J. W. E. TAYLOR
Consulting Economist
Los Angeles - San Francisco

It is considered pertinent, to a complete understanding of the genesis of the ore values involved, that a fairly complete and detailed history of the geologic activity and development within the area under discussion, and its relation to its geologic environment be given.

The oldest rocks, in the area under discussion, are a series of marine sediments that probably were initiated during the upper or late Cambrian Age. The continuity of this sedimentation evidently was interrupted by short periods of emergence of the land mass from the Ordovician sea, but it continued during Ordovician time. It is indicated that there then came a period of "No record", as the next marine sandstone noted, appears to be of Permian age. This would evidence a long period of land mass emergence above the ancient sea. Mesozoic sediments were observed in the Shoshone Mountain region, which supports about three-fourths of the east flank of the area under discussion.

The total thickness of the sediments, as above described, will average around four thousand five hundred feet.

A long period of folding occurred in the Mesozoic Era. These foldings brought the rocks of Ordovician Age to the surface, and completely overturned the geologic sequence column in many places. Vertical faults and breccia filled fissures, of major importance to ore body placements, were formed at that time.

Then came the first great instrusions of Granite, and which was fundamentally contemporaneous with the great Granite intrusions in the Sierra Nevada regions, to the west.

Sediments were intensely altered, in the contact zones due to thermal metamorphizm, as is evidenced by all of the quartzites and burned out limey-shale-slates that now form the tilted surface covers of all of the shale beds which have contacted the zones of intrusion.

Minor intrusive reliefs, in the form of Granite plugs, were formed along the contact lines between the Granites and the Sediments. These plugs produced localized faulting and, upon cooling, left fissures and fractures to be filled during the time of maximum mineralizing activities, in Tertic times.

The oldest Volcanic, observed in the area, is a Rhyolite which buried a part of the sedimentaries and which is now evidenced as a Rhyolite breccia in fissure fillings.

After the great Granite intrusion, there came a time of stability and lacustrine deposition.

This was followed by a flow of glassy quartz and in turn, by intrusion of Andesite Porphryry, Diorite Porphyry, and a somewhat glassy phase of Rhyolite. The glassy phase of Rhyolite is found only in comparatively small dikes, except in the area now included in the southwest portion of Township 10 north, Range 44 East M.D.B. & M. In that area it is probably nearer to the true Rhyolite Porphyry. The

Diorite Porphyrys, south of Jefferson Canon, and the Andesite Porphyrys north of Jefferson Canon, have been intruded in much larger masses but, due to their having been covered by so many of the Rhyolite flows, they have not been so extensively exposed.

Extensive faulting took place, from immediately before until immediately after this period of intrusion, and affected both the Tertiary and the older rocks.

It is evidenced that the development, of the present mountain range, began late in Pliocene times and that the main watersheds had been eroded by early Pleistocene time. Stages, in this development, are best shown by the gravel benches and terracing of the watershed of Jefferson Creek. (See picture 8-B for an unusually well defined phase of this form of watercourse development). The snow covered mountain, on the left of the main water-course in the picture, is Mount Jefferson which reaches an altitude of more than Twelve thousand feet. The snow covered mountain, on the right of the main water-course in the picture, is Shoshone Mountain.

Jefferson Mountain is almost covered by a well eroded sheet of Rhylolite eruptive and its western foothills are cut by series of transverse "paired" vertical dikes of Rhyolite and Andesite Porphyry, that have the appearance of plunging under the detrital plain of the Great Smoky Valley. These dikes are of economic importance, as is evidenced by the Gold Hill mine development on them.

The writer believes that the Andesite Porphyry is older than the Rhyolite, which usually occurs on the south side of the Andesite Porphry.

This "pairing", of dikes, is of utmost economic importance in this mineralized zone, but this fact has not been fully recognized in its development.

The writer has spent more than a year, in the study of this area, and its general placement, and concurs in the opinion that the period of volcanic activity ceased sooner, in the region occupied by the present Toquima Mountain Range, than elsewhere in the Great Basin Country.

The Lava covered region was then eroded until an extremely mature topography, approaching the penoplain stage, was reached. This stage of topography, development evidently extended as far south as the Panamint and Amargosa Ranges, in what is now the California border country. It evidently reached its greatest maturity in late Pleiocene time, as it is younger than the Rhyolite of early Pliocene, and older than the Tuffs and Alluvium that mark the transition from Pilocene to Pleistocene.

The present topography had been attained, at the period marked by the development of the Pleistocene Lakes. The shore-Line remnants, of two of these Lakes,--one in the Millera-Blair Junction area and one in the Round Mountain-Millets area -- are yet well enough evidenced for identification. Therefore, the movement that set up the present topography, was not earlier than early Pleistocene.

The Toquima Range, like the Toiyabe Range, is undoubtedly a tilted fault block, with fault scarp on zone of sheerest fracture on the east side of each Range.

J. W. E. TAYLOR
Consulting Economist
Los Angeles - San Francisco

A Summary, of the foregoing argument, as to the development of the present geology and topography in the area under discussion, gives us the following geologic sequence column:

Column of Probable Geologic Sequence--For Round Mountain, Nevada, Area. Showing time of igneous activities.

	Recent	Desert Wash Stream Gravels
Quaternary	Late Pleistocene	Time of redeposition of mineral Values, by supergens waters.
	Early	Completion of development of present topographic control features.
	Late Pliocene	Beginning of development of present topographic control features. Igneous activity that brought in the upper Tuffaceous Rhyolites.
CENOZOIC ERA ERA Tertiary	Early to Middle Pliocene and Miocene	Igneous activity that brought in the Andesite Porphyrys TIME OF SECOND Diorite Porphyrys MINERALIZATION Porphyritic Rhyolites (Probably in the order named)
	Late Eocene	IGNEOUS activity that brought in the lower Rhyolite Tuffa
	Middle Eocene	Time of Quartz intrusive activity TIME OF FIRST MINERALIZATION
	Early Eocene	Igneous activity that brought in the Granodierites, and completed the major Granite intrusive activity.
MESOZOIC ERA	Late Gretaceous	Time of major Granite intrusive activity
	Permiam	Some thin bedded marine sediments Laid down Area was emerged Land mass, during all of the time, from either very early siturian or late Ordovician,--probably late Ordovician in this immediate area--down to late Permian.
PALEOZOIC ERA	Ordovician and possibly late Cambrian	Time of deposition of lower members of marine Sedimentaries These are now evidenced as shales, slates, (Quartzites near the base) and phyllites. Also, dark limestone, with slate at the base. (With a black Jasperoid phase of Silicified limestone, that very closely resembles a black chert.)

J. W. E. TAYLOR
Consulting Economist
Los Angeles - San Francisco

LODE CLAIMS:

The gold and silver values, in the Lode Claims under discussion herein, are in general distributed, as follows: In Homestake Claims Nos. 2 and 3, and in Annex Claims Nos. 3, 4, 5, 6, and 7, these values are intercalated in the free laminae of the friable shales and weaker slates. Laboratory work has demonstrated that the hard, nodular shales and slates, and the quarizites, do not carry any of these values to point of economic importance.

The quartzite member, referred to in the geologic setup of the area, as being the base member of the slates and shales, is now the hard and erosion resistant capping of all of the several shale hills, and does not carry any economic values. This condition is due to the intensive metamorphism of immediate contact with the several types of intrusives and volcanico.

The gold and silver values, in the Lode Claim Homstake No. 4, lie adjacent to the contact zone between the Eocene Quartz intrusive and the Shale-slates. This claim lies along the south side of a fault that is followed, approximately, by the course of the line between Homestake Claims Nos. 4 & 2. The south line of Homestake No. 4 is in the fault zone that is now occupied by the bed of Slate Creek, where it turns west to pass through the original shale ridge area.

EXPLORATION OF LODE CLAIMS:

A plan for the profitable development and operation, of the Lode Claims of this group of Mining Properties, was evolved from some two years of study, with physical exploration by drill and power shovel; detail sampling and analysis; pilot mill operation and commercial basis, and determination of relative values in a very complete field laboratory, installed for that purpose.

After comprehensive study of the several mining claims, under the methods outlined above, it was decided to develop the Lode claims group in sequence as to the types of mineralization involved, and the free-gold zones in the shales were selected for final study and analysis.

Field exploration, with deep drill holes and power shovel excavation, developed the proper location for initial operations, to be in Homestake Lode Claim No. 2. (see accompanying map and pictures Nos. 4-A, 4-B, 5-A, 5-B, 6-A, 7-A, and 7-B for details). This work developed the actual subsurface strike and dip, of the friable members of the shale bodies, and proved the anticipated positions of the non-productive quartzites and altered slate bases, that now form the erosion resistant cappings for the series of Shale hills.

The samplings and analysis, obtained from this work, served to give factual support to the genesis theory that the quartzites and altered slates and all of the hard and nodular shale phases would not carry gold or silver values of economic importance. With this knowledge, it was decided to make sampling and screening of samplings, on a large enough scale to develop the natural sizing percentages of the material as taken from the friable shale zone -- "shovel run", and to make tests on commercial basis, to determine the most efficient and most profitable method for sizing the ore and rattleing out the hard and nodular, non-productive material which accompanied the ore under ordinary mining handling.

The whole shale area was carefully sampled and analyzed for values, and some fourteen hundred samplings and analyses were made.

It was found that all gold and silver values in the shales are free and can be recovered under the simplest form of ore dressing and mill procedure. Some two thousand tons of ore were put through the pilot mill, in the preliminary phases of this work.

This preliminary work also developed the fact that all economically important gold and silver values in these shale bodies, are intercalated in the free laminae of the friable shales. It was also learned that the shale zones had been subjected to some unsuspected and very recent adjustment movements, -- probably due to change in distribution of weight, of the heavy quartzite capping and metamorphized shale surface cappings, as hillsides were eroded by sudden climatic phases, -- and that, although these movements within the friable shales, were of a minor nature, they developed a pattern of vertical crumpled sections, that are occasionally intersected by a series of horizontal movement results of similar nature. This condition makes for an easily mined mass, so that it can be handled by power shovel, and without drilling and shooting.

The exploration work, above described, also developed the fact that these shale bodies should be handled as open pit mines, with power shovel used for mining and loading to skip or truck, provided however, that a simple process of primary concentration of values in the ore, could be made before hauling the ore to mill.

With these facts, to pilot further research; the final determination of mining and milling processed was made, as follows:
(a) A careful and complete sampling of weathered shales was made--this work covered the ore dump faces and the foot of each of the several ore walls heretofore opened up by power shovel, and these samplings were run for relative ore concentration percentages and for relative values, retained by each of such percentages of the original ore. This work gave a natural concentration return ratio that served as pilot for final development of mechanical concentration. It is to be noted that the dry - ore concentration percentages, as found in this weathered ore, and the dry-ore concentration percentages, afterward obtained by mechanical concentration, were almost identical and that the relative value percentages followed in very nearly the same sequence.
(b) As a result of the next foregoing described operation, the next step was as follows: Large size samples of several hundreds of pounds each, were taken horizontally, at close and regular intervalls, across the face of the shovel cut ore bodies. These samples were taken so that a natural fall and clearance of the material, from the wall faces, was had and the samples were taken on impervious paulins so that all natural breakage was accounted for.

These samples were then weighed and passed over $1\frac{1}{4}$", 1", 3/4", $\frac{1}{2}$", and $\frac{1}{4}$" screens in succession -- beginning with the largest sizes, so as to give effect of field handling, and the several sizes of ore so obtained, were then weighed.

J. W. E. TAYLOR
Consulting Economist
Los Angeles - San Francisco

It was found that each screening size of each of the large samples, were within very small fraction of ore per cent of the same value. This demonstrated a remarkable uniformity of ore conditions, in the sampled area. The relative percentages, of each of the screening sizes, were as follows:

Reject -- above			$1\frac{1}{4}$"	=	37%
Size	$1\frac{1}{4}$"	to	1"	=	7%
"	1"	=	3/4"	=	11%
"	3/4"	=	$\frac{1}{2}$"	=	12%
"	$\frac{1}{2}$"	=	$\frac{1}{4}$"	=	15%
"	below		$\frac{1}{4}$"	=	19%

In the several sizes, for each samples, were then run over commercial size sluice and riffles for recovery of the freed gold, with the following results:

Gold and Silver in:	Reject above				$1\frac{1}{4}$"	=	Trace
" "	size	$1\frac{1}{4}$"	to	1"	=	Trace
" "		1"	to	3/4"	=	Trace
" "		3/4"	to	$\frac{1}{2}$"	=	Trace
" "		$\frac{1}{2}$"	to	$\frac{1}{4}$"	=	Trace
" "		below		$\frac{1}{4}$"	=	96% +

The several sizes, for each sample, were then dehydrated and weighed for loss, and then all of each size for each sample, was ground and sampled and fire assay run to determine the remaining gold and silver content. The resulting percentages of values, are by screened sizes, with averages as follows:

Gold and Silver in:	Reject above				$1\frac{1}{4}$"	=	$0.44 per ton
" "	Size	$1\frac{1}{2}$"	to	1"	=	0.54 " "
" "		1"	to	3/4"	=	0.72 " "
" "		3/4"	to	$\frac{1}{2}$"	=	0.80 " "
" "		$\frac{1}{2}$"	to	$\frac{1}{4}$"	=	1.04 " "
" "		below		$\frac{1}{4}$"	=	6.56 " "

This series of values, when combined to give the total gold and silver in the several screened sizes --being the value of the "Freed" gold and silver added to the "assay" or mill recovered gold and silver -- gave the following averages for all samples:

TOTAL gold and silver in:	Reject above				$1\frac{1}{4}$"	=	$0.44 per ton of ore.
" " "	Size	$1\frac{1}{4}$"	to	1"	=	0.54 " " " "
" " "	"	1"	to	3/4"	=	0.72 " " " "
" " "	"	3/4"	to	$\frac{1}{2}$"	=	0.80 " " " "
" " "	"	$\frac{1}{2}$"	to	$\frac{1}{4}$"	=	1.04 " " " "
" " "	"	below		$\frac{1}{4}$"	=	9.38 " " " "

J. W. E. TAYLOR
Consulting Economist
Los Angeles - San Francisco

This work and its results show that our final experimental sizing of the ore, gives us 19% (by weight) of the ore carrying 78% of the total recoverable values, and it supports our finding in working with the weathered shale-ore concentration, to the effect that: THE TROMMELING OF THE ORES OF THE GOLD-SHALE ORE ZONE, RELEASES PRACTICALLY ALL OF THE VALUES IN THE FORM OF "FREED" GOLD AND SILVER OR HEAVY FINES, FROM THE LAMINAE OF THE FRIABLE SHALES, SO THAT A SIMPLE NATURAL CONCENTRATION OF THE VALUES IS EFFECTED.

This results, of the final sampling and screening, checks within a very small percentage of the results obtained from the work with the weathered shales. Therefore, it was determined that this dry concentration of the ore values, shall be made at the mine, with Trommel and Screen system, and that only that portion of the ore that passes the one-quarter inch screen, will be hauled to the mill.

This natural dry concentration of the ore, gives a ratio of ONE TON OF ORE MILLED TO FIVE TONS OF ORE MINED.

The pilot portion of the mill building was constructed for permanence and is designed so that the mill can be enlarged to 200 tons, of through-put per 24 hour run, by setting the additional milling equipment in place. The primary crusher, -- used for experimental purposes -- has been replaced with a high-speed sand roll, inasmuch as the largest ore size, going into the mill, will not exceed one-fourth inch. The use of the high-speed sand roll, as a primary crusher, will permit of the bypassing of the finishing mill with a large percentage of the sandroll product, directly to the traps and plates.

Under this plan of operation, the cost of mining and milling this type of ore, cannot exceed two dollars per ton of mill throughput. This figure indicates an unusually high percentage of profit, in proportion to the total investment.

There were now, some 855,000 tons of concentratable ore blocked out, of the Gold-Shale Zone, and it is indicated that the ultimate tonage will be upwards of the two and one-half millions, with millhead from $9.38 to $13.84 per ton.

The writer has worked for more than a year, on the geology, sampling, analysis, process piloting, and other pertinent economic factors accruing to these mining properties, and as the result of this work, he recommends:

That the operation and development, of the lode mining properties of this assembly of mining properties, be initiated by the mining and milling of the ore from the Gold-Shale Zone, on and adjacent to Homestake No. 2 Mining claim. This development and operation to be in accordance with the detail hereinabove set forth. The present mill to be increased to 200 tons, per 24 hours throughput capacity, so that the operation will pay a very substantial profit, while the ultimate development of the properties is being determined and set up.

The climate of the Round Mountain District, permits all year operation of these properties, and the writer recommends that the preparation for the operation and development of these properties, as above outlined, be started at once.

(J.W.E. Taylor)

MINE MANAGEMENT
OPERATIONAL CONSULTING

MINE EXAMINATIONS
MINING ENGINEERING

INVESTOR'S REPORTS
EFFICIENCY STUDIES

247

4020 0031

Item 55

J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS
WRENCO

PHONE GLADSTONE 6-0922
4297 D STREET
SACRAMENTO, CALIF.

STEIGMEYER ESTATE MINING PROPERTIES

1. LOCATION:

The mining properties discussed herein, lie in the foothill region of the Toquima Mountain Range, on the east side of the Great Smoky Valley, in the Round Mountain Mining District of Nye County, Nevada, immediately adjacent to Round Mountain, Nevada.

The Round Mountain District and the Steigmeyer Estate Mining properties are reached by paved highway 8A from Tonopah on the south and from Austin, Nevada on the north. Distance to Tonopah is 57 miles and distance to Austin is 63 miles.

The town of Round Mountain is served by dial telephone, U. S. Post Office, and public utility power service.

2. PROPERTY EXTENT:

A) LODE MINING CLAIMS:

1) Ten full lode mining claims . . . . . 200 acres

2) One Mill Site . . . . . 40 acres

3) Buildings, heavy equipment, such as power shovel, milling machinery, etc., housing, and miscellaneous operating inventory. . . . . .

B) PLACER MINING CLAIMS:

1) Eight 1/4 sections . . . . . 1,280 acres

2) One 80 acre claim . . . . . 80 acres

3) Above ground is laid out on some 3-1/4 miles in length along the course of the gold-silver bearing alluvial gravels.

C) WATER RIGHTS:

Water rights, so important to Nevada operations are:

1) No. One water right . . . . . 2,000 gallons per minute

2) No. Two water right . . . . . 1,250 gallons per minute

3) No. Three water right . . . . . 250 gallons per minute

NOTE: Owner reports more water available, however, above rights are adequate to handle herein recommended operational volume for both the lode tonnage and the placer cubic yardage.

3. OWNERSHIP:

The Steigmeyer Estate Mining Properties, equipment inventory and water rights are owned by Mr. Theodore E. Stevens of P.O. Box 102, Austin, Nevada.

Operating rights of the properties are as follows:

A) LODE MINING CLAIMS:

James H. Wren of 4297 D Street, Sacramento, California and Otto Brink of 5801 - 59th Street, Sacramento, California hold a lease with-option-to-purchase agreement on the Lode Mining inventory, including mill site, the equipment and buildings, for a term of ten years with an option for an additional ten years with royalty being applicable against purchase price.

B) James H. Wren and Otto Brink hold a joint venture agreement with Mr. T. E. Stevens on the gold-silver bearing placer ground.

4. LODE CLAIMS HISTORY:

The Round Mountain District has a well known and highly economic history as a gold producing area, and its early history -- in the 1860s and 1870s holds the records of some of the richest silver producers of their times.

The most recent Round Mountain operation was the large open pit project, less than two miles Northerly from the Steigmeyer Lode Mining Claims, which achieved a daily production of 12,000 Cu. Yds. or more than 18,000 tons per day of gold-silver bearing treatment product.

STEIGMEYER ESTATE MINING PROPERTIES
Report of February 4, 1963

The Steigmeyer Estate Lode Mining Properties first received high volume open pit operational consideration in the 1920s. In the late 1930s and early 1940s additional studies were made. At that time the property was drilled, test pitted and surface channeled. A beneficiating test plant was installed at the pit area and a preliminary mill was constructed at the mill site, along with powerline and transforming equipment installation. Suspension of activities was forced by the U. S. Government gold order L-208 during the war years of World War II.

As a result of the preliminary open pit studies and preliminary mill test run, valuable technical data and economic information has been compiled which enables the following estimates and recommendations to be made.

5. GEOLOGY. Lode Mining Claims:

Please see the herewith geologic report by J. W. E. Taylor covering this report section.

6. EXISTING DEVELOPMENT. Lode Mining Claims:

A) Ten evaluated drill holes shown in "Reserves" Section.

B) Slant drill holes - 2

C) Six test pits

D) One large test run production pit

E) Numerous surface channels.

F) Access roads

G) Mill Building

H) Miscellaneous utility buildings and housing.

I) Water development

J) Electrical power and transforming equipment

K) Installed equipment, utilities

7. RESERVES. Lode Mining Claims:

NOTE: An analysis of the herewith drill hole's evaluation and the Taylor 855,000 tons of positive reserves has been calculated into the following estimate.

Drill Hole average, per ton 5.33

Positive Reserves:

855,000 tons @ $5.33 per ton $4,557,150.00

Probable Reserves:

2,500,000 tons @ $5.33 per ton $13,325.000.00

Total **POSITIVE-PROBABLE ORE** $17,877,150.00

Possible Reserves:

No estimate of **POSSIBLE RESERVES** will be made herein, however, side lines into proven ore on the West and East have not been extended. Therefore, two to three million tons additionally are a definite possibility.

8. MINERALOGY:

Values occur as a free milling product in form of gold and silver in joints, cracks, stringer zones and plated on the walls, seams, joints, cracks and stringer zones. The value carrying gangue is friable and readily shears off of the shale country rock under simple screening treatment.

9. METALLURGY:

Mr. T. E. Stevens made the following two screen tests of bank run ore. The higher average values shown in the drill hole bottoms were not reflected in the screen head product but the results would still be profitable on the basis of the respective treatment heads shown by these tests. They further proved Taylor's results. The Stevens' tests were independent of the Taylor tests and were run some 20 years later.

SOME SAMPLING RESULTS
OPEN PIT SHALE-GOLD-PROPERTY

BANK RUN

Samples 10 in number	Weight 417#	Percent 100	Assay Au. 13	Value AU. 4.55	Value in Fractions
A sized plus 1"	180#	43.16	AU .06	2.10	.9064
B sized minus 1" plus 1/2"	83#	19.90	" .09	3.15	.6268
C sized minus 1/2 plus 1/4"	65#	15.58	" .11	3.85	.6009
D sized minus 1/4 plus 20A	64#	15.34	" .27	9.45	1.4502
E sized minus 20 mesh	25#	6+	" .48	16.80	1.0080

This Composite sample was not subjected to "ROUGH HANDLING" which, with the exception of the above has been the rule in dealing with these shales.

RESULT

54% of Au. is in 21.34% of the mass. @ 1 ton from 5 - a mill head of $12.29 in Au. is indicated.

8 - Bank Run Samples combined

	Weight	Percent	Assau AU & AG	Value	Value in Fractions
A - - -	438#	100		4.18	
B Minus 1/4" plus 20M	52.12	11.9		9.83	1.164
C Minus 20 Mesh	32.28	7.37		26.53	1.955
		Value in Minus 1/4"			$3.119

Thus - 74.35% of value in Minus 1/4"
and only 19.27% of weight in Minus 1/4"
Indicated Mill Head of 1 ton in 5 - - - - - - - - - - - $15,595.

9 Weighted Samples75# each and combined -

This Group of samples were taken where large nodular masses were encountered (Capping) and such material was included in the samples taken. The usual "Rough Treatment" was not very effective as far as reducing the large and harder masses was concerned. Therefore it was decided to scalp off the plus 1" Material, to see what the friable shales associated throughout carried as to values. The probability of passing down a higher percentage of Fines is indicated also bu use of a properly constructed Trommel. Further, these areas chosen for sampling, (with the harder masses) would in no manner possible be segregated from what might be termed "Mine Run Ores." From actual operation. This strata being immediately below what is the capping.

STEIGMEYER ESTATE MINING PROPERTIES
February 4, 1963

	Weight	Percent	Assay	Value	Value in Fractions
9 Samples - Hard Material	675#	100	None		
A-Plus 1" Material	263.25	39	None		
B-Minus 1" Material	411.75	For 100%	4.74	4.74	
C-From "B" & Minus 1/4+20M	56.25	13% of B	11.55	11.55	1.5015
C-Minus 20 Mesh	35.50	8.11%	26.60	26.60	2.1572
			AU in Fraction - 1/4"		3.658.87

Using "B" as 100% - the minus 1/4 Fraction carries 78.89% of the Au. in 21.11 of the mass. on this basis and using 1 ton in 5 millhead = $18.29+

By taking samples of around 50# each and quartering down and running assays - results run in the order of $3.73 - $3.62 - $3.85 - $4.42 - $3.86 - $2.97 - $5.25 - $3.89 - $8.15 - $4.20 etc., etc.

Using an 18 mesh opening screen on these and other samples - not weighed - assays on the minus fractions have run 1.43 oz. Au - 1.18 oz - .70 oz. - .92 oz. - etc., etc.

One 427# sample - a composite of 8 - 50# each approximately - was sent in and ran $5.55 in Au. and AG.

Pannings from areas on Homestake #2 - away from known samples spots invariably, are good.

I submit this information in the belief that it is accurate and representative of the values within the explored areas of the gold in shale of Homestake #2.

(Signed) Theo. E. Stevens.

Advancement in metallurgy during the past 22 years since the last mill test allows more efficient mechanical alignment and will increase recovery to some considerable extent. The overall recovery - pit run over the beneficiating unit and the final metallic gold-silver product should run 80% of the pit run heads.

FLOW SHEET RECOMMENDATIONS:

PIT PRODUCTION 1,250 ton per 8 hour day.

A) D-8 bulldozer, ripper - very little drilling and blasting necessary.

B) Crawler type front end loader 1/1/2 Cu. Yds. capacity. equals 2.25 tons @ 12 cubic feet per ton in place.

C) 30 ton off highway truck to beneficiating plant.

9. METALLURGY, Continuation:

BENEFICIATING PLANT: 1,250 ton per 8 hour day:

A) Intake tunnel stockpile
to
B) 40' x 5' tube with lifter bars to shear off plated values
to
C) Heavy duty flat deck classification screen
to
D) Plus 1/4" mesh to waste conveyor. Minus 1/4" mesh
to
E) Mill truck loading tunnel stockpile
to
F) 30 ton off highway truck used on day shift for pit run materi al 2nd shift for plant haulage
to

TREATMENT PLANT: 250 tons per 24 hour day.

A) Minus 1/4" Mill tunnel stockpile

B) Either rod mill or possibly the large set of rolls now in mill to reduce by closed circuit on the plus 20 mesh to a minus 20 mesh release
to
C) Gold-silver trap
to
D) Jig
to
E) Jig overflow to jig tailings beneficiation by scalping off economic values, if any, to batch cyanide treatment leach and recovery of free gold-silver. Jig hutch product continuous bleed to concentrating tables
to
F) Hi-grade concentrate cut to amalgamator, amalgamator to retort sponge gold to market. Middlings returned to jig, table tailings to jig overflow benefication unit.

10. ECONOMICS:

	Per day
1,250 tons pit run product @ %5.33 p.t.	$7,662.00
20% beneficiating and 5% treatment loss	1,915.30
Estimated recoverable $5.33 head	$5,746.70
Royalty 10% applicable-purchase	574.67
Gross recovery after Roy'y	$5,171.03

10. ECONOMICS: Continuation:

	Per Day
Gross recovery after royalty	$5,171.03
COST:	
1,250 tons per day production: Stripping preparation @ 5¢ per ton	62.50
Drilling, test pitting to explore and prove probable reserves 5¢ per production ton as positive reserves are depleted	62.50
Mining @ 50¢ per ton	625.00
Hauling 10¢ per ton	125.00
Tubing-screening 40¢ per ton.	1,000.00
Strip, Exp'l, Benefication cost	1,875.00
250 TONS PER DAY	
Hauling from screen stockpile to treatment plant intake stockpile @ 25¢ per ton	62.50
Milling-in accordance with herein described flow sheet @ $2.75 per ton	687.50
Total estimated cost	2,625.00
Total estimated daily net	2,546.03
27 day operating month	$68,742.81

TOTAL LABOR REQUIREMENT

1 experienced graduate engineer supt.
1 Cat skinner
1 Front end Loaderman
2 Truck drivers
1 Beneficating plant man
3 Mill men
1 Assayer-Bullion Room-metallurgist
1 Gen'l utility-service mechanic helper, etc.
1 Heavy duty mechanic-electrician
12 Manshifts per day

10. ECONOMICS: Continuation:

NOTE: Even the 10 sample, bank run screen test without the $12.83 values shown on the drill logs would run $3.119 for a beneficiated product of $15,595 per ton and calculated at the same cost would net $1,039.00 above royalty, per day. The 9 sample run of 675 lbs. without the drill hole bottom $12.83 reflection would net above royalty $1,997.06 per day.

11. IMMEDIATE RECOMMENDATIONS:

To insure the proposed setup investment, the following check movements are recommended:

A) Channel sample across beddings all open pits

B) Run one five ton screen test. Use representative material from bank run ore out of the pits, as a composite test sample

C) Use the beneficiated product from the 5 ton screen test to run a free gold-silver recovery mill test.

Estimated cost of the above:

A)	$1,200 inc.	sample freight assay fee
B)	1,500 inc.	sample freight assay fee
C)	1,500 Inc.	sample freight assay fee and metallurgy.
d) Miscl. expenses, transportation, collaboration fee	800.	
Estimated check cost	$5,000	

This check cost is considered quite nominal in view of the multi-million dollar reserve availability. The above work will serve two objectives. a) A final and positive evaluation conclusion before make setup investment. b) Furnish the most up-to-date screening controls and the most up-to-date, efficient recovery data to be used in the subsequent production installation.

There is no payment during this check period due property owner nor any advance royalty.

12. PRODUCTION SET-UP COST ESTIMATE:

The utilities now on the property, usable equipment, buildings, and development reduces what would ordinarily be a much greater initial investment. The selling of heavy earth moving equipment, shovels, conveyor lines, etc. by the agent of the Round Mountain project, only two miles away, at very reduced prices will lower cost to some considerable extent.

All equipment to be used on this project must be in excellent operating condition in-order-to produce the minimum requirement without mechanical failures and the resulting loss of income.

The simple metallurgy needed to successfully treat this ore automatically lowers the setup investment. A complicated metallurgical requirement would cost $2,500 to $3,000 per ton of capacity, or well over 3 million dollars for a new 1200 ton selective flotation plant.

NOTE: All equipment must be in 80% new condition or better.

One D-8 Caterpillar angle dozer-hydraulic ripper winch (a new unit would cost $50,000.00)	$23,000
One 1-1/2 Cu. Yds. capacity front end loader on tracks	10,000
One 30 ton off highway diesel truck	18,000
Screening plant:	
a) Intake tunnel conveying system b) 40' x 5' scrubbing tube c) Flat deck heavy duty classification screen d) Beneficiated product tunnel conveyor and stock pile conveyor-truck loader conveyor e) Waste conveyor Total assembly setup	50,000
f) Camp, millsite, rehabilitation	5,000
g) Machine shop equipment tools	7,000
h) Parts, warehouse supplies	10,000
i) Complete treatment plant setup with new or 80% new units' addition	75,000
Cost estimate	$198,000
10% Contingency	19,800
Operating Capital	25,000
	$242,800

12. PRODUCTION SETUP COST ESTIMATE, Continuation:

It will be possible to defer 1/3 to 2/3rds of the above estimate and pay out of income probably. However, deferment of procurement pay in lieu of cash to force lower prices will raise the total cost somewhat.

SUMMARY:

An all year operation can be conducted at this property.

Previous costly testing, pit opening, and existing utilities and inventory will lower a production enterprise cost at this time to some considerable extent.

The proposed operation is in accord with present industrial efficient practice requirements:

A. It will take only a nominal investment to set up for long range high returns, in view of grade and volume.

B. High tonnage per manshift worked can be produced. It may be possible to raise the pit and screening production sufficiently over 1,250 tons per day to work only 40 hours per week without overtime cost. It is possible to run the treatment plant seven days per week with a staggered shift and save overtime charges.

The fact that metallic gold and silver can be produced on the property creates a favorable condition whereby concentrates do not have to be sent out for refining thereby saving trucking, RR freight, refining fees and losses.

The products to be produced hold excellent marketing outlook. Gold has never been set back price-wise and there is some well founded outlook for the necessity of a domestic subsidy on domestic gold production in view of the U.S. gold stocks. Silver is in extreme short U.S. supply and its price has raised over 36% in the past few months. The silver outlook is for higher prices than now exist. The present price is the highest in U.S. since the 1800s.

After the recommended review of the production reserves, no element of risk, with regard to this enterprise, should be involved.

Very truly yours,

J. H. WREN & COMPANY

By James H. Wren
James H. Wren

Phone ELgin 9-9962

Open Pit
Gold in Shale

NICHOLS LABORATORIES, INC.
ASSAYERS & CHEMISTS
C. Ivan Nichols, Mgr.
160 South West Temple Street
Salt Lake City 1, Utah

2-Bicy-Tot-24

Mr. Ted Stevens
Box 107
Austin, Nevada

CK #30

WE HAVE ASSAYED 10 SAMPLES

ASSAY PER TON OF 2000 POUNDS

DESCRIPTION	NO.	GOLD OUNCES	SILVER OUNCES	WET LEAD %	COPPER %	ZINC %	INSOL %	%	%	%	%
	#1	0.06	0.60		2.82						
	#2	0.22	0.50		8.30						
	#3	0.05	0.20		1.99						
	#4	0.06	0.10		2.22						
					6.54						
	#5	0.18	0.20		9.87						
	#6	0.27	0.35		5.43						
	#7	0.15	0.15		2.92						
	#8	0.08	0.10								
Contact Iron	#9	0.15	Trace		5.25						
	#10	0.015	0.10	out							

Average $4.99

August 31, 1959.

CHARGES $ 20.00

C. Ivan Nichols.

STEIGMEYER ESTATE GOLD-SHALE PROPERTY

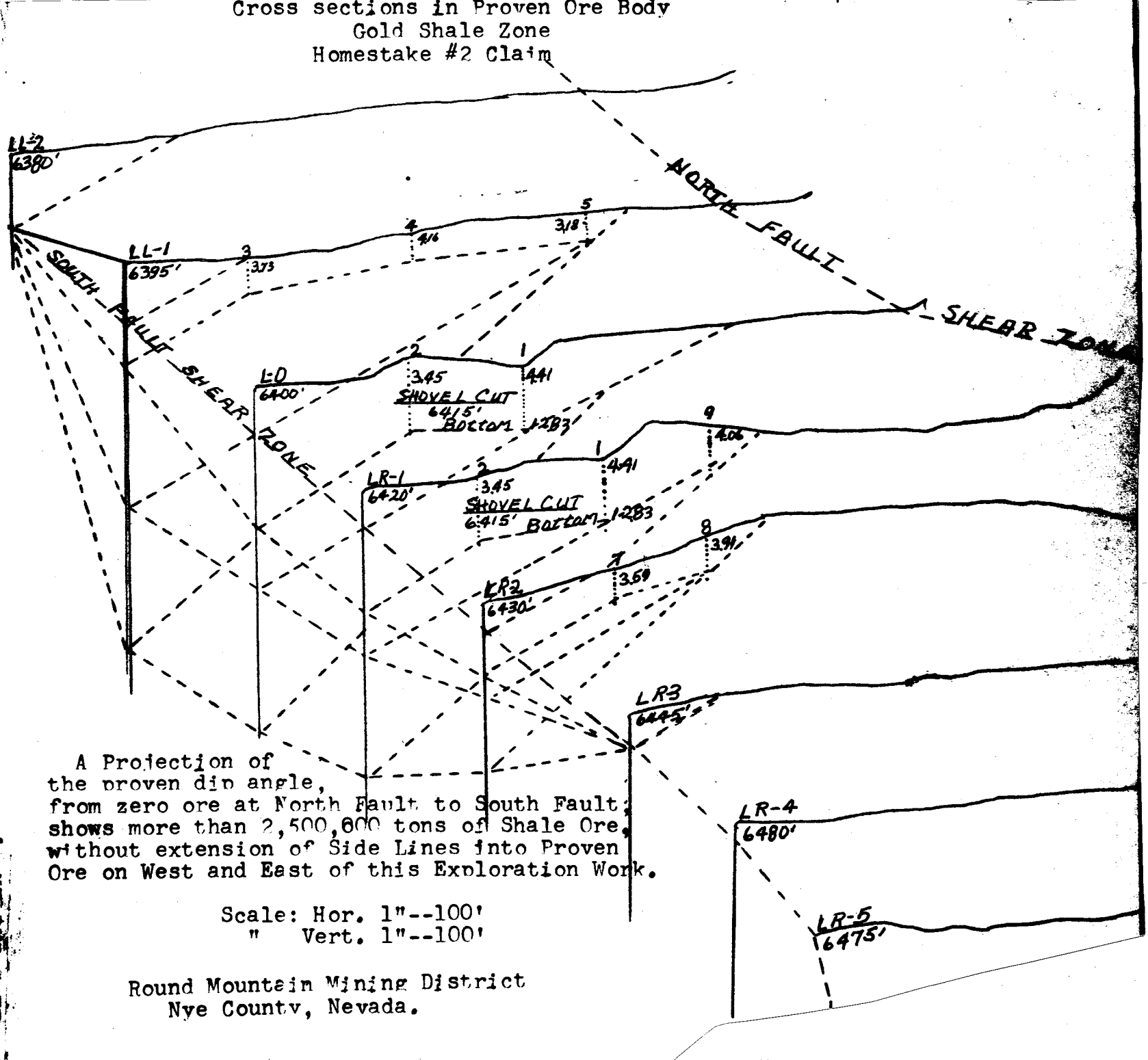
TAYLOR SCREEN TESTING SUMMARY :

20% of pit run material minus 1/4" mesh
contains 90% of values. 5.33 pit run ton
value beneficiated by screening to $23.75.
This product to treatment plant and further release @ minus 20 mesh.

80% of pit run material plus 1/4" mesh to waste.

Cross sections in Proven Ore Body
Gold Shale Zone
Homestake #2 Claim

The cross-section lines, shown hereon, are each on course N46° 30' E. With line L-O having its initial point at the Southwest corner of Homestake #2. All other lines are spaced at 100' intervals to right and left of line L-O, to conform to Drill hole locations. The Strike of this Structure being at right angles to these lines. It is to be observed that the average Dip of this ore body very closely approximates 42°, as disclosed by power Shovel exploration Cuts. The Uniform Strike and Dip of Surface Exposures of this Ore Body, between the North Fault Zone and the South Fault Zone, together with the very Extensive Exploration work, Warrants the anticipation of the Maximum depth of the Ore Body to the West and to the East, instead of a feathering out, as shown on this section sheet, at lines LL-2 and LR-3.



A Projection of the proven dip angle, from zero ore at North Fault to South Fault; shows more than 2,500,000 tons of Shale Ore, without extension of Side Lines into Proven Ore on West and East of this Exploration Work.

Scale: Hor. 1"--100'
" Vert. 1"--100'

Round Mountain Mining District
Nye County, Nevada.

Phone ELgin 9-9962

From Spectrograph Cue

Jefferson Creek PLACER

NICHOLS LABORATORIES, INC.
ASSAYERS & CHEMISTS
C. Ivan Nichols, Mgr.
160 South West Temple Street
Salt Lake City 1, Utah

Ted Stevens
Mine Operators
Austin Nevada

SILVER CONTENT PER CU. YD. IN PLACER DEPOSIT SAMPLE TEST

WE HAVE ASSAYED 1 SAMPLES — ASSAY PER TON OF 2000 POUNDS

DESCRIPTION	NO.	GOLD OUNCES	SILVER OUNCES	WET LEAD %	COPPER %	ZINC %	INSOL %	%	%	%	VALUE OF GOLD PER TON
		Trace	0.80								

August 1, 1960

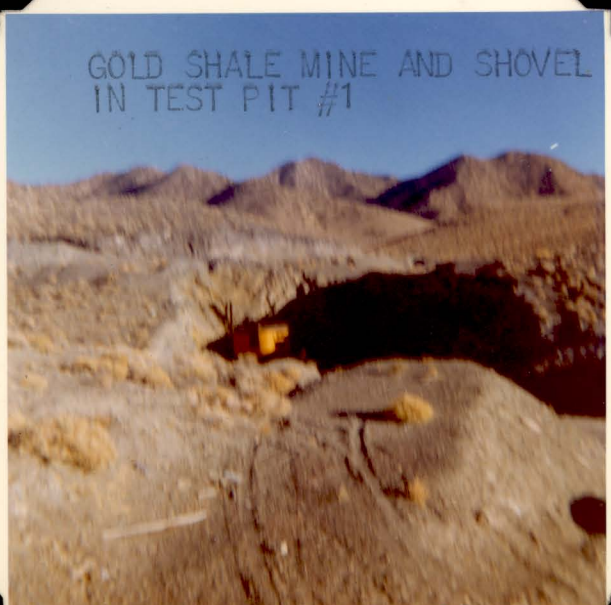
CHARGES $ 2.00

C. Ivan Nichols. Jr

OIL HIGHWAY TO MINE

MILL 2 MILES FROM OILED RD.

SHOVEL AVAILABLE 2 MILES FROM PROPERTY



GOLD SHALE MINE
TEST PIT NO. 1

GOLD SHALE MINE
ONE OF THE TEST PITS

GOLD SHALE MINE STOCK PILE

MILL LOOKING EAST

MILL LOOKING SOUTH

TRANSFORMER BANK-HOUSED

MILL INTAKE ORE BINS

PLACER TEST PLANT STEIGMEYER ESTATE

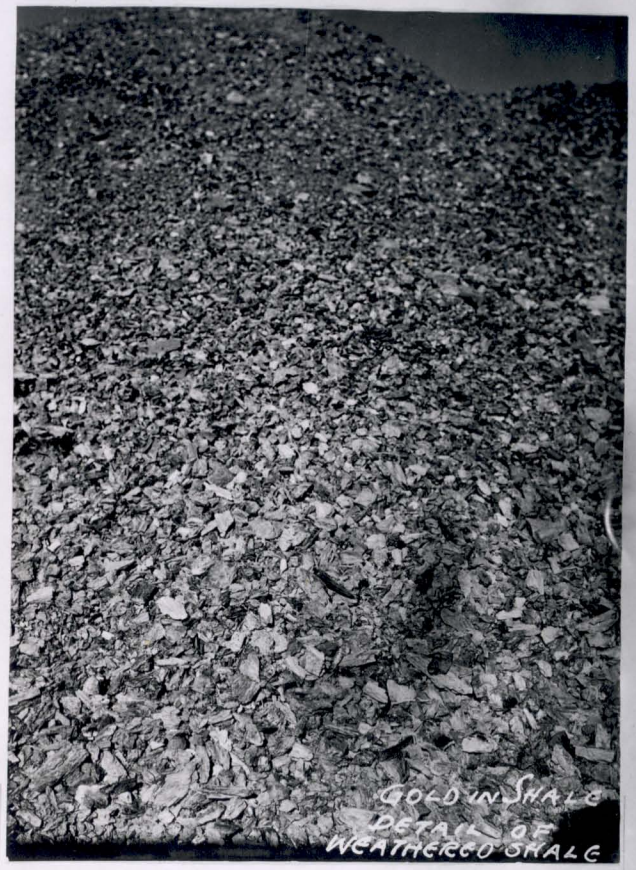
STEIGMEYER ESTATE MILL

WATER TANK, 1/23/63

J. W. E. TAYLOR
CONSULTING ECONOMIST
LOS ANGELES - SAN FRANCISCO

7-A

Detail of GOLD-SHALE ore body, showing laminae of shale in fracture planes. This condition provides a friability within the ore body, that materially reduces mining costs. The gold and silver values, in this ore body, are not disseminated throughout the rock mass, but are intercalated between the free laminae of the shale ore, so that the usual fine grinding of ore is not necessary or desirable. This condition reduces the ultimate milling costs to minimum.



7-B

Detail of "Weathered Shale". This Gold Zone Shale ore weathers down to its weakest laminae contacts, thereby reducing the ore so that simple screening shows that 19% of the ore (by weight) carries 76% of the gold and silver values. This condition is EXACTLY DUPLICATED, with trommel and screen, as the ore comes from the shovel mining operations.

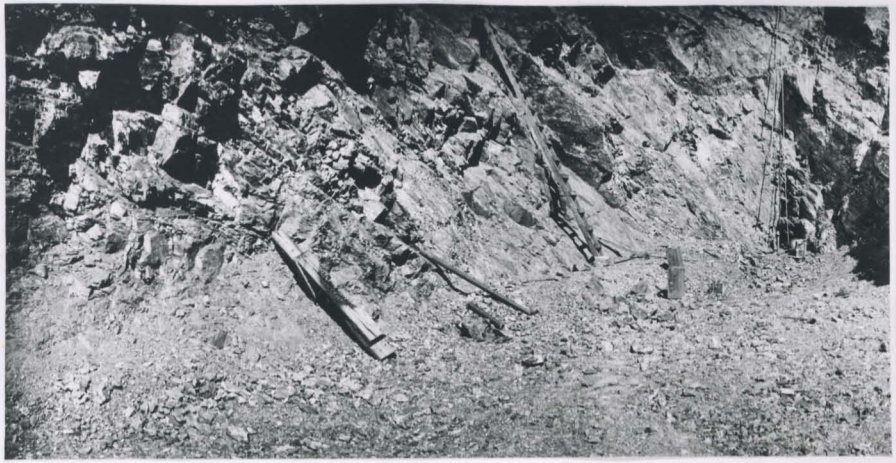
J. W. E. TAYLOR
CONSULTING ECONOMIST
LOS ANGELES - SAN FRANCISCO

4-A

Upper "shovel cut" exploration workings, on Homestake No. 2 Gold lode claim, in Gold-Shale Zone. Site of "lower shovel cut" exploration workings as indicated.

4-B

Lower "shovel cut" exploration workings on Homestake No. 2 Gold lode claim.



5-A

Foot of Ore-walls at upper end of "lower shovel cut" exploration workings, on Homestake No. 2 Gold lode claim, in the Gold-Shale Zone.

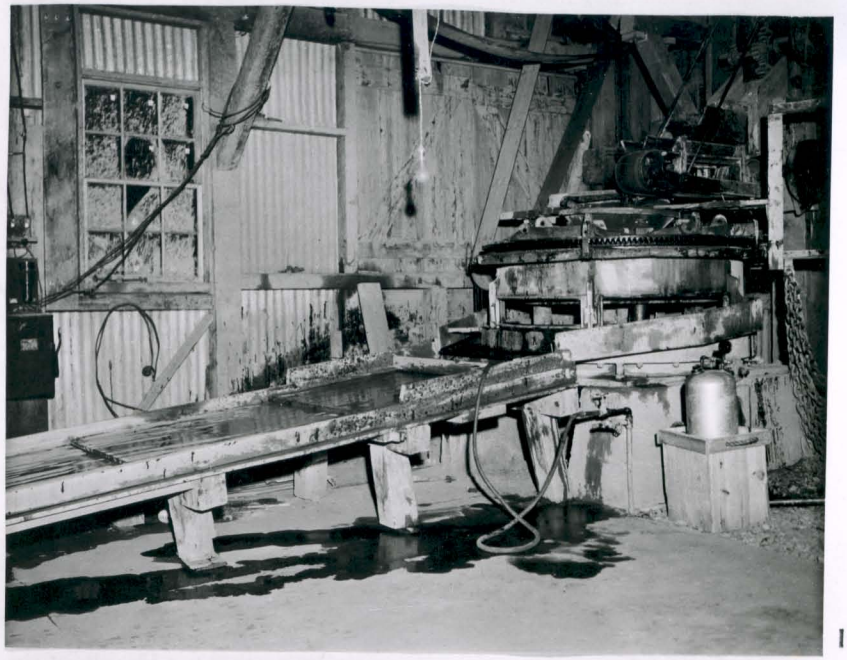
5-B

Top of Ore-walls at upper end of "lower shovel cut" exploration workings, on Homestake No. 2 Gold lode claim, in Gold-Shale Zone.

6-A

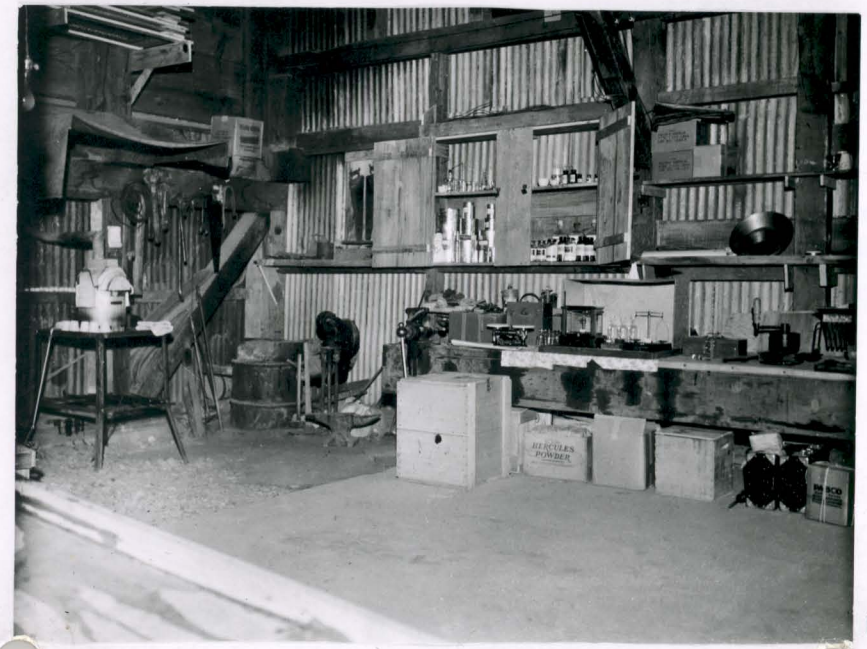
Detail of GOLD-SHALE Zone ore body. Note massive type of this ore body, which lies with dip against shovel working face. An ideal condition for mining this ore, with shovel in open pit, without the use of drills and powder. The dip of this ore body, runs with the longitudinal strike of the hill, with primary shovel face at lower end of hill.

J. W. E. TAYLOR
CONSULTING ECONOMIST
LOS ANGELES - SAN FRANCISCO



11-A

AT LEFT: Corner of Pilot Mill, showing fifty-ton, centrifugal type finishing ore mill, with part of plate setup in foreground. Primary crushing equipment and primary and secondary ore bins are above and back of finishing mill, as indicated by ore-feed conveyor.



11-B

AT LEFT: Showing complete field laboratory equipment, used with mill in piloting the metallurgy and mill methods for handling the Gold Lode ores.

247
Item 55

SW ¼
Sec. 31

SE ¼
Sec. 31

EXCEPTION No 1.

HOMESTAKE No 2
Open Pit Mine on this claim

HOMESTAKE No 4.

HOMESTAKE No 3

HOMESTAKE No 5.

EXT. # 4

EXT #3

EXT #6

EXT #5

RANGE 44 E. MD B & M.
RANGE 43 E. MD B & M

TWP 10 N. MD B & M
TWP 9 N. MD B & M

NW ¼
Sec. 6

NW ¼
Sec. 5

GRAY

BLUE

PUT-IN-BAY

CEDAR POINT

SW ¼

NOTE: Inaddition to the hereon shown LODE mining claims; the Frederick Steigmeyer Estate owns that certain Lode Mining Claim purchased under the Name of "MONTE CRISTO" Lode Mining Claim (in the spring of 1942) from one J. U. Raymond. The presently used name of said claim and the detailed description thereof, is not known to me. Said claim is located near to the southeast corner of Section 20, T 10 N, R 44 E, MD B & M. J. W. E. Taylor 3/25/48.

SCALE 1 IN. = 500

March 25 1948

Estate of Frederick Steigmeyer

LODE Mining Claims
Round Mountain Mining District
Nye County, Nevada J. W. E. TAYLOR

402-0023
DB 30

(247)
Item 55

S 88° 30' E

GOLD SHALE ZONE

6435
6430
6425
6420
6415
6415'
6441
6450

N 1° 30' E

EAST CORE

S 88° 30' E

MINING PROPERTIES
of
REDERICK STEIGMEYER
und Mountain Mining Dist.
Nye County, Nevada.

Homestake No. 2 Claim
Exploration Detail
Scale: 1 Inch = 100 Feet

○ Surface-Placer Test Pits
● Deep Test Drill Holes

4020 0031
Pg. 32

(247)
Item 55

JAMES H. WREN

4297 - D - STREET
SACRAMENTO , CALIFORNIA

BORN : San Francisco, California - January 22, 1912.

MARITAL STATUS : Married, two children.

ENGINEERING EDUCATION : Post graduate studies, knowledge of the Spanish Language, hold U. S. Passport, Member of the American Institute of Mining and Metallurgical Engineers, author of technical papers.

PROFESSIONAL RECORD

SEPTEMBER 1, 1947 TO DATE :

Individual fee basis mining engineering and short term management, management assignments, specializing in production problems. Examples : Basic Refractories, Inc., 3,500 tons per day magnesite project, Alder Copper-Gold, Corp., 300 tons per day underground Au, Ag, Cu, Zn production and differential flotation plant operation. U. S. Tin Corp., Alaskan lode and placer tin production. Baltimore-Camas Corp., 100 tons per day tungsten project. Placeres de Sonora, 4,000 Cu. Yds. per day Mexican placer gold enterprise. Nothern Resources Corp., 100 ton quicksilver operation. Ecuadorian Enterprises, Inc., Ecuadorian Dredge Corp., Western Hemisphere Resources Corp., French Guiana gold placers, Consulting Mining Engineer to Industrial Development, Washington, D. C. and numerous other domestic and foreign firms for which examinations, evaluations, and efficiency programs were accomplished.

Reference : Theodore Macklin, Ph. D. 3127 Hampshire Dr., Sacramento, Calif.
H. P. Morrison, 1745 - K - St., N. W. Washington, D. C.
J. M. Van Patten, 1714 Fletcher Ave., Sou. Pasadena, California.

JULY 1, 1945 TO SEPTEMBER 1, 1947 :

Gen'l. Supt. and Utah Manager for Metal Producers, Inc.; Chief operation : Horn Silver Mine, Milford, Utah. Upon arrival at the property a large deficit existed. By engineering alignment, mechanization and marketing adjustment, production was raised from 50 to 400 tons per day in form of three products - complex selective flotation ore, crude smelting ore and a mine beneficiated direct smelting product. Metals produced : gold, silver, lead, zinc, copper. Operations were suspended on August 11, 1947 as a direct result of Metallic Premiums termination, June 30, 1947 and the economic grade of the reserves.

Reference : J. W. Mangram, 243½ Sou. Elm Dr., Beverly Hills, California.

FEBRUARY 1944 TO JUNE 1945 :

Superintendent, Tungstar Mine near Bishop, California. Project produced a monthly average of 3,000 units WO_3 @ $30 per unit tungsten market.

MAY 1941 TO DECEMBER 1943 :

Supervisory duties connected with military construction related to rock excavation and heavy earth moving in foreign fields.

For eight years prior to 1941, worked as a miner, millman, shiftboss, mine foreman, mining engineer and Supt. at various Western United States mines.

James H. Wren.

J. W. E. TAYLOR
CONSULTING ECONOMIST
LOS ANGELES - SAN FRANCISCO

West-Southwest: from point near west end of lower "shovel bench" exploration cut on Homestake gold lode claim No. 2. 2500 ton dump of mill ore, taken from exploration cut, is shown in foreground near SW corner of Homestake No. 2. Homestake No. 3 and Annex No. 3 are shown in central background. Annex No. 5 and Annex No. 4 are shown in left background. Howmestake Extension and Homestake Extension Nos 1 & 2 are shown in right background.

Shoshone Mt

East-Northeast: from point near west Centre Stake of ~~Missing Men~~ OREGON gold placer claim, showing Junction of Indian Creek and Jefferson Canon. Missing Men, and Paramount No. 2 gold placer claims, in the order named, lie upstream along the bed of Jefferson Canon wash. Oroville Nos. 6 and 5 lie across bench areas along Indian Creek drainage.

8B

4020 0031

J. W. E. TAYLOR
CONSULTING ECONOMIST
LOS ANGELES - SAN FRANCISCO

-01

10-A

Northwest: Across Eureka Gold Placer. North Pole Placer in right background. Oroville No. 14 in center background. Oroville No. 15 in left background.

10-B

Pilot Mill, on south bank of Jefferson Canon wash, in southeast quarter of Eureka Gold Placer. This Mill was used to pilot the metallurgy and plan for development and operation, of the "Steigmeyer" group of Gold Lode properties, as discussed herein.

4020 0031

PLACER GOLD TEST SCREEN

WAREHOUSE-SHOP

LOOKING WEST AT MILL AND WATER TANK

HOUSE AT MILL

NEW HI-VOLUME ROLLS CRUSHER

GRIND UNIT IN MILL

MILL ELECTRICAL CONTROLS

247
Item 55

TABLE OF CONTENTS

STEIGMEYER ESTATE MINING PROPERTIES

J. H. WREN & COMPANY, OPEN PIT PRODUCTION REPORT

T. E. STEVENS, SCREEN TESTS 1 AND 2

J. W. E. TAYLOR, LODE GOLD BEARING SHALE REPORT

J. H. WREN & COMPANY, GOLD-SILVER PLACER REPORT

J. W. E. TAYLOR, GOLD-SILVER PLACER REPORT

PHOTOS

REFERENCE

MAPS IN POUCH

(247)
Item 55

J. W. E. TAYLOR
Consulting Economist
Los Angeles - San Francisco

Los Angeles, California

STEIGMEYER ESTATE MINING PROPERTIES
Round Mountain Mining District
Nye County, Nevada

The mining properties, discussed herein, lie in the foothill regions of the Toquima Mountain Range, on the east side of the Great Smoky Valley, in Nye County, Nevada, and consist of a group of Lode Claims, water rights, a mill, and miscellaneous mining equipment.

The Placer Mining Claims, of this assembly of mining properties, consist of a total of 13 claims, located under land subdivision lines and descriptions. These Placer claims total over 2,080 acres, and have been assembled to cover the Pleistocene gravel benches of Jefferson Cannon and Shoshone Canon; the Recent gravels in the Alluvial Fan and Flood Plains of the Canyons, and of Slate Creek; the Rhyolite Breccias of Kelsey Canon, and the same type of value bearing materials on the south slope of the free-gold bearing dikes of the Gold Hill District.

These Mining properties also include water rights for mill, and almost complete mill of 200 ton daily capacity. All being on the Eureka Placer Mining Claim (the SE¼ of Section 8, T 10 N, R 44 E, M D B & M.). and further miscellaneous mining equipment, such as power shovel, bulldozer, etc. The described mill is located on the South bank of Jefferson Creek, at a point about two miles north of the town of Round Mountain.

ROADS, TRANSPORTATION, POWER, ETC.

These mining properties are immediately adjacent to the Town of Round Mountain. The Round Mountain mining district has a well known and highly favorable history as a gold producing district, and its history of its earlier days -- in the eighteen sixties and eighteen seventies -- carries the records of some of the richest silver producers of their time.

The general mining community is served by a Post Office at Round Mountain, and dial telephone. The community and mining area has electric service via the electric power lines of the Nevada-California Power Company, and at fair rates. These electric power lines traverse both the Lode claims and the Placer claims, discussed herein. The mill, on these properties, is electrically operated with power line connection to the Round Mountain Line of the Nevada-California Power Company.

The Round Mountain District and the mining properties discussed herein, are reached by paved State Highway 8A from Tonopah on the south, and from Austin on the north. The paved highway going to Tonopah connects with U.S. Highway (No.6) at a point about six miles east of Tonopah and the distance from Tonopah, via this road, is fifty seven miles. The road to Austin connects with U. S. Highway

50 at a point about eleven miles east of Austin. This road traveres the Great Smoky Valley, through its flowing well ranching district, and the distance to Austin is 66 miles.

The Round Mountain district has both Grammar grade and High Schools, located in the town of Round Mountain.

Heavy duty Machine Shops, for making extraordinary repairs, are available in both Tonopah and Fallon.

The town of Round Mountain has the type of general supply stores, usual to such communities.

CLIMATE:

The Round Mountain district has an arid, desert type of climate, but which is milder than the average desert climate, due to the tempering effect of the currents and air drainage via Jefferson Cannon and Shoshone Canon, from the mountains immediately adjacent on the east.

The average Annual precipitation, for the Round Mountain district, is about six inches with considerable snowfall and Spring season storage in the altitudes above 8,500 feet. This form of snow storage usually carries over, well into June. The normal precipitation curve, during the Summer months, is marked with frequent showers and an occasional heavy rainfall and runoff in the higher mountain areas.

The mean temperature, for the Round Mountain district over a long period of years, is as follows: January 28° F., February 33° F., March 43° F., April 47° F. May 51° F., June 60° F., July 69° F., August 58° F., September 58° F., October 46° F., November 39° F., December 26° F., Mean for the entire year is 48° F.

It will be observed that general climatic conditions in the Round Mountain district, permit of all-year mining, on both outside and mill operations.

GEOLOGY

The bibliography, on the geology of the Round Mountain district, is very limited and the following summarization is from the writer's work in that district and in the Great Basin area of the western states, and is in part from the records of other studies by other observers. Direct quotations are not made, as most of the other observers have limited their records to the particular property that was being studied at the time such record was made.

The area, under discussion herein as being the site of the several mining claims listed, lies within the limits of 37°40'--38°45' North Latitude, and 117°--117°05' West Longitude, and it covers the foothill sections of the following drainage areas, from south to north, in the order names: Slate Creek, Kelsey's Canon, Shoshone Canon, and Jefferson Canon. These drainage areas increase in size and importance as Jefferson Canon is approached from the south.

50 at a point about eleven miles east of Austin. This road traveres the Great Smoky Valley, through its flowing well ranching district, and the distance to Austin is 66 miles.

The Round Mountain district has both Grammar grade and High Schools, located in the town of Round Mountain.

Heavy duty Machine Shops, for making extraordinary repairs, are available in both Tonopah and Fallon.

The town of Round Mountain has the type of general supply stores, usual to such communities.

CLIMATE:

The Round Mountain district has an arid, desert type of climate, but which is milder than the average desert climate, due to the tempering effect of the currents and air drainage via Jefferson Cannon and Shoshone Canon, from the mountains immediately adjacent on the east.

The average Annual precipitation, for the Round Mountain district, is about six inches with considerable snowfall and Spring season storage in the altitudes above 8,500 feet. This form of snow storage usually carries over, well into June. The normal precipitation curve, during the Summer months, is marked with frequent showers and an occasional heavy rainfall and runoff in the higher mountain areas.

The mean temperature, for the Round Mountain district over a long period of years, is as follows: January 28° F., February 33° F., March 43° F., April 47° F. May 51° F., June 60° F., July 69° F., August 58° F., September 58° F., October 46° F., November 39° F., December 26° F., Mean for the entire year is 48° F.

It will be observed that general climatic conditions in the Round Mountain district, permit of all-year mining, on both outside and mill operations.

GEOLOGY

The bibliography, on the geology of the Round Mountain district, is very limited and the following summarization is from the writer's work in that district and in the Great Basin area of the western states, and is in part from the records of other studies by other observers. Direct quotations are not made, as most of the other observers have limited their records to the particular property that was being studied at the time such record was made.

The area, under discussion herein as being the site of the several mining claims listed, lies within the limits of 37°40'--38°45' North Latitude, and 117°--117°05' West Longitude, and it covers the foothill sections of the following drainage areas, from south to north, in the order names: Slate Creek, Kelsey's Canon, Shoshone Canon, and Jefferson Canon. These drainage areas increase in size and importance as Jefferson Canon is approached from the south.