc, 15 per cent lead and 12 oz. silver per ton, a lead product is obtained averaging 60 per cent lead, 8 per cent zinc and 40 ounces silver, while the zinc in the tailing is raised to 35 per cent, making it a very desirable shipping product. During the present year the mill has maintained a monthly production of 300 tons of lead concentrate and 1500 tons of zinc concentrate, the ratio of concentration for the lead being about six into one.

Potosi Mine.

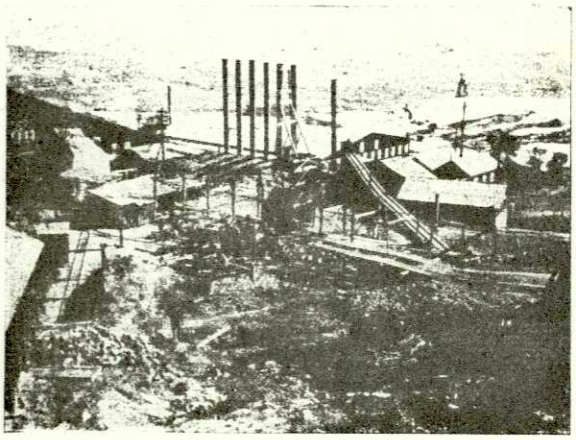
Second only in importance to the Yellow Pine mine is the Potosi, situated near the top of Mt. Olcott. As before stated, this is the oldest mine in the district, having operated intermittently since 1870. The orebody is very similar in character to that of the Yellow Pine, being a replacement in Carboniferous limestone. The strata in this portion of the district, however, lie nearly horizontally, so the mine is worked by a series of tunnels. The ore carries more zinc and less lead than the Yellow Pine, the average mine ore containing 36 per cent zinc and 8 per cent lead. The ore is conveyed from the mine to the foot of the mountain by an aerial tramway 1800 feet long, and thence by wagon, a distance of 20 miles, to Ardon, on the S. P., L. A. & S. L. Railroad. At present the company is shipping about 750 tons per month and all ore is shiped crude.

Other Properties.

Other properties producing ore, or which have produced ore similar in character to that of the Yellow Pine and Potosi are the Prairie Flower, Monte Cristo, Alice, Pilgrim, Blue Jay and Snowstorm. The Ninety-nine Copper company, operating about 8 miles north of Goodsprings, is shipping an oxidized copper ore from a fissure vein in limestone. A depth of 400 feet has been attained and the ore continues oxidized. The Bullion, Accident and Porter properties, in the southwestern portion of the district, are shipping a galena ore, practically free from zinc. This ore makes in kidneys along the bedding planes of the limestone, usually lying nearly horizontally.

In the western portion of the district, a number of valuable properties have been developed, but owing to the long distance from the railroad and the heavy grades intervening, very little ore has been shipped. Those which have a considerable tonnage in sight are the Kirby, Green Monster, Mobile, Shenandoah, Hoosier, Addison and Milford. The Keystone mine netted its owners something over one million dollars, the ore being free milling gold on a porphyry contact. A 20-stamp mill was erected and treated the ore at Sandy, seven miles distant from the mine. A movement is now on foot to erect a custom mill to treat the lead and zinc ores of the above named properties, and a branch railroad line from the Santa Fe at Ivanpah, which will come within a short distance of all of them, is also projected.

Aside from its present growing importance as a producer of base metals, the district has great future possibilities. A number of properties have a considerable tonnage of ore in sight, and are only awaiting better transportation facilities to become regular shippers. Present freight rates to Salt Lake smelters are $4.50 to $6.00 per ton, and to the zinc smelters in the Mississippi Valley $8.00 per ton. It would also seem probable that in a short time a zinc smelter will be constructed on the Pacific coast, which, by greatly reducing freight rates, would result in a considerable advantage to this district.



Esperanza Mill, El Oro, Mex.

THE WORLD'S GREATEST SMELTER.

Written for the Mexican Mining Journal.
By THORINGTON CHASE.*

Much of a purely technical nature has been written regarding the Washoe smelter, and most metallurgists consider a working knowledge of its vast equipment and an understanding of the improvements there evolved as necessary to their professional education. Yet, while scientific students from Japan, India, South America, Africa and Europe usually include Anaconda's great industrial plant in their itinerary when visiting the United States, and while several American societies of engineers and metallurgists make the Montana mines and smelters the Mecca of periodical pilgrimages, it is safe to say that but few Mexican mining men have had the opportunity of visiting this smelter, and in the republic there is little more than a vague concept of the immensity of this industrial center, and little knowledge of the local conditions which lend the color to its throbbing and ceaseless activity.

I once asked a visiting smelter man from Mexico what struck him most forcefully about the Washoe plant. "I've been tramping about these 240 acres for three hours," he replied, "and haven't seen a pound of ore yet."

We are familiar with the patio, covered with its veriegated piles of samples; we are accustomed to perspiring peons, trundling ore in barrows from car to bed or unloading special lots upon exposed platforms where the rain may leach it or the winds scatter its finer (and often richer) particles far and wide; and to walk for hours about a plant of ten thousand tons daily capacity without so much as the sight of a lump of ore or flux, must indeed have been an unforgetful experience to one just from Torreon.

Even though labor is far cheaper in the republic, copper ore is mined and smelted at a lower figugre per ton in Montana where the eight-hour day obtains and where no laborer receives less than six and a quarter pesos per diem; mechanics, eight; and foremen, ten. The scientific elimination of waste, the introduction of every conceivable device for saving labor, the casting, cooling and storing of all the slag from the Washoe converters rarely requires more than one man, and the adaptation of electricity, compressed air and gravity wherever possible, here combine in producing the maximum output at the minimum cost, and leave little room anywhere for criticism.

When it is considered that the Washoe smelter, run-

*Mining Engineer, Beaumont, Cal.

Nov. 25, 1913.

Mr. J. P. Kent,

Yellow Pine Mine,

Good Springs, Nevada.

My dear Mr. Kent:-

We have just developed a new machine for handling ore dry. This is an entirely new scheme, is small, compact and fool proof. It has been passed on by some of the best engineers in the country and the one that is now at work in several places. The thing has been kept as quiet as possible until the patent situation could be closed up, which has been done. You will shortly see accounts of this under the name of the "Plumb Jig" in the technical papers. It has attracted a great deal of attention here and in the Northwest. It ought to be able to make you some money on your Yellow Pine. All we ask is that you send us ours 50 lb. sample of the material you are now concentrating and let us see what can be done with it. Send this to our laboratory at 1422 Blake Street, Denver, Colo., and we will do the rest, reporting to you and sending you all the products if you want them. This machine is small, compact and cheap, as I said above, it is self regulating so that variations in feed do not effect the products and it is fool proof. There are no adjustments on the machine to make. After one starts it goes ahead without any further care or attention. These seem like pretty broad statements to make but you can check the thing up for yourself

Mr. J. F. Kent, #2.

anytime. You will furthermore recognize the fact that we could not afford to offer you anything that was not fully tried out; that we are not an irresponsible concern but a concern with property and success behind it and could not afford to recommend anything of this sort if it was not just as it should be.

Let us hear from you and see if we cannot make you some money.

Yours very truly,

W. G. SWART.

WGS-CD

YELLOW PINE MINING CO.
HOLLINGSWORTH BLDG.
LOS ANGELES, CAL.

Los Angeles, Cal.,
Dec. 9, 1913.

W. G. Swart,
1218 Foster Bldg.,
Denver, Colo.

Dear Mr. Swart;-

I am very much interested in your description of your new dry concentrating jig, and have written our manager to-day to forward a sack of our ore to you.

Our Yellow Pine ore is probably the mosy difficult of separation in Southwestern Nevada and we will not be disappointed if you do not get very good results. We have other property in the district which will work much better than that of our Yellow Pine mine and there are many other similar mines in the district that would furnish tonnage which would be easily worked and a 5% extraction made with your jig.

As you may be aware, there is a dry milling plant now at the Singer mine in our district, using a Stebbins dry concentrating table which is doing excellent work and will be a financial success.

We know of several properties, some of which are in Arizona, which can be brought into the market as paying mines provided the dry concentration is applied to these ores. It is possible that we shall take over one or more of these properties and should we do so we will figure with you before attempting any installation of machinery.

Yours very truly,

YELLOW PINE MINING COMPANY

J. F. Kunz
President

JFK-M

going to try and have Kent try them out and if they are any better than the wet mill to put them in. The milling cost is now down to $1.60 and they are having no shortage of water. An oil engine has has been substituted for steam and this alone meant a saving of 40¢ per ton. Hale on the other hand says there is no chance of the Co changing over to dry work as the wet mill has been a great success and the ore now being opened up is of shipping grade to a great extent and that their policy in the future will be to cut out milling as much as possible. The opposion of Hale to dry work is only natural as Overstrom put him in there and he is a great booster for Overstrom. The sample sent you was from what they call the low grade dump and ~~has~~ not is not the material which they have been milling. Hale says they are getting ready to mill this now. The mill is at present shut down for repairs but will be started in a few days. Barnes says it has been entirely successful. I did not have time to go to the mine but the report is that they have opened enough ore in the sixth level to run the mill for a year. They are getting more lead carbonates here than they had near the surface and taking out some good shipping grade lead ore as well as straight zinc ore.

Yours truly,

Geo. H. Salt

YELLOW PINE MINING COMPANY

MINES IN YELLOW PINE MINING DISTRICT
CLARK COUNTY, NEVADA

S. P. L. A. & S. L. R. R., JEAN, NEVADA

DEPOSITORY
NATIONAL BANK OF CALIFORNIA
LOS ANGELES, CAL.

GOOD SPRINGS, NEV., December 11th 1913

W. G. SWART
RECEIVED
DEC 15 1913
ANSWERED

Mr. W. G. Swart
1218 Foster Building.
Denver, Colo.

Dear Sir:-

Pursuant to instructions from our Mr. J. F. Kent, we are this date forwarding, via American Express, to the American Zinc Ore Separating Co., 1422 Blake St., Denver, Colorado, a 50-lb sample of our mixed lead and zinc ore for trial on the Plumb Jig, in accordance with your letter of recent date.

Very truly yours
YELLOW PINE MINING CO.
Fred A. Hale Jr.
Asst. Mgr.

W.G.
Answ. Dec. 15

YELLOW PINE MINING COMPANY

MINES IN YELLOW PINE MINING DISTRICT
CLARK COUNTY, NEVADA

S. P. L. A. & S. L. R. R., JEAN, NEVADA

DEPOSITORY
NATIONAL BANK OF CALIFORNIA
LOS ANGELES, CAL.

GOOD SPRINGS, NEV., Dec. 12th 1913

5716

Mr. Edward S. Wiard,

422 Boston Bldg.,

Denver Colo.,

Dear Sir:-

I have read with great interest your description in the Engineering & Mining Journal of the Plumb Pneumatic jig,

We have got a number of Stebbins Dry Concentrators working quite successfully on lead ores in this district, and would be pleased to get prices and other Data on this jig, with the view of testing it out.

Would thank you very much for the Data, or the address of the Manufacturer of them.

Very truly yours,

Chas N Barnes

Gen'l Mgr.

N W Hauck
12/15/13

December 18, 1913.

56

Mr. George L. Felt,

Kingman, Arizona.

My dearGeorge:-

I am in receipt of sample from Kent of the Yellow Pine mine at Good Springs. I don't know just how the results will come out. He tells me there is a new dry concentrator near them which apparently is a success. They are using the Stebbins table. I think you had better look into the situation around Good Springs pretty carefully. Find out just what Kent is doing with his mill and also what this other thing is doing. If we can do anything with the Plumb jig that ought to be a good place to get in. Find out also where they are shipping the material they are making and about what they are getting for it. Of course you know the New Jersey Zinc Company bought the Potosi mine and are preparing to put in some sort of a plant. Get all the information you can about that too.

Yours very truly,

WGS

WGS-OD

DAY LETTER

Form 2589

THE WESTERN UNION TELEGRAPH COMPANY

INCORPORATED

25,000 OFFICES IN AMERICA — CABLE SERVICE TO ALL THE WORLD

THEO. N. VAIL, PRESIDENT — BELVIDERE BROOKS, GENERAL MANAGER

RECEIVER'S No.	TIME FILED	CHECK

SEND the following **DAY LETTER** subject to the terms on back hereof which are hereby agreed to

Denver, Colorado, January 7, 1914.

5870

Mr. Geo. L. Holt,

Good Springs, Nevada.

Original ore assayed seven seventy four silver fourteen ninety lead and twenty four eighty zinc. We made about fourteen percent by weight of a lead concentrate assaying thirty five thirty silver and sixty eight lead. The tailings weighed eighty one per cent and assayed two forty six silver six eighteen lead and twenty eight ten zinc. This means a saving of sixty two percent of all silver and lead in the lead concentrate and ninety two percent of all zinc in the zinc concentrate. It would probably be possible to better this work after becoming accustomed to the ore. Report and sampled mailed Kent tomorrow.

W. G. Swart.

[illegible] Hooker Bldg.

January 8, 1914.

536

Mr. William Kent,

Good Springs, Nevada.

Dear Sir:-

I telegraphed Mr. Felt yesterday the results on the sample you sent on here for test, and which our laboratory marked "Yellow Pine". I presume from your letter head.

I am enclosing the detailed statement herewith.

This work was done on the Plumb jig, except on material finer than 150 mesh, which was treated on the Wilfley table.

The ore was first crushed to 12 mesh (2 millimeters). The 150 mesh dust was removed and treated on the Wilfley table. This is done with but a small amount of water -- nothing like the flood of water which would accompany a wet crushed slime. The recoveries are therefore much better and water consumption cut to a minimum. The dust, so made, amounted to but 3.6% of the entire weight of the original ore.

All the rest of the material was put over the Plumb jig. There are then two final products:-

1.--Combined lead concentrates weight, 13.71 tons out of every 100 tons of ore treated.

Assaying --	Silver	35.30 Oz.
	Lead	68.00 %
	Zinc	4.00 %

2.--Tailings from jig and table weight, 81.25 tons out of every 100 tons of ore treated.

2. Mr. William Kent.

Assaying --	Silver	2.46 Oz.
	Lead	6.18 %
	Zinc	28.10 %

There is also a slime tailing from the Wilfley table amounting to 5.04 tons out of every 100 tons of ore treated.

Assaying --	Silver	4.44 Oz.
	Lead	8.00 %
	Zinc	26.20 %

This could be saved or not, as you choose.

We did a lot of work trying to make a higher grade zinc tailings, by throwing out some of the lime and silica, but in this we were not successful, hence we are reporting to you only the total tailing, which you may have some other way of treating. We think it could be put up to about 30% zinc, but not higher by our methods.

Shall be glad to send you samples of the separated products, or all of the different products on hand if you want them. Will send the small samples along anyway.

Hoping to hear further from you with regard to this, I remain

Yours very truly,

WGS/B

YELLOW PINE MINING COMPANY. GOOD SPRINGS, NEVADA. No. 573.

	Weight	Per Cent Weight	Oz. of Silver	Per Cent Lead	Per Cent Zinc	Per Cent Iron	Per Cent Lime
Original	26,330	100.00	7.74	14.90	24.80	2.60	3.90
Jig. Conc.	2,665	10.11	41.58	68.05	4.20	.25	.25
Wilfley Conc. (-150)	950	3.60	17.76	67.80	3.30	.40	tr.
Combined	3,615	13.71	35.30	68.00	4.00		
Savings			62.00	62.50	2.20		
Jig Tails	17,615	66.90	2.30	6.20	28.20	3.00	4.80
Wilfley " (-150)	3,780	14.35	3.24	6.15	27.80	4.00	3.70
Combined	21,395	81.25	2.46	6.18	28.10		
Savings			27.00	33.70	92.00		
Slimes		5.04	4.44	8.00	26.20		
Savings			11.00	3.80	5.80		

January 8, 1914.

AMERICAN ZINC ORE SEPARATING COMPANY
REPRESENTING AMERICAN ZINC, LEAD AND SMELTING COMPANY

EASTERN OFFICE: 55 CONGRESS ST., BOSTON
OPERATING " 1009 PIERCE BLDG., ST. LOUIS } H. S. KIMBALL, PRESIDENT
WESTERN " 1218 FOSTER BLDG., DENVER; W. G. SWART, REPRESENTATIVE
SMELTERS: CANEY AND DEERING, KANSAS, AND HILLSBORO, ILLINOIS
MINES: MISSOURI, ILLINOIS, WISCONSIN, TENNESSEE, COLORADO, ETC.

ADDRESS COMMUNICATIONS TO WESTERN OFFICE

Good Springs, Jan. 9, 1914 191
~~DENVER, COLO.~~

536

Mr. W G. Swart,

Denver, Colo.

Dear Sir:

Wednesday I saw the Yellow Pine people at Good Springs. The report on sample which Kent sent you showed practically the same savings as they are making in the wet mill. Barnes the superintendent showed me their assay record with calculated average assays and recoveries for the past year and they were as follows; Lead Concentrates- 55% lead, 12% zinc with 65% saving of lead; Zinc concentrates- 35% zinc, 6% lead with 93% saving of zinc. This includes the slime product which amounts to 15% of their total product and assays as follows: 30% zinc, 10% lead and 5 oz. silver. The slime product is shipped as a mixed ore, the American Metal Co. being very anxious to obtain it according to to Hale. The zinc tonnage amounts to 60 tons per day and the lead 15 tons. Zinc to American Metal and Lead to A. S. & R. Co.

The price paid for the mixed ore was $22.00 for 30% zinc with 15% lead and 10 oz. silver on a flat spelter with $1 up or down for zinc and 30¢ for lead and 40¢ for silver. Hale says they have a better offer now and from all I could gather I believe it is on a basis of 27 for zinc and 12 for lead with the other terms the same. The slimes are presumably used for mixing with sulphide slime slimes as Schott told Hale they were necessary to them in handling other ores.

The proposition of dry jigs is up to Kent entirely. The results I showed them were interesting to Barnes and he says he is