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Volume 3 ; Book 10

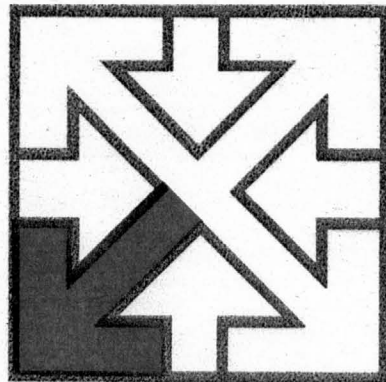
# TOMBSTONE

Mining District

Cochise County

ARIZONA

J.A.B.A. Reports and Maps  
1984



**Southwestern  
Exploration  
Associates**

**Mineral Exploration &  
Natural Resource  
Consultants  
Tucson, Arizona**

T.D.C. Region Report (2-1-84)

Considered important  
copy of  
Degree Report  
January 1, 1984

The U.S.

# James A. Briscoe & Associates, Inc.

Exploration Consultants:

Base and Precious Metals/Geologic and Land Studies/Regional and Detail Projects

James A. Briscoe  
Registered Professional Geologist

Thomas E. Waldrip, Jr.  
Geologist/Landman

STATEMENT DATE: JANUARY 31, 1984  
CLIENT: TOMBSTONE DEVELOPMENT COMPANY

## PROFESSIONAL FEES

WEEK ENDING	J. A. BRISCOE @\$25/HR	T. E. WALDRIP @\$25/HR	M. A. STEWART @\$15/HR	TOTAL HOURS	TOTAL CHARGES	TOTAL CATEGORY CHARGES
01/06/84	29.50	23.00	8.50	61.00		
01/13/84	31.75	23.00	0.00	54.75		
01/20/84	42.25	23.00	0.00	65.25		
01/27/84	36.25	23.00	4.00	63.25		
	<u>139.75</u>	<u>92.00</u>	<u>12.50</u>	<u>244.25</u>		
TOTAL CHARGES	3493.75	2300.00	187.50		5981.25	5981.25

## VEHICLE CHARGES

01/04/84	SUBARU	184.5 MILES	X \$0.45/MILE + \$10/DAY =	93.03	
01/08/84	SUBARU	174.6 MILES	X \$0.45/MILE + \$10/DAY =	88.57	
01/11/84	SUBARU	273.1 MILES	X \$0.45/MILE + \$10/DAY =	132.90	
01/18/84	SUBARU	116.1 MILES	X \$0.45/MILE + \$10/DAY =	84.75	
01/20/84	SUBARU	164.2 MILES	X \$0.45/MILE + \$10/DAY =	83.89	
01/20/84	1 TON	202.0 MILES	X \$0.50/MILE + \$10/DAY =	111.00	
01/21/84	SUBARU	195.3 MILES	X \$0.45/MILE + \$10/DAY =	97.89	
01/24/84	SUBARU	170.0 MILES	X \$0.45/MILE + \$10/DAY =	86.50	
01/29/84	SUBARU	164.5 MILES	X \$0.45/MILE + \$10/DAY =	84.03	862.56

## OFFICE EXPENSES

TELEPHONE CREDIT FOR AMOUNT ESTIMATED FOR DECEMBER	-11.58	
XEROX CREDIT FOR AMOUNT ESTIMATED FOR DECEMBER	-22.90	
TELEPHONE	83.74	
XEROXING	30.45	
POSTAGE	20.00	99.71

## MISCELLANEOUS EXPENSES

12/29/83 TO ASTRO BLUEPRINT/INK FILM	23.79	
01/03/84 TO ASTRO BLUEPRINT/INK FILM	13.70	
01/10/84 TO ASTRO BLUEPRINT/INK FILM	21.08	
01/18/84 TO FOXWORTH-KILLEN/FIELD SUPPLIES	6.09	
01/18/84 FIELD ASSISTANT 10.3 HOURS @ \$7/HR.	72.10	
01/21/84 FIELD ASSISTANT 6.0 HOURS @ \$7/HR.	42.00	
01/21/84 TO GRANT ROAD LUMBER/CLAIM POSTS	18.40	
01/28/84 TO ACE HARDWARE/CLAIM STAKING SUPPLIES	18.34	
01/28/84 TO SHERWIN WILLIAMS/CLAIM STAKING SUPPLIES	47.47	
01/28/84 TO GRANT RD. LUMBER/LATH FOR CLAIM POSTING	72.23	
01/28/84 TO GRANT RD. LUMBER/CLAIM POSTS	262.26	
01/28/84 TO PRICE CLUB/FIELD SUPPLIES	41.44	
01/29/84 FIELD ASSISTANT 11.5 HOURS @ \$7/HR.	80.50	719.40
TOTAL AMOUNT DUE	7662.92	7662.92

\* DOES NOT INCLUDE 22.75 HOURS OF J. A. BRISCOE TIME, which will not be billed, as it was travel time to & from Tombstone, affecting a savings of lodging.

Progress Report

# James A. Briscoe & Associates, Inc.

Exploration Consultants:

Base and Precious Metals/Geologic and Land Studies/Regional and Detail Projects

James A. Briscoe  
Registered Professional Geologist

Thomas E. Waldrip, Jr.  
Geologist/Landman

February 1, 1984

Bill Hight, Frank Gallup, Lavern Baxter  
Tombstone Development Company  
P. O. Box 1445  
Grand Island, NE 68802

RE: Monthly report on progress in the Tombstone District during  
the month of January

Dear Bill, Frank, & Lavern:

## SUMMARY

As of this date, we have accomplished the following:

1. We have reached a verbal agreement with Dennis Abbl, and hopefully will be ready to sign a lease option agreement with him in a couple of weeks - sooner if possible.
2. Permits for trench work on state land have been obtained.
3. Charlie and Louis Escapule are working on the parameters of a joint venture type working arrangement with TDC for the State of Maine area.
4. Secured most of the land in the potentially gold bearing area around the Tombstone airport. This consists of approximately 62 additional federal mining claims, and renewed and enlarged state prospecting permit application leases.
5. Photogeologic mapping has traced the Mustang vein for at least 18,000 feet, and possibly for as great as 24,000 feet (4.5 miles), into the State of Maine area.
6. The Mustang vein is approximately 600 feet wide where it crosses Tombstone Development Company state lease ground to the north of the Mustang claims themselves.

7. Nine mining companies have indicated varying degrees of immediate interest in the Tombstone area. Two of these, Amoco Minerals Corp. and possibly FMC Corporation have budgets for the Tombstone area. The most important of the contacts has been from Western States Mining Corporation, who has suggested a 50/50 joint venture in the area if their evaluation is positive.
8. Bob Crist has indicated an interest in leasing his claims in the Bunker Hill area - where Amoco will be working - to TDC, and fractions within that area have been recently staked and acquired by TDC.
9. Approximately 15% to 20% of the required technical assessment work for the federal mining claims has been accomplished as of this date.

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During the month of January, as per your request, we have tried to push forward as rapidly as possible.

The major objective of finalizing a deal with Mr. Dennis Abbl could not be met because he was out of Arizona - he says - in Texas and Utah - and was incommunicado until Friday, January 27. As of that date, he has reviewed our last offer, and agreed to it -- if we pay him \$12,000 up front for a full year's lease/option. This, I felt, was not too much different than our previously discussed deal, i.e., \$7,000.00 for seven months, and \$5,000 for an additional five months. On obtaining your verbal permission to proceed on Saturday morning, Bill, Tom Waldrip started reviewing the agreement originally prepared for Robert Frederico. Because of our negotiations with Mr. Abbl, the deal has changed from a simple sales contract to a lease with option to purchase. Tom feels that using a lease/option agreement we have in our files is better, will be less time consuming and costly, than revamping the Frederico agreement. Thus, Mardee spent several hours Sunday typing the document into the computer. Tom, meanwhile, made changes appropriate to the Abbl agreement. Unfortunately, Tom, Mardee, and I were all down with the flu on Monday and Tuesday. We hoped to have things completed by Wednesday, but unfortunately this morning we had a burglar break into the house, and subsequently captured in the act by the police, and who, while being handcuffed, broke away resulting a chase involving about a dozen Sheriff and City of Tucson police officers and the police helicopter. After all the ensuing hassle, fingerprinting, crime lab photography, etc., the day has been pretty well shot so that I am afraid it will be Thursday before we can get this document to Bill Dolph. Hopefully we can



then get the thing to Abbl on Friday. A copy of the agreement is enclosed - though not reviewed by Dolph.

We would hope to get a signature from Abbl by the end of the week, on February 6. If we can get it signed, we should be able to start excavation Monday, February 13, and hopefully can get Dan Adams of United Nuclear Corporation (UNC) down from Albuquerque with the Silver MAP at the end of that week. If the start of trenching and assaying is delayed much beyond that time, we will run into further delays since Dan Adams already has commitments on his books for using the Silver MAP in Nevada and elsewhere. So we are proceeding as rapidly as is possible.

Other important developments have take place also. Of most importance is the recognition of the potential for Carlin-type disseminated gold, which might occur in the area of rhyolite dikes and sills near the airport. Because we did not have all of the land secured in that area, I didn't want to tell anyone until the land was secure. We have staked an additional 62 claims this past month, and have obtained additional state land via application for prospecting permits, so the land position is now relatively secure. I have informed several companies about the potential, and great interest was expressed by all. I will give you further details later on in this report.

I would like to review chronologically the work that Tom Waldrip and I have performed over the past month, and discuss how it fits with the project as a whole. The chronological list follows below.

#### ACTIVITY #1

Geologic-alteration-mineralization- photointerpretation of rectified 1" = 500' color verticle air photos covering about 12 square miles from Charleston to just south of the State of Maine mine, and covering the Mustang vein system, Robbers Roost breccia pipe, Charleston Lead Mine and veins at the Bronco Hill area. 3X magnifiers were used during this interpretation so mine shafts and prospects and other features 5' to 10' in diameter could be seen.

#### RESULTS

A zone of alteration approximately 3 miles wide and 6 miles long was mapped and identified. This zone ran off of the photos to the northeast, however, it probably continues on into the old part of the Tombstone District, giving it a total length of approximately 9 miles. Specific vein zones, faults and vegetation alignments and numerous mine shafts

and prospects could be identified within this zone. The Mustang vein zone could be clearly discerned. It could be followed as far south as the Charleston Lead Mine. Putting it another way, it appears to originate at the Charleston Lead Mine, and in that locality shows intense alteration of the wall rocks with zinc, lead, and presumed silver mineralization being present. It strikes north approximately 45 degrees east, and passes through the two Mustang claims, through state land held by prospecting permit by Tombstone Development Company, then on to ground held by Alanco, Seth Horne, Steve Henderson, and may possibly lie on strike with the State of Maine veins. The vein alteration zone is up to 400' wide on the Mustang claims, but widens to 600' or more on the state ground, and then appears to narrow to the north, getting progressively more narrow going toward the State of Maine. The vein dips southeasterly in the Mustang claims, and on the state ground. Sketch cross sections suggest that the source hydrothermal fluids, at least for the Mustang claim portion, may be within the Robbers Roost breccia pipe with the vein system intersecting breccia material and/or igneous intrusive rocks at a depth of about 2,500 feet. More importantly, the vein may pass into Bisbee or Paleozoic sediments lying beneath the Uncle Sam Tuff at a depth of 200 feet to 1,000 feet. At this point of intersection, significant bonanza, manto-type replacement ore bodies may be encountered.

The vein may be precisely followed for 12,000 feet, and less precisely followed for another 6,000 feet, for a total of 18,000 feet. It can probably be projected into the State of Maine area another 4,000' beyond the edge of the photos. This would give it a total projected length of approximately 4.5 miles. Since we know it contains silver at the Mustang claims and in the State of Maine area, the total potential ore, assuming the vein is silver bearing throughout, may be very substantial. Further, it intersects sedimentary rocks throughout its length, giving potential for bonanza type manto replacement ore bodies at depth.

Because it is controlled along its length by the Stewart Construction Company (Seth Horne) of Phoenix, Steve Henderson, and the Escapules, it is quite important to obtain a working relationship with all of these parties.

#### ACTIVITY #2

Reconnaissance to locate and flag state section boundaries and backhoe trench lines.

- A. Locate state land boundaries in the Robbers Roost area, and flag one trench line across intensely altered rock 300' southeast of the edge of Mustang II claim.
- B. Reconnoiter Mustang claim area.
- C. On the state land held by prospecting permit northeast of the Mustang claims (SE/4 Section 19, T.20S., R.22E.), onto which the Mustang vein strikes. Recon geology and layout of section boundaries was made.
- D. In state Section 32 (where the Terrible claim lies and is cut across by the Tombstone water line), T.20S., R.22E., geologic recon was performed. Photo interpretation showed a structural depression in Bisbee group sediments. Irregular or amoeba shaped areas of red mineralization could be seen on the color photos, corresponding with small prospect pit exploration holes. This areas was reconnoitered and confirmed that epithermal mineralization consisting of quartz and carbonate veins with limonite after pyrite, calc-silicate hornfels, and disseminated black manganese oxides in sandstone units in the Bisbee. It is concluded that test work should be performed in this area, as these are indications of possibly disseminated areas of mineralization within which might occur higher grade vein shoots containing silver and/or gold.

### ACTIVITY #3

I met with Seth Horne, President of the James H. Stewart Construction Company in Phoenix in his offices in Phoenix. The purpose was to determine whether he wanted to cooperate with Tombstone Development Company in some type of a joint effort in the Tombstone District. No specifics were mentioned - it was merely to determine his interest or lack of interest in cooperating with Tombstone Development Company.

### RESULTS

We reviewed maps. Determined that the well on the Charleston Lead Mine area was in good shape and could product water. Also that power lines were still connected and service could be easily restored. Finally, Mr. Stewart was definitely interested in doing anything that could get interest in the project underway, stating "I have been working on this for more than 15 years now, and am getting

older and would like to see it brought to some kind of conclusion".

#### ACTIVITY #4

After leaving the meeting with Seth Horne at 4:00, I went to meet Mr. Bob Larkin, evaluator of state prospecting permit applications in the state land building in the state capitol complex. Carried with me were prospect permit applications for trenching on the state land adjacent to the Mustang claims, and also in Section 32 (the Terrible claim section). I met with Bob for approximately 45 minutes, and obtained promise from him that he would have the applications signed the next day and back on my desk. This subsequently was done, and the permits are in hand. This is quite important because they could have been held up by the state land department for as long as 180 days, or even denied.

I also tried to research documents that would show where Energy Reserves Group (now Goldsil Mining Company) had placed their drill holes on state land near the airport, which intersected gold mineralization. Unfortunately that document center closes at 4:00 so I was unable to do this. Bill Hight subsequently researched this material, and with some help from Bob Larkin, these data are now in hand.

#### ACTIVITY #5

Drove from the state capitol complex to Bill Hight's house, and discussed all of the above.

#### ACTIVITY #6

Started staking state mining claims over the hills south of the Tombstone Extension to cover remaining open federal ground. Paleozoic sediments in this area are intruded by 63 million year old rhyolite porphyry dikes, sills, and possible lacolithic bodies. The Energy Reserves Group's gold mineralization is associated with the same type of bodies near the Tombstone airport, and this ground has the geologic parameters that suggest gold mineralization.

#### RESULTS

Nineteen mining claims were put in covering Prompter Hill. Existing mine workings and silicification associated with rhyolite bodies were acquired.

ACTIVITY #7

Meeting with Steve Kay, Regional Geologist with Amselco (large British mining company subsidiary of British Petroleum - American Selection Trust), at my office in Tucson.

RESULTS

Discussed the Mustang vein system and showed Steve Kay the 500 scale color photo enlargements and associated transparent geologic overlays. Also discussed with him the potential for disseminated gold mineralization in the airport area. He was quite impressed and indicated that Amselco would have an interest in examining the ground and would schedule a geologist to make such an examination sometime in February.

ACTIVITY #8

Met with Mr. Robert Nussbaum in my office in Tucson. Mr. Nussbaum is the head of the United States division of the large German mining company Preussag AG. He had previously looked at the district one year ago. At that time Preussag was not particularly interested in precious metals. They have had a company policy change, and now are interested in precious metal work. Hence, his return for another meeting.

RESULTS

He is quite interested in the Mustang claim area, and will return as soon as we get our backhoe trenching and assay work done.

ACTIVITY #9

Met with geologists John C. Roberts and Peter C. Dwelley of the FMC Corporation.

RESULTS

FMC has been interested in Tombstone for the better part of the last year. However, they have been occupied with other projects, and apparently could not break anyone free to do more detailed work. One of these projects was just announced - a moderate sized open pit gold mine near Gabbs, Nevada. They are now preparing to do work in the Tombstone District, and will have a geologist in the field in the mid part of February. I reviewed with them, the Mustang vein

system and associated systems in the alteration zone between Charleston and the State of Maine, the mineralization in Section 32 (Terrible claim section), and also the potential gold mineralization in the airport area. They were strongly interested and requested that I get a quote on obtaining another set of color aerial photography for the entire district for their use.

#### ACTIVITY #10

Staked fifteen additional mining claims on the south flank of Prompter Hill.

#### RESULTS

Indication of silicification of Paleozoic sediments with attendant limonite after pyrite and associated prospect pits were much more prolific than I had previously expected. This gives additional support to the possible gold mineralization in this area.

#### ACTIVITY #11

Met with Bob Crist on Saturday, January 21, at the Wagon Wheel restaurant in Tombstone to determine whether there was interest in leasing his claims to Tombstone Development Company.

#### RESULTS

Initial indications of his interest in doing so were obtained. However, he has aspirations of rehabilitating one of the mine shafts on the Morning Star claim, and said that he didn't wish to do anything until that was completed. I suggested that perhaps we could work out some kind of a lease option arrangement where the underground work he anticipated would not be affected by the lease/option. He felt that that might be a good possibility, and expressed interest in such a proposition.

Recently, T.E.I. has removed substantial material from his patented claims without his permission. In the process, patent corners were destroyed, which will have to be resurveyed. Such damaging trespass could have significant financial repercussions for T.E.I., or if they abrogated their responsibility in that regard, then T.D.C. would be responsible. However, Bob has apparently worked out a deal with Dusty to his satisfaction, in which T.E.I. has

constructed a road up to the opening of the shaft. This appears to have settled the problem.

#### ACTIVITY #13

After meeting with Bob Crist, we continued staking additional claims. At approximately 4:00 we knocked off to reconnoiter in the area south of the airport for the Energy Reserves drill holes.

#### RESULT

Finally located 4 of the Energy Reserves drill holes. They had been drilled on silicified Paleozoic sediments adjacent to rhyolite porphyry dikes. This is the same environment which occurs on our state lease land in the area, and also on the newly acquired federal mining claims.

#### ACTIVITY #14

Received a call from Jerry Aiken, geologist with U. S. Borax and Chemical Corporation - large British integrated mining company which operates the largest borate mines in the world at Boron, California. I discussed the Tombstone gold potential with Jerry Aiken, and he expressed great interest.

#### ACTIVITY #15

On January 24, Tom Waldrip and I went to Tombstone in order to get an underground tour of the State of Maine mine with Bailey Escapule, and then discussed a potential deal with Charlie, Louie and Bailey on the State of Maine mine.

#### RESULTS

A reconnaissance examination of the State of Maine shaft from the first level through the bottom level was made. Some important observations are:

- A. The Phelps Dodge sampling of the State of Maine, performed sometime in the 1915, is much less thorough than I had imagined. Markings indicating the samples are still clearly visible so there is no mistaking where they were taken. Unfortunately, none of that data is presently available, and Phelps Dodge appears unwilling to search their archives for it.
- B. The State of Maine vein is narrower in the upper levels due to erosion and solution of the vein material, but it

appears to get wider at depth. It is described as a hanging wall vein and a footwall vein. Alteration between the two is pervasive in many, if not most, areas. Sampling has been insufficient to determine whether disseminated silver exists, but the complete alteration of the Uncle Sam Tuff suggests that that may well be. The true thickness of the vein on the third level was approximately 80'.

At the bottom of the shaft, an erosion surface on the Bisbee red beds was observed. The Uncle Sam Tuff in its probable nu'ee ardente deposition form had plucked erosional fragments of the Bisbee and incorporated it into the lower units of the Tuff, thus verifying the nature of the depositional environment. This same erosional surface has been identified at the surface due west approximately 3 miles, near the Fox Wash. Similar characteristics were noted there. The evidence for a surface deposition of Tuff vs. an intrusive character for the Uncle Sam is unequivocal at this point.

Fracturing and alteration of the Bisbee sediments is pervasive on the bottom level. Part of a syncline could be discerned near the bottom of the State of Maine shaft, and there was suggestion of a roll towards an anticline to the west. However, strong brecciation and alteration of the sediments made it difficult to determine bedding attitude. Workings are more extensive on the bottom (No. 7 level) than for the total upper levels of the mine. Unfortunately, a long drift to the north was caved near the shaft, and was thus inaccessible. I infer from the extensive workings within the sediments, that the operators at the State of Maine were encouraged by silver values within the sediments. Since these workings predate published geologic data on the district, it is not clear that they had any inkling of the importance of the interception of sediments. I would infer, however, that they were encouraged by possibly disseminated silver values within the sediments. No assay information (other than an average for the Phelps Dodge samples of 0.012 Au and 3.27 Ag) is presently available for the 7th level, but I would infer that possible disseminated silver values may exist here over a wide zone. Potential for underground bulk mining appears to exist.

At approximately 1:00 we emerged from the State of Maine mine, had lunch, and then spent the remainder of the afternoon discussing geology and possible means of



cooperation with Charlie, Louie, and Bailey. It was concluded that:

- A. There has been 3 mining companies of substantial stature that had operated within the State of Maine area since 1970, and the only thing that has been accomplished is to make the State of Maine area look less promising because of lack of results. These include Austral Oil Company, Oxidental Minerals Company, Cobb Resources, and now the Santa Fe Railroad.
- B. The only way anything is going to be accomplished is by careful, methodical geology, followed by carefully planned drilling, testing, and mining.
- C. I have already accomplished a great deal of the detailed geology dating back to 1972, while working for Sierra Mineral Management. No comparable quality work has been accomplished before or since that effort. They have great faith in that work, and believe that if it is continued, important ore bodies have a good chance of being developed in the State of Maine area.
- D. They would like to work with Tombstone Development Company under my technical direction to get the State of Maine area going.
- E. There would be no problem in initial lease/option or joint venture exploration work. However, if substantial ore zones were discovered, which would require the relocation of their current mining, leaching, and metallurgical plant construction facilities, then they would have to have some kind of substantial payment - currently unspecified.
- F. They feel that they could work with Steve Henderson, Bill Grace, as well as other land holders within the immediate State of Maine area to consolidate the land picture.
- G. They would like to take some time and carefully define what they would like to have in such a working arrangements, and will get back with me by Friday, February 3.

ACTIVITY #16

Various telephone conversations with Bill Zelinski, Amoco Minerals Company.

#### RESULTS

Amoco Minerals Company - Standard Oil of Ohio (associated with Kennecott Copper) has had substantial budget cutbacks for this coming year, and Bill was very pessimistic as to whether he could get any money for his Tombstone proposal, during my conversations with him in early January. On January 25, he called me and said that his budget for Tombstone had been approved. Now that Bill has an operating budget for detailed work at Tombstone, he will:

- A. First work on the Bunker Hill area, which is his first target objective. He will be presenting to Tom Schloss a proposal for a sublease.
- B. When the Bunker Hill area is solidified, he will get with Tombstone Development Company to discuss a deal on the remainder of the land.

#### ACTIVITY #17

On January 20, I had a long conversation with Mr. Steve W. Thomas, Project Engineer in charge of Western States Minerals Corporation mine development program. Steve Thomas was recommended to me by a geologist, Clancy Wendt of Queenstake Resources, who is interested in Tombstone, but felt the project might be too large for them. Western States Minerals Corporation is the mining subsidiary of S. J. Grove & Sons Construction Company of Minneapolis, Minnesota. S. J. Groves has been involved in precious metal mining since about 1977, when they first started work in the Gold Strike area near Carlin, Nevada. That operation, as well as another near Delta, Utah, is apparently well underway, and producing nicely. They are now looking to expand their precious metal mining operations elsewhere.

#### RESULTS

I described the general situation with the Mustang vein and the State of Maine operation, as well as the potential for Carlin-type gold mineralization near the Tombstone airport. He is extremely interested. He suggested that possibly a working method could be a joint venture in which Groves would put in all the cash requirements, and after payback, they would go 50/50 with the Tombstone Development Company.

His letter of January 20, as well as brochures on the S. J. Groves Company is enclosed with this report.

I have been in contact with Steve Thomas twice since his letter, and we have determined that it is probably best that he delay his visit until after we have opened up the Mustang claims with the backhoe trenches.

ACTIVITY #18

I received a telephone call from Dr. Barry N. Watson, Southwest Regional Manager for U. S. Borax, on January 30.

RESULTS

Barry Watson is very much interested in the gold potential in Tombstone, and would like me to give his geologists a run down on the area so that they can make an examination within the next two weeks.

ACTIVITY #19

Conversation with John Prochnau, Regional Manager for Tenneco Minerals, previously Houston Oil and Minerals Company (HIMCO), with whom we had an expression of interest last year. John has actually been to the district, met with Tom Schloss but "found early on that it would be virtually impossible to make a deal with Schloss". However, he feels that "Schloss, for whatever reason, got into a pretty good area at Tombstone, and the District is very interesting to him".

RESULTS

John is interested in reviewing the potential gold bearing area, and will try and meet with me the week of February 13, or February 20.

ACTIVITY #20

Conversation with Don Hammer, Newmont Mining Company.

RESULTS

Don Hammer expressed interest in the gold potential of the airport area. Unfortunately, Roger Newell will be leaving the Newmont Tucson office to be taking over as Eastern Regional Geologist in Danbury, Connecticut. Thus, he won't take an active roll in the future at Tombstone. I will be meeting with geologist Bob Sayre Friday afternoon, February 3, to review the geology with him. He will make a brief

initial visit to the district on Monday, February 6, on his way to New Mexico.

#### ACTIVITY #21

About January 15, I had another conversation with Mr. Clancy Wendt, Geologist for Queenstake Resources. I reviewed the generalities of the Mustang claim group with Clancy.

#### RESULTS

Queenstake may have an interest in pursuing something of a small scale at Tombstone, related to the Mustang claims. He will meet with me to review the data on his next trip to Tucson, sometime in February.

Queenstake may be too small to do anything of importance at Tombstone, but I believe that we will have to wait and see.

#### ACTIVITY #22

I received a request from Seth Horne for another meeting on Friday, February 3, at 8:30 a.m. in his office in Phoenix, to meet with his geologist Clyde Davis, who is in town.

In review of the work described above, I have talked with some 8 mining companies that have expressed an interest in further work at Tombstone. I am listing these below in order of what I believe their priority is in relation to advantageous relationship to the Tombstone Development Company. They are:

1. Western States Mining Corp. (S. J. Grove & Sons Co.)
2. Newmont Mining Corporation
3. Preussag
4. FMC Minerals Corporation
5. Tenneco
6. Amoco
7. U. S. Borax
8. Queenstake Resources
9. First Mississippi Minerals Corp.

My reasoning in the above is as follows:

Western States Mining Corporation is a subsidiary of a large construction company that has lots of expertise in both underground and surface mining. They have two operating precious metal mines, and are taking a rapid and aggressive stance toward acquiring additional properties. They also would make us the

Tombstone Development Company  
February 1, 1984  
Page 15

best deal I have heard so far, which is putting in all the money for 50% of the action.

Newmont has the expertise to explore and develop the airport area if it should contain significant amounts of disseminated gold.

Preussag has a new policy to explore for precious metals, and apparently has decided to spend enough money to do so quickly. Thus, they have both the incentive and the cash.

FMC Minerals Corp. has been diligent in maintaining an interest in Tombstone. Although it wasn't clearly stated, it is apparent that they may now have a budget, earmarked for Tombstone, and will apparently be aggressively pursuing geology within the area. They would have an interest if we can get the Mustang consolidated with the State of Maine operation.

Tenneco has the expertise to explore and develop the airport area if it should contain significant amounts of disseminated gold. I personally have a good working relationship with the new senior man in charge of this area.

AMOCO has a budget, which has been allocated to Tombstone, and are interested in both specific areas such as the Bunker Hill, as well as the District as a whole. Unfortunately, their primary target area - the Bunker Hill Mine - is held under lease to T.E.I., and expected difficulties in negotiations with Tom Schloss make me worry that it may sap their initial enthusiasm.

U. S. Borax has competent geologists headquartered in Tucson, and relatively large budget.

Queenstake resources, is probably the weak sister of the lot.

First Mississippi Minerals Corp., with whom Tom Waldrip has been talking, would be interested if we can solidify the Mustang vein and the State of Maine area.

Very truly yours,

James A. Briscoe

JAB/ms

Enclosures

ADOL ABHT

EXPLORATION, DEVELOPMENT, AND OPTION AGREEMENT

*Draft*

This AGREEMENT is made effective as of the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by and between Dennis V. and Stella Abbl, husband and wife (hereinafter collectively referred to as "OWNER"), and Thomas E. and Iryna D. Waldrip, Jr., husband and wife (hereinafter referred to as WALDRIP).

WITNESSETH:

Whereas, OWNER is the record owner of 2 unpatented lode mining claims situated in the Tombstone Mining District, Cochise County, Arizona, which claims are more particularly described in Exhibit "A", attached hereto and incorporated herein by this reference, and are hereinafter referred to as the "Mineral Property"; and

Whereas, OWNER and WALDRIP desire to enter into an agreement pursuant to which WALDRIP shall have the exclusive right to enter upon, explore for, develop, mine, remove, and stockpile any and all minerals in, on, or under the Mineral Property, together with an exclusive option to purchase the Mineral Property, all on the terms and conditions hereinafter set forth:

Now, therefore, in consideration of the mutual covenants and conditions hereinafter set forth, the parties agree as follows:

ARTICLE 1. Warranties and Representations

OWNER represents and warrants to WALDRIP that OWNER is the record owner of and has the exclusive possession of the Mineral

Property, free and clear of all claims, liens or encumbrances of any type whatsoever and subject only to the paramount title of the United States. OWNER further represents and warrants that to the best of OWNER'S knowledge, the acts of location performed by OWNER or its predecessors in interest have been in compliance with all applicable federal and state laws; that sufficient annual assessment work has been performed on each of the unpatented mining claims described in Exhibit "A" hereto for each annual assessment year since the location of the claims, including, but not limited to, the annual assessment year ending on the first day of September immediately preceding the effective date of this Agreement; that OWNER has timely made all filings pertaining to the Mineral Property which are required pursuant to the Federal Land Policy and Management Act of 1976; that OWNER knows of no claims to or possession of the Mineral Property adverse to OWNER; and that OWNER has the full right, power and capacity to enter into this Agreement upon the terms and conditions herein set forth.

ARTICLE 2. Grant

A. Exploration and Development Rights - OWNER hereby grants to WALDRIP the sole and exclusive possession of and right to enter upon the Mineral Property to explore, develop, mine (by open pit, strip, underground, solution mining or any other method, including any method hereafter developed), extract, process, mill and store upon the Mineral Property all ores, minerals and materials of every nature and sort extracted from the Mineral



Property, including any extralateral rights pertaining thereto, pilot plant operations, mining and stockpiling activities as WALDRIP may deem useful or convenient in conducting his operations thereon, including, but not limited to, drilling, excavating holes, pits, shafts and other excavations, and conducting such surveys, explorations, sampling, investigation and other operations in such manner and to such extent as WALDRIP in its sole judgement and discretion may deem advisable for the purpose of ascertaining any and all facts relating to the occurrence of ores, minerals and materials in, on or under the Mineral Property, and to the mining, milling and treatment thereof. WALDRIP shall have the right to remove up to a total of five (5) tons of ores, minerals and materials from the Mineral Property for purposes of metallurgical testing and bulk sampling, but shall not have the right to remove the same for sale, barter or otherwise to third parties until the final payment is made to complete purchase of the Mineral Property. WALDRIP is hereby further granted the exclusive right to construct and use such structures, facilities and other appurtenances on the Mineral Property as it may deem useful or convenient for development of the Mineral Property. To the extent that OWNER is entitled to authorize WALDRIP to do so under the law, WALDRIP shall have the further right during the term of this Agreement to use such other resources of the Mineral Property, including, but not limited to, water and water rights, as WALDRIP may find beneficial or desirable in its prospecting, exploration or mining activities hereunder.

B. Option to Purchase - OWNER hereby grants to WALDRIP the sole, exclusive and irrevocable option to purchase the Mineral Property, together with all dips, spurs, angles and extralateral rights, and all mines, minerals, mineral substances, metals, ores, ore bearing materials and materials, and all rights appurtenant to or benefiting the Mineral Property, including, but not limited to, water and water rights. The option to purchase the Mineral Property granted WALDRIP herein may be exercised under provisions of ARTICLE 5 A by WALDRIP, and in the event of such exercise, WALDRIP'S purchase of the Mineral Property shall be upon the terms and conditions set forth in ARTICLE 5 hereof.

ARTICLE 3. Term  
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The term of this Agreement and the option granted WALDRIP herein shall commence on the effective date of this Agreement and shall continue thereafter for a period of one (1) year, unless sooner terminated pursuant to the provisions of this Agreement. This term herein before and after shall be referred to as the "Initial Term". In the event WALDRIP exercises its option to purchase the Mineral Property, this Agreement shall remain in full force and effect until the complete payment is made by WALDRIP for the purchase of the Mineral Property and upon such payment, this Agreement shall terminate.

ARTICLE 4. Payments to Owner  
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A. Payments - Upon execution of this Agreement by all parties, WALDRIP shall pay to OWNER the sum of twelve thousand

dollars (\$12,000), as referenced by Exhibit "B" attached hereto and incorporated herein by this reference.

B. Applicability of Payments - None of the payments made to OWNER by WALDRIP pursuant to this ARTICLE 4 shall be a credit against the purchase price of the Mineral Property in the event WALDRIP exercises its option to purchase.

ARTICLE 5. Exercise of Option; Purchase Price; Deed in Escrow

A. Procedure - WALDRIP may exercise the option to purchase the Mineral Property granted it herein at any time after November 1, 1984, and the remaining Initial Term of this Agreement by providing written notice of the same to OWNER and to the Escrow Agent designated.

B. Purchase Price; Payment - The purchase price of the Mineral Property shall be Fifty Thousand Dollars (\$50,000). Twenty-eight thousand six hundred eleven dollars and fifteen cents (\$28,611.15) of the purchase price shall be payable to OWNER at the closing of WALDRIP'S purchase of the Mineral Property and the balance of the purchase price shall be payable by WALDRIP in equal monthly installments over a period of eleven (11) months at equal monthly payments of one thousand nine hundred forty four dollars and forty five cents (\$1,944.45), as referenced by Exhibit "B".

C. Closing - Within thirty (30) days following notice by WALDRIP or prior to termination of the Initial Term, WALDRIP shall pay twenty-eight thousand six hundred and eleven dollars and fifteen cents (\$28,611.15) of the purchase price to the

Escrow Agent. Within thirty (30) days of receipt by Escrow Agent of said sum from WALDRIP, OWNER shall make, execute and acknowledge a good and sufficient Mining Deed, which shall be in the form set forth in Exhibit "C", attached hereto and incorporated herein by this reference, conveying the herein above described Mineral Property to WALDRIP free and clear of encumbrances, and will place the same in Escrow with the Escrow Agent, together with a copy of this agreement, and Escrow instructions in a form approved by WALDRIP for the delivery of said Mining Deed to WALDRIP upon final payment of the purchase price. In order to facilitate the closing, OWNER shall execute such other documents and perform such other acts as may be reasonably required to transfer complete title of the Mineral Property to WALDRIP.

One-half (1/2) of the escrow fees shall be paid by WALDRIP and one-half (1/2) by OWNER. The recording fees shall be paid by WALDRIP. OWNER shall bear the cost of any transfer taxes or similar assessments on the purchase of the Mineral Property.

ARTICLE 6. Method of Making Payments

OWNER and WALDRIP, hereby appoint the Lawyers Title of Arizona of Tucson, whose address is 5311 East Broadway Blvd., Tucson, Arizona as their Escrow Agent to receive and distribute all payments provided for in ARTICLE 5 B, to be made by WALDRIP to OWNER, and to administer the closing provided for in ARTICLE 5 C above. Any payments required to be made by WALDRIP to OWNER hereunder may be made in cash or by check, in the sole discretion

of WALDRIP, and may be personally delivered or deposited in the United States mail, postage prepaid and certified, and addressed to the Escrow Agent. The personal delivery to Escrow Agent or the deposit in the mail to Escrow Agent by WALDRIP of any such payment on or before its due date shall be deemed timely payment thereof. Upon making any payment to the Escrow Agent, WALDRIP shall be relieved of all responsibility for the distribution of such payment amongst the person or persons who comprise the OWNER. OWNER shall be responsible for instructing the Escrow Agent with respect to the distribution of any payment received from WALDRIP.

ARTICLE 8. Obligations of WALDRIP

A. Conduct of Operations - WALDRIP shall cause all work activities performed or authorized in ARTICLE 2 A above to be performed in compliance with all applicable state and federal laws and regulations, and in a careful and miner-like manner, consistent with the standards for the performance of such work.

B. Assessment Work - WALDRIP shall do and perform within the time required by law the annual labor and assessment work on or for the benefit of the Mineral Property for the assessment year ending September 1, 1984, irrespective of any termination or expiration of this Agreement, and so long thereafter for the Mineral Property, for every other assessment year while this Agreement is in effect, unless this Agreement expires or is terminated prior to June 1 of the applicable assessment year. Said labor or assessment work shall comply with the laws of the

United States of America, and the State of Arizona applicable thereto, and upon completion of said annual labor or assessment work for any particular year, WALDRIP shall record, at his expense, within the time prescribed by law, an affidavit evidencing the performance of said work on behalf of the OWNER. WALDRIP shall not be liable on account of the holding by any court or governmental agency that the effect of work performed by WALDRIP does not constitute the required annual assessment work for purposes of preserving title to the Mineral Property, provided that the work so done is of a kind generally accepted by the Department of the Interior and the State of Arizona as assessment work, and provided further, that WALDRIP has expended the total amount sufficient to meet the minimum requirements with respect to the Mineral Property.

C. Protection from Liens - WALDRIP shall keep said Mineral Property and the whole and every part thereof free and clear of liens for labor done or performed upon said Mineral Property or materials furnished to it on or for said Mineral Property, or for the development or operations thereof while this Agreement is in force and effect, and will save and keep harmless the OWNER for all costs, loss or damage which may arise by reason of injury to any persons, livestock, or other property as a result of any work or operations of WALDRIP or its possession and occupancy of the Mineral Property. Notwithstanding the above, WALDRIP shall not be required to remove any such lien so long as WALDRIP is contesting in good faith the validity or amount thereof;

provided, however, in the event of the termination or expiration of this Agreement other than by WALDRIP'S purchase of the Mineral Property, WALDRIP shall allow no lien arising from any act of WALDRIP to remain on the Mineral Property for a period of more than one (1) year following the date of such expiration or termination.

D. Indemnity - WALDRIP shall indemnify OWNER against and hold it harmless from any suit, claim, judgement or demand whatsoever arising out of gross negligence on the part of WALDRIP in the exercise of any of its rights pursuant to this Agreement, provided that OWNER, or any person or instrumentality acting on its behalf, shall not have been a contributing cause to the event giving rise to such suit, claim, demand or judgement.

E. Payment of Taxes - WALDRIP shall pay all taxes, except transfer taxes of ARTICLE 5 C, and assessments of any kind levied or assessed against the Mineral Property during the term hereof; provided, however, that WALDRIP shall not be liable for any taxes levied or measured by the income of OWNER under this Agreement. OWNER shall transmit to WALDRIP any notices which it receives pertaining to such taxes. WALDRIP shall have the right to contest, in the courts or otherwise, the validity or amount of any tax or assessment before it shall be required to pay the same. In the event of termination or expiration of this Agreement, taxes which are the responsibility of WALDRIP shall be prorated, on a calendar year basis, for the calendar year in which this Agreement expires or is terminated.

ARTICLE 8. Amendment, Relocation and Patent of Claims

WALDRIP shall have the right to amend or relocate in the name of OWNER any of the claims constituting the Mineral Property which WALDRIP, in its sole discretion, deems advisable to amend or relocate. If WALDRIP undertakes any such amendment or relocation, WALDRIP shall use its best efforts to complete the same in compliance with all applicable statutes and regulations. In the event WALDRIP receives the written consent of OWNER to so amend or relocate, WALDRIP shall not be liable to OWNER for any act (or failure to act) by it or any of its agents in connection with such amendment or relocation of claims so long as such act (or omission) does not arise from gross negligence and is not made in bad faith. Upon the concurrence of WALDRIP and the OWNER, OWNER shall undertake to obtain a patent to any or all of the Mineral Property, and in conjunction therewith, WALDRIP shall cooperate in the preparation of all documents and compile all data and comply in all respects with the applicable law. All reasonable expenses incurred by OWNER shall be borne by WALDRIP. WALDRIP shall provide any and all documents required for this purpose and shall cooperate fully with OWNER in the patent application and proceedings subsequent thereto. If OWNER begins patent proceedings and WALDRIP thereafter requests OWNER to discontinue such proceedings, or if this Agreement is terminated or expires while patent proceedings are pending, WALDRIP shall have no further obligation with respect thereto except to pay any unpaid expenses accrued in such proceedings prior to its request



to discontinue, or prior to the expiration or termination of this Agreement, whichever occurs first. The rights of WALDRIP under this Agreement shall extend to any amended, relocated or patented claims.

ARTICLE 9. Inspection; Confidentiality

A. Inspection by OWNER - OWNER, and its agents authorized in writing, at OWNER'S sole risk and expense, may enter upon the Mineral Property to inspect the same at such times and upon such notice to WALDRIP as shall not unreasonably hinder, interrupt, or redirect the operations of WALDRIP.

B. WALDRIP'S notification of owner for inspection - WALDRIP agrees to notify owner five (5) days in advance, in writing, prior to conducting any anticipated exploration or mining activities which will be interpreted as removing vein material from its natural location or from the Mineral Property for metallurgical purposes. Under no circumstances shall this section render void the previous ARTICLE 2 A. By this section, exploration or mining activities shall mean trenching by backhoe, excavator, or similar equipment, except for mud pit construction for drilling, any use of a front-end loader or dozer, other than for road work or drilling pad construction, any mining or development work, whether by tunnel, incline, shaft, open pit, stripping, or underground method. WALDRIP does not have to notify OWNER under this section for normal geological, geochemical, geophysical, or drilling surveys which may take place from time to time. It will be up to the sole discretion

of OWNER or his Agents, at OWNER'S expense, to be on site at the Mineral Property during periods of notified operations, whether being conducted or not. These operations may be of a periodic nature, depending on availability of personnel and equipment, and may be scheduled from time to time at WALDRIP'S discretion after ample notice is given to OWNER, for up to two weeks from notice to OWNER of when work is to begin.

C. Confidentiality - OWNER or his Agents agree to keep all information regarding WALDRIP'S geologic collection of data, exploration, and mining activities in strict confidence during the term of this Agreement. At WALDRIP'S discretion, he may disseminate information regarding his geologic work, exploration, and mining activities to the OWNER, his agents or others, as he sees necessary to promote his work or well-being in the Mineral Property.

ARTICLE 10. Title Matters

A. Title Documents; Data - Promptly following execution of this Agreement, OWNER shall deliver to WALDRIP copies of any abstracts of title and existing plats or field notes of surveys which OWNER may have in its possession. In addition, OWNER shall furnish to WALDRIP copies of any exploration data, assays, logs, maps, geological, geochemical and geophysical surveys and reports that OWNER may have in its possession. OWNER shall further allow WALDRIP the right to examine and retain and analyze any drill core or cuttings from the Mineral Property available to OWNER. WALDRIP agrees to retain any data, cutting, and core given in

reasonable shape and order throughout the term of this Agreement, and to return all data supplied to OWNER on termination of this Agreement unless by purchase, whereupon WALDRIP will assume ownership of the data and remaining core and drill cutting from OWNER by virtue of WALDRIP'S purchase of the Mineral Property.

B. Title Defects, Defense and Protection - If -- (1) OWNER is not the record owner of the Mineral Property or any part thereof; or (2) OWNER'S title is contested or questioned by any person, entity or governmental agency -- and if OWNER is unable or unwilling to promptly commence action to correct the defects or alleged defects in title, WALDRIP may, but shall not be obligated to, attempt to perfect, defend or initiate litigation to protect OWNER'S title. In that event, OWNER shall execute all documents and shall take such other actions as are reasonably necessary to assist WALDRIP in its efforts to perfect, defend or protect OWNER'S expenses of perfecting, defending or correcting title (including, but without being limited to, the cost of attorney's fees, costs of litigation, costs of settlement of the litigation, and the cost of releasing or satisfying any mortgages, liens or encumbrances) shall be a credit against payments thereafter to be made to OWNER and against the purchase price of the Property unless the encumbrances or dispute arises from WALDRIP'S failure to perform obligations hereunder, in which case such costs shall be borne by WALDRIP.

C. Lesser Interest Provisions - If OWNER'S title to the Mineral Property (or any portion thereof) is less than the entire

undivided interest in and to the Mineral Property or is subject to a superior adverse interest other than the paramount title of the United States, WALDRIP shall have the right to accept such title as OWNER has by giving notice of such election to OWNER. In such event, since the purchase price of the Mineral Property set forth in ARTICLE 5 B, and the payments set forth in ARTICLE 4 are predicated upon OWNER owing the entire undivided interest in and the Mineral Property free and clear of any superior adverse interest other than the paramount title of the United States, WALDRIP shall have the right to reduce such payments, the same proportion as the undivided title actually owned by OWNER bears to the entire undivided title to the Mineral Property.

ARTICLE 11. Termination

A. Termination by OWNER - in the event that OWNER deems that WALDRIP is in default in the performance of curable obligations pursuant to this Agreement, OWNER shall give WALDRIP written notice of such alleged default, specifying with particularity the nature of the same, and WALDRIP shall be deemed to be in default hereunder unless within thirty (30) days (fifteen <15> days if the default involves the payment of money to OWNER) after the receipt of such notice WALDRIP shall have cured or notified OWNER of the commencement of action reasonably designed to cure the alleged default. Upon such failure of WALDRIP and in the event WALDRIP is in fact in default as specified in said notice, or upon the default in the performance of a non-curable obligation, OWNER may terminate this Agreement

by providing WALDRIP written notice of termination, subject to WALDRIP'S right to remove its property and equipment from the Mineral Property, as hereinafter provided.

B. Forfeiture Clause - The failure of WALDRIP to make or cause to be made any payment herein at the election of the Owner, work a forfeiture hereof, and any and all monies which shall have been paid by WALDRIP to the OWNER shall be deemed forfeited to the OWNER, provided, however, that in the event of a default of payment on the part of WALDRIP, and the election of the OWNER to terminate this Agreement on account thereof, the OWNER shall give to WALDRIP a written notice of their intention to declare a forfeiture of this Agreement and to terminate the same on account thereof, specifying and setting forth the particular payment defaults relied upon by them, and WALDRIP shall have fifteen (15) days after receipt of such notice in which to make good such payment default, in which event there shall be no forfeiture therefore.

C. Complete Termination by WALDRIP - WALDRIP expressly reserves the right, notwithstanding any previous payment or payments of the purchase price to terminate and surrender this Agreement at any time during the term hereof by giving OWNER written notice of its intent to do so at least fifteen (15) days prior to the termination date to be specified in said notice. Upon the giving of such notice, all right and interest of WALDRIP under this Agreement shall terminate and WALDRIP shall not be required to make any further payments, or to perform any

further obligations hereunder, except as to payments or obligations, if any, the due date or incurrence of which occur prior to termination. In the event of a complete termination of this Agreement by WALDRIP, concurrently with the notice, following such termination WALDRIP shall deliver to OWNER a quitclaim deed, in recordable form, quitclaiming to OWNER all interest which WALDRIP may then have in the Mineral Property. The notice of termination shall not be effective unless it includes said quitclaim deed. All sums theretofore paid shall be retained by owner.

D. General - It is expressly agreed and understood by the parties that the termination provisions set forth in this ARTICLE 11 are in addition to, and not in lieu of, the expiration provisions of ARTICLE 4 above and that in the event this Agreement expires automatically under the provisions of ARTICLE 4, no notice of termination need be given by either party pursuant to this ARTICLE 11.

ARTICLE 12. Equipment Removal; Delivery of Data; Retention of Data; Completion of Assessment Work

A. Removal of Equipment - WALDRIP shall have and it is hereby given and granted, one hundred twenty (120) days after valid forfeiture, surrender or other termination of this Agreement, to remove from said Mineral Property, all warehouse stocks, merchandise, materials, tools, hoists, compressors, engines, motors, pumps, transformers, electrical accessories, metal or wooden tanks, pipes, connections, mine cars, and any and

all other machinery trade fixtures and equipment erected or placed in or upon said Mineral Property by it, except only rails and mine timbers in place.

B. Delivery of Data - If this Agreement expires or is terminated other than by WALDRIP'S purchase of the Mineral Property, Waldrip shall have sixty (60) days of such expiration or concurrently with any notice of termination, to furnish OWNER one copy of all available raw exploration, development and mining data pertaining to the Mineral Property collected by or for WALDRIP. WALDRIP shall be authorized to store and retain any available core or drill cutting taken from the Mineral Property by WALDRIP, less applicable amounts for assaying and petrographic research, at a location of its choice, but open to inspection by the OWNER or his agents, at OWNER'S cost, during reasonable office hours, for a period of two (2) years after termination. OWNER shall notify WALDRIP by writing of the date and time of its or its agents wish to review or view core or drill cutting seven (7) days in advance of the expected visit. At the end of the second year, WALDRIP shall provide written notice to OWNER of its intent to dispose of said core or drill cutting, and at OWNER'S expense, it or its agent may take possession of an available core or cutting derived from the Mineral Property within a period of thirty (30) days after notification. A failure to respond or remove core or drill cuttings will result in a surrender of said property by OWNER to WALDRIP, for WALDRIP'S use or disposal at its discession.

C. Retention of Data - From time to time over the period of this Agreement, WALDRIP may or may have collected for it, certain geological, geochemical, geophysical, or drilling data from the Mineral Property and adjacent land for which WALDRIP has made interpretive results related to the Science of Geology. These works including but not limited to maps, charts, reports, and coreboards will remain the exclusive property of WALDRIP no matter the disposition of this Agreement. WALDRIP, at its discretion, may allow OWNER or its Agents to review such material at OWNER'S expense.

D. Retention of Previous Data - WALDRIP expressly reserves the right to retain and keep confidential any previously acquired data pertaining to the Tombstone Mining District and adjacent grounds which may have come into WALDRIP'S possession. Notwithstanding, should further data from surrounding grounds or areas come into WALDRIP'S possession, it reserves the right to keep the source, location, nature, and interpretation of said data in confidence. To the effective date of this Agreement, WALDRIP has no data or information specifically related to the Mineral Property.

E. Completion of Assessment Work - If this Agreement expires or is terminated other than by WALDRIP'S purchase of the Mineral Property, and if at the time of such expiration or termination, WALDRIP remains obligated to complete the performance of assessment work pursuant to the provisions of ARTICLE 7 B, WALDRIP is hereby granted the right to enter upon



the Mineral Property at any time during the remainder of the then current assessment work year to enable it to complete the assessment work, without any payment or other obligation to OWNER or others.

ARTICLE 13. Purchase of Mineral Property; Deposition of  
Stockpiled Ore; Retention of Data; and Confidentiality

A. Disposition of Ore - Upon final payment of the purchase price by WALDRIP to the OWNER, WALDRIP will have exclusive ownership of and at its sole discretion, may choose how to mine, process, or dispose of any ore, vein material, concentrate, bullion, muck, leach waters, solutions, low grade materials, waste rock, metallurgical samples removed, mined, or stockpiled prior to or during the term of this Agreement.

B. Retention of Data - Upon completion of purchase by WALDRIP, all data, drill cuttings, and core mentioned previous to this ARTICLE, shall become exclusive property of WALDRIP for its use or disposition.

C. Confidentiality - Upon completion of purchase by WALDRIP, OWNER agrees to keep all data, ore reserves, deposit characteristics, and other information supplied by WALDRIP or directly observed and inferred by OWNER during its visits to the Mineral Property in strict confidence.

14. Notice

Any notice or communication required or permitted hereunder shall be in writing and, except as may otherwise be provided in

this Agreement, shall be effective when personally delivered or when deposited, postage prepaid, certified, or registered, in the United States mail, and addressed as follows:

If to OWNER:

Dennis V. Abbl  
P. O. Box 684  
Willcox, Arizona 85643

with a copy to Escrow Agent:

Lawyers Title of Arizona  
5311 E. Broadway Blvd.  
Tucson, Arizona

if to WALDRIP:

Thomas E. Waldrip, Jr.  
4426 E. Patricia Street  
Tucson, Arizona 85712

Either party by notice to the other given as aforesaid may change its mailing address for purposes of any future notice or communications hereunder.

ARTICLE 15. Assignment; Inurement

Inurement - The terms, provisions, convenents, and agreements herein contained shall extend to and be binding upon and inure to the benefit of the heirs, personal representatives, beneficiaries, successors, and assigns of the parties hereto; provided, however, that no change or division of ownership, however accomplished shall operate to enlarge the obligations or to diminish the rights of WALDRIP. No transfer of interest by OWNER shall be binding upon WALDRIP until written notice of the same is provided to WALDRIP, together with the instrument, or a certified copy thereof, evidencing such change, transfer or

division of ownership.

ARTICLE 16. Force Majeure

WALDRIP shall not be liable for the failure to perform any of its obligations hereunder (except its obligations in respect to assessment work) during any period in which performance is prevented, in whole or in part, by causes herein termed (force majeure". For purposes of this Agreement, the term "force majeure" shall include, but not be limited to, labor disputes, acts of God, action of the elements, inclement weather, floods, slides, cave-ins, laws, rules, regulations, or requests of governmental bodies or agencies thereof, unavoidable delay in obtaining necessary materials, facilities and equipment in the open market, or any cause, except for inability to meet financial commitments, whether similar or dissimilar to those specifically enumerated, beyond the reasonable control of WALDRIP. If WALDRIP desires to invoke the provisions of this ARTICLE 16, WALDRIP shall do so by giving notice to OWNER of the commencement of the expected duration of, and the circumstances giving rise to such force majeure and shall take all reasonable actions to cure the same, but WALDRIP shall not be obligated to settle labor disputes or to question the validity of any act of any governmental body or agency. The time for the performance of WALDRIP'S obligations with respect to the prevented performance shall be extended for the lesser of the period of force majeure or one (1) year.

ARTICLE 17. Boundary Protection

While this Agreement is in effect, any unpatented mining claims, or interest therein, or any other rights or interests in land or property acquired by OWNER, or any party acting for or on OWNER'S behalf, any portion of which is situated in whole or in part within one (1) mile of the exterior boundary of the Mineral Property, shall, upon the election of WALDRIP at any time, become subject to the terms and conditions of this Agreement at no increase in the payments set forth in ARTICLE 4, nor the purchase price of the Mineral Property set forth in ARTICLE 5. The OWNER shall promptly notify WALDRIP in writing of its location or acquisition of any such claim, right or interest.

ARTICLE 18. Mineral Property Improvements Protection

WALDRIP agrees to limit trenching and other ground disruption activities to a point fifteen (15) feet from the nearest shaft, tunnel, or incline known and observable on the surface; however, these above mentioned improvements may be used, extended, and enlarged at the discretion of WALDRIP for use in exploration, ore removal, or testing work conducted in accordance with this Agreement.

ARTICLE 19. No Implied Covenant

It is expressly agreed that no implied covenant or condition whatsoever shall be read into this Agreement relating to the timing of prospecting, developing or mining of the Mineral Property, or to any of the operations by WALDRIP. It being

expressly agreed and understood that subject only to the express obligations of this Agreement WALDRIP may from time to time cease its operations thereof.

ARTICLE 20. Insurance

WALDRIP shall at its sole cost and expense maintain during the term of this Agreement or any extension thereof a good and sufficient amount of insurance to cover any occurrence of workmen's injury or public liability.

ARTICLE 21. Memorandum

WALDRIP and OWNER shall execute a Memorandum of this Agreement in a recordable form sufficient under the laws of the State of Arizona to give notice to third parties of the rights granted hereunder. Either party may record such Memorandum. A sample memorandum is included and attached hereto as Exhibit "D".

ARTICLE 22. Applicable Law

This Agreement shall be governed by the law of the State of Arizona.

ARTICLE 23. Title Headings

The title headings of the various sections of this Agreement are inserted for convenience only and shall not be deemed to be a part of this Agreement.

ARTICLE 24. Sole Agreement

This Agreement shall constitute the sole understanding of the parties with respect to the subject matter hereof and no

modification or alteration of the terms hereof shall be binding unless such modification or alteration shall be in writing and executed subsequent to the date hereof by all of the parties hereto. In the event such modification or alteration alters the rights granted hereunder, the parties shall execute a Memorandum thereof in a recordable form sufficient under the laws of the State of Arizona to provide notice to third parties. This Agreement shall survive the exercise of the Option granted herein and the Escrow Closing so as to define the rights and obligations created by the reservations retained by OWNER herein, until complete payment is made by WALDRIP for the purchase of the Mineral Property unless this Agreement is sooner terminated.

IN WITNESS THEREOF, this EXPLORATION, DEVELOPMENT AND OPTION AGREEMENT has been executed effective as of the date first set forth above.

OWNER:

-----  
Dennis V. Abbl

-----  
Stella Abbl

WALDRIP:

-----  
Thomas E. Waldrip, Jr.

-----  
Iryna D. Waldrip

STATE OF )  
County of ) ss.  
 )

The foregoing instrument was acknowledged before me this  
\_\_\_\_\_ day of \_\_\_\_\_, 1984.  
-----

-----  
Notary Public

-----  
My Commission Expires

STATE OF )  
 )  
County of )

The foregoing instrument was acknowledged before me this  
day of \_\_\_\_\_, 1984.  
-----

-----  
Notary Public

-----  
My Commission Expires

STATE of )  
 )  
County of )

The foregoing instrument was acknowledged before me this  
day of \_\_\_\_\_, 1984.  
-----

-----  
Notary Public

-----  
My Commission Expires

STATE of )  
 )  
County of )

The foregoing instrument was acknowledged before me this  
day of \_\_\_\_\_, 1984.  
-----

-----  
Notary Public

-----  
My Commission Expires



EXHIBIT "A"

UNPATENTED LODGE MINING CLAIM

THIS AGREEMENT COVERS mineral rights and other rights appurtenant covered under and by virtue of federal, state, and local rules and regulations pertaining to the location of certain unpatented lode mining claims subject only to the paramount title of the United States, known as the Mustang No. 1 and Mustang No. 2, in the Tombstone Mining District, Cochise County, State of Arizona; located more or less by meets and bounds in the E1/2 of Section 25, Township 20 South, Range 21 East, G. & S.R.B.M., and the W1/2 of Section 30, Township 20 South, Range 22 East, G. & S.R.B.M., more particularly described by documents officially recorded in said county under Book 1421, Page 173 through 175, copies of which are found in the official serial case file of the Bureau of Land Management, State of Arizona, under file A-MC-105988 and 105989 containing 40 acres, more or less.

NEGOTIATIONS FOR ABBL MUSTANG I & II CLAIMS

DENNIS ABBL PROPOSAL 12/12/83

=====														
YEAR 1	<-----EXPLORATION RENT----->				DOWN	<-----MONTHLY PAYMENTS----->								
MONTH	1ST MONTH	2ND MONTH	3RD MONTH	4TH MONTH	5TH MONTH	6TH MONTH	7TH MONTH	8TH MONTH	9TH MONTH	10TH MONTH	11TH MONTH	12TH MONTH	TOTAL	CUMM. TOTAL
PAYMENT	2000.00	1000.00	1000.00	1000.00	15000.00	1944.45	1944.45	1944.45	1944.45	1944.45	1944.45	1944.45	33611.15	33611.15
=====														

=====														
YEAR 2	<-----MONTHLY PAYMENTS----->													
MONTH	1ST MONTH	2ND MONTH	3RD MONTH	4TH MONTH	5TH MONTH	6TH MONTH	7TH MONTH	8TH MONTH	9TH MONTH	10TH MONTH	11TH MONTH	12TH MONTH	TOTAL	
PAYMENT	1944.45	1944.44	1944.44	1944.44	1944.44	1944.44	1944.44	1944.44	1944.44	1944.44	1944.44	0.00	21388.85	55000.00
=====														

*EXHIBIT "B"*  
*Schedule of Payments*

BRISCOE COUNTER PROPOSAL 12/15/83

=====														
YEAR 1	FIRST EXPL. RENTAL PERIOD				SECOND EXPL. RENTAL PERIOD									
MONTH	1ST MONTH	2ND MONTH	3RD MONTH	4TH MONTH	5TH MONTH	6TH MONTH	7TH MONTH	8TH MONTH	9TH MONTH	10TH MONTH	11TH MONTH	12TH MONTH	TOTAL	
PAYMENT	27000.00	0.00	0.00	0.00	0.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	12000.00	12000.00
=====														

=====														
YEAR 2	DOWN	<-----MONTHLY PAYMENTS----->												
MONTH	1ST MONTH	2ND MONTH	3RD MONTH	4TH MONTH	5TH MONTH	6TH MONTH	7TH MONTH	8TH MONTH	9TH MONTH	10TH MONTH	11TH MONTH	12TH MONTH	TOTAL	
PAYMENT	28611.15	1944.45	1944.44	1944.44	1944.44	1944.44	1944.44	1944.44	1944.44	1944.44	1944.44	1944.44	50000	62000.00
=====														

SAMPLE

EXHIBIT "C"

MINING DEED

For and in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Dennis V. Abbl and Stella Abbl, husband and wife (hereinafter collectively referred to as "GRANTOR"), hereby grant and convey unto Thomas E. and Iryna D. Waldrip, Jr., husband and wife (hereinafter referred to as WALDRIP), all of the unpatented lode mining claims situated in the Tombstone Mining District, Cochise County, Arizona, more particularly described in Exhibit "A", attached hereto and incorporated herein by this reference, together with all dips, spurs, angles and extralateral rights, and all mines, minerals, mineral substances, metals, ores, ore bearing materials and materials and all water and water rights on, under, appurtenant to or benefiting the unpatented mining claims granted and conveyed hereby.

GRANTOR represents and warrants to WALDRIP that GRANTOR is the record owner of and has the exclusive possession of the unpatented lode mining claims herein granted, free and clear of all claims, liens, or encumbrances of any type whatsoever, and subject only to the paramount title of the United States. GRANTOR further represents and warrants that to the best of GRANTOR'S knowledge, the acts of location performed by GRANTOR or its predecessors in interest have been in compliance with all applicable federal and state laws; that sufficient annual assessment work has been timely performed and filed on each of the, or for the benefit of each, of the unpatented lode mining claims granted herein for each annual assessment year since the location of the claims; that GRANTOR or its predecessors in interest have timely made all filings pertaining to the unpatented lode mining claims herein granted, which are required pursuant to the Federal Land Policy and Management Act of 1976; that GRANTOR knows of no claims to or possession of the unpatented lode mining claims granted herein adverse to GRANTOR; and that GRANTOR has the full right, power, and capacity to enter into and execute this Mining Deed, subject only to the paramount title of the United States.

To have and to hold the unpatented mining claims herein granted and conveyed unto WALDRIP, its successors and assigns subject only to the terms and provisions of the Exploration, Development and Option Agreement executed by the parties on  
\_\_\_\_\_, 1984.



EXHIBIT "D"

MEMORANDUM OF EXPLORATION, DEVELOPMENT AND OPTION AGREEMENT  
OF  
MINERAL PROPERTY

This Memorandum summarizes the Agreement made and entered into as of the \_\_\_\_\_ day of \_\_\_\_\_, 1984, by and between Dennis V. and Stella Abbl, husband and wife (OWNER) and Thomas E. and Iryna D. Waldrip, Jr., husband and wife (WALDRIP). in consideration of the covenants to be performed by WALDRIP, OWNER agrees to allow WALDRIP, pursuant and subject to the terms and provisions of the aforesaid Agreement, the exclusive right to enter upon, explore for, develop, mine, remove and stockpile any and all minerals in, on, or under two unpatented lode mining claims in the exclusive possession of the OWNER, in the Tombstone Mining District, Cochise County, Arizona, described on Exhibit "A" annexed hereto, together with an exclusive option to purchase the herein above mentioned lode mining claims, all on the terms and conditions therein set forth.

The terms of aforesaid Agreement shall be for a period of one (1) year from the effective date, unless sooner terminated, or so long thereafter so as to survive the exercise of the Option granted, the Escrow closing, and the completion of purchase payments, so as to define the rights, obligations and provisions created by the reservations retained therein.

Upon option of the above described property by WALDRIP, OWNER'S have agreed to make, execute, and acknowledge a good and sufficient Mining Deed conveying the above-described property to

EXHIBIT "D" Continued.....

WALDRIP free and clear of all claims, liens of any type whatsoever, and subject only to the paramount title of the United States, and to place the same in Escrow for delivery to WALDRIP upon final payment of the purchase price.

An executed copy of said Agreement is in the office of WALDRIP at 4426 E. Patricia, Tucson, Arizona 85712.

The purpose of this Memorandum is to give notice of WALDRIP'S rights to and upon the property described on Exhibit "A".

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum, as of the \_\_\_\_\_ day of \_\_\_\_\_, 1984.

OWNER:

-----  
Dennis V. Abbl

-----  
Stella Abbl

WALDRIP:

-----  
Thomas E. Waldrip, Jr.

-----  
Iryna D. Waldrip

EXHIBIT "D" Continued.....

STATE OF Arizona )  
                  )ss.  
County of Cochise )

The foregoing instrument was acknowledged before me this  
day of \_\_\_\_\_, 1984, by Dennis V. Abbl.  
-----

-----  
Notary Public

-----  
My Commission Expires

STATE OF Arizona )  
                  )ss.  
County of Cochise)

The foregoing instrument was acknowledged before me this  
day of \_\_\_\_\_, 1984, by Stella Abbl.  
-----

-----  
Notary Public

-----  
My Commission Expires

STATE OF Arizo )  
                  )ss.  
County of Pima )

The foregoing instrument was acknowledged before me this  
day of \_\_\_\_\_, 1984, by Thomas E. Waldrip, Jr.  
-----

-----  
Notary Public

-----

My Commission Expires

STATE OF Arizona )  
                  ) ss.  
County of Pima    )

The foregoing instrument was acknowledged before me this  
day of \_\_\_\_\_, 1984, by Iryna D. Waldrip.  
-----

-----  
Notary Public

-----  
My Commission Expires





# Western States Minerals Corporation

4975 Van Gordon Street  
Wheat Ridge, Colorado 80033  
(303) 425-7042

January 20, 1984

Mr. Jim Briscoe  
5701 E. Glenn #120  
Tucson, Arizona 85712

Dear Mr. Briscoe,

It was a pleasure talking with you yesterday concerning the Tombstone Development Company properties near Tombstone, Arizona.

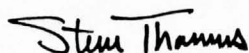
We are interested in learning more about the properties at Tombstone, but will not be able to make a site visit until early to mid February due to other commitments.

As I mentioned, Western States Minerals Corporation is a highly successful mining company currently operating open pit/heap leach gold mines in Nevada and Utah. We are interested in pursuing additional precious metals properties and are capable of mining by either surface or underground methods. I have enclosed three copies of a brochure which describes our parent company's (S.J. Groves & Sons Company) operations including those of Western States Minerals.

I look forward to setting up a site visit in the near future. If you have any questions concerning Western States Minerals or our activities, please call.

Sincerely,

WESTERN STATES MINERALS CORPORATION



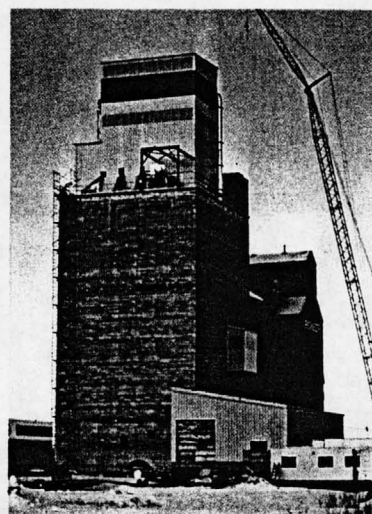
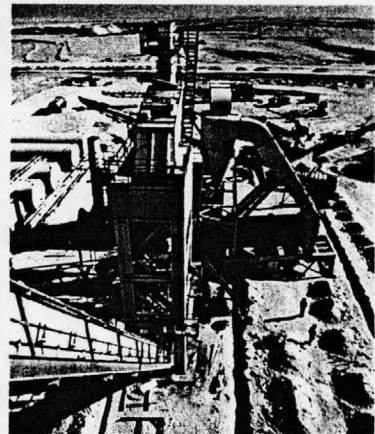
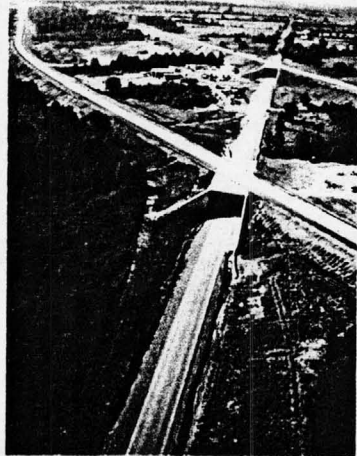
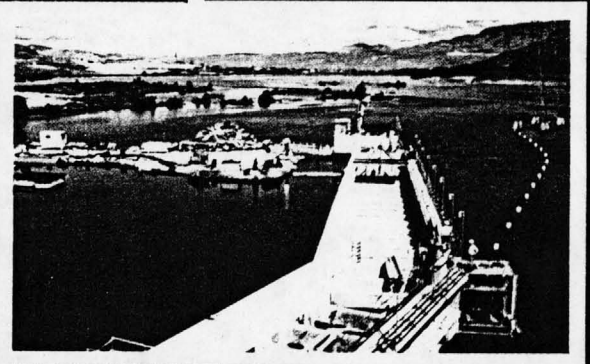
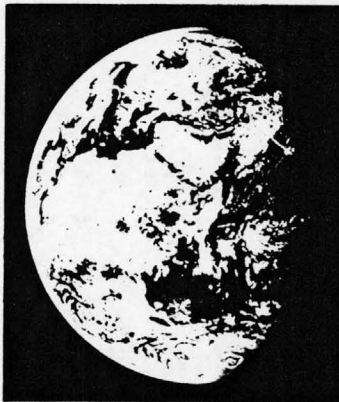
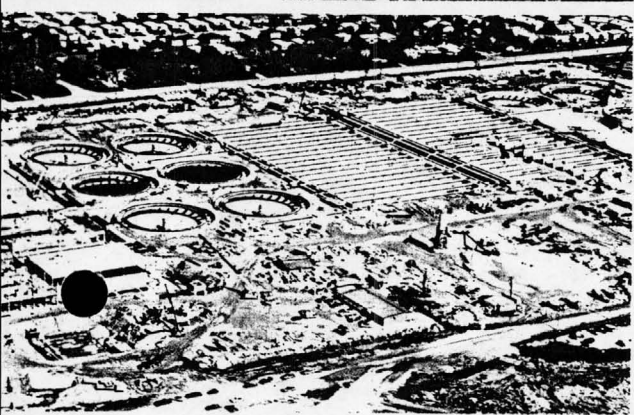
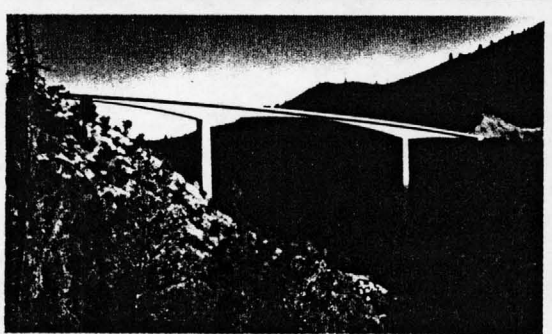
Steve W. Thomas  
Project Engineer

SWT/kt

Enclosure

# S.J. Groves & Sons Company

International Constructors



In 1980 S.J. Groves & Sons Company celebrated its Diamond Anniversary — seventy-five years of extraordinary success during which it grew from a small state-wide contracting company to that of a leading heavy construction organization in the United States and many parts of the world.

During the last ten years, a number of important developments have taken place within the company, all of which have strengthened its reputation and prepared it for the future needs of the construction industry.

These developments have come about by design, reflecting an awareness of the changes that were imminent in its more traditional operations, yet recognizing the opportunities in newer, more sophisticated

areas in which the company could effectively compete and use its experience to the utmost.

As a result of these decisions and subsequent actions, the company in the seventies experienced impressive growth not only in volume and diversity of its operations, but also in geographic expansion. Much of this growth was secured as a result of the continued high performance of the decentralized area and subsidiary offices.

In those instances where the company did not have an organization in place to provide the expertise and manpower for new ventures and areas of activity, we attracted high quality companies (such as PALCO and NCI) to become part of S.J. Groves. In still other areas, new organizations were created to meet the need.

Thus today, S.J. Groves is managing an ever-expanding variety of projects in eight principal categories for public, private, and foreign companies and government clients.

---

### ***Corporate Headquarters***

S. J. Groves & Sons  
Company  
10,000 Highway 55 West  
Minneapolis, Minnesota  
55441  
612-546-6943

### ***Area Offices***

207 - 152nd Avenue NE  
Redmond,  
Washington 98052  
206-643-3990  
7830 Cleveland Avenue  
North  
North Canton, Ohio 44720  
206-494-3770

2501 West Behrend Drive  
Phoenix, Arizona 85027  
602-869-9634

4530 Wetzell Road  
Liverpool, New York 13088  
315-652-3741

10700 Highway 55 West  
Suite 208  
Minneapolis,  
Minnesota 55447  
612-542-8123

3783 Northeast Expressway  
Suite 109  
Atlanta, Georgia 30340  
404-455-3494

P.O. Box 3247  
Shiremanstown,  
Pennsylvania 17011  
717-697-8286

P.O. Box 12127  
Reno, Nevada 89510  
702-331-3304

1104 West Reynolds Street  
Springfield, Illinois 62705  
217-787-2494

614 Charleston National  
Plaza  
Charleston,  
West Virginia 25301  
304-344-8327

4975 Van Gordon Street  
Wheatridge,  
Colorado 80033  
303-424-3396

Route 9 North  
P.O. Box 276  
Woodbridge,  
New Jersey 07095  
201-634-1040

### ***Domestic Subsidiaries***

**Western States  
Minerals Corporation**  
7475 West Fifth Avenue  
Lakewood, Colorado 80226  
303-232-1636

**NCI of Minnesota, Inc.**  
10,000 Highway 55 West  
Minneapolis,  
Minnesota 55441  
612-546-4455

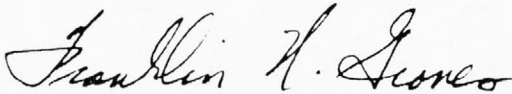
**Paul A. Laurence Company**  
10,000 Highway 55 West  
Minneapolis,  
Minnesota 55441  
612-546-6911

**Gopher Mining Company**  
10,000 Highway 55 West  
Minneapolis,  
Minnesota 55441  
612-546-6943

They include: hydroelectric, pumped storage, nuclear, and fossil-fired power generation plants; environmental waste treatment facilities; highways; tunnels and mine development; industrial systems; airports; site preparation; and the mining of natural resources. And the company will enter other new fields as it sees the potential in them.

The long-range objectives of the company have remained unchanged since it was founded in 1905 — to continue to grow, manage its resources effectively and professionally to meet the construction needs of the world. This capabilities brochure highlights the company's operations in the last five years.

Sincerely,



Franklin N. Groves  
Chairman of the Board



Charlton Consolidated  
Companies, Inc.  
Real Estate Development  
Chase Stone Center  
700 Holly Sugar Building  
Colorado Springs,  
Colorado 80903  
303-630-1600

Overseas Subsidiaries  
and Affiliated Companies

S. J. Groves & Sons  
Overseas Corporation  
10,000 Highway 55 West  
Minneapolis,  
Minnesota 55441  
612-546-6943  
Telex: 290730  
SJ GROVES PLOH

Carrera 4th Este  
#110-45 Santa Ana  
Bogota, Columbia  
South America  
Telex: 44910 44910A  
UNBOGCO

Periferico Sur 6501  
Tepepan, Xochimilco  
Mexico 23, O. F.  
Telex: 1777492  
Export Division  
7500 Northwest 8th Street  
Miami, Florida 33126  
305-264-8430

Cassilla De Correo  
No. 2965  
LaPaz, Bolivia  
Telex: 5284  
GROVES RY5284

Arab American  
Construction Company  
P.O. Box 409  
Dhahran Airport  
Dhahran, Saudi Arabia  
Telex: 928 670184  
MUTAIR SJ

Arabian American  
Asphalt Company  
P.O. Box 409  
Dhahran Airport  
Dhahran, Saudi Arabia  
Telex: 928 670184  
MUTAIR SJ

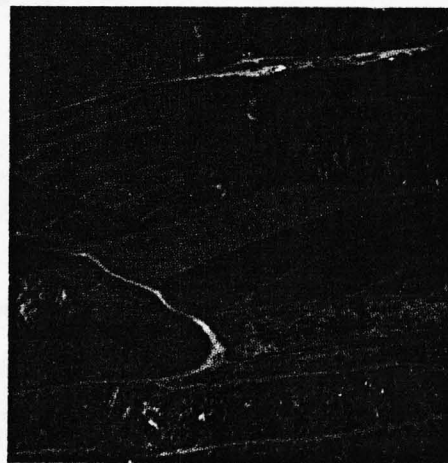
S. J. Groves & Sons Limited  
7575 Trans Canada  
Suite 100  
St. Laurent, Quebec H4T 1V6  
514-331-0441  
Telex: 05-824-909  
CONST BGM MTL

S.J. Groves & Sons, Ltd.  
Suite 301  
10335 172nd Street  
Edmonton, Alberta  
T55-1K9  
403-483-3309

Alameda Limitada  
Casilla De Correo  
No. 8746  
LaPaz, Bolivia  
Telex: 5550  
ALAMEDA BX5550



*Contract strip mining at Pardee, West Virginia.*



*Restoration of land is an essential element of mining.*

The origins of the company began with the excavation and removal of earth three quarters of a century ago in Minneapolis, Minnesota. As a result of the skills developed then, much enhanced through innovation and application of new equipment and modern technology, the company today devotes some of its energies to the mining of natural resources in the United States and abroad.

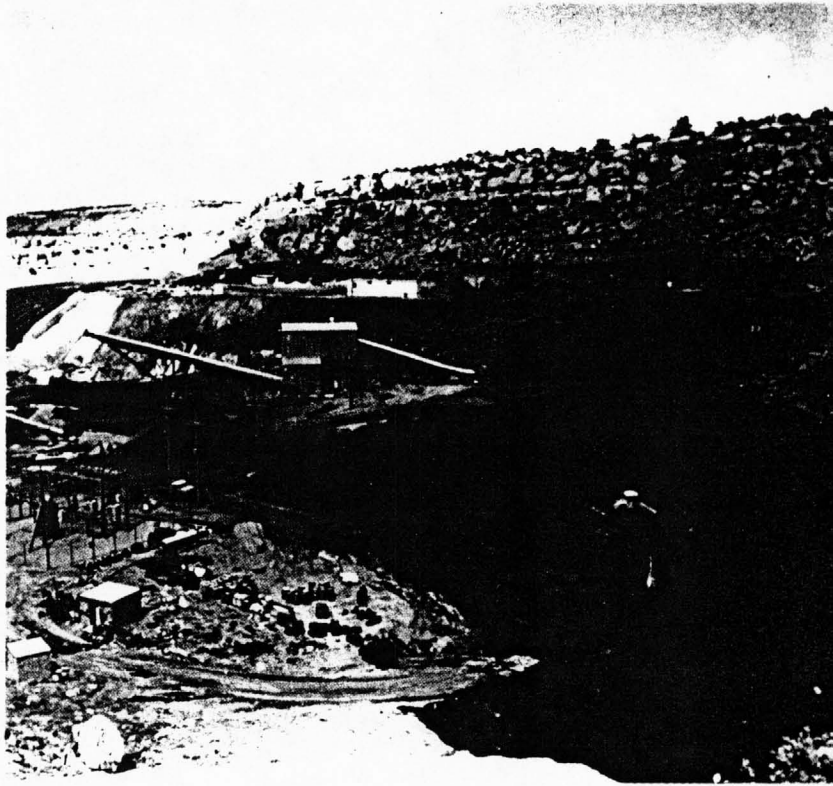
S.J. Groves' mining projects are located in both the eastern and

western United States and include both surface and underground operations.

In a continuing evolutionary process, the company has expanded in recent years the amount and variety of minerals it is mining for itself and clients. These include coal, silver, gold, uranium and lead. In Bolivia, silver and lead are being mined on property controlled by the company.

Renewed national and world interest in coal as a viable alternative to oil and natural gas places S.J. Groves in an excellent position to utilize its special knowledge and equipment in the efficient mining of this valuable source of energy.

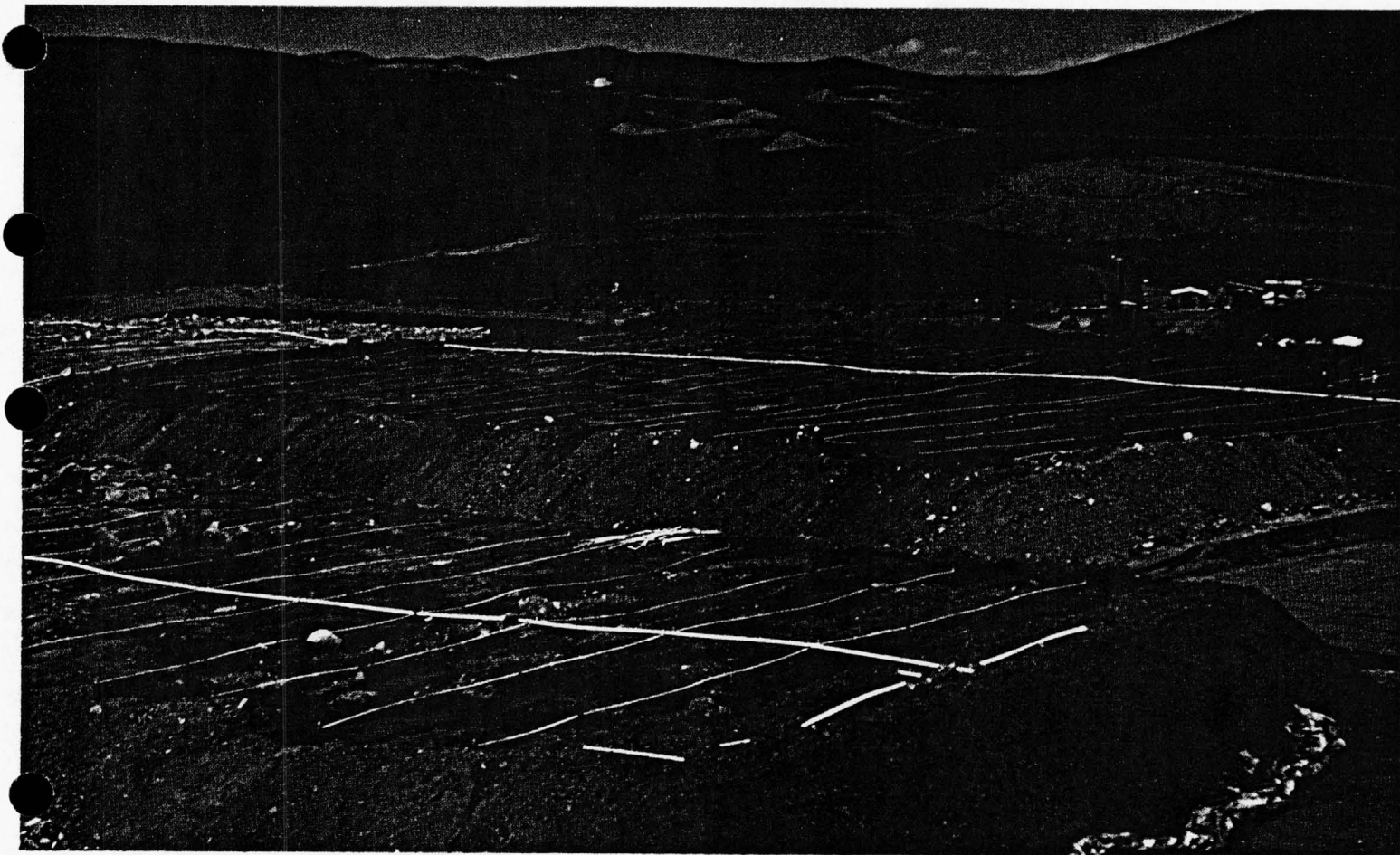
*J. B. King Mine, Utah, yields coal.*



*Silver-lead is mined in Bolivia.*



*Heap leaching, Gold Strike, near Carlin, Nevada.*



*Grande Cache, Alberta, Canada,  
McIntyre Mines, Ltd., coal  
strip mining operation.*

NEWS ARTICLE

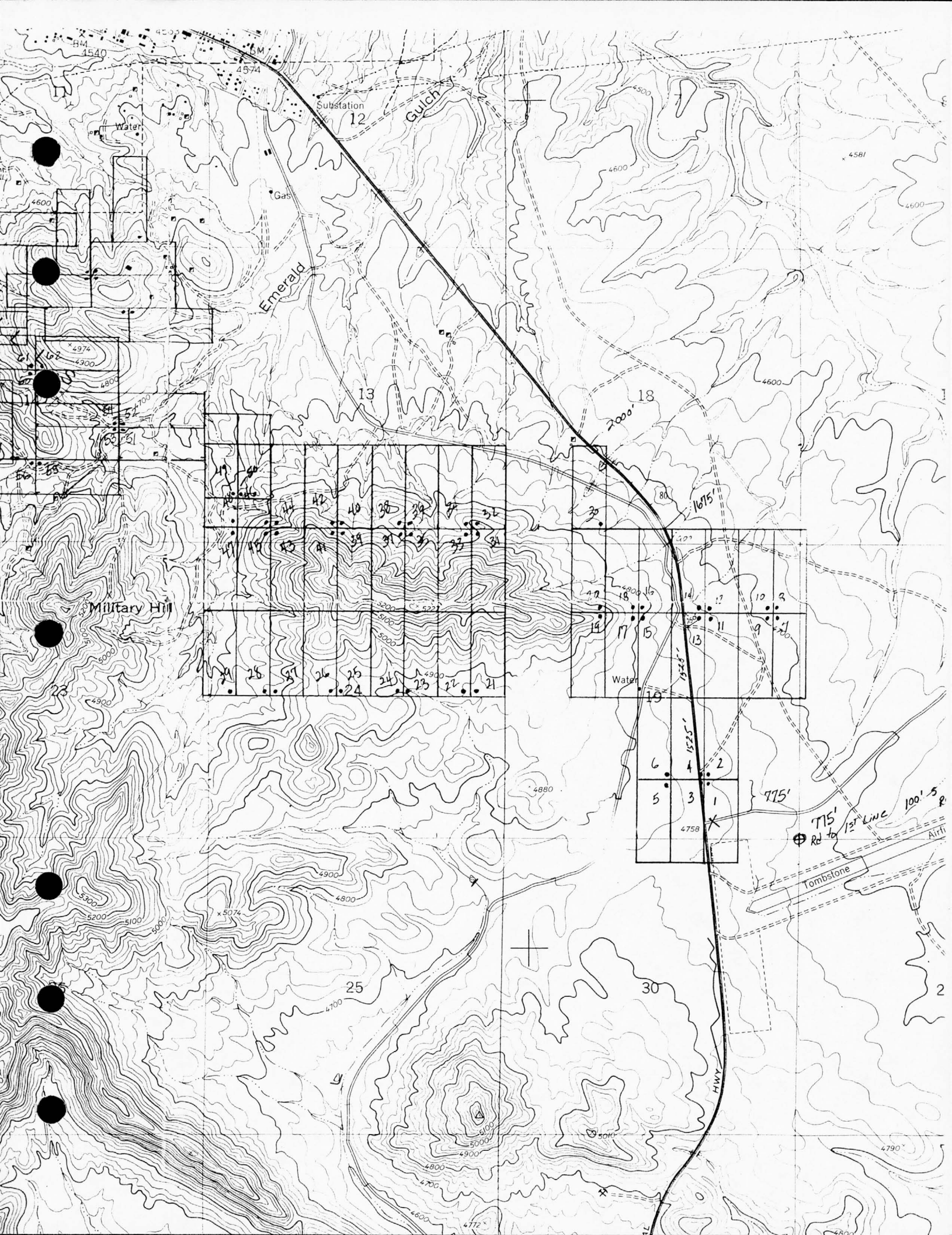


Thursday, February 2, 1984 ♦

Tucson Citizen



CLAIM MAP



Substation 12

Gulch

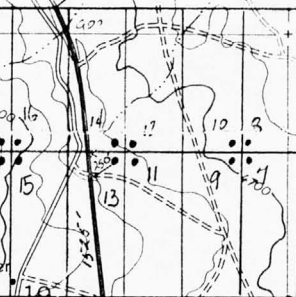
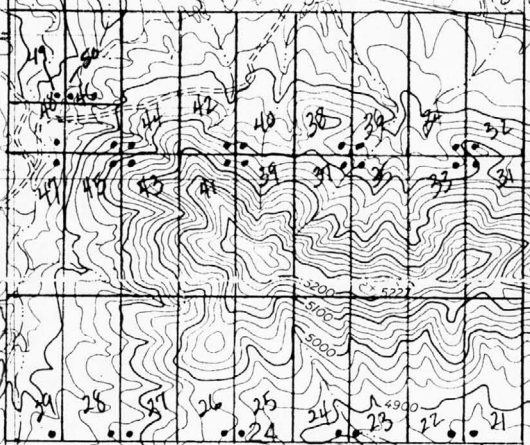
Emerald

Military Hill

Tombstone

775' Rd to 1st Line 100' 5'

HWY



Briscoe (5-5-84)

# James A. Briscoe & Associates, Inc.

Exploration Consultants:

Base and Precious Metals/Geologic and Land Studies/Regional and Detail Projects

James A. Briscoe  
Registered Professional Geologist

Thomas E. Waldrip, Jr.  
Geologist/Landman

May 5, 1984

Bill Hight  
Frank Gallup  
Lavern Baxter  
Tombstone Development Company  
P. O. Box 1445  
Grand Island, NE 68801

RE: Progress on negotiations with Western States Minerals and others - recommendation to begin an immediate joint venture with the Escapule's on the State of Maine Mine

Dear Bill, Frank & Lavern:

The last two weeks have been particularly busy and hectic with numerous visits to Tombstone with various company representatives, supervision of the trenching activity for the state land assessment, meetings with the Escapules, and much work on cash flow analyses. The work progresses on the Western States joint venture proposal, and a legal agreement is in preparation. I have met with two of their senior officials, and they appear to be pleased and happy with the prospects. However, most importantly, I have spent many hours with the Escapules, reviewed costs and procedures to get their State of Maine claims in production, and they have agreed to work with us, rather than Dave Thomas and Bill Grace, as well as five other offers that they have had for financing to get the operation underway. No ore reserves have been measured as yet, but I believe that with my geologic map of 1972, and recent exposures that they have made in backhoe cuts, such reserves will be relatively easy to drill out for a mine producing at 200 tons per day of 5 ounce recoverable silver, for a year. If the price of silver holds at \$9.00, we would be able to pay off all investment and equipment within the first year, with a profit in the range of \$600,000 split equally by Tombstone Development Company and the State of Maine Mining Company. If enough reserves were outlined, we could increase to a three shift per day, seven days per week operation with little or no additional equipment, and increase that profit by approximately four fold. I will go over this in more detail later, and have enclosed with this letter numerous spread sheet financial analyses providing details for my recommendations.

First I will review details on other aspects of the project.



Bill Hight, Lavern Baxter  
Tombstone Development Company  
May 5, 1984  
Page 2 of 8

After drilling some 80 drill holes to the depth of 10' on the northern trench and blasting with substantial explosives, the trench should be completed, excavated with the Escapule backhoe, this afternoon. It is approximately 8' to 10' wide at the top, and slightly more than 3' wide at the bottom, and is to a depth of 10' to 11' directly below the drill holes with hard ribs remaining at a depth of about 8' between the drill holes, which are spaced 5' apart. The rock is strongly silicified, and Charlie Escapule has commented on a daily basis how good it looks. However, so far we have not seen any silver chlorides. This could be due to low grade as they are very difficult to see until you have more than 3 ounces contained silver. Or we could be in a barren zone, or a zone that has been more deeply leached. Only sampling will tell us. Charlie's boys will build a two strand light wire fence around the trench to prevent cows from falling in, as per our agreement with the State Land Department, and then that work will be completed. I have been unable to catch up on the total expenditures as they relate to the State and Federal assessment work, but I hope to do that after this letter is on its way to you.

I have conducted recent tours with representatives from FMC Minerals Corp., U. S. Borax & Chemical, Dan Lewis and Wally Clark, and, of course, Western States.

FMC sent two young geologists with only a couple of years experience each, and they had mechanical troubles with their truck so a large portion of their time was spent in truck repair rather than geologic reconnaissance. Possibly as a result of this, they did not take too many samples, and have decided that Tombstone doesn't exhibit enough potential or bulk tonnage to be considered by FMC. However, they want me to keep them posted on any further updates on geologic and assay data.

I spent all day Tuesday giving Russ Corn of U. S. Borax and Chemical Corp. a tour of the District, about three weeks ago. The following Saturday, while I was supervising drilling on the trench, I met him again out in the field doing further reconnaissance. I have known Russ for about 20 years, and believe him to be a competent geologist. He appeared quite excited about the Mustang vein zone.

I spent one day with Dan Lewis and Wally Clark - your independent guys - evaluating your holdings and the T.E.I. operation. Wally expressed some concern at the lack of sampling, which I agree there should be more of - as soon as we get the financial ability to do so.

Bill Hight, Lavern Baxter  
Tombstone Development Company  
May 5, 1984  
Page 3 of 8

Last Friday evening I met with Mike O'Donnell, who is the Exploration Manager for Western States. I reviewed the geology with him, and gave him an overview of my negotiations with the Escapules. On the following Monday, Mr. Al Cerney of Western States came down from Denver to go over our land status details.

He spent approximately 2 days primarily working with Tom Waldrip, and left with xerox copies of our claim papers, master title lists, and copies of our state prospecting permits and permit applications. He seemed pleased with the organization, and I believe has found everything in fine order, as I expected he would. I talked with Steve Thomas regarding progress on the legal agreement, and he said it is well underway and will give me an update as soon as he knows more about its projected completion time. I will be making a trip to Nevada next week, and will have the opportunity to get a tour of their Goldstrike operation, enabling me to get a better idea of their overall mining competence. I will report to you the week after next - the trip is, of course, at no cost to Tombstone Development Company.

As I mentioned to you on the phone a couple of weeks ago, Bill, it is quite important to Western States to get a list of major stockholders and company officers of the Tombstone Development Company, as well as a financial statement. They appear to be quite concerned that they not get into a business arrangement with any companies or individuals that are not on the up and up.

On Tuesday, April 24, Charlie Escapule called me and requested that I come down and meet with Bill Grace and Dave Thomas, which I did, arriving in Tombstone at approximately 2:30 and talking with them until about 5:30. They wanted to put in a very large mining operation at the rate of 10,000 tons per day, and raise money through a stock offering on the Vancouver Exchange and the NASDAC in the U.S. They suggested that they already had a deal with the Escapules and asked me if I wouldn't work with them. I explained that I could not do that without permission from Tombstone Development Company, and that I was still trying to get the whole project together for TDC. I also explained to them that a large tonnage operation such as they proposed was not practical because there was no indicated ore reserves at the present time to justify that tonnage.

On Friday, April 27, Charlie, Louie, and Bailey came to Tucson and spent from approximately 9:30 in the morning until 7:00 in the evening working with Mardee and I on cost projections. I again emphasized to them that a 200 ton per day operation, with the objective of keeping the ore grade at 5 ounces of recoverable silver would be practical in light of the

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geologically indicated ore reserves from my 1972 geologic map and their more recent backhoe cutting. We ran through financial projections on this, and found it highly profitable. They then became very enthusiastic about the idea.

A project of this magnitude would require only 53,000 tons of reserves per year, an amount that I think could be drilled out near current exposures. Various configurations of potential ore zones that would meet the size requirement are present on the State of Maine property - see Attachment 1. Further, the equipment that they have now plus one air track drill and two 10 ton dump trucks will be sufficient for such a mining project. This includes an assumed stripping ratio of two tons of waste for each ton of ore. If ore reserves can be drilled out to justify it, production can be tripled simply by adding a swing and then a graveyard shift. I have made various projections based on these assumed tonnages and estimated mining costs. Let me add again a note of caution:

Until the grade and tonnage of the proposed ore bodies are measured by drill holes and backhoe cuts and assays, no accurate projections can be made - only assumed scenarios.

However, the assumptions of ore grade and tonnage are realistic and possibly, conservative, for the first year to possibly two years of mining.

The time component of the scenarios are based completely on having the availability of the UNC Silver MAP, so that ore grade control can be done very precisely, and results available immediately. Using this instrument, in conjunction with the air track drill, which is capable of drilling the requisite 3" to 3 1/2" holes to a depth of 100', if necessary, and the use of the excavator (backhoe) to make cross cut trenches, ore reserves should be able to be drilled out within 30 to 60 days.

In conjunction with the drilling (if practicable) we can begin experimental mining using only one dump truck, and leaching mine run ore, until drilled out ore reserves justify the expense of a crusher. The mining rate for this experimental mining, I have projected at 50 tons per day. This will allow us to:

- #1. Determine how efficient our projected mining method is using the equipment at hand, and work out any bugs that may appear,
- #2. It will give us a cash flow so that the overall capital required will be reduced, and

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#3. It will give us experience in using the Silver MAP for ore control.

If everything goes well during the first month and ore reserves are delimited, we can increase the mining rate easily to 100 tons per day by adding a second ore truck. Once a years worth of reserves are drilled out and we know the precise tonnage and grade, we can then run through our financial model and determine if the purchase of a crusher, and full scale production is justified. If so, we can go ahead and rent/purchase a crusher and proceed with a 200 ton per day single shift operation. Exploration will continue throughout the life of the mine under my supervision, 10 days per month, supervising Bailey Escapule, who will put in full time on exploration and ore control. The air track drill will be used to drill exploration holes which will be probed by the Silver MAP, as well as drilling blast holes for the mining operation. As reserves are increased, we can go to a swing shift and then a graveyard shift if justified, and then work 24 hours a day, 7 days a week on the mining operation and leaching, agglomerating, and refining. Once near surface ore has been completely drilled out and measured on the State of Maine claims, we would go onto Joe Escapule's claims, probably in the San Pedro and True Blue areas, where substantial tonnage of similar grade ore is probably available. Work would also be done on his claims along the projections of known productive veins from the State of Maine area. Our state lease adjacent to the San Pedro/True Blue could also be mined and where ore reserves are absent, we can use this area to haul ore and waste to, and create large leach dumps for an increased tonnage operation. Eventually, all ore, waste, and pre-existing leach pads and buildings would be moved from the State of Maine property to our state ground so that the probable ore under those facilities can be mined.

When near surface ore had been delimited by drilling on Joe Escapules property, we would go on to the Steve Henderson, Bill Grace, Seth Horne property adjacent to the State of Maine (assuming leases can be obtained - which Charlie Escapule feels they can) and do the same.

In this manner, I believe it is quite practical to visualize five years of reserves at a mining rate of 200 tons of ore per shift, and 400 tons of waste per shift.

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#### THE DEAL

The Escapules have tallied up their equipment that they would make available to the project, which they have estimated a total value of \$139,000. This list and their pricing is included as Attachment 3. I believe this is very conservative. Not included are the intangibles of their expertise in heap leaching, the fact that they already have a heap used for the Cobb deal that is ready to go with no further investment in time or capital, and the openings that they have made over the last few years on the State of Maine. In my cash flow scenarios, I have envisioned all of this equipment being on a rental lease basis to be paid off over a one year period.

There are other capital equipment items (see Attachment 4) including air track drill and supplies, two 10 ton trucks, plane table and alidade, crusher, Silver MAP, blueprinter, copier, Apple computer, all of which will have to be purchased. However, until we have drilled out reserves that justify purchase, all of this equipment, with exception of the plane table and alidade can be rented. I have included the rental costs in my projections. Thus, the total capital required, assuming that we can start experimental mining which will yield a cash flow almost immediately, will only be in the \$50,000 range.

Because of the Escapule's contribution of \$139,000 in equipment, plus the lease, I would suggest that for a 50/50 deal, Tombstone Development Company should obligate for an expenditure of \$139,000 to come up to parity. However, as you can see in my cash flow projections, it is quite possible that that amount of cash will never be needed, and if it is, it should be for a relatively short period of time. The Escapules do not feel that a 50/50 deal without some kind of a kicker on Tombstone Development Company's part is reasonable. Part of that kicker is their regard for Bill Hight and the other managers of the Tombstone Development Company. Part is their regard for my expertise. My suggestion for the remainder of the kicker is as follows:

The Escapule's would have the right on a 50/50 venture basis to be able to recover from any TDC land (excluding the patented mining claims) a similar amount of dollar profit, as Tombstone Development Company has extracted from the State of Maine property.

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Thus, it is in their best interest to see as little capital requirement to get the project into operation and as is possible. From TDC's point of view, this is a worthwhile trade since:

1. Production can be attained rapidly at a very high profit potential for a very very minimum capital requirement.
2. We will be able to obtain a lease on Joe Escapule's property as well as Hendersons and Bill Graces.
3. Though they don't know this, Seth Horne has told me again, as recently as yesterday, that he will go with whoever the Escapules go with - so solidifying a deal with the State of Maine, Escapules will also obtain the Seth Horne property (and the extention of the Mustang vein) for us. I believe that that will also influence the Alanco people who also have a portion of the Mustang vein.

#### TDC - STATE OF MAINE JOINT VENTURE IN LIGHT OF WESTERN STATES MINING NEGOTIATIONS

At this time it appears to me that the Western States Minerals deal will go through if Tombstone Development Company chooses to accept it. However, it may take another 60 days for finalization. Also, we have the possibility of something similar with Noranda, or possibly U. S. Borax. It is also possible, however, that all of these might fall through. If we go ahead with the State of Maine joint venture, and it is as successful as I think that it can be, it will catalize and insure the continued enthusiasm and the option of a deal with Western States, Noranda, and U. S. Borax. Thus, if ore reserves justify a larger additional expenditure of money, or if there are other reasons to consummate a deal with Western States, TDC always has that backup.

At worst, assuming that ore reserves failed to be delimited as I expect in the State of Maine area, we would have accomplished our assessment work for 1983, and can hold all claims for another year.

My recommendation is to proceed on the State of Maine venture with the Escapules as rapidly as possible. There is always the chance that if we delay, they will change their mind, as they have many suitors and the potential is outstanding. Equipment, specifically the air track drill and the Silver MAP, would be

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available within two weeks. A partnership, which is the best format for the joint venture since it allows profit and loss to flow through to the venture partners without double taxation, could be drawn up quickly.

Very truly yours,

James A. Briscoe

JAB/ms

Enclosures

## LIST OF ATTACHMENTS

1. Calculations of surface area for finding requisite reserves of 52,800 tons per year when rock (ore) weighs 1 ton for each 13 cubic feet in place
2. Reserves required for various mine production rates
3. State of Maine Mining Company list of inventory
4. List of capital equipment required
5. Outline of the proposed State of Maine (Charlou)/Tombstone Development Company deal
6. Various cash flow projections based on 200 tons per shift
  - a. Print #1 is 1 shift per day, silver at 5 oz. per ton, and \$9.00 per ounce, and gold at 0.01 ounces per ton and \$350.00 per ounce
  - b. Print #2 is 1 shift per day, silver at 5 oz. per ton, and \$9.00 per ounce, with no gold production
  - c. Print #3 is 1 shift per day, silver at 5 oz. per ton, the price at breakeven (\$5.57 per ounce), with no gold production
  - d. Print #4 is 1 shift per day, silver at breakeven per ton (1.93 ounces), and no gold production
  - e. Print #5 is 2 shifts per day, silver at 5 oz. per ton, and \$9.00 per ounce, gold at 0.01 ounce per ton and \$350.00 per ounce
  - f. Print #6 is 3 shifts per day, silver at 5 oz. per ton, and \$9.00 per ounce, gold at 0.01 ounces of gold per ton, and a price of \$350.00 per ounce
  - g. Print #7 is 3 shifts per day, silver at 5 oz. per ton, and \$9.00 per ounce, with no gold production
  - h. Print #8 is 3 shifts per day, silver at 5 oz. per ton, with a breakeven price of \$3.40 per ounce, and no gold production
  - i. Print #9 is 3 shifts per day, silver at a breakeven point per ton (1.55 ounces), at \$9.00 per ounce, and no gold production



CALCULATIONS OF SURFACE AREA FOR FINDING REQUISITE RESERVES  
 OF 52,800 TONS PER YEAR  
 WHEN ROCK (ORE) WEIGHS 1 TON FOR EACH 13 CUBIC FEET IN PLACE

1. Assume the vein is 25' wide x 13' deep  
 52,800 tons of rock  $\div$  25' = 2,112' of vein length  
 Therefore:  
 A vein  $\frac{25' \text{ wide} \times 2,112' \text{ long} \times 13' \text{ deep}}{13 \text{ cubic feet per ton}} = 52,800 \text{ tons}$   
 or
2. Assume the vein is 50' wide  
 52,800  $\div$  50' = 1,056' of vein length  
 Therefore:  
 A vein  $\frac{50' \text{ wide} \times 1,056' \text{ long} \times 13' \text{ deep}}{13 \text{ cubic feet per ton}} = 52,800 \text{ tons}$   
 or
3. Assume the vein is 100' wide  
 52,800  $\div$  100' = 528' of vein length  
 Therefore:  
 A vein  $\frac{100' \text{ wide} \times 528' \text{ long} \times 13' \text{ deep}}{13 \text{ cubic feet per ton}} = 52,800 \text{ tons}$   
 or
4. Assume the vein is 150' wide  
 52,800  $\div$  150' = 352' of vein length  
 Therefore:  
 A vein  $\frac{150' \text{ wide} \times 352' \text{ long} \times 13' \text{ deep}}{13 \text{ cubic feet per ton}} = 52,800 \text{ tons}$
5. Assume the vein is 230' wide  
 52,800  $\div$  230' = 230' of vein length  
 Therefore:  
 A vein  $\frac{230' \text{ wide} \times 230' \text{ long} \times 13' \text{ deep}}{13 \text{ cubic feet per ton}} = 52,800 \text{ tons}$
6. Assume the vein is 260' wide  
 52,800  $\div$  260 = 203' of vein length  
 Therefore:  
 A vein  $\frac{260' \text{ wide} \times 203' \text{ long} \times 13' \text{ deep}}{13 \text{ cubic feet per ton}} = 52,800 \text{ tons}$

RESERVES FOR A 200 TON PER DAY OPERATION  
ASSUMING 22 DAYS/MONTH, 12 MONTHS/YEAR

For 1 shift/day:

$$200 \text{ tons/day} \times 22 \text{ days/month} \times 12 \text{ months/year} = 52,800 \text{ tons/year}$$

for 2 shifts/day:

$$400 \text{ tons/day} \times 22 \text{ days/month} \times 12 \text{ months/year} = 105,600 \text{ tons/year}$$

for 3 shifts/day:

$$600 \text{ tons/day} \times 22 \text{ days/month} \times 12 \text{ months/year} = 158,400 \text{ tons/year}$$

For a 360 day/year operation, or 7 days/week,  
less Christmas, New Years, July 4, and 2 other holidays:

For 1 shift:

$$200 \text{ tons/shift} \times 360 \text{ days/year} = 72,000 \text{ tons/year}$$

For 2 shifts:

$$200 \text{ tons/shift} \times 720 \text{ days/year} = 144,000 \text{ tons/year}$$

For 3 shifts  
(allowing for maintenance & down time)

$$200 \text{ tons/shift} \times (720 + (360 \times 50\%)) = 180,000$$

or

$$200 \text{ tons/shift} \times 900 \text{ shifts/year} = 180,000$$

## S M M CO. INVENTORY

EQUIP. S.M.M.CO.	CAT 12 ROAD BLADE	\$10,000.00	INVENTORY
	515 LOADER	27,000.00	"
	3964B EXCAVATOR	32,000.00	"
	CEMENT MIXER 8yd	2,500.00	"
	DUMP TRUCK STAKE 1963	1,200.00	"
	10 x 16 CRUSHER/MT&CONV. FRAME	2,500.00	"
	A.A.	3,000.00	"
	LIME ADJ TANK 5000 GAL	1,200.00	"
	REAGENT TANKS 2 ea.	800.00	"
	N <sup>a</sup> CN MIX TANK 3000 GAL	800.00	"
AGGLOMERATING	BINS-FEEDER-BELT-STACKER	9,000.00	"
	6 TON LIME BIN/FEEDER	2,600.00	"
	2 TON CEMENT BIN/FEEDER	1,500.00	"
	#200 FURNACE/ACC	5,000.00	"
	#200 SILECON & GRAP CRUC.	1,600.00	"
	20'x 20' SMELTER BLDG	7,500.00	"
	54 x 40 BLDG. SHOP		
	1-300 TPD UNIT	20,000.00	"
	1-150 TPD UNIT	10,500.00	"
		<hr/>	
		\$138,700.00	1st

ATTACHMENT 4

LIST OF CAPITAL EQUIPMENT REQUIRED

(Note that all figures have been taken from the first two months of operation on the budget sheets - Attachment 6, Print #1)

ITEM	COST
Air track drill cost & Operating expenses	14,000 6,000
(2) 10 ton trucks cost & Operating expenses	3,617 1,800
Plane table & alidade	8,000
Silver MAP	14,167
Blueprinter	100
Copier	100
Apple Computer	500
	----- \$48,284

## PROPOSAL

## I. Form venture - Maine Consolidated Mining

## A. Partnership

1. State of Maine (Charlou) - 50%
2. TDC - 90%, JABA - 10%
  - a. TDC 45%
  - b. JABA 5%
  - 
  - 50%

## B. Advantages

1. Profits and losses flow through to partners (no double tax).
2. Can take profits in kind with no tax until sale

## C. Disadvantages

1. Liability flows through to the partners

## D. Contributions

## 1. TDC

- a. TDC - Cash \$139,000
- b. Signature on notes for equipment loans of \$255,000
- c. JAB expertise, maps and photos
- d. Production on any TDC property developed in future on a 50/50 venture with State of Maine until their 50% is equal to TDC 50% from State of Maine properties

## 2. State of Maine (Charlou)

- a. Capital equipment \$139,000
- b. Loan of existing facilities until 4 months from start or until cash flow sufficient to make payback schedule
- c. Includes lease of Charlou as in b. with continuity as long as ore is mined or contemplated
- d. Expertise of Charlie E., Louie E. & Bailey E.
- e. Lease on surrounding properties
  1. Joe Escapule
  2. Steve Henderson
  3. Bill Grace
  4. Ernie Escapule



STATE OF MAINE MINING PROJECT CASH ANALYSIS

STRIPPING RATIO - WASTE: ORE = 2:1

MAY 4, 1984 @ 11:05 A.M.

	200	200	200	200	200	200	200	200	200	200	200	200	200	200	264000	
	22	22	22	22	22	22	22	22	22	22	22	22	22	22	528	
	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00		
	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		
	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	264000	
	44	44	44	44	44	44	44	44	44	44	44	44	44	44	528	
	MONTH 13	MONTH 14	MONTH 15	MONTH 16	MONTH 17	MONTH 18	MONTH 19	MONTH 20	MONTH 21	MONTH 22	MONTH 23	MONTH 24	2ND YEAR TOTAL	% OF TOTAL		
<b>INCOME:</b>																
SALE OF SILVER @ 9.00/OZ.	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	2376000	92.78
SALE OF GOLD @ 350.00/OZ.	15400	15400	15400	15400	15400	15400	15400	15400	15400	15400	15400	15400	15400	15400	184800	7.22
<b>TOTAL INCOME</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>213400</b>	<b>2560800</b>	<b>100</b>
<b>EXPENSES:</b>																
<b>OFFICE</b>																
SECRETARY	968	968	968	968	968	968	968	968	968	968	968	968	968	968	11616	1.27
SUPPLIES	200	200	200	200	200	200	200	200	200	200	200	200	200	200	2400	0.26
LEASE OF CHARLOU	8750	8750	8750	8750	8750	8750	8750	8750	8750	8750	8750	8750	8750	8750	105000	11.48
<b>UTILITIES</b>																
POWER	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	11999	1.31
TELEPHONE	250	250	250	250	250	250	250	250	250	250	250	250	250	250	3000	0.33
PLUMBING/WATER	165	165	165	165	165	165	165	165	165	165	165	165	165	165	1980	0.22
<b>MINING</b>																
<b>OPERATING EXPENSES</b>																
ROAD BLADE	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	1536	18432	2.02
EXCAVATOR	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	50688	5.54
515 LOADER	3872	3872	3872	3872	3872	3872	3872	3872	3872	3872	3872	3872	3872	3872	46464	5.08
(2) 10 TON TRUCKS	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	28800	3.15
(2) PICK UP TRUCKS	625	625	625	625	625	625	625	625	625	625	625	625	625	625	7500	0.82
AIR TRACK DRILL	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	35999	3.94
DUMP TRUCK STAKE 1963	250	250	250	250	250	250	250	250	250	250	250	250	250	250	2999	0.33
<b>EXPENSE ITEMS</b>																
ASSAYING	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	18000	1.97
BLASTING POWDER & SUPPLIES	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	18000	1.97
<b>PERSONNEL</b>																
(1) EXCAVATOR OPERATOR	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	16896	1.85
(2) TRUCK DRIVERS	2816	2816	2816	2816	2816	2816	2816	2816	2816	2816	2816	2816	2816	2816	33792	3.70
(1) DRILLER	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	25344	2.77
(1) DRILLER'S HELPER	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	16896	1.85
<b>PROCESSING (METALLURGICAL RECOVERY)</b>																
<b>PERSONNEL</b>																
CRUSHING & AGGLOMERATING																
1 CRUSHER OPERATOR	1760	1760	1760	1760	1760	1760	1760	1760	1760	1760	1760	1760	1760	1760	21120	2.31
1 515 LOADER OPERATOR	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	16896	1.85
<b>PROCESSING</b>																
1 FOREMAN	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	2112	25344	2.77
3 OPERATORS (1/SHIFT)	3696	3696	3696	3696	3696	3696	3696	3696	3696	3696	3696	3696	3696	3696	44352	4.85
<b>SMELTING &amp; REFINING</b>																
1 OPERATOR	1232	1232	1232	1232	1232	1232	1232	1232	1232	1232	1232	1232	1232	1232	14784	1.62
<b>EXPENSE ITEMS</b>																
CEMENT	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	31680	3.46
LIME	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	17857	1.95
NACN	7040	7040	7040	7040	7040	7040	7040	7040	7040	7040	7040	7040	7040	7040	84480	9.24
ZINC	2173	2173	2173	2173	2173	2173	2173	2173	2173	2173	2173	2173	2173	2173	26075	2.85
DIATOMACEOUS EARTH	220	220	220	220	220	220	220	220	220	220	220	220	220	220	2640	0.29
FLUXES	400	400	400	400	400	400	400	400	400	400	400	400	400	400	4800	0.52
FURNACE	460	460	460	460	460	460	460	460	460	460	460	460	460	460	5520	0.60
CRUSHER EXP/MAINTENANCE	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	1150	13799	1.51
PLANT MAINTENANCE/EXPENSES	235	235	235	235	235	235	235	235	235	235	235	235	235	235	2820	0.31
<b>MANAGEMENT</b>																
MINE SUPER. (CHARLIE ESCAPULE)	3520	3520	3520	3520	3520	3520	3520	3520	3520	3520	3520	3520	3520	3520	42240	4.62
GEOL./ENGINEER (BAILEY ESCAPULE)	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	31680	3.46
<b>CONSULTANTS</b>																
GEOLOGISTS - JAB (TEW)	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	36000	3.94
BOOKKEEPING/ACCTG.-MAS	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	14400	1.57
ACCOUNTING/LEGAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000	1.31
<b>ENGINEERING EQUIPMENT</b>																
COPIER SUPPLIES	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1200	0.13
BLUEPRINTER SUPPLIES	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1200	0.13
RADIO SYSTEM MAINTENANCE	50	50	50	50	50	50	50	50	50	50	50	50	50	50	600	0.07
COMPUTER SUPPLIES	100	100	100	100	100	100	100	100	100	100	100	100	100	100	1200	0.13
UNC SILVER MAP	500	500	500	500	500	500	500	500	500	500	500	500	500	500	6000	0.66
<b>TOTAL EXPENSES</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>76208</b>	<b>914491</b>	<b>100</b>
<b>INCOME LESS EXPENSES</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>137192</b>	<b>1646309</b>	
<b>CUMMULATIVE TOTAL</b>	<b>137192</b>	<b>274385</b>	<b>411577</b>	<b>548770</b>	<b>685962</b>	<b>823154</b>	<b>960347</b>	<b>1097539</b>	<b>1234732</b>	<b>1371924</b>	<b>1509116</b>	<b>1646309</b>				

STATE OF MAINE MINING PROJECT CASH ANALYSIS

STRIPPING RATIO - WASTE: ORE = 2:1

# 2

MAY 4, 1984 @ 10:13 A.M.

	50	100	200	200	200	200	200	200	200	200	200	200	200	236500	
	22	22	22	22	22	22	22	22	22	22	22	22	22	0	
	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	
	5500	11000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6	MONTH 7	MONTH 8	MONTH 9	MONTH 10	MONTH 11	MONTH 12	1 YEAR TOTAL	% OF TOTAL	
INCOME:															
INVESTOR CAPITAL	50000	0	0	0	0	0	0	0	0	0	0	0	50000	2.30	
SALE OF SILVER @ 9.00/OZ.	49500	99000	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	2128500	97.70	
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL INCOME	99500	99000	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	2178500	100.00	
TOTAL EXPENSES	77785	63270	101292	116377	109937	109937	109937	109937	109937	123880	142465	142465	1317216	100	
INCOME LESS EXPENSES	21715	35730	96708	81623	88063	88063	88063	88063	88063	74120	55535	55535	861284		
INVESTOR PAY BACK	0	0	0	5556	5556	5556	5556	5556	5556	5556	5556	5556	50004		
NET INCOME BEFORE TAXES	0	35730	96708	76067	82507	82507	82507	82507	82507	68564	49979	49979	811280		
CUMMULATIVE TOTAL	21715	57445	154154	230221	312728	395236	477743	560250	642757	711322	761301	811280			

STATE OF MAINE MINING PROJECT CASH ANALYSIS

STRIPPING RATIO - WASTE: ORE = 2:1

# 2

MAY 4, 1984 @ 11:05 A.M.

	200	200	200	200	200	200	200	200	200	200	200	200	200	264000	
	22	22	22	22	22	22	22	22	22	22	22	22	22	0	
	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	
	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MONTH 13	MONTH 14	MONTH 15	MONTH 16	MONTH 17	MONTH 18	MONTH 19	MONTH 20	MONTH 21	MONTH 22	MONTH 23	MONTH 24	2ND YEAR TOTAL	% OF TOTAL	
INCOME:															
SALE OF SILVER @ 9.00/OZ.	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	2376000	100.00	
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL INCOME	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	198000	2376000	100	
TOTAL EXPENSES	76208	76208	76208	76208	76208	76208	76208	76208	76208	76208	76208	76208	914491	100	
INCOME LESS EXPENSES	121792	121792	121792	121792	121792	121792	121792	121792	121792	121792	121792	121792	1461509		
CUMMULATIVE TOTAL	121792	243585	365377	487170	608962	730754	852547	974339	1096132	1217924	1339716	1461509			



STATE OF MAINE MINING PROJECT CASH ANALYSIS  
MAY 4, 1984 @ 10:13 A.M.

STRIPPING RATIO - WASTE: ORE = 2:1

# 3

	50	100	200	200	200	200	200	200	200	200	200	200	200	236500	
	22	22	22	22	22	22	22	22	22	22	22	22	22	0	
	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	
	5500	11000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6	MONTH 7	MONTH 8	MONTH 9	MONTH 10	MONTH 11	MONTH 12	1 YEAR TOTAL	% OF TOTAL	
INCOME:															
INVESTOR CAPITAL	50000	0	0	0	0	0	0	0	0	0	0	0	50000	3.66	
SALE OF SILVER @ 5.57/OZ.	30635	61270	122540	122540	122540	122540	122540	122540	122540	122540	122540	122540	1317305	96.34	
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL INCOME	80635	61270	122540	122540	122540	122540	122540	122540	122540	122540	122540	122540	1367305	100.00	
TOTAL EXPENSES	77785	63270	101292	116377	109937	109937	109937	109937	109937	123880	142465	142465	1317216	100	
INCOME LESS EXPENSES	2850	-2000	21248	6163	12603	12603	12603	12603	12603	-1340	-19925	-19925	50089		
INVESTOR PAY BACK	0	0	0	5556	5556	5556	5556	5556	5556	5556	5556	5556	50004		
NET INCOME BEFORE TAXES	0	-2000	21248	607	7047	7047	7047	7047	7047	-6896	-25481	-25481	85		
CUMMULATIVE TOTAL	2850	850	22099	22706	29753	36801	43848	50895	57942	51047	25566	85			

STATE OF MAINE MINING PROJECT CASH ANALYSIS  
MAY 4, 1984 @ 11:05 A.M.

STRIPPING RATIO - WASTE: ORE = 2:1

# 3

	200	200	200	200	200	200	200	200	200	200	200	200	200	264000	
	22	22	22	22	22	22	22	22	22	22	22	22	22	0	
	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	
	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	22000	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MONTH 13	MONTH 14	MONTH 15	MONTH 16	MONTH 17	MONTH 18	MONTH 19	MONTH 20	MONTH 21	MONTH 22	MONTH 23	MONTH 24	2ND YEAR TOTAL	% OF TOTAL	
INCOME:															
SALE OF SILVER @ 3.47/OZ.	76340	76340	76340	76340	76340	76340	76340	76340	76340	76340	76340	76340	916080	100.00	
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL INCOME	76340	76340	76340	76340	76340	76340	76340	76340	76340	76340	76340	76340	916080	100	
TOTAL EXPENSES	76208	76208	76208	76208	76208	76208	76208	76208	76208	76208	76208	76208	914491	100	
INCOME LESS EXPENSES	132	132	132	132	132	132	132	132	132	132	132	132	1589		
CUMMULATIVE TOTAL	132	265	397	530	662	794	927	1059	1192	1324	1456	1589			

STATE OF MAINE MINING PROJECT CASH ANALYSIS  
MAY 4, 1984 @ 10:13 A.M.

STRIPPING RATIO - WASTE: ORE = 2:1

# 4

	50	100	200	200	200	200	200	200	200	200	200	200	200	146630	
	22	22	22	22	22	22	22	22	22	22	22	22	22	0	
	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	0	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	
	3410	6820	13640	13640	13640	13640	13640	13640	13640	13640	13640	13640	13640	146630	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6	MONTH 7	MONTH 8	MONTH 9	MONTH 10	MONTH 11	MONTH 12	1 YEAR TOTAL	% OF TOTAL	
INCOME:															
INVESTOR CAPITAL	50000	0	0	0	0	0	0	0	0	0	0	0	50000	3.65	
SALE OF SILVER @ 9.00/OZ.	30690	61380	122760	122760	122760	122760	122760	122760	122760	122760	122760	122760	1319670	96.35	
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL INCOME	80690	61380	122760	122760	122760	122760	122760	122760	122760	122760	122760	122760	1369670	100.00	
TOTAL EXPENSES	77785	63270	101292	116377	109937	109937	109937	109937	109937	123880	142465	142465	1317216	100	
INCOME LESS EXPENSES	2905	-1890	21468	6383	12823	12823	12823	12823	12823	-1120	-19705	-19705	52454		
INVESTOR PAY BACK	0	0	0	5556	5556	5556	5556	5556	5556	5556	5556	5556	50004		
NET INCOME BEFORE TAXES	0	-1890	21468	827	7267	7267	7267	7267	7267	-6676	-25261	-25261	2450		
CUMMULATIVE TOTAL	2905	1015	22484	23311	30578	37846	45113	52380	59647	52972	27711	2450			

STATE OF MAINE MINING PROJECT CASH ANALYSIS  
MAY 4, 1984 @ 11:05 A.M.

STRIPPING RATIO - WASTE: ORE = 2:1

# 4

	200	200	200	200	200	200	200	200	200	200	200	200	200	101904	
	22	22	22	22	22	22	22	22	22	22	22	22	22	0	
	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	0	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	
	8492	8492	8492	8492	8492	8492	8492	8492	8492	8492	8492	8492	8492	101904	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MONTH 13	MONTH 14	MONTH 15	MONTH 16	MONTH 17	MONTH 18	MONTH 19	MONTH 20	MONTH 21	MONTH 22	MONTH 23	MONTH 24	2ND YEAR TOTAL	% OF TOTAL	
INCOME:															
SALE OF SILVER @ 9.00/OZ.	76428	76428	76428	76428	76428	76428	76428	76428	76428	76428	76428	76428	917136	100.00	
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL INCOME	76428	76428	76428	76428	76428	76428	76428	76428	76428	76428	76428	76428	917136	100	
TOTAL EXPENSES	76208	76208	76208	76208	76208	76208	76208	76208	76208	76208	76208	76208	914491	100	
INCOME LESS EXPENSES	220	220	220	220	220	220	220	220	220	220	220	220	2645		
CUMMULATIVE TOTAL	220	441	661	882	1102	1322	1543	1763	1984	2204	2424	2645			



STATE OF MAINE MINING PROJECT CASH ANALYSIS

STRIPPING RATIO - WASTE: ORE = 2:1

MAY 4, 1984 @ 11:05 A.M.

ORE PRODUCTION IN TONS/SHIFT	200	200	200	200	200	200	200	200	200	200	200	200	200	200	792000
PRODUCTION SHIFTS/MONTH	66	66	66	66	66	66	66	66	66	66	66	66	66	66	1584
RECOVERABLE TROY OUNCES OF AG/TON	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
RECOVERABLE TROY OUNCES OF AU/TON	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
RECOVERED TROY OUNCES OF AG/TON	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	
RECOVERED TROY OUNCES OF AU/TON	132	132	132	132	132	132	132	132	132	132	132	132	132	132	

	MONTH 13	MONTH 14	MONTH 15	MONTH 16	MONTH 17	MONTH 18	MONTH 19	MONTH 20	MONTH 21	MONTH 22	MONTH 23	MONTH 24	2ND YEAR TOTAL	% OF TOTAL
<b>INCOME:</b>														
SALE OF SILVER @ 9.00/OZ.	594000	594000	594000	594000	594000	594000	594000	594000	594000	594000	594000	594000	7128000	92.78
SALE OF GOLD @ 350.00/OZ.	46200	46200	46200	46200	46200	46200	46200	46200	46200	46200	46200	46200	554400	7.22
<b>TOTAL INCOME</b>	<b>640200</b>	<b>640200</b>	<b>640200</b>	<b>640200</b>	<b>640200</b>	<b>640200</b>	<b>640200</b>	<b>640200</b>	<b>640200</b>	<b>640200</b>	<b>640200</b>	<b>640200</b>	<b>7682400</b>	<b>100</b>
<b>EXPENSES:</b>														
<b>OFFICE</b>														
SECRETARY	968	968	968	968	968	968	968	968	968	968	968	968	11616	0.53
SUPPLIES	200	200	200	200	200	200	200	200	200	200	200	200	2400	0.11
LEASE OF CHARLOU	8750	8750	8750	8750	8750	8750	8750	8750	8750	8750	8750	8750	105000	4.76
UTILITIES														
POWER	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	35996	1.63
TELEPHONE	250	250	250	250	250	250	250	250	250	250	250	250	3000	0.14
PLUMBING/WATER	495	495	495	495	495	495	495	495	495	495	495	495	5940	0.27
<b>MINING</b>														
OPERATING EXPENSES														
ROAD BLADE	4608	4608	4608	4608	4608	4608	4608	4608	4608	4608	4608	4608	55297	2.51
EXCAVATOR	12672	12672	12672	12672	12672	12672	12672	12672	12672	12672	12672	12672	152064	6.89
515 LOADER	11616	11616	11616	11616	11616	11616	11616	11616	11616	11616	11616	11616	139392	6.32
{2} 10 TON TRUCKS	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	7200	86399	3.92
{2} PICK UP TRUCKS	1875	1875	1875	1875	1875	1875	1875	1875	1875	1875	1875	1875	22501	1.02
AIR TRACK DRILL	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	107997	4.89
DUMP TRUCK STAKE 1963	750	750	750	750	750	750	750	750	750	750	750	750	8997	0.41
EXPENSE ITEMS														
ASSAYING	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	53999	2.45
BLASTING POWDER & SUPPLIES	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	4500	53999	2.45
PERSONNEL														
{1} EXCAVATOR OPERATOR	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	50688	2.30
{2} TRUCK DRIVERS	8448	8448	8448	8448	8448	8448	8448	8448	8448	8448	8448	8448	101376	4.59
{1} DRILLER	6336	6336	6336	6336	6336	6336	6336	6336	6336	6336	6336	6336	76032	3.45
{1} DRILLER'S HELPER	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	50688	2.30
PROCESSING (METALLURGICAL RECOVERY)														
PERSONNEL														
CRUSHING & AGGLOMERATING														
1 CRUSHER OPERATOR	5280	5280	5280	5280	5280	5280	5280	5280	5280	5280	5280	5280	63360	2.87
1 515 LOADER OPERATOR	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	4224	50688	2.30
PROCESSING														
1 FOREMAN	6336	6336	6336	6336	6336	6336	6336	6336	6336	6336	6336	6336	76032	3.45
3 OPERATORS (1/SHIFT)	11088	11088	11088	11088	11088	11088	11088	11088	11088	11088	11088	11088	133056	6.03
SMELTING & REFINING														
1 OPERATOR	3696	3696	3696	3696	3696	3696	3696	3696	3696	3696	3696	3696	44352	2.01
EXPENSE ITEMS														
CEMENT	7920	7920	7920	7920	7920	7920	7920	7920	7920	7920	7920	7920	95040	4.31
LIME	4464	4464	4464	4464	4464	4464	4464	4464	4464	4464	4464	4464	53571	2.43
NACN	21120	21120	21120	21120	21120	21120	21120	21120	21120	21120	21120	21120	253440	11.49
ZINC	6519	6519	6519	6519	6519	6519	6519	6519	6519	6519	6519	6519	78226	3.55
DIATOMACEOUS EARTH	660	660	660	660	660	660	660	660	660	660	660	660	7920	0.36
FLUXES	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	14399	0.65
FURNACE	1380	1380	1380	1380	1380	1380	1380	1380	1380	1380	1380	1380	16561	0.75
CRUSHER EXP/MAINTENANCE	3450	3450	3450	3450	3450	3450	3450	3450	3450	3450	3450	3450	41398	1.88
PLANT MAINTENANCE/EXPENSES	705	705	705	705	705	705	705	705	705	705	705	705	8459	0.38
MANAGEMENT														
MINE SUPER. (CHARLIE ESCAPULE)	3520	3520	3520	3520	3520	3520	3520	3520	3520	3520	3520	3520	42240	1.91
GEOL./ENGINEER (BAILEY ESCAPULE)	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	2640	31680	1.44
CONSULTANTS														
GEOLOGISTS - JAB (TEW)	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	3000	36000	1.63
BOOKKEEPING/ACCTG.-MAS	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	14400	0.65
ACCOUNTING/LEGAL	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	12000	0.54
ENGINEERING EQUIPMENT														
COPIER SUPPLIES	100	100	100	100	100	100	100	100	100	100	100	100	1200	0.05
BLUEPRINTER SUPPLIES	100	100	100	100	100	100	100	100	100	100	100	100	1200	0.05
RADIO SYSTEM MAINTENANCE	50	50	50	50	50	50	50	50	50	50	50	50	600	0.03
COMPUTER SUPPLIES	100	100	100	100	100	100	100	100	100	100	100	100	1200	0.05
UNC SILVER MAP	500	500	500	500	500	500	500	500	500	500	500	500	6000	0.27
<b>TOTAL EXPENSES</b>	<b>183867</b>	<b>183867</b>	<b>183867</b>	<b>183867</b>	<b>183867</b>	<b>183867</b>	<b>183867</b>	<b>183867</b>	<b>183867</b>	<b>183867</b>	<b>183867</b>	<b>183867</b>	<b>2206402</b>	<b>100</b>
<b>INCOME LESS EXPENSES</b>	<b>456333</b>	<b>456333</b>	<b>456333</b>	<b>456333</b>	<b>456333</b>	<b>456333</b>	<b>456333</b>	<b>456333</b>	<b>456333</b>	<b>456333</b>	<b>456333</b>	<b>456333</b>	<b>5475998</b>	
<b>CUMMULATIVE TOTAL</b>	<b>456333</b>	<b>912666</b>	<b>1369000</b>	<b>1825333</b>	<b>2281666</b>	<b>2737999</b>	<b>3194332</b>	<b>3650666</b>	<b>4106999</b>	<b>4563332</b>	<b>5019665</b>	<b>5475998</b>		

STATE OF MAINE MINING PROJECT CASH ANALYSIS  
MAY 4, 1984 @ 10:13 A.M.

STRIPPING RATIO - WASTE: ORE = 2:1

# 7

	50	100	200	200	200	200	200	200	200	200	200	200	200	566500	
	22	22	22	22	44	66	66	66	66	66	66	66	66	0	
	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	
	5500	11000	22000	22000	44000	66000	66000	66000	66000	66000	66000	66000	66000	0	566500
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6	MONTH 7	MONTH 8	MONTH 9	MONTH 10	MONTH 11	MONTH 12	1 YEAR TOTAL	% OF TOTAL	
INCOME:															
INVESTOR CAPITAL	50000	0	0	0	0	0	0	0	0	0	0	0	50000	0.97	
SALE OF SILVER @ 9.00/OZ.	49500	99000	198000	198000	396000	594000	594000	594000	594000	594000	594000	594000	5098500	99.03	
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL INCOME	99500	99000	198000	198000	396000	594000	594000	594000	594000	594000	594000	594000	5148500	100.00	
TOTAL EXPENSES	77785	63270	101292	116377	147960	188624	191264	191264	191264	205207	223792	223792	1921891	100	
INCOME LESS EXPENSES	21715	35730	96708	81623	248040	405376	402736	402736	402736	388793	370208	370208	3226609		
INVESTOR PAY BACK	0	0	0	5556	5556	5556	5556	5556	5556	5556	5556	5556	50004		
NET INCOME BEFORE TAXES	0	35730	96708	76067	242484	399820	397180	397180	397180	383237	364652	364652	3176605		
CUMMULATIVE TOTAL	21715	57445	154154	230221	472705	872524	1269704	1666884	2064064	2447301	2811953	3176605			

STATE OF MAINE MINING PROJECT CASH ANALYSIS  
MAY 4, 1984 @ 11:05 A.M.

STRIPPING RATIO - WASTE: ORE = 2:1

# 7

	200	200	200	200	200	200	200	200	200	200	200	200	200	792000	
	66	66	66	66	66	66	66	66	66	66	66	66	66	0	
	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	
	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	0	792000
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MONTH 13	MONTH 14	MONTH 15	MONTH 16	MONTH 17	MONTH 18	MONTH 19	MONTH 20	MONTH 21	MONTH 22	MONTH 23	MONTH 24	2ND YEAR TOTAL	% OF TOTAL	
INCOME:															
SALE OF SILVER @ 9.00/OZ.	594000	594000	594000	594000	594000	594000	594000	594000	594000	594000	594000	594000	7128000	100.00	
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	
TOTAL INCOME	594000	594000	594000	594000	594000	594000	594000	594000	594000	594000	594000	594000	7128000	100	
TOTAL EXPENSES	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	2206402	100	
INCOME LESS EXPENSES	410133	410133	410133	410133	410133	410133	410133	410133	410133	410133	410133	410133	4921598		
CUMMULATIVE TOTAL	410133	820266	1230400	1640533	2050666	2460799	2870932	3281066	3691199	4101332	4511465	4921598			

STATE OF MAINE MINING PROJECT CASH ANALYSIS  
MAY 4, 1984 @ 10:13 A.M.

STRIPPING RATIO - WASTE: ORE = 2:1

	50	100	200	200	200	200	200	200	200	200	200	200	200	200	566500		
	22	22	22	22	44	66	66	66	66	66	66	66	66	66	0		
	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0		
	5500	11000	22000	22000	44000	66000	66000	66000	66000	66000	66000	66000	66000	66000	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
																1 YEAR	
																TOTAL	% OF
																TOTAL	TOTAL
INCOME:																	
INVESTOR CAPITAL	50000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50000	2.53
SALE OF SILVER @ 3.40/OZ.	18700	37400	74800	74800	149600	224400	224400	224400	224400	224400	224400	224400	224400	224400	224400	1926100	97.47
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
TOTAL INCOME	68700	37400	74800	74800	149600	224400	224400	224400	224400	224400	224400	224400	224400	224400	224400	1976100	100.00
TOTAL EXPENSES	77785	63270	101292	116377	147960	188624	191264	191264	191264	205207	223792	223792	223792	223792	223792	1921891	100
INCOME LESS EXPENSES	-9085	-25870	-26492	-41577	1640	35776	33136	33136	33136	19193	608	608	608	608	608	54209	
INVESTOR PAY BACK	0	0	0	5556	5556	5556	5556	5556	5556	5556	5556	5556	5556	5556	5556	50004	
NET INCOME BEFORE TAXES	0	-25870	-26492	-47133	-3916	30220	27580	27580	27580	13637	-4948	-4948	-4948	-4948	-4948	4205	
CUMMULATIVE TOTAL	-9085	-34955	-61446	-108579	-112495	-82276	-54696	-27116	464	14101	9153	4205					

STATE OF MAINE MINING PROJECT CASH ANALYSIS  
MAY 4, 1984 @ 11:05 A.M.

STRIPPING RATIO - WASTE: ORE = 2:1

	200	200	200	200	200	200	200	200	200	200	200	200	200	200	792000		
	66	66	66	66	66	66	66	66	66	66	66	66	66	66	0		
	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	0		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0		
	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	66000	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
																2ND YEAR	% OF
																TOTAL	TOTAL
INCOME:																	
SALE OF SILVER @ 2.79/OZ.	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	2209680	100.00
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
TOTAL INCOME	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	2209680	100
TOTAL EXPENSES	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	2206402	100
INCOME LESS EXPENSES	273	273	273	273	273	273	273	273	273	273	273	273	273	273	273	3278	
CUMMULATIVE TOTAL	273	546	820	1093	1366	1639	1912	2186	2459	2732	3005	3278					

STATE OF MAINE MINING PROJECT CASH ANALYSIS  
MAY 4, 1984 @ 10:13 A.M.

STRIPPING RATIO - WASTE: ORE = 2:1

# 9

	50	100	200	200	200	200	200	200	200	200	200	200	200	200	214137	
	22	22	22	22	44	66	66	66	66	66	66	66	66	66	0	
	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	0	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	
	2079	4158	8316	8316	16632	24948	24948	24948	24948	24948	24948	24948	24948	24948	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6	MONTH 7	MONTH 8	MONTH 9	MONTH 10	MONTH 11	MONTH 12	1 YEAR TOTAL	% OF TOTAL		
INCOME:																
INVESTOR CAPITAL	50000	0	0	0	0	0	0	0	0	0	0	0	50000	2.53		
SALE OF SILVER @ 9.00/OZ.	18711	37422	74844	74844	149688	224532	224532	224532	224532	224532	224532	224532	1927233	97.47		
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		
TOTAL INCOME	68711	37422	74844	74844	149688	224532	224532	224532	224532	224532	224532	224532	1977233	100.00		
TOTAL EXPENSES	77785	63270	101292	116377	147960	188624	191264	191264	191264	205207	223792	223792	1921891	100		
INCOME LESS EXPENSES	-9074	-25848	-26448	-41533	1728	35908	33268	33268	33268	19325	740	740	55342			
INVESTOR PAY BACK	0	0	0	5556	5556	5556	5556	5556	5556	5556	5556	5556	50004			
NET INCOME BEFORE TAXES	0	-25848	-26448	-47089	-3828	30352	27712	27712	27712	13769	-4816	-4816	5338			
CUMMULATIVE TOTAL	-9074	-34922	-61369	-108458	-112286	-81935	-54223	-26511	1201	14970	10154	5338				

STATE OF MAINE MINING PROJECT CASH ANALYSIS  
MAY 4, 1984 @ 11:05 A.M.

STRIPPING RATIO - WASTE: ORE = 2:1

# 9

	200	200	200	200	200	200	200	200	200	200	200	200	200	200	245520	
	66	66	66	66	66	66	66	66	66	66	66	66	66	66	0	
	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	0	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	
	20460	20460	20460	20460	20460	20460	20460	20460	20460	20460	20460	20460	20460	20460	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MONTH 13	MONTH 14	MONTH 15	MONTH 16	MONTH 17	MONTH 18	MONTH 19	MONTH 20	MONTH 21	MONTH 22	MONTH 23	MONTH 24	2ND YEAR TOTAL	% OF TOTAL		
INCOME:																
SALE OF SILVER @ 9.00/OZ.	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	2209680	100.00		
SALE OF GOLD @ 350.00/OZ.	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00		
TOTAL INCOME	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	184140	2209680	100		
TOTAL EXPENSES	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	183867	2206402	100		
INCOME LESS EXPENSES	273	273	273	273	273	273	273	273	273	273	273	273	3278			
CUMMULATIVE TOTAL	273	546	820	1093	1366	1639	1912	2186	2459	2732	3005	3278				





COST FIGURES ON MINING AND PROCESSING TOMBSTONE ORES

FROM CHARLES ESCAPULE, OCTOBER, 1982

1. In State of Maine

5.82 oz. Ag in gob & 0.029 oz. Au

or \$58.20 Ag + \$11.60 Au = \$69.80

In average rock around veins it runs

0.22 oz Ag & 0.017 oz. Au

or \$ 2.20 Ag + \$ 6.80 Au = \$ 9.00

At T.E.I., it costs \$.62/ton to mine \$ \$6.80 to process for  
a total cost of \$7.42 + stripping of 0.21 tons x .62 = 7.42  
+ .13 = \$7.55

Concluded:

You could mine \$10.00 rock profitably.

#1

CALCULATION OF GEOLOGICALLY INDICATED ORE RESERVES

S.W. OF THE AXIS OF THE EMPIRE ANTICLINE

ASSOCIATED WITH ANTICLINES, SYNCLINES, ROLLS AND FISSURES

Assumption I

About 1/3 of the recorded production has come from these structures, or 0.333 x 463 million = \$154 million

Assumption II

Cannot determine whether the fissures or rolls are more important in ore deposition. Thus, we will assume they are of equal importance. Thus, we can add their total length, subtract the mined length, and get an estimate of ore that should be present in their unmined extent.

	Total Length -----	Mined Length -----	Unexplored Length -----
Fissures	33,800	6,650	27,150
Rolls (anticlines, synclines & drag folds)	44,000	3,950	40,050
TOTAL	=====	=====	=====
	77,800	10,600	67,200

Mined Length            10,600  
-----  
Total Length            77,800            = 13.6% Explored

Unexplored Length    67,200  
-----  
Total Length            77,800            = 86.4% Unexplored

Then:

Explored            13.6%    =    \$154 mm  
-----  
Unexplored        86.4%    =    X

\$154 mm X .864  
X = ----- = \$978.4 mm  
          .136

The NE flank projected N

#2

EMPIRE ANTICLINE & ASSOCIATED ROLLS

Explored Block

1,600' x 3,300' = 5,280,000' or 21%

Total Block

2,900' x 8,500' = 24,650,000' or 100%

Unexplored Area Block

19,370,000 or 79%

Assumption

The Empire anticline has produced about 1/3 of the current value of past production,

Thus  $.3333 \times \$463 \text{ mm} = \$154 \text{ mm}$

Since the productive area represents only 21% of the apparent size of the productive structure, then

$\frac{21\%}{79\%} = \frac{\$144}{X} \times \frac{.79 \times \$154}{.21} = \$579.33 \text{ mm}$

This is conservative for 2 reasons:

- 1. Total area of structure could be much larger than figures used.
2. Productive areas should have more reserves and is not exhausted.

*"Indicated"*

#3

PROJECTION OF ORE RESERVES  
OF THE  
HEAD CENTER, CONTENTION, GRAND CENTRAL N. TO THE EMPIRE  
AND TRANQUILITY MINE AREA

*North*

The distance from the Head Center Shaft to the edge of Tombstone is 2,000 feet. We must assume that "ore" will project at about the same width to the north as it has on the south and the grade will be about the same. Since the geology is about the same, this appears reasonable prudent. However, the zone of repetition of the Contention Dike by the Contention-Tranquility fault is narrower. But the various rolls are encountered so the geology is more favorable to manto disseminations. Thus, the ore zone could be more narrow, but the grade could be higher.

We can use ratios to give a geologically indicated reserve:

$$\frac{2,000'}{3,000'} = 60.61\% \text{ of the Contention Reserve}$$

Thus, Conservative:

$$32.9 \text{ mm tons} \times 60.61\% = 19.94 \text{ mm tons}$$

$$19.94 \text{ mm T} \times 0.021 \text{ Au} = 418,740 \times \$400 = \$167,496,000$$

$$19.94 \text{ mm T} \times 1.65 \text{ Ag} = 32,901,000 \times \$10 = \$329,010,000$$


---


$$\$496,506,000$$

Optimistic:

$$59 \text{ mm tons} \times 60.61\% = 34.55 \text{ mm tons}$$

$$34.55 \text{ mm T} \times 0.021 = 725,550 \times \$400 = \$290,220,000$$

$$34.55 \text{ mm T} \times 1.65 = 57,007,500 \times \$10 = \$570,075,000$$


---


$$58,988,000 \text{ Ag} \quad \$860,295,000$$

*\$ 890,322,000*

A3

TOTALS FOR THE EMPIRE, TRANQUILITY,  
CONTENTION & GRAND CENTRAL ZONE

Conservative:

Millions  
of

	Tons	Oz. Au	Oz. Ag	GMV
Head Center N.	19.94	418,740	32,901,000	\$ 496,506,000
Head Center S.	32.9	690,900	54,285,000	\$ 819,210,000
TOTALS	52.84	1,109,640	87,186,000	\$1,315,716,000

Optimistic:

	Tons	Oz. Au	Oz. Ag	GMV
Head Center N.	34.55	725,550	57,007,500	\$ 860,295,000
Head Center S.	57.00	1,197,000	94,050,000	\$1,418,505,000
TOTALS	91.55	1,922,550	151,057,500	\$2,278,800,000

Handwritten annotations for the Optimistic section:

- 750,834 (above Oz. Au for Head Center N.)
- 58,958,000 (above Oz. Ag for Head Center N.)
- 860,322,000 (above GMV for Head Center N.)
- 35.75 (above Tons for Head Center S.)
- 94.75 (above Tons for TOTALS)
- 1,239,000 (below Oz. Au for Head Center S.)
- 97,350,000 (below Oz. Ag for Head Center S.)
- 1,742,520,000 (below GMV for Head Center S.)
- 1,959,834 (below Oz. Au for TOTALS)
- 156,336 (below Oz. Ag for TOTALS)
- 2,632,842,000 (below GMV for TOTALS)

45  
CALCULATION OF TOTAL TONNAGE OF  
TOMBSTONE BASIN WORKINGS  
--NOT INCLUDING STOPES--

Total footage all headings is 156,160

Assume headings were 7' x 6' - a generous figure - could have been more like 6' x 5', but higher figure will make up for unmapped headings.

$$7' \times 6' \times 156,160' = 6,558,720 \text{ ft}^3; 12 \text{ f}^3/\text{ton} = 546,560$$

The recorded tonnage mined from 1908 to 1934 was 608,345 tons - close to the calculated headings - tonnage.

Also, the 71 Mineral Ltd. heap was  $\approx$  750,000 tons -  
Assume the development tonnage was 1/2 mined tonnage - 546,560

"Indicated".

SUMMARY OF POTENTIAL OPEN PIT ORE IN  
HEAD CENTER, CONTENTION AND GRAND CENTRAL AREA

W56

Conservative - ore to 400 feet below the surface

32.9 million tons

average 0.021 Au X \$400/oz. = \$ 8.40  
1.65 Ag X \$ 10/oz. = 16.50  
-----  
\$24.90

or

$32.9 \text{ mmT} \times 0.021 \frac{\text{oz Au}}{\text{T}} = 690,000 \text{ oz. Au} \times \$400 = \$276,360,000$

$32.9 \text{ mmT} \times 1.65 \frac{\text{oz Ag}}{\text{T}} = 54,285,000 \text{ oz. Ag} \times \$ 10 = \$542,850,000$

-----  
\$819,210,000

Optimistic - ore to 530 feet below surface - approximately the  
Contention #6 level.

59  
57 million tons

(same average grade as above)

or

~~1.197 mm oz. Au X \$400 = \$ 478,000,000~~

~~94.05 mm oz. Ag X \$ 10 = \$ 940,050,000~~

~~-----  
\$1,418,050,000~~

$59 \text{ mm}^{\text{Tons}} \times 0.021 \frac{\text{oz Au}}{\text{T}} = 1.239 \text{ mm oz Au} \times 400/\text{oz} = 495.6 \text{ mm}$

$59 \text{ mm Tons} \times 1.65 \frac{\text{oz Ag}}{\text{T}} = 97.35 \text{ mm oz Ag} \times 10 = 973.5 \text{ mm}$   
-----  
1,469.1 mm

"Indicated"

ESTIMATED ORE RESERVES ALONG THE CONTENTION DIKE  
FROM HEAD CENTER TO GRAND CENTRAL

--3,300'--

Estimated from Plate VIII - Butler & Wilson  
Optimistic

Ready for construction

I 0 to 2 level

570' wide X 150' deep = 85,500 sq. ft.

II 2 to 3 level

500' wide X 100' deep = 50,000 sq. ft.

III 3 to 4 level

400' wide X 100' deep = 40,000 sq. ft.

IV 4 to 5 level

250' wide X 100' deep = 25,000 sq. ft.

V 5 to 6 level

160' wide X 90' deep = 14,400 sq. ft.

$$\frac{214,900 \times 3 + 10^3 \times 709,100,000}{207,700 \times 3,300'} = \frac{207,700}{214,900} \div 12 \text{ f}^3/\text{t} = 57 \text{ mm tons}$$

STRIP RATIO

1.  $1/2 (240' \times 240') = 28,800 \text{ sq. ft.}$

2.  $1/2 (180' \times 160') = 14,400 \text{ sq. ft.}$

43,200

$$43,200 \times 3,300 = 142,560,000 \text{ f}^3 \div 12 \text{ f} / \text{Ton} = 11,880,000 \text{ waste/ton tons waste}$$

Waste/Ore ratio =  $\frac{11.88}{57.00} = 0.21$  Waste/Ton of tons waste/Ton ore

Assume ore value of \$20/ton - recoverable  
Assume recovery is 60% for Au & Ag.

$57,000,000 \text{ Tons} \times \$20/\text{Ton} = \$1,140,000,000$

$14.94 = 881,460,000$

Gross metal value (GMV) of Au & Ag at \$100/oz \$10/oz is \$2490

$60\% \times 24.90 = 14.94$



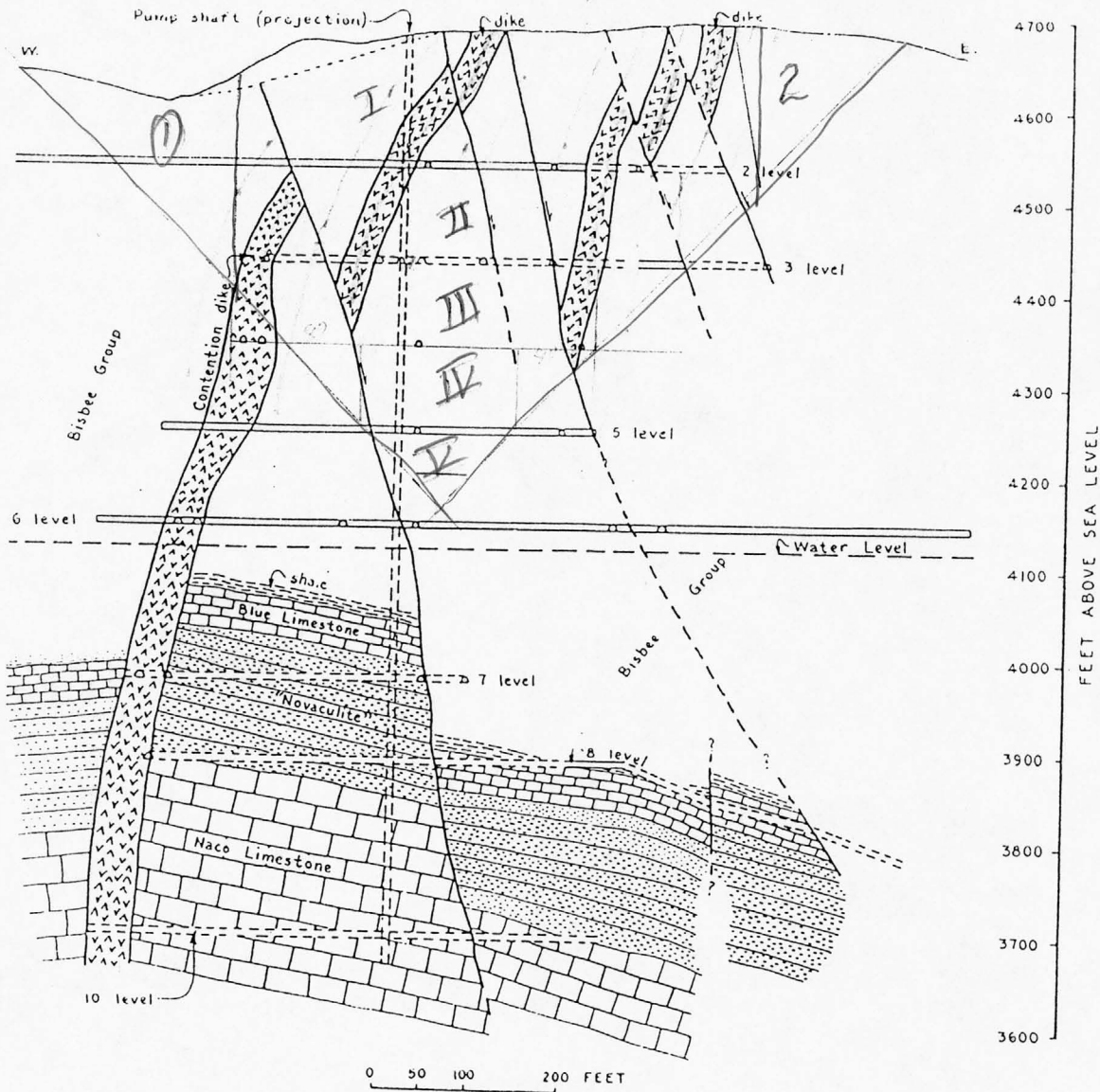


Plate VIII.—Generalized cross section through Contention dike at Pump shaft, looking north. (Modified from F. L. Ransome.)

*Make Heading Same as on #7*

CONSERVATIVE ORE RESERVE ESTIMATE

Assume disseminated mineralization average at \$25/Ton extends 100' out from centers of dikes, along 3,300' length

1.  $160' \times 140' = 22,400 \text{ sq. ft.} \times 3,300 = 73,920,000$

$\div 12 = 6,160,000 \text{ Tons} \times \$25 = \$154,000,000$

2.  $230' \times 150' = 34,500 \text{ sq. ft.} \times 3,300 = 113,850,000$

$\div 12 = 9,487,500 \text{ Tons} \times \$25 = \$281,875,000$

3.  $1/2 h (a+b) = 1/2 \times 200 (300 + 110) = 41,000 \text{ sq. ft.}$

$\times 3,300 = 135,300,000 \text{ f}^3 \div 12 = 11,300,000 \text{ tons}$

$\times \$25 = \$281,875,000$

4.  $1/2 bh = 1/2 (160 \times 270) = 21,600 \text{ sq. ft.}$

$\times 3,300 = 71,280,000 \text{ f}^3 \div 12 = 5,940,000 \text{ Tons}$

$\times \$25 = \$148,500,000$

*Set up  
like  
optimistic  
est*

TOTALS

$119,500 \text{ sq. ft.} \times 3,300' = 394,350,000 \div 12 \text{ f}^3/\text{T} = 32,862,500 \text{ T}$

$\times \$25/\text{Ton} = \$821,562,500$

Assume gross of \$3.858/Ton, as per fall of 1982,

then

$32,862,500 \text{ Tons} \times \$3.858 = \$126,783,520$   
(gross before Briscoe)

Assume 10% available for distribution,

then

$\$12,600,000 \times 40\% = \$5,040,000$

T.D.C. Royalty

$32,862,500 \text{ million tons} \times \$0.602 = \$19,783,225$

*10/4/82  
check figs - OK*

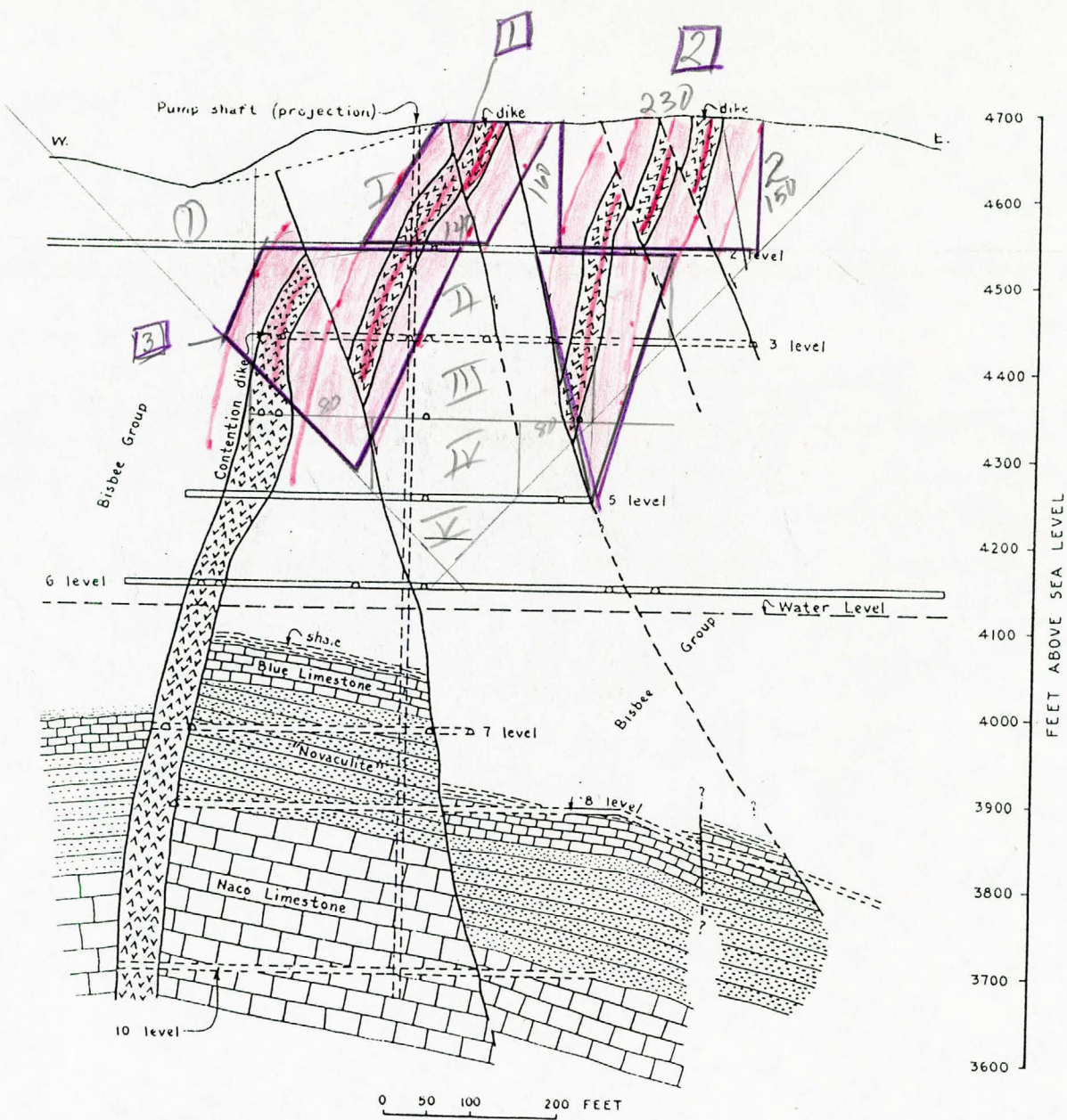


Plate VIII.—Generalized cross section through Contention dike at Pump shaft, looking north. (Modified from F. L. Ransome.)

FISSURES IN THE TOMBSTONE BASIN, FROM NW TO SE - MEASURED FROM SCHIEFFLIN  
 GRANODIORITE AND PROMPTER FAULT TO AXIS OF EMPIRE ANTICLINE AND TERMINATED AT THE  
 TRANQUILITY-CONTENTION FAULT

FISSURE	TOTAL LENGTH (IN FEET)	MINED LENGTH (IN FEET)	<sup>u</sup> EXPLORED LENGTH (IN FEET)
WESTERN	3400	0	3400
DEFENCE	3800	1000	2800
INTERVENOR	4000	300	3700
UNNAMED (INGERSOL)	4400	1050	3350
RAT SHAFT, BLUE MONDAY & WESTSIDE	5200	2000	3200
EAST OF WESTSIDE	2200	300	1900
EAST OF EAST OF WESTSIDE	2200	200	2000
<sup>wedge</sup> WEST EDGE OF EAST SIDE	1900	1200	700
409	3100	200	2900
ARIZONA QUEEN	3600	400	3200
	33800	6650	27150

FISSURES IN THE TOMBSTONE EXTENSION BLOCK - FROM THE TRANQUILITY-CONTENTION DIKE ON  
 THE W, THE PROMPTER FAULT ON THE S AND THE TOMBSTONE FAULT ON THE NE.

FISSURE	TOTAL LENGTH (IN FEET)	MINED LENGTH (IN FEET)	<sup>u</sup> EXPLORED LENGTH (IN FEET)
OLD PROMPTER-FLORA MORRISON	11600	1400	10200
WIDE WEST	9600	0	9600
TOMBSTONE EXTENSION	7200	900	6300
SAN DIEGO	7200	200	7000
	69400	9150	60250

PERCENT OF FISSURE LENGTH UNEXPLORED =  $\frac{\text{UNEXPLORED LENGTH}}{\text{TOTAL LENGTH}} = \frac{60250}{69400} = 87\% \text{ UNEXPLORED}$

ROLLS SOUTH OF THE AXIS OF THE EMPIRE ANTICLINE, WEST OF THE  
 CONTENTION DIKE AND NORTHWEST TO CONTACT WITH SCHIEFFLIN  
 GRANODIORITE

	TOTAL LENGTH IN FEET	MINED LENGTH IN FEET	UNEX- PLORED LENGTH IN FEET
1. GIRARD ROLL	6300	1600	4700
2. GIRARD SYNCLINE	6300	0	6300
3. SW GIRARD ROLL	6300	0	6300
4. SULPHURET SYNCLIN	6000	150	5850
5. SULPHURET ANTICLINE- WEST SIDE ROLL	5800	1200	4600
6. WEST SIDE SYNCLINE	3600	0	3600
7. BOSS TERRACE	3200	200	3000
8. BOSS SYNCLINE	2300	0	2300
9. INGERSOL OVERTURN	4200	800	3400
	44000	3950	40050

#2  
 — forgot  
 Quarry  
 roll

PERCENT OF ROLL  
 STRUCTURES UNEX-  
 PLORED =  $\frac{\text{UNEXPLORED}}{\text{TOTAL LENGTH}} = \frac{40050}{44000} = 91\% \text{ UNEXPLORED}$



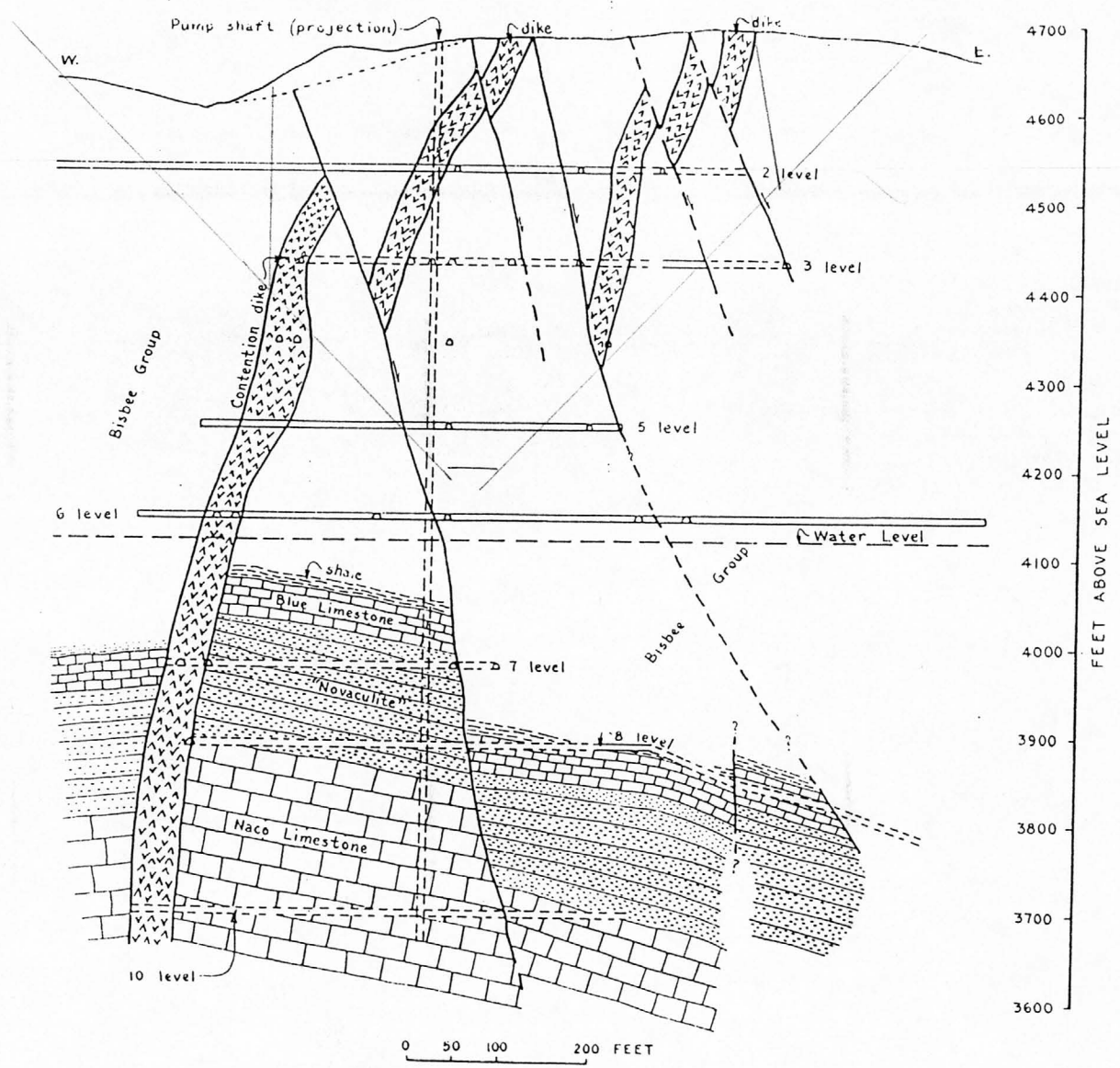


Plate VIII.—Generalized cross section through Contention dike at Pump shaft, looking north. (Modified from F. L. Ransome.)

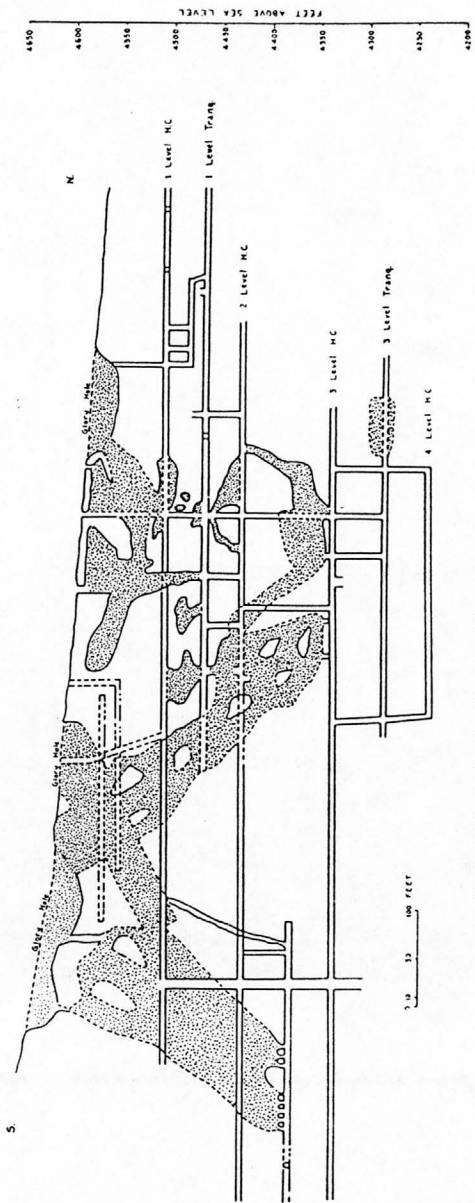


Plate IX.—Longitudinal section of workings in Head Center area, looking west. Slopes indicated by dotted areas.



2nd of Shovel 16-16-10

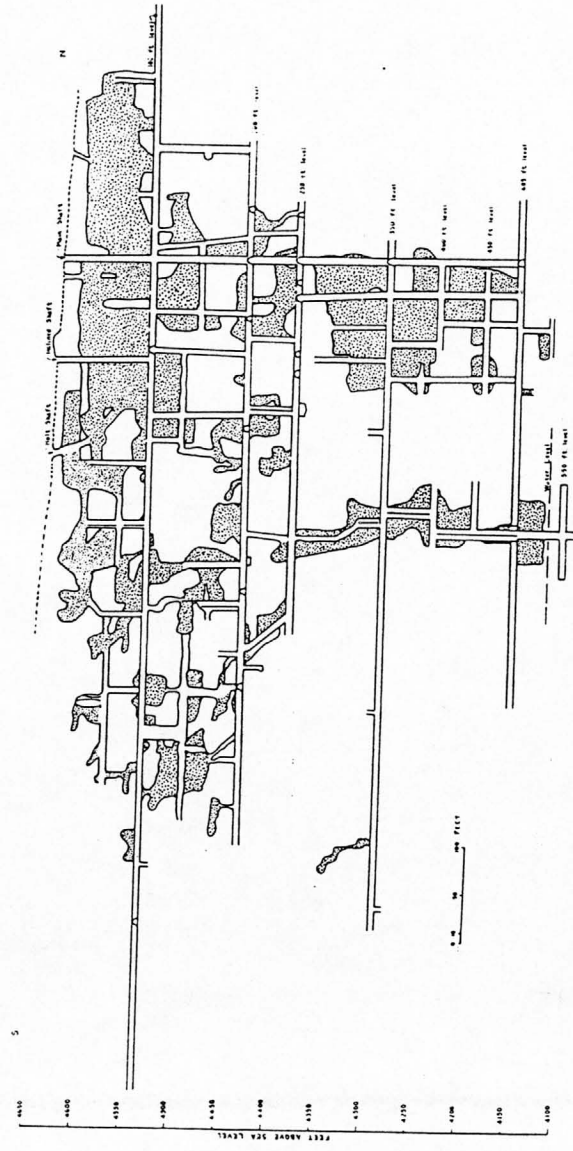


Plate X—Longitudinal section of Tomblaine Extension Mine, looking west. Slopes indicated by dotted areas.

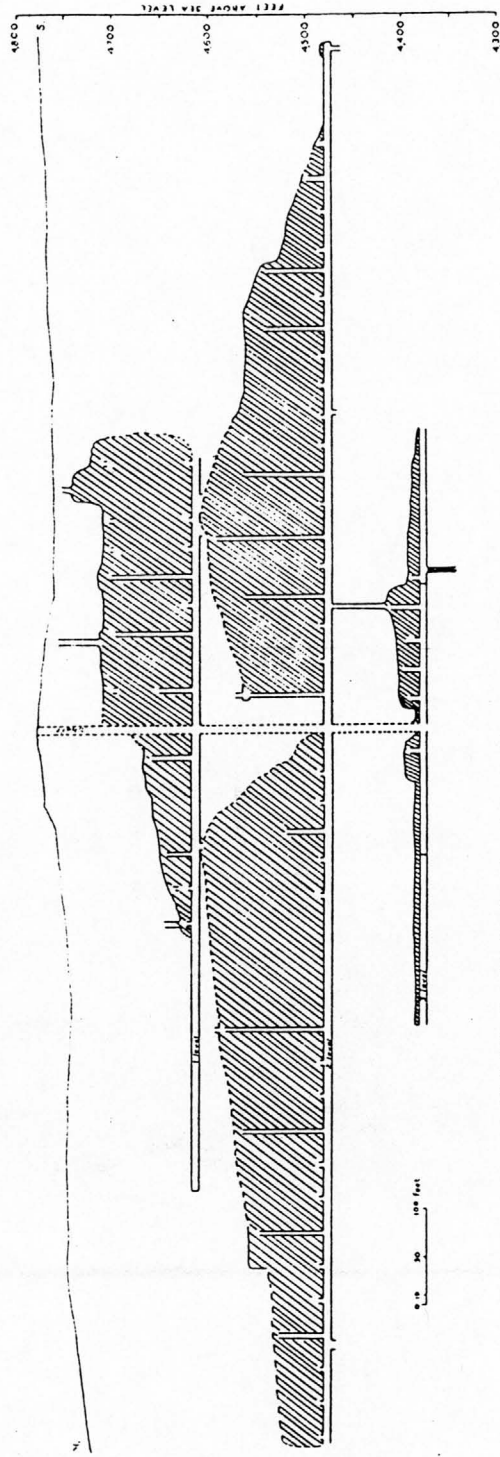


Plate XI.—Longitudinal section of Comet Mine, looking east. Slopes indicated by shading.

11

11

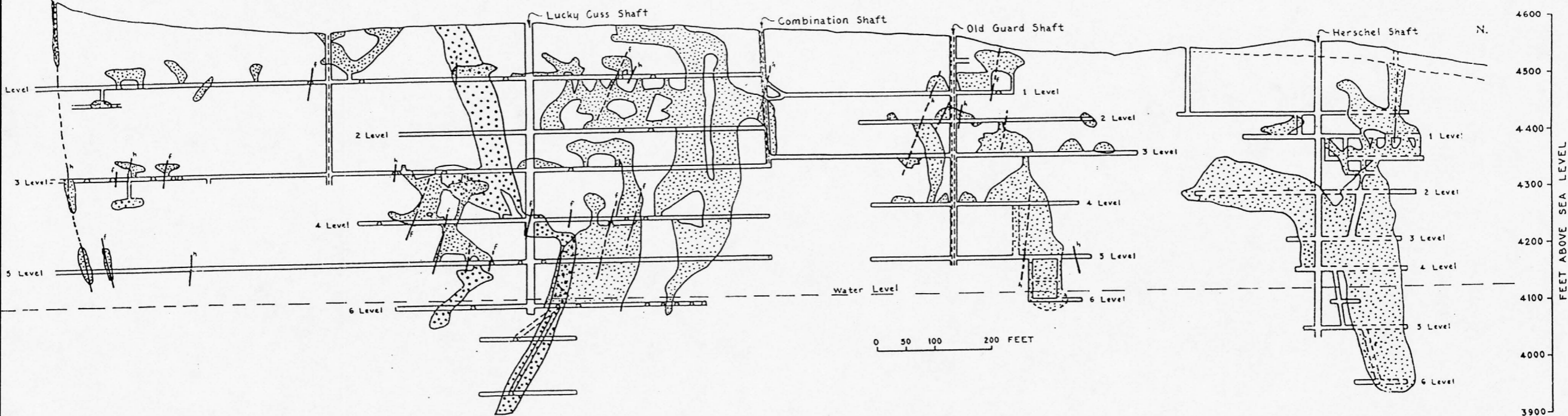


Plate XII.—Longitudinal section through Lucky Cuss, Old Guard, and Herschel mines, looking west. Stipes in Lucky Cuss fault: zone indicated by small dots; stipes in massive limestone indicated by large dots; *h*, hanging-wall fissure; *f*, footwall fissure.

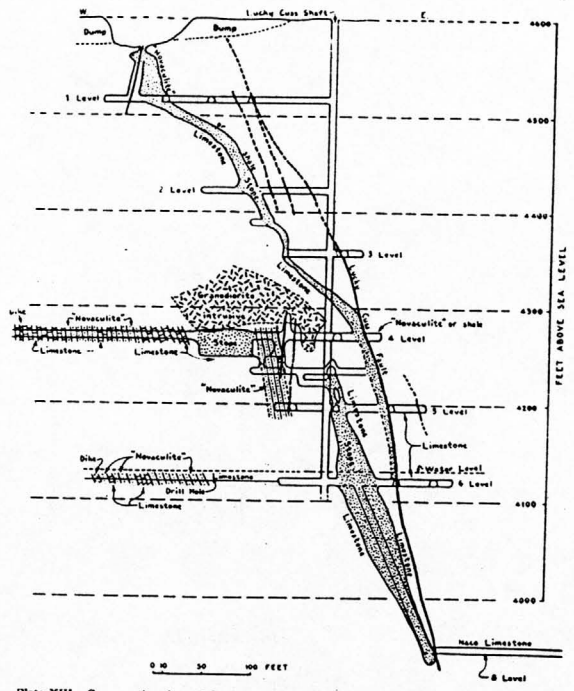


Plate XIII.—Cross section through Lucky Cuss workings at main shaft, looking north. (After F. L. Ransome and C. L. Poindexter.)

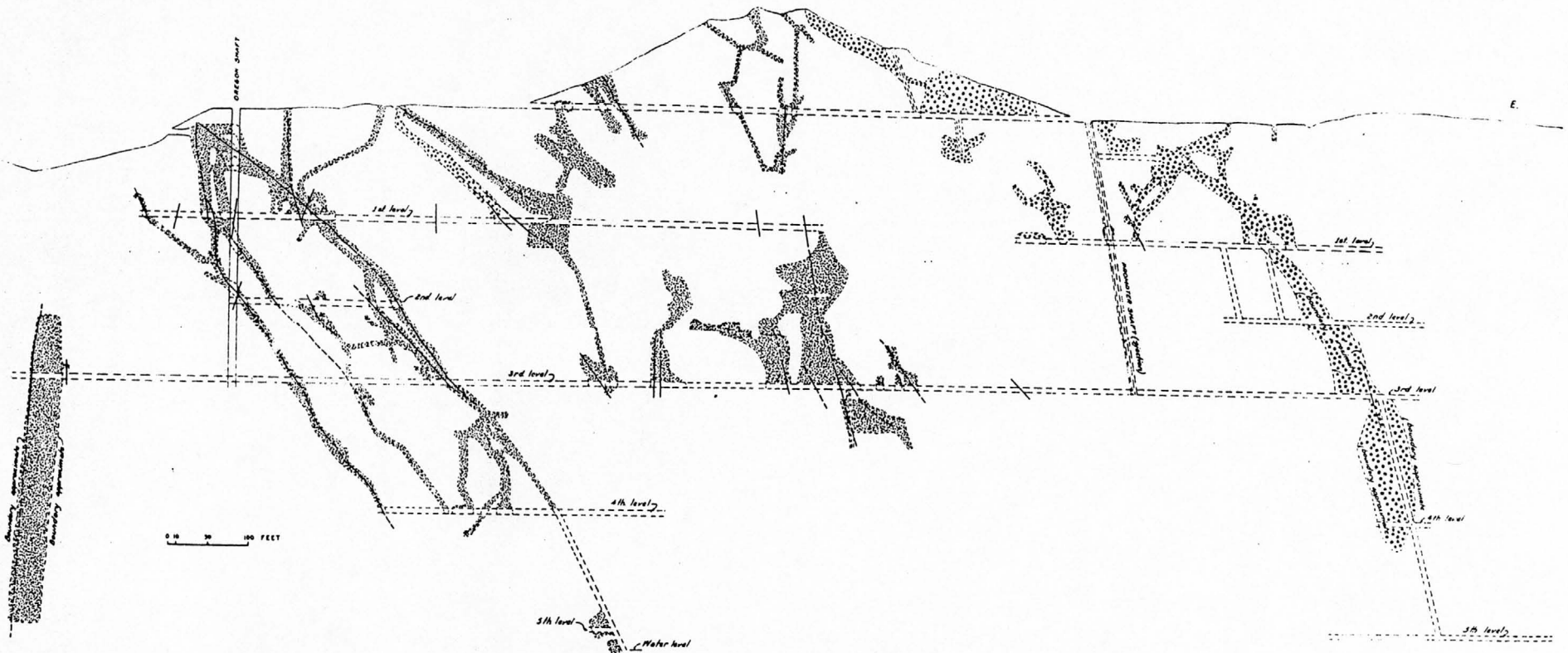


Plate XIV.—Longitudinal section through Oregon and Prompter mines, looking north. Slopes in Oregon slips indicated by small dots; slopes in Prompter fault indicated by large dots.

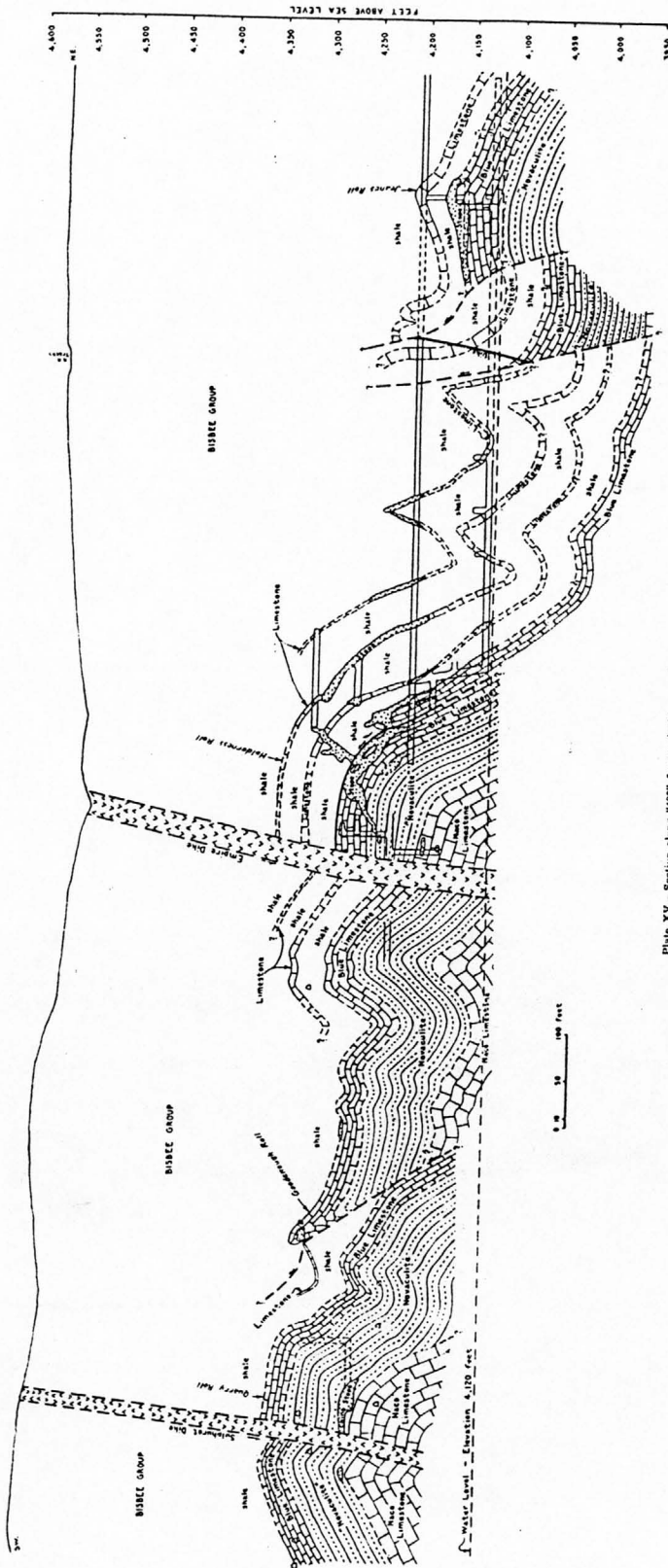
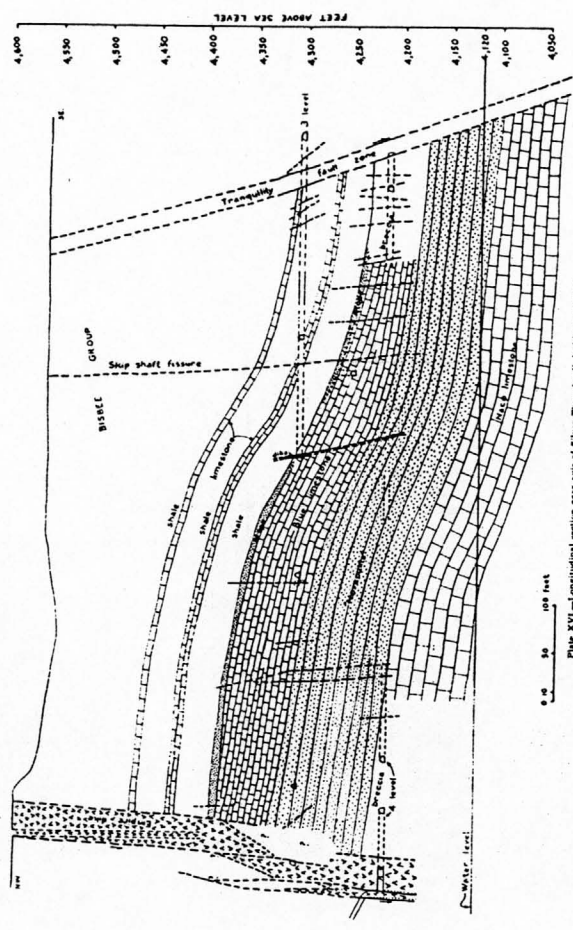


Plate XV.—Section along "807" faunae, looking northward.



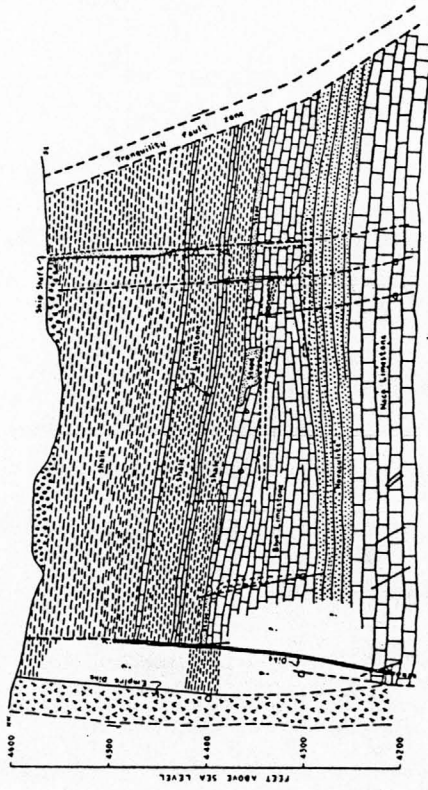


Plate XVII.—Longitudinal section near axis of Mica roll, looking northeast.



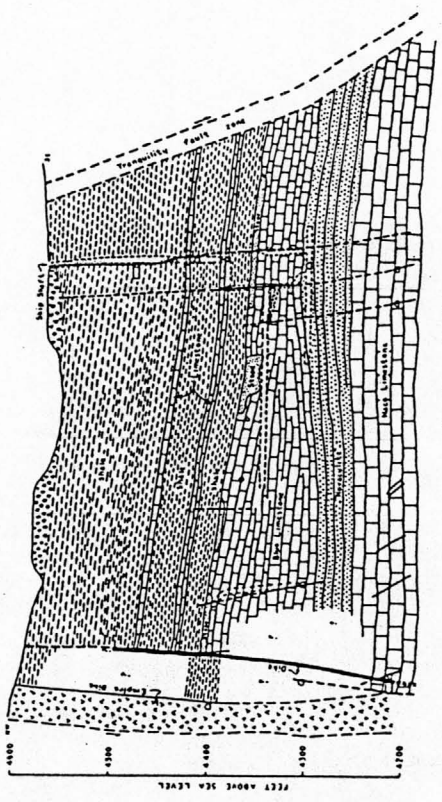


Plate XVII.—Longitudinal section near axis of Macia roll, looking northwest.

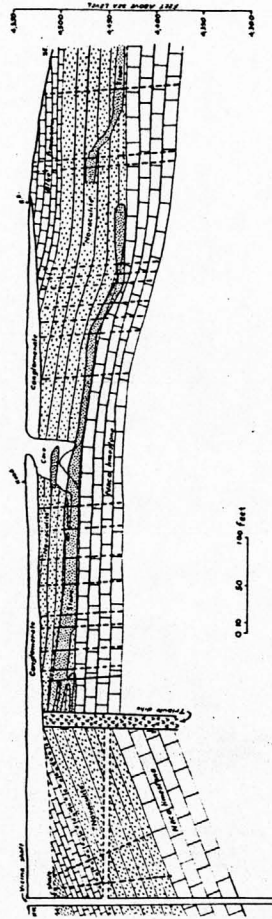


PLATE XVIII.—Longitudinal section near base of northeast Teton Hill, looking southeast.

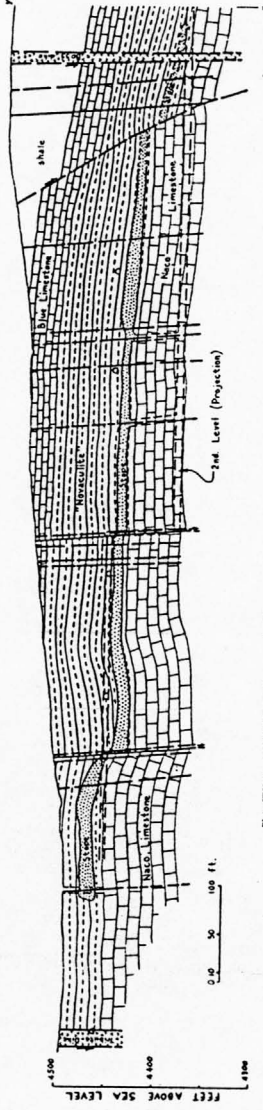


Plate XIX, A.—Longitudinal section near site of Quarry 201, looking northeast (northwestern half; see Plate XIX, B at top).

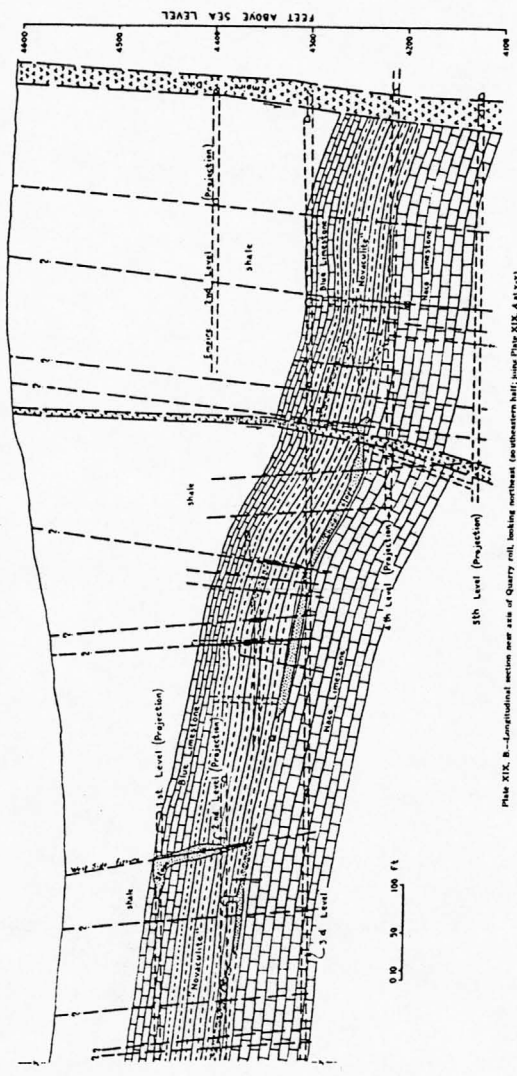


Plate XIX. B.—Longitudinal section near axis of Quarry rail, looking northeast (southeastern hill; same Plate XIX. A. 4177).

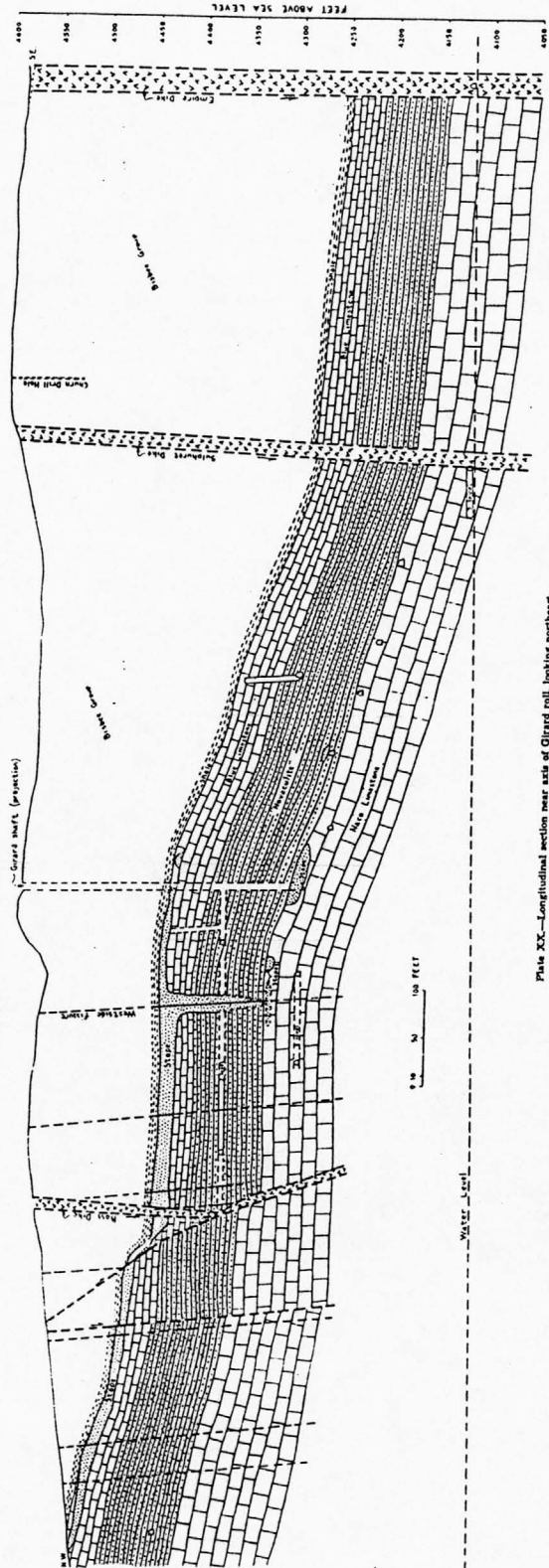


Plate XX.—Longitudinal section near east of Grand roll, looking northeast.

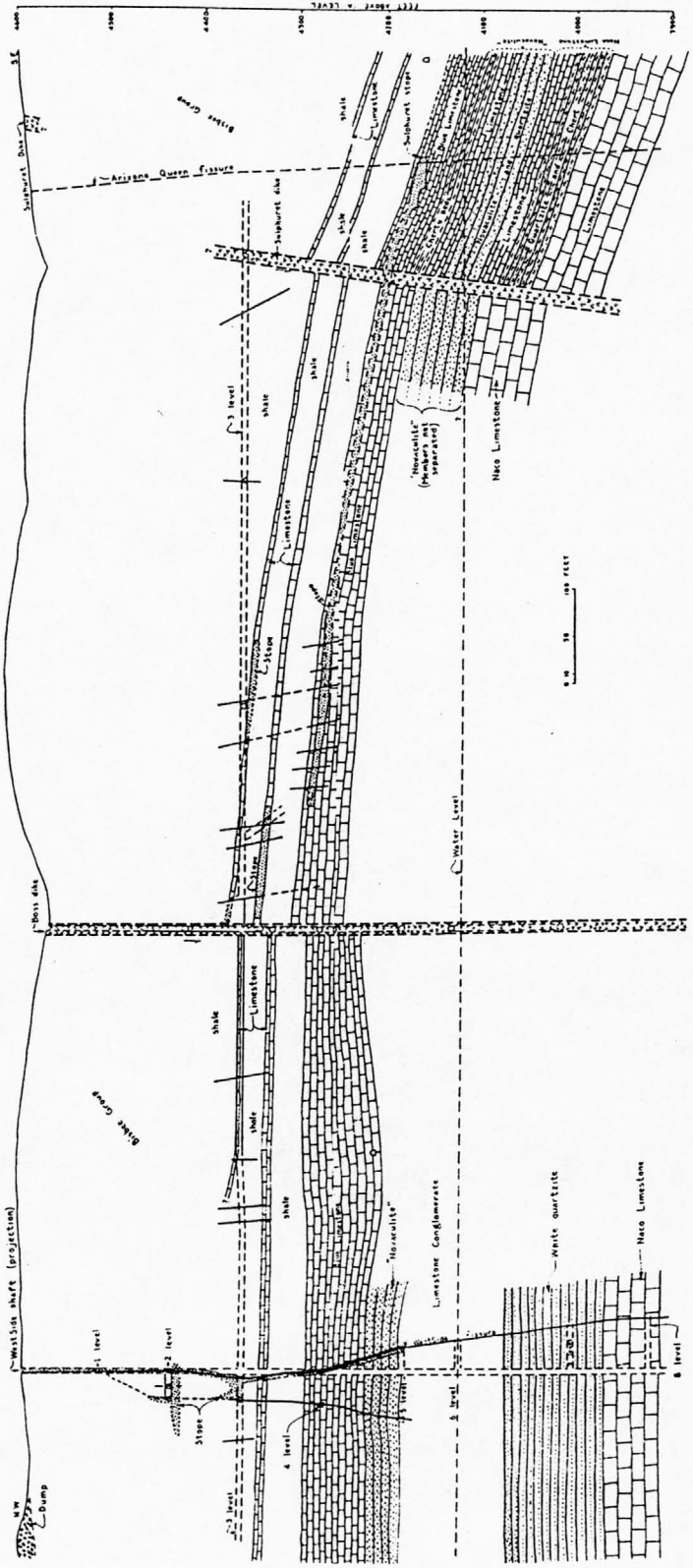


Plate XXI.—Longitudinal section near axis of West Side rail, looking northeast.

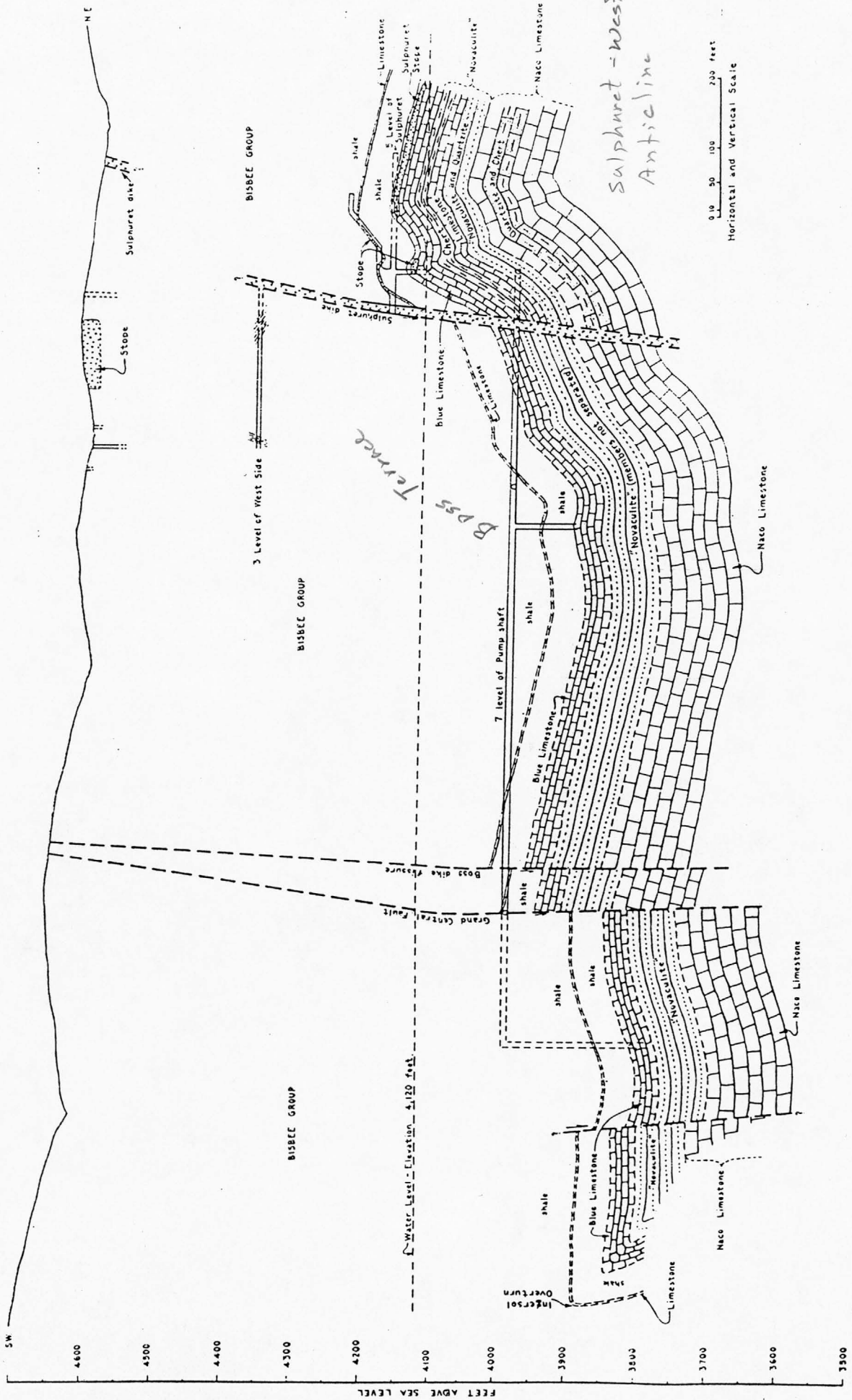


Plate XXII.—Section along Arizona Queen fissure, looking northwest.





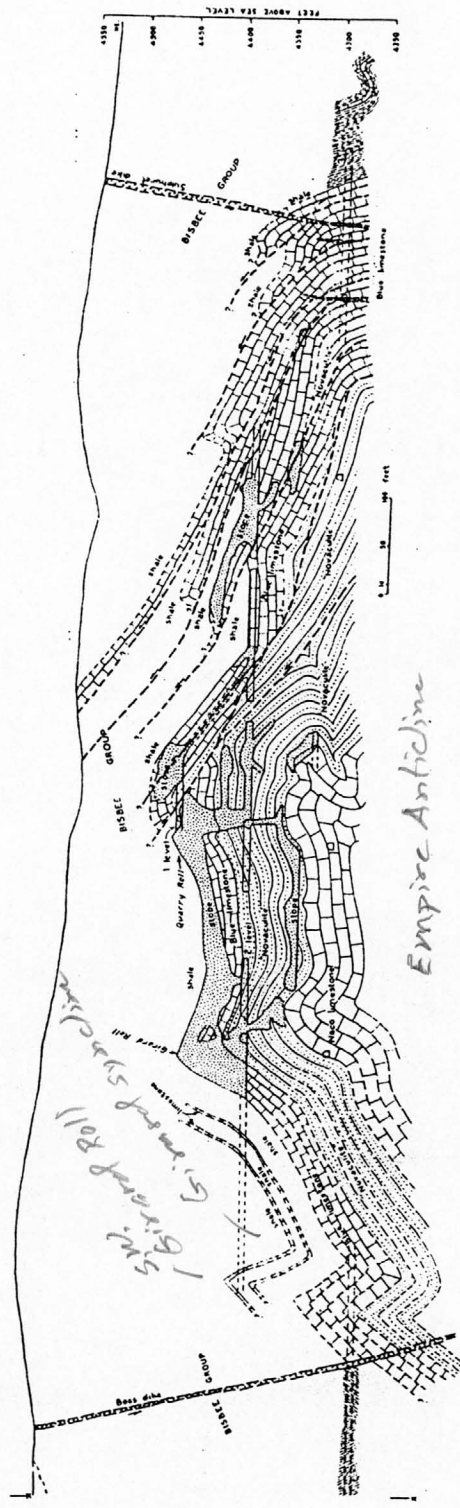


Plate XXIV. A.—Section along West Side faulture, looking northwest (northeast half; joins Plate XXIV. B at line X-X).

24A

*West side  
Syncline - West side  
Synchrest - West side  
Syncline  
Syncline*

*Grand Canyon  
B 550  
B 500*

*Ingress Overturn*

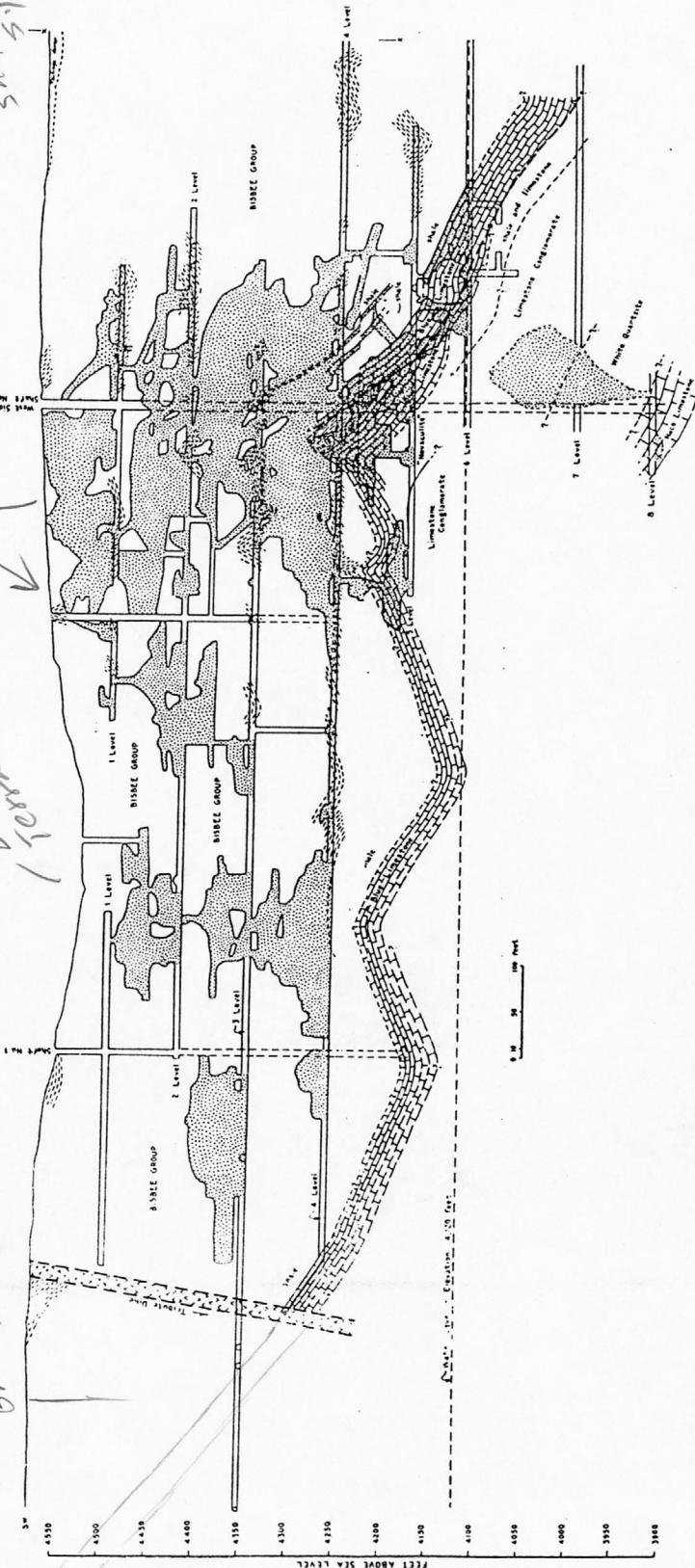


Plate XXIV, B.—Section along West Side fissure, looking northwest (southwest half; Juna Plate XXIV, A at line X-X1).

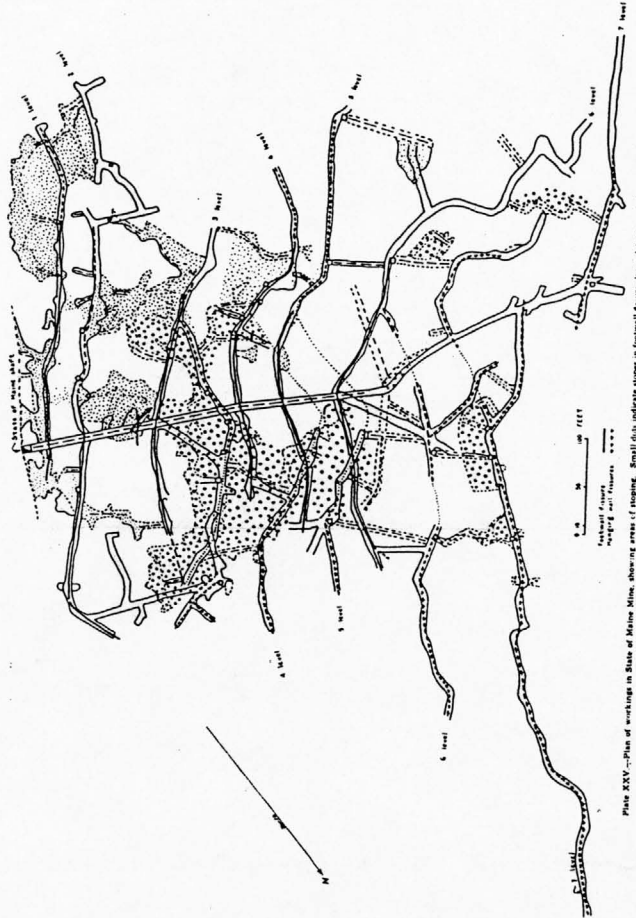


Plate XXV.—Plan of workings in State of Maine Mine showing areas of stopping. Small dots indicate stops in forewell flues, large dots stops in hanging wall flues.

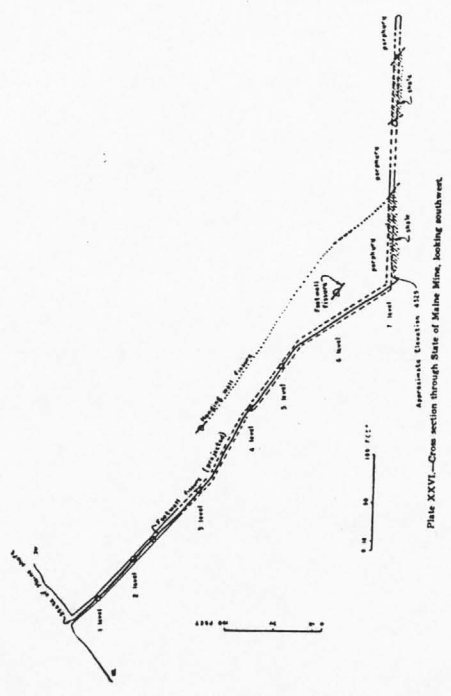


Plate XXVI.—Cross section through State of Maine Mine, looking southwest.

26

PAST  
PRODUCTION

PRODUCTION OF THE TOMBSTONE MINING DISTRICT  
 1879 TO 1907\*  
 CALCULATED TO CURRENT VALUES - \$400 GOLD, \$10 SILVER & \$.50 LEAD

YEAR	TOTAL VALUE OF PRODUCTION IN YEAR PRODUCED	CALCULATED** OUNCES OF GOLD @14% OF TOTAL PRODUCED	VALUE AT \$400/OZ.	CALCULATED** OUNCES OF SILVER @81% OF TOTAL PRODUCED	VALUE AT \$10/OZ.	CALCULATED** POUNDS OF LEAD*** @5% OF TOTAL PRODUCED	VALUE AT \$.50/LB.	TOTAL CURRENT VALUE OF PRODUCTION
1879-1880	2318567	15704	6281555	1633078	16330776	2318567	1159284	23771615
1881	5040633	34141	13656287	3613197	36131971	5250659	2625330	52413588
1882	5202876	35240	14095842	3696780	36967803	5309057	2654529	53718174
1883	2881900	19519	7807760	2122126	21221264	3351047	1675523	30704547
1884	1380788	9352	3740887	1016762	10167621	1865930	932965	14841472
1885	1320976	8947	3578842	999991	9999912	1651220	825610	14404363
1886	1050000	7112	2844702	859091	8590909	1141304	570652	12006264
1887	600000	4064	1625544	495918	4959184	666667	333333	6918061
1888	600000	4064	1625544	517021	5170213	681818	340909	7136666
1889	250000	1693	677310	215426	2154255	320513	160256	2991822
1890	600000	4064	1625544	462857	4628571	666667	333333	6587449
1891	674650	4569	1827789	551986	5519864	784477	392238	7739891
1892	490000	3319	1327528	456207	4562069	597561	298780	6188377
1893	450000	3048	1219158	467308	4673077	608108	304054	6196289
1894	300000	2032	812772	244890	2448900	454545	227273	3488945
1895	300000	2032	812772	373846	3738462	468750	234375	4785609
1896	300000	2032	812772	357353	3573529	500000	250000	4636302
1897-1901	1539610	10428	4171174	2078474	20784735	1877573	938787	25894695
1902-1906	2550000	17271	6908563	3500847	35008475	2771739	1385870	43302907
1907	550000	3725	1490082	675000	6750000	518868	259434	8499516
TOTAL	28400000	192356	76942429	24338159	243381589	31805070	15902535	336226552
AVERAGE/TON****		0.32	126.48	40.01	400.07	52.28	26.14	552.69

\*"UNPUBLISHED FIGURES & ESTIMATES COMPILED BY J.B. TENNEY FROM OLD COMPANY REPORTS", ARIZONA BUREAU OF MINES, GEOLOGICAL SERIES, NO. 10, BULLETIN NO. 143 (BUTLER & WILSON)

\*\*AS REPORTED BY BUTLER & WILSON, "THE PRODUCTION OF THE TOMBSTONE DISTRICT BY VALUE WAS ABOUT 81% SILVER, 14% GOLD AND 5% LEAD, WITH MINOR COPPER AND MANGANESE". THE METAL PRODUCTION IN THIS TABLE WAS CALCULATED BY MULTIPLYING THOSE PERCENTAGES BY TOTAL DOLLAR PRODUCTION, AND THEN DIVIDING THE RESULTING FIGURE BY THE METAL PRICE FOR THAT YEAR TO YIELD A CALCULATED PRODUCTION IN TROY OUNCES, OR POUNDS.

\*\*\*INCLUDED ARE SOME TRACES OF COPPER, MANGANESE & ZINC PRODUCTION.

\*\*\*\*ASSUME TONNAGE MINED FROM 1879 TO 1907 EQUAL TO THAT FROM 1908 TO 1934 - 608345 TONS

PRODUCTION OF THE TOMBSTONE MINING DISTRICT  
 1908 TO 1934\*  
 CALCULATED TO CURRENT VALUES - \$400 GOLD, \$10 SILVER, \$1.00 COPPER, \$.50 LEAD & \$.40 ZINC

YEAR	TONS	GOLD (OUNCES)	VALUE AT \$400/OZ.	SILVER (OUNCES)	VALUE AT \$10/OZ.	COPPER (POUNDS)	VALUE AT \$1.00/LB.	LEAD (POUNDS)	VALUE AT \$.50/LB.	ZINC (POUNDS)	VALUE AT \$.40/LB.	TOTAL CURRENT VALUE
1908	51266	4106	1642304	357414	3574140	7608	7608	1770794	885397	173313	69325	6178774
1909	27123	2280	911832	201700	2017000	27706	27706	1535637	767819	713116	285246	4009603
1910	4619	1062	424712	116520	1165200	31163	31163	305876	152938	0	0	1774013
1911	8797	2155	862196	224098	2240980	68209	68209	982010	491005	0	0	3662390
1912	7405	1363	545272	158377	1583770	27723	27723	617820	308910	0	0	2465675
1913	5760	1230	491824	126392	1263920	10657	10657	334923	167462	36503	14601	1948464
1914	6063	1380	552144	108868	1088680	14217	14217	234345	117173	39324	15730	1787943
1915	9003	1216	486404	100115	1001150	36075	36075	164136	82068	63386	25354	1631051
1916	57200	3950	1580144	343453	3434530	131546	131546	983983	491992	0	0	5638212
1917	57474	3373	1349220	444139	4441390	229488	229488	1278754	639377	0	0	6659475
1918	19507	1389	555760	283412	2834120	41503	41503	457183	228592	0	0	3659975
1919	27445	1946	778328	450366	4503660	290182	290182	289424	144712	0	0	5716882
1920	28946	1788	715104	456855	4568550	144010	144010	243946	121973	0	0	5549637
1921	18594	1057	422632	423688	4236880	132688	132688	678946	339473	0	0	5131673
1922	44347	2322	928980	613700	6137000	196740	196740	744529	372265	0	0	7634985
1923	32770	3093	1237040	495943	4959430	195485	195485	465914	232957	0	0	6624912
1924	15448	2459	983456	247642	2476420	72836	72836	465323	232662	0	0	3765374
1925	27760	2677	1070692	241381	2413810	77340	77340	1527019	763510	32592	13037	4338388
1926	47708	2990	1195860	220579	2205790	113476	113476	1970986	985493	0	0	4500619
1927	31196	2459	983456	159944	1599440	68867	68867	900178	450089	0	0	3101852
1928	24172	2297	918644	164161	1641610	135643	135643	247316	123658	0	0	2819555
1929	15601	1671	668216	99423	994230	86793	86793	843817	421909	0	0	2171148
1930	8734	1875	749800	74937	749370	32903	32903	936862	468431	0	0	2000504
1931	15623	2204	881568	101504	1015040	62440	62440	476814	238407	0	0	2197455
1932	5067	485	194096	48021	480210	24810	24810	1166700	583350	0	0	1282466
1933	7016	1441	576464	100323	1003230	27875	27875	1744270	872135	0	0	2479704
1934	3701	3706	1482448	296737	2967370	70512	70512	2400324	1200162	0	0	5720492
TOTAL	608345	57971	23188596	6659692	66596920	2358495	2358495	23767829	11883915	1058234	423294	104451219
AVERAGE/TON		0.10	38.12	10.95	109.47	3.88	3.88	39.07	19.53	1.74	0.70	171.70

\*AS RECORDED IN "THE MINERAL RESOURCES OF THE UNITED STATES"

AVERAGE VALUE PER TON AT CURRENT PRICES (SEE ABOVE) -  $\frac{\$104,451,219}{608,345} = \$171.70/\text{TON}$

PRODUCTION OF THE TOMBSTONE MINING DISTRICT

1935 TO 1936\*

CALCULATED TO CURRENT VALUES - \$400 GOLD, \$10 SILVER, \$1.00 COPPER, \$.50 LEAD, \$.40 ZINC

YEAR	TONS	GOLD (OUNCES)	VALUE AT \$400/OZ.	SILVER (OUNCES)	VALUE AT \$10/OZ.	COPPER (POUNDS)	VALUE AT \$1.00/LB.	LEAD (POUNDS)	VALUE AT \$.50/LB.	TOTAL CURRENT VALUE
1935	12907	3450	1380000	243087	2430870	103574	103574	2228288	1114144	5028588
1936	9305	2925	1170000	147218	1472180	53962	53962	969017	484509	3180651
TOTAL	22212	6375	2550000	390305	3903050	157536	157536	3197305	1598653	8209239
AVERAGE/TON		0.29	114.80	17.57	175.72	7.09	7.09	143.94	71.97	369.59

\*AS STATED BY THE TOMBSTONE DEVELOPMENT CO. & THE TOMBSTONE MINING CO.



TOMBSTONE EXTENSION AREA  
 PRODUCTION STATISTICS OF THE TOMBSTONE MINING CO. FOR THE TOMBSTONE EXTENSION AREA - 1930 TO 1937  
 CALCULATED TO CURRENT VALUES - \$400 GOLD, \$10 SILVER & \$.50 LEAD

OPERATOR	WET TONS	DRY TONS	GOLD (OUNCES)	VALUE AT \$400/OZ.	SILVER (OUNCES)	VALUE AT \$10/OZ.	LEAD (POUNDS)	VALUE AT \$.50/LB.	TOTAL GROSS VALUE
=====									
TOMBSTONE MINING CO.									
1930	2910.78	2759.64	204.60	81840.00	21996.64	219966.40	887952.45	443976.23	745782.63
1931	311.66	299.69	44.21	17684.00	5800.71	58007.10	232098.67	116049.34	191740.44
1932	2482.88	2348.69	225.56	90224.00	32392.00	323920.00	1226722.00	613361.00	1027505.00
-----									
HAYWARD & RICHARDS									
1933	795.00	747.31	60.27	24108.00	9093.00	90930.00	336810.00	168405.00	283443.00
-----									
A. S. & R.									
1933	3041.00	2819.36	224.14	89656.00	37840.00	378400.00	1145565.00	572782.50	1040838.50
1934	2018.00	2006.20	116.38	46552.00	19836.00	198360.00	726559.00	363279.50	608191.50
-----									
HOLT & D'AUTREMONT									
1934	1195.01	1123.03	79.38	31752.00	15796.27	157962.70	553991.48	276995.74	466710.44
-----									
HASSELGREN & D'AUTREMONT									
1935	2308.64	2164.36	79.86	31944.00	27055.81	270558.10	842762.11	421381.06	723883.16
-----									
CARPER LEASE									
1935	196.71	183.35	8.14	3256.00	2421.26	24212.60	88951.82	44475.91	71944.51
-----									
TOMBSTONE MINING CO.									
1935	118.50	110.02	2.49	996.00	961.49	9614.90	39143.48	19571.74	30182.64
1936	80.78	75.93	2.36	944.00	648.74	6487.40	21970.27	10985.14	18416.54
1937	461.05	412.48	27.55	11020.00	4437.05	44370.50	167949.24	83974.62	139365.12
-----									
MACIA LEASE									
1936	96.48	88.96	3.56	1424.00	983.68	9836.80	36054.90	18027.45	29288.25
-----									
GALLAGHER LEASE									
1936	65.37	56.63	4.14	1656.00	1228.01	12280.10	29203.22	14601.61	28537.71
-----									
TOTAL	16081.86	15195.65	1082.64	433056.00	180490.66	1804906.60	6335733.64	3167866.82	5405829.42
AVERAGE/TON (DRY TONS)			0.07	28.50	11.88	118.78	416.94	208.47	355.75
=====									
AVERAGE VALUE PER TON AT CURRENT PRICES (SEE ABOVE) - \$5,405,829.42									
$\frac{\$5,405,829.42}{15,195.65} = \$355.75/\text{TON}$									

SUMMARY OF TOTAL RECORDED PRODUCTION AT TOMBSTONE  
 1879 TO 1937  
 CALCULATED TO CURRENT VALUES - \$400 GOLD, \$10 SILVER, \$1.00 COPPER, \$.50 LEAD, \$.40 ZINC

SOURCE & YEAR	TOTAL VALUE OF PRODUCTION IN YEAR PRODUCED	CALCULATED OUNCES OF GOLD PRODUCED	VALUE AT \$400/OZ.	CALCULATED OUNCES OF SILVER PRODUCED	VALUE AT \$10/OZ.	CALCULATED POUNDS OF LEAD PRODUCED	VALUE AT \$.50/LB.	CALCULATED POUNDS OF COPPER PRODUCED	VALUE AT \$1.00/LB.	CALCULATED POUNDS OF ZINC PRODUCED	VALUE AT \$.40/LB.	TOTAL CURRENT VALUE OF PRODUCTION
J. B. TENNEY												
1879 TO 1907	28400000	192356	76942400	24338159	243381590	31805070	15902535	NRP*	NRP	NRP	NRP	336226525
MINERAL RESOURCES OF THE UNITED STATES												
1908 TO 1934	8138571	57971	23188400	6659692	66596920	23767829	11883915	2358495	2358495	1058234	423294	104451023
TOMBSTONE DEVELOPMENT TOMBSTONE MINING CO'S.												
1935 TO 1936	564437	6375	2550000	390305	3903050	3197305	1598653	157536	157536	NRP	NRP	8209239
TOMBSTONE EXTENSION												
1930 TO 1937	374972	1083	433056	1080491	10804907	6335734	3167867	NRP	NRP	NRP	NRP	14405829
TOTAL	37477980	257785	103113856	32468647	324686467	65105938	32552969	2516031	2516031	1058234	423294	463292616
AVERAGE/TON**		0.21	82.22	25.89	258.90	51.91	25.96	2.01	2.01	0.84	0.34	369.42

\*NO RECORDED PRODUCTION

\*\*TOTAL TONNAGE ASSUMED TO BE - 1254097

GEOLOGIC  
OBSERVATIONS

**JOHN S. SUMNER**

728 N Sawtelle  
Tucson, AZ 85716  
January 18, 1982

James A. Briscoe  
5701 East Glenn, No. 120  
Tucson, AZ 85712

Re: Tombstone Development Company, Inc.

Dear Mr. Briscoe:

This letter is a review and expansion of our discussions of the afternoon of January 8, 1982 concerning exploration in the Tombstone quadrangle in Cochise County, Arizona. In particular, my thoughts and comments are directed toward the geophysical prospecting aspects of this project.

To begin with, I believe that there is a favorable regional aeromagnetic anomaly pattern centered several miles south of Tombstone. This anomaly feature consists of an arcuate series of lows, indicated on your map as 428 and 458 gammas and continuing to the southeast. Southwest of this arcuate feature there is a series of positive anomalies extending from south of Bronco Hill (1002 gammas) to the Mule Mountains (700 gammas) and continuing southeasterly to Bisbee. The broad 765-gamma magnetic high over Tombstone itself probably is related with the Schiefflin granodiorite. By way of comparison with regional magnetic anomalies of replacement deposits elsewhere, these occurrences are often peripheral to broad, weakly magnetic features due to nearby intrusions such as seen at Tombstone. Thus, the perimeter of this positive anomaly feature bears examination. Additional lower altitude aeromagnetic surveying or ground measurements may be helpful in defining exploration targets.

The regional gravity anomaly pattern does not show much character in the Tombstone region except to roughly define the Tombstone fault to the northeast and to broadly correlate with the Babocomari-Sawmill Canyon Complex faults to the south and southwest, bordering the district in these two directions. Analysis of the gravity data indicates that the thickness of alluvium 6 or 7 miles south of Tombstone near the center of the favorable-looking aeromagnetic pattern is probably less than 500 feet.

By way of recommendations for further exploration, I must point out that additional magnetic and gravity surveying probably would better define the regional exploration targets. However, more closely spaced flight lines and ground traverses still may not be able to reveal specific exploration targets. And although other methods must be employed for this next exploration phase, associated magnetic and gravity profiling will provide useful information.

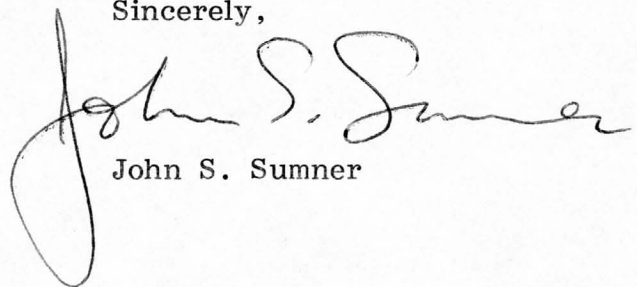
I suggest that electrical exploration methods be employed to detail the structural and lithologic contrasts in the zones of interest. From analysis of these surveys, together with geological and geochemical information, a priority schedule of specific exploration targets can be proposed.

The follow-up electrical methods could either be induced polarization and resistivity, deep-search electromagnetics, or controlled-source audio magnetotelluric prospecting. The specific technique selected would depend on costs and availability of equipment and the capabilities of the selected contractor.

From the exploration information that I have currently available to me, I suggest that deep-search reconnaissance electrical methods be employed in the northeasterly portion of T. 21 S., R. 22 E., to the north of the Sawmill Canyon Complex fault. The IP and resistivity should be done with 1000-foot "a" spacing and a 2000-foot traverse interval. For deep-search electromagnetics, the Max-Min method is probably the best, and this work is presently being contracted by Dave Smith of Orem, Utah, and Geoterrex of Boulder, Colorado. Zonge Engineering of Tucson does contracting with controlled-source AMT, and this company as well as Mining Geophysical Surveys and Heinrichs GeoEx does IP and resistivity surveying.

If you have questions concerning my opinions on this project, please let me know. A statement for my services is enclosed.

Sincerely,



John S. Sumner

Enc: Statement

JSS:h



**JOHN S. SUMNER**

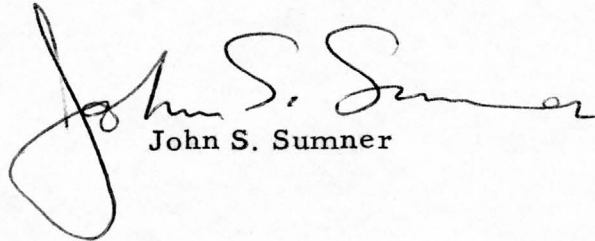
728 North Sawtelle  
Tucson, AZ 85716  
January 18, 1982

James A. Briscoe  
5701 East Glenn, No. 120  
Tucson, AZ 85712

Re: Tombstone Development Company, Inc.

For professional services involving geophysical consulting, one-half day discussions and one-half day data analysis and report writing, at \$ 500.00 per day	\$ 500.00
Report preparation	15.00
Travel, 22 miles @ .20 per mile	<u>4.40</u>
Total	\$ 519.40

Thank you,

  
John S. Sumner







