

COMMENCEMENT OF BOYLE



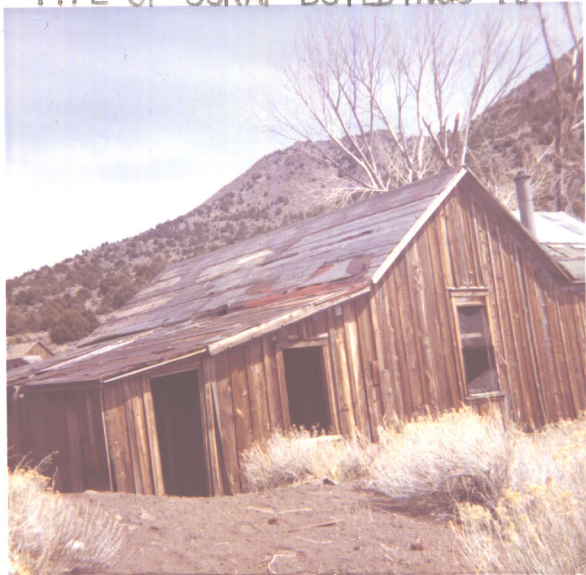
PORTAL SAFETY BENCH  
APR • 63

BOYLE TUNNEL PORTAL SAFETY



BENCH BEING CUT  
APR • 63

TYPE OF SCRAP BUILDINGS TO



BE BURNT FOR SAFETY  
APR • 63

SCRAP BUILDINGS KNOCKED DOWN



FOR BURNING  
APR • 63

START OF CAMP CLEANUP



APR • 63

*Unloading power shovel*



APR • 63



K-M PLYEX® 4-ply protector #5DP811 pat. pend.

BOYLE PORTAL BEFORE WORK



• APR • 63

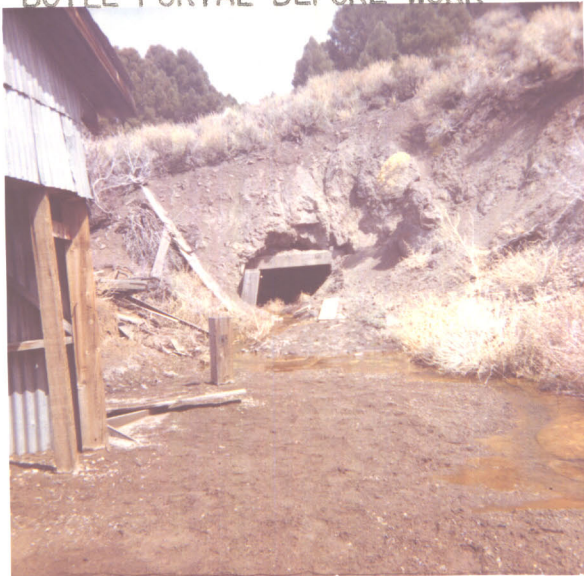
SAME VIEW AS LEFT ONE AFTER



WORK COMMENCEMENT

APR • 63

BOYLE PORTAL BEFORE WORK



APR • 63

COMMENCEMENT OF PROJECT



AT BOYLE TUNNEL PORTAL

APR • 63

BOYLE TUNNEL PORTAL AREA



CAVE-NOW HANDLED 4/22/63

APR • 63

K-M PLYEX® 4-ply protector #5DP811 pat. pend.

ply protector #5DP811 pat. pend.



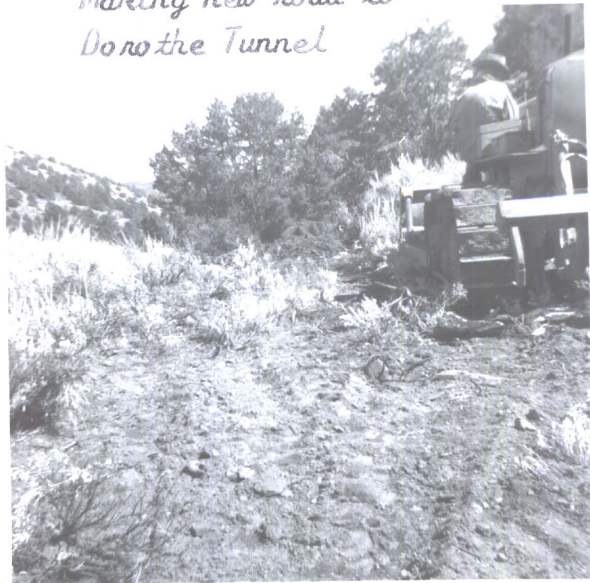
ROAD BETWEEN BOYLE PORTAL



AND DOROTHE TUNNEL

APR 63

Making new road to  
Donothe Tunnel



APR 63

Donothe Pontal before work



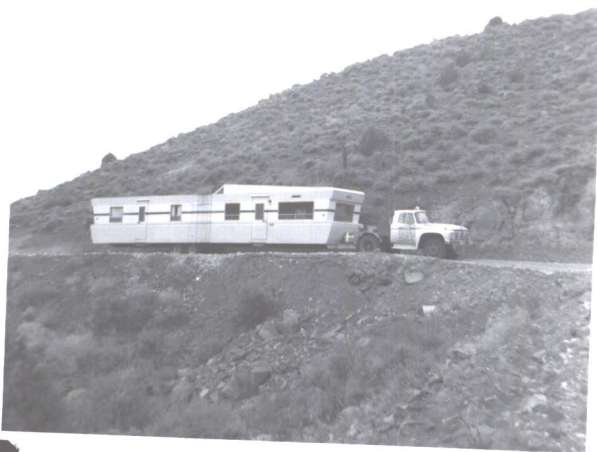
APR 63

Donothe Pontal after recovery



APR 63

Company trailer house  
enroute



APR 63

Opening Boyle Tunnel



APR 63



BOYLE TUNNEL CAVE BEFORE



REOPENING PORTAL

APR • 63

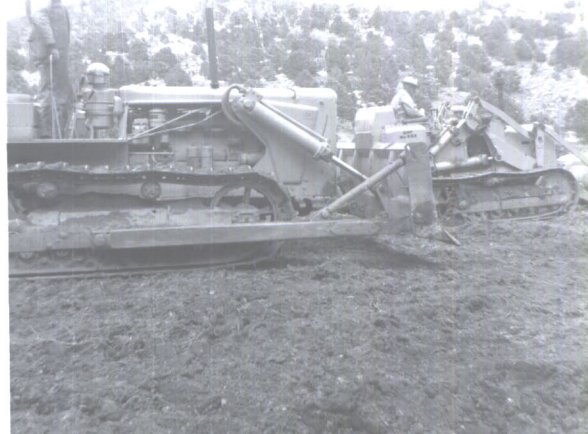
DOROTHE' TUNNEL DUMP



BEFORE WORK START

APR • 63

*Widened and cleaned  
Dorothe Dump for  
equipment installation*



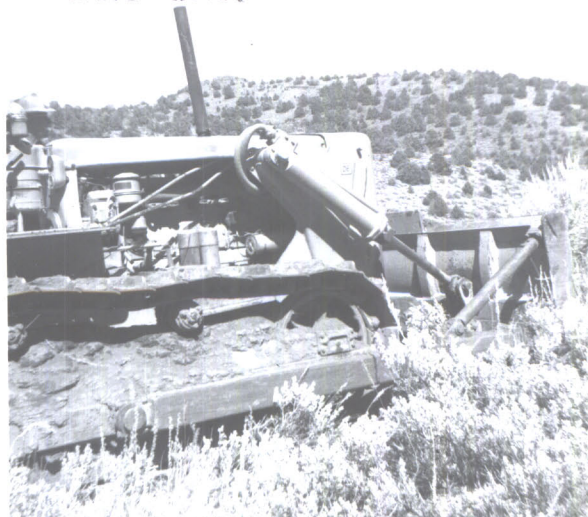
APR • 63

CAVED DOROTHE TUNNEL PORTAL



• APR • 63

*Commencement of Dorothe  
Tunnel work*



APR • 63



Dono the Tunnel mucking Machine



MAY 63

New Portal Dono the Tunnel



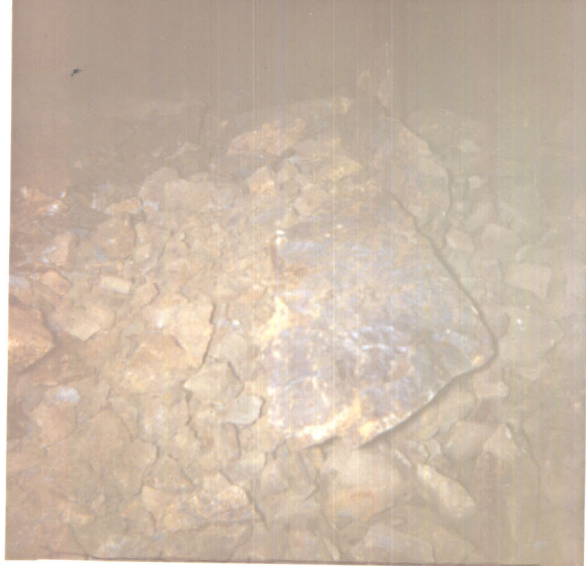
MAY 63

Laying track in Dono the Tunnel



MAY 63

1st Dono the round 5/4/63



MAY 63

Dono the Tunnel target



Lucky sun day

Dono the Tunnel Line





Scrap house before burning



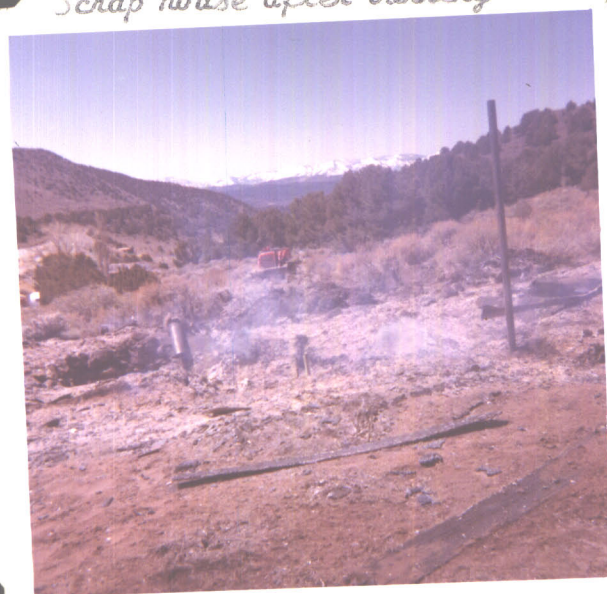
When cutting fire break



Scrap house burning



Scrap house after burning



Road between camp & Dono the  
Tunnel



BOYLE TUNNEL LINE





*Cutting Boyle Safety Bench*



*When on power shovel*



*Boyle Tunnel cave start*



*Boyle Tunnel caved rock moving*



*Moving rock at worst cave*



*Boyle Tunnel Activity*





Buckeye shaft



Como Vein at surface



Donor the Tunnel compressor



TOP OF CAVE Boyle Tunnel



Boyle Tunnel activity



Boyle Tunnel activity







*This page Doyle Tunnel action*



MAY • 63 •



MAY • 63 •



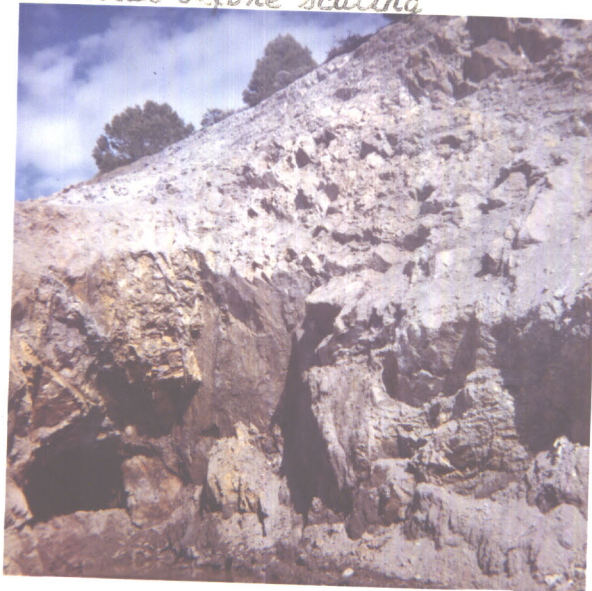


*New Portal area 200' in 5/30*



JUN • 63

*Portal before scaling*



JUN • 63

*New portal before scaling*



JUN • 63

*getting down to grade*



JUN • 63

*Last of the scrap houses*



JUN • 63

*Last of the scrap houses*



JUN • 63



CUTTING FIRE BREAK



REDUCING FIRE HAZARD



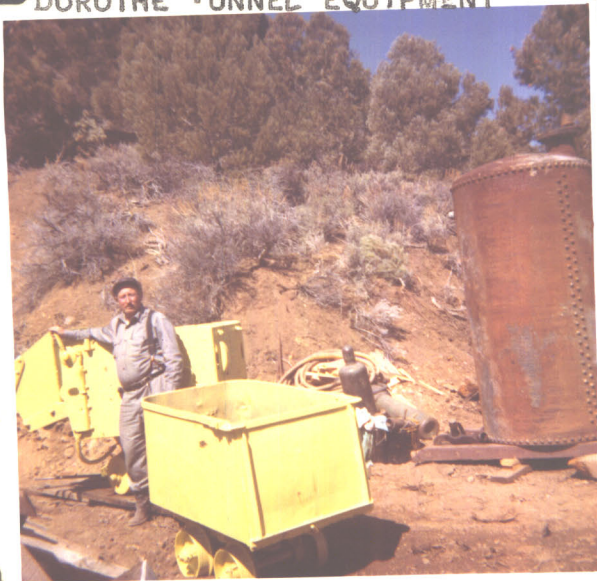
SCRAP HOUSE CLEANUP



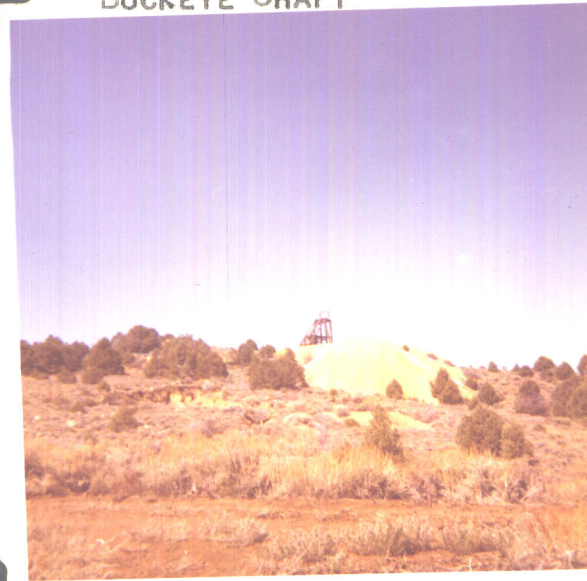
COMO SHAFT HEADFRAME



DOROTHE TUNNEL EQUIPMENT



BUCKEYE SHAFT

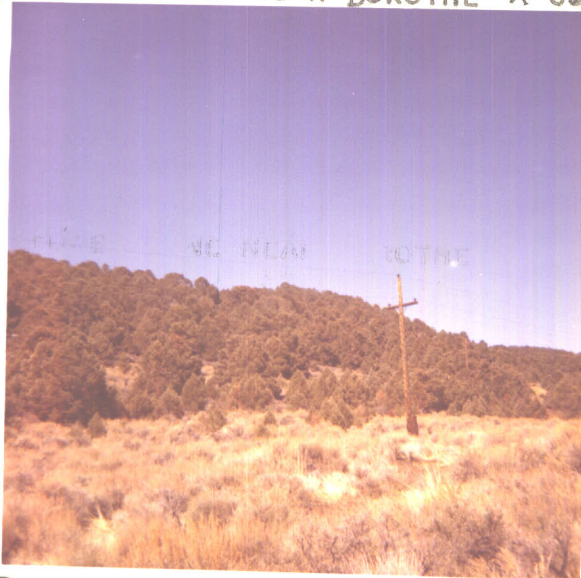




DOROTHEA TUNNEL FACE 4/21



POWER LINE NEAR DOROTHEA X-CUT



Amco Mine Office



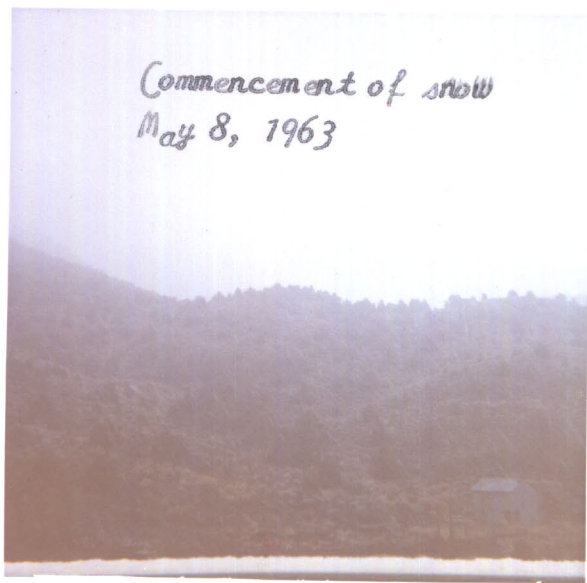
MAY • 63 •

Dumping Boyle muck



MAY • 63

Commencement of snow  
May 8, 1963



• MAY • 63

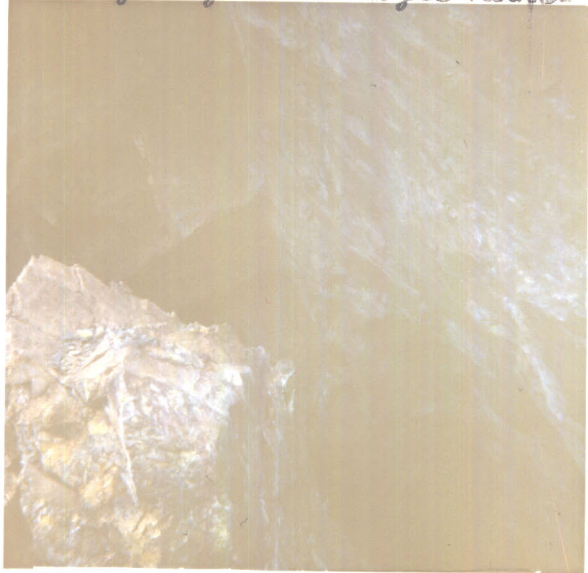
Blocky ground Boyle Tunnel



MAY • 63



Sloughed ground in Boyle Tunnel



• MAY • 63

Boyle cave 100' in tunnel



MAY • 63 •

Blasting at Boyle Tunnel



MAY • 63

Caved ground inside Boyle Tunnel



MAY • 63

Note how Boyle Tunnel  
caved 100' in from  
old Portal



MAY • 63

Drilling anchor holes



MAY • 63



Snowing May 13th



MAY • 63

250 ton ball mill Apex Mill



• MAY • 63

Rougher cells Apex mill



• MAY • 63

Apex Mill Austin, "evada



MAY • 63

Modern bunkhouse and warehouse  
Apex mill



MAY • 63

Cleaner cells Apex Mill



MAY • 63

#5LP811

K-M PLYEX® 4-ply protector #5LP811

K-M PLYEX® 4-ply protector #5LP811

K-M PLYEX®



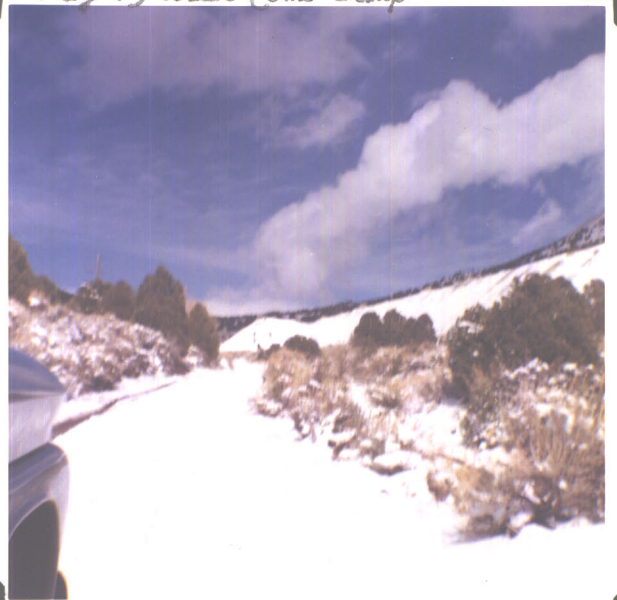
May 13 5 miles below Como



May 13 snowing for 3 days



May 13 near Como Dump





*Wagon drilling Boyle Tunnel*



MAY • 63 •

*Wagon drilling Boyle Tunnel*



MAY • 63 •

*Blowing Boyle Tunnel holes*



• MAY • 63

*Drilling above Boyle cave*



MAY • 63

*Blast start Boyle Tunnel*



MAY • 63

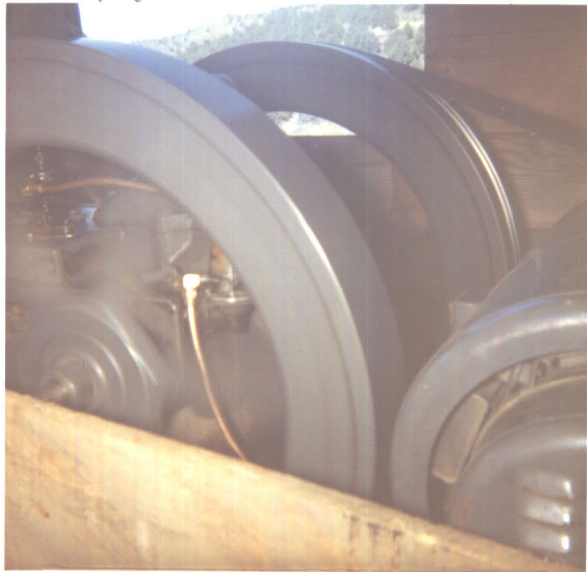
*3,000 tons blasted Boyle Tunnel*



MAY • 63



*Camp generator - Witte Diesel*



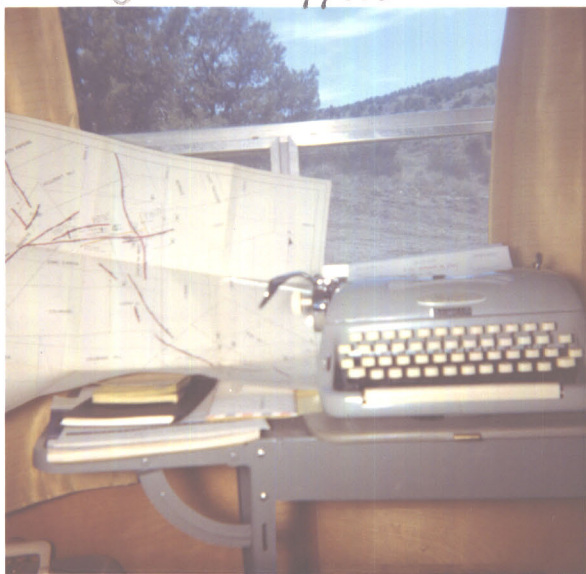
MAY • 63 •

*Camp fuel storage*



MAY • 63 •

*Como Mine Office*



MAY • 63 •

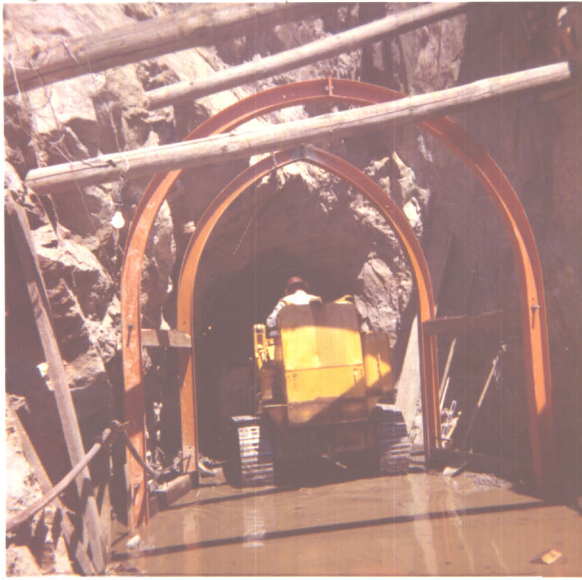


Along the Tunnel mineralized dump



JUN • 63

Cleaning out Boyle Tunnel



JUL • 63

Scalping Boyle Tunnel Portal



JUL • 63

Drilling portal Boyle Tunnel



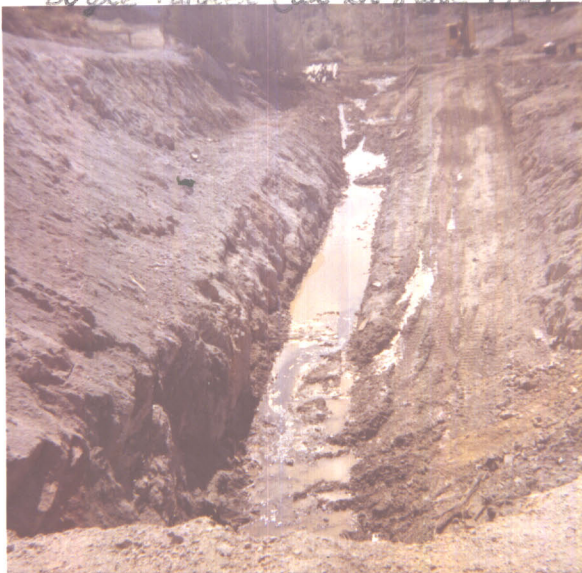
JUN • 63

Drilling loose Ground Boyle T.



JUN • 63

Boyle Tunnel Cut in June 1963



JUN • 63



- 1190 0016 CONGO -

(181)  
Item 16

ARMCO SILVER MINES, INC.  
OPERATING REPORTS

APRIL 1963



Boyle Tunnel Portal Area  
Como Mine  
1935

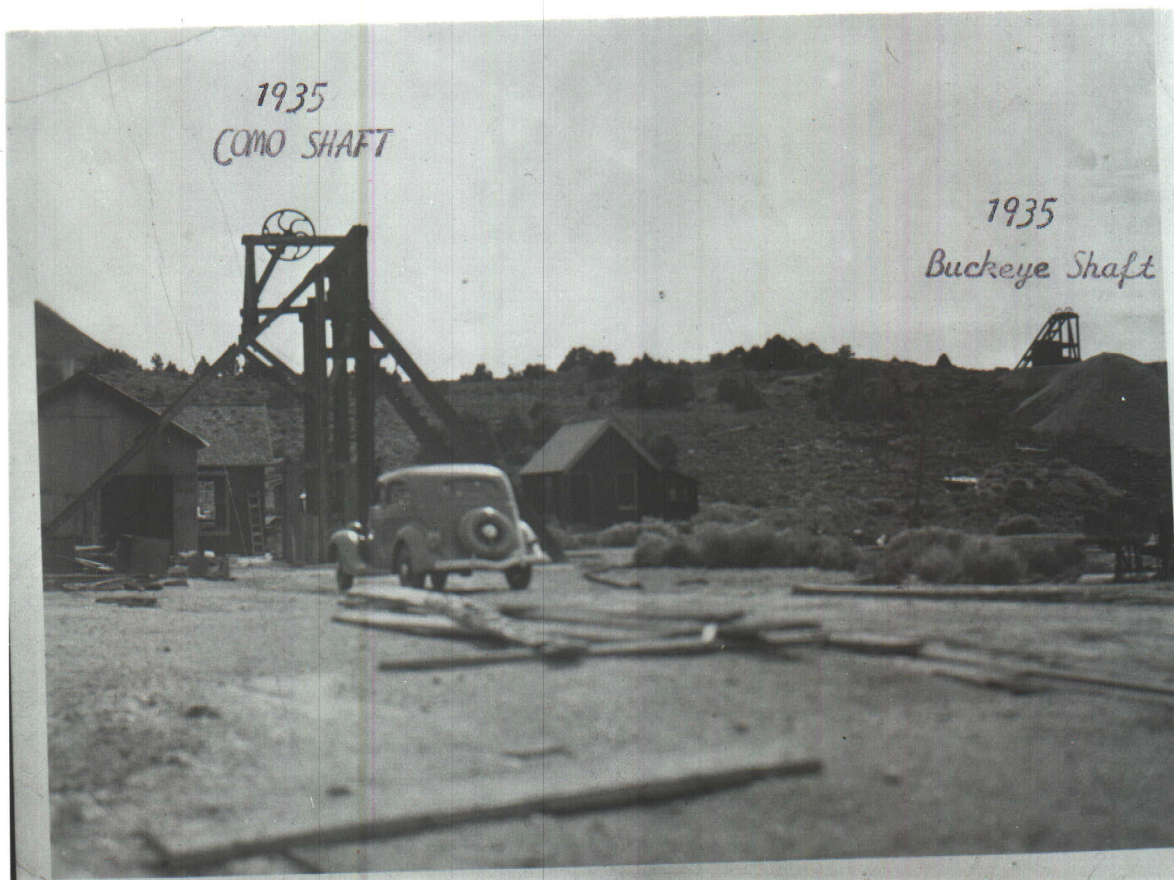




BOYLE TUNNEL PORTAL CAMP AND MILL  
At Como Mine 1935



1935  
COMO SHAFT



1935  
Buckeye Shaft



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

April 22, 1963

CABLE ADDRESS  
WRENCO

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

TO: ARMCO SILVER MINES, INC.  
FROM: JAMES H. WREN  
SUBJECT: WEEKLY REPORT - APRIL 3 THROUGH APRIL 9, 1963.

1. Completed purchase arrangement for Chevrolet 3/4 ton pickup truck with the Johnson Chevrolet Company, Reno, Nevada on April 3, 1963.

2. On April 3, 1963, interviewed Dave Eason of Fallon, Nevada, with regard to the "daylighting" of the Como Mine Boyle Tunnel Portal Area and other related work.

3. On April 4, 1963:

(a) Took delivery of the Chevrolet 3/4 ton pickup.

(b) Inspected work site with prospective contractor, Dave Eason.

Following is listed tentative contract terms for Boyle Tunnel Portal rehabilitation:

1) Dave Eason agreed to:

a) Pay all haulage and service cost to transport two units

-- 1 bulldozer and 1 front end loader to Como.

b) Furnish proof of his insurance.

c) Safety slope and handle all cubic yardage opening the tunnel from portal to the cave 50' past 1st timber set -- for a flat price of \$1,500 according to our specifications.



d) Knock down and burn all old buildings, handle the 2 to 3 feet of stream piled gravel in front of and on the side of the area ahead of the Boyle Tunnel portal. Cut a safety bench on the south side of the tunnel so muck won't cave or slough into the "daylighted" tunnel section.

e) Do the bulldozer work making room for the Jensen's compressor and working area in front of their contract tunnel @ \$12.00 per hour. He ought to do that in eight to ten hours.

(c) Inspected worksite with prospective contractors, Hal and Bob Jensen. Following is tentative contract terms for the peak X-cutting and drifting development:

1) The Jensens agreed to:

a) Furnish all rail rish plates, belts and new ties for at least 16 pound rail -- 20 pound rail if they can get it.

b) Straighten out the X-cut and raise the back. It needs some widening for 1 ton cars and two side swipes.

c) They will pay all move in and move out of equipment.

d) They will drive 5'x7' tunnel on grade according to our specifications.

e) They will furnish all powder and supplies including timber, if needed, providing that no more than three sets are needed at any one location.

f) They will furnish a copy of their workman's compensation insurance that they pay for.



g) They will furnish all their own servicing.

h) A flat price per foot for 500 feet of advance has been agreed pending your approval. They will put track in the present tunnel and pipe 1" waterline and 2-1/2' airline and do the necessary cleanup and side swiping with no charge. The price of \$27.50 per foot for 500' will be total charges and after placing pipe - rail - ties belonging to the company.

i) They will commence moving in next Thursday after I've done 1 day's bulldozer work at the portal making room for compressor, storage of supplies, etc.

j) They will work on a two shift per day basis six days per week and deliver a minimum of ten feet per work day.

d) A written contract will be drawn up binding the contractors to specifications -- ties every two feet, tees every fifty feet, etc.

4. On April 5th through 9th:

(a) Re-inspected Como contract sites.

(b) Aligned availability of alternate haulage and loading equipment for the Como Boyle Tunnel. Should the combination loader-hauler on rubber be too expensive to purchase on our present budget and not available for rental purchase.

(c) Drew up formal contract for the Jensens on the Peak development project.

(d) Drew up formal contract for Dave Eason on the Boyle Tunnel Portal rehabilitation and surface work.



Page 4.

(e) Eason is scheduled to move in two earth moving units tomorrow, April 10, 1963.

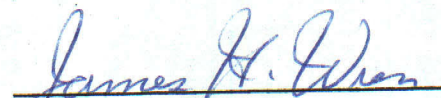
(f) The Jensens are scheduled to commence moving in their mining equipment on April 11th or 12th.

(g) Obtained permit from the U. S. B. L. M. to burn old scrap and the Como mine buildings which have no salvage value. Will commence clean-up as soon as Eason's bulldozer is on the site.

(h) Purchased Nevada State Automobile License for pickup truck.

(i) Took project photos for subsequent monthly report.

Very truly yours,

  
James H. Wren  
Consulting Engineer  
Armco Silver Mines, Inc.



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

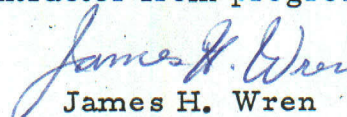
CABLE ADDRESS  
WRENCO

April 17, 1963

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

TO: Armco Silver Mines, Inc.  
FROM: J. H. Wren  
SUBJECT: Weekly Report, April 10 through 16, 1963.

1. April 10, 1963:
  - a). Delivered Boyle Tunnel Portal contract to Mr. D. Eason for acceptance.
  - b). Aligned various engineering items for the project.
2. April 11, 1963:
  - a). Eason moved late D-6 Caterpillar bulldozer-ripper from Fallon, Nevada to Como.
  - b). Completed contract controls for the Peak Area development.
3. April 12, 1963:
  - a). Dismantled old buildings in Boyle Tunnel Portal vicinity for salvage of what lumber that can again be used and the residue is scheduled to be burnt.
  - b). Cut safety bench on South side of Boyle Tunnel Portal. Cut bench for dragline working base. Rerouted tunnel water.
  - c). Walked D-6 bulldozer-ripper to Peak area to make roads, clean portal of proposed x-cut drive, and square away for equipment placement.
4. April 13, 1963:
  - a). Eason made power shovel - dragline ready to be moved, to Como.
5. April 14, 1963:
  - a). Completed company trailer house purchase arrangement. Brought Boyle Tunnel Portal design up-to-date.
6. April 15, 1963:
  - a). Moved power shovel-dragline and front end loader from Fallon to Como. Contractor's trailer house was moved to mine site.
  - b). Purchased trailer house for the company's mine utility quarters.
7. April 16, 1963:
  - a). Weather conditions prevented contractor from progress.

  
James H. Wren



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

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

April 24, 1963

TO: ARMCO SILVER MINES, INC.  
40 West 1st Street  
Reno, Nevada

FROM:

J. H. Wren

SUBJECT:

WEEKLY REPORT, APRIL 17 THROUGH 23, 1963

APRIL 17, 1963:

- a). Purchased project supplies
- b). Transported 46' x 10' combination mine office, supervisory quarters, from Reno, Nevada to the Como Mine.
- c). Constructed 350' of new road on the Beak Claim from the County road to the Dorothe Tunnel Portal.
- d). Opened Dorothe Tunnel Portal, widened portal cut, cut safety and drainage channel above portal, leveled dump for equipment installation. Moved approximately 950 cubic yards of earth and rock.

APRIL 18, 1963:

- a). Power shovel and bulldozer-ripper handled some 1,400 cubic yards on the Boyle Tunnel reopening project.
- b). Supplies hauled to Como.
- c). Camp cleanup commenced. Old scrap houses and debris will be burned as soon as winds permit.
- d). One laborer was employed on company account.



APRIL 19, 1963:

- a). Jensen Contractors moved in two truckloads of equipment and supplies, one mucking machine and one trailer house.
- b). Some 2,200 cubic yards of earth and rock were moved with the power shovel and bulldozer-ripper, at the Boyle Portal reopening site.

APRIL 20, 1963:

- a). Jensens unloaded equipment and set up their trailer house.
- b). Heavy snows prevented project work on the Boyle Tunnel.

APRIL 21, 1963:

- a). Dayton transformers inspected. They will probably be suitable to reduce the power from the main transmission line to a voltage we can use at the Camp site.
- b). The heavy snows will probably prevent work on the Dorothe Tunnel equipment installation and the Boyle Tunnel contract for the next two days. The newly moved earth will have to dry a little before it can efficiently be bulldozed away from digging sites.

APRIL 22, 1963:

- a). The Jensens left for Ely, Nevada to bring in more equipment while the ground is too wet to work.
- b). The power shovel and bulldozer at the Boyle Tunnel project has suspended work for two or three days pending drying out of ground to enable working.

APRIL 23, 1963:

- a). Inspected steel segment sets at Oroville, California for the Boyle Tunnel project. They may be used but a lighter type is preferred.
- b). Bought steel water storage tank for camp - 250 gallon capacity.
- c). Aligned to have the power shovel commence work again tomorrow.



GENERAL:

It is anticipated that the Boyle Tunnel will be open at the portal sufficiently to allow access for inspection within the next three working days.

Rental purchase on diesel powered combination loader - hauling equipment is being sought. Our budget will not allow a straight purchase on this unit. As the Boyle Tunnel will be ready to rehabilitate within the next ten days, we shall have to have our equipment procurement settled by that time. Lacking a loader - shuttle car we shall probably consider 5 tons ore cars @ \$50 each and 30 pound rail at \$70 per ton delivered for haulage, loading underground with a mobile unit. The trains would be pulled with a diesel unit. 16 - five ton cars are available, so two eight car trains could be used, each hauling 40 tons while the other was being loaded underground. This alignment will not be excessively expensive to set up if we cannot meet budget requirements on rental purchase of rubber type loading and haulage.

*James H. Wren*  
James H. Wren.



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

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

May 6, 1963

TO: ARMCO SILVER MINES, INC.  
40 West First Street  
Reno, Nevada

FROM: J. H. Wren

SUBJECT: COMO MINE PROJECT WEEKLY REPORT  
APRIL 24 THROUGH APRIL 30, 1963

1. APRIL 24, 1963:

- a). Power shovel started moving earth again today. 900 tons were moved out of the Boyle Tunnel Portal renewal project.
- b). Fours camp and road bulldozing was done with a D-6 Caterpillar.

2. APRIL 25, 1963:

- a). Moved 1,200 tons at Boyle Tunnel Portal site.
- b). Dorothe Tunnel contractors brought a load of pipe and rail in to the work site.
- c). An AC HD-6 Bulldozer-ripper was hauled to Como to be used as a standby unit when the Boyle Tunnel contractors move their equipment out. No standby charge is to be made. When we use the unit, cost of time will be \$7.50 per hour.

3. APRIL 26, 1963:

- a). Moved 1,100 tons of earth and rock on the Boyle Tunnel Project. Some of the tonnage had to be drilled and shot to loosen the material for power shovel loading.
- b) Setup temporary camp generating plant for housing lights.



ARMCO SILVER MINES, INC., APRIL 24 - April 30, incl.  
WEEKLY REPORT:

4. APRIL 27, 1963:

- a). Moved 1,400 tons of earth and rock on the Boyle Tunnel Project.
- b). Laid temporary camp water service line.
- c). Set up fuel oil line.
- d). Discharged company employee Edgar Friandt for lack of work output.
- e). Sierra Pacific Power Company wants \$3,000 to cut camp service in with our transformers. That is too high, so we'll get by with a small generator until major power is needed and the full power installation requirement is set up.

5. APRIL 28, 1963:

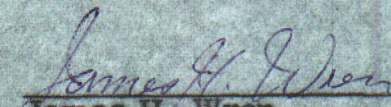
- a). Sunday, no power shovel work.
- b). Burned four scrap houses to clean up camp and reduce fire hazard.
- c). Built platform in front of trailer house office.

6. APRIL 29, 1963:

- a). Handled 1,400 tons of earth and rock at Boyle Tunnel portal renewal site.
- b). Salvaged timber sets out of Boyle Tunnel.
- c). Jensens unloaded pipe and rail at Dorothe Tunnel.
- d). Jensens started equipment installation at Dorothe Tunnel.
- e). Burned debris and two more scrap houses at Comp Camp.

7. APRIL 30, 1963:

- a). Laid 160' of Dorothe Tunnel Track.
- b). Scaled the Dorothe Tunnel down and cleaned sloughed muck out.
- c). Boyle Tunnel drilled, shot and handled 700 tons of rock, out of tunnel line.
- d). Built porch on company office site trailer house.

  
James H. Wren



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

May 9, 1963

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

TO : Amco Silver Mines, Inc.

FROM : J. H. Wren.

SUBJECT : Weekly Report - May 1 through May 7, 1963

May 1, 1963 :

- a). Handled 800 tons at Boyle Tunnel Portal project.
- b). Laid track and ties for 150' at Donothe Tunnel.

May 2, 1963 :

- a). Handled 1,500 tons on the Boyle Tunnel Portal project.
- b). Finished track laying in the Donothe Tunnel.
- c). Side swiped near end of the Donothe Tunnel and made head room for mucking machine clearance of 5'X 7' cross section.
- d). Hauled supplies to Como after procurement.

May 3, 1963:

- a). Mucked 30 cars out of Donothe sideswipe and back raising round.
- b). Drilled and blasted one advance round in Donothe Tunnel.
- c). Opened muckpile at Boyle Tunnel opening. Found that there has been 100' or more of timber down, chiefly because someone robbed the drift set caps. There is not too much slough but some and the timber will create additional work and expense to remove and renew. Will rent a slusher and set at the Portal to handle old timber removal and caved muck.

May 4, 1963 :

- a). Inspected Apex Mill 20 miles East of Austin, Nevada with object of evaluation. A separate report and inventory will be issued on this plant.
- b). Donothe Tunnel advanced.
- c). Boyle Tunnel contractors don't work on Saturday as a rule.



*Weekly Report May 1 through 7, continuation :*

May 5, 1963 :

- a). Completed items of engineering data.*
- b). Drilled and shot two Donothe Tunnel rounds - mucked out.*

May 6, 1963 :

- a). Advanced Donothe Tunnel.*
- b). Boyle Tunnel contractor getting tunnel line down to grade.*
- c). Burnt four scrap houses for cleanup and fire hazard prevention.*

May 7, 1963 :

- a). Advanced Donothe Tunnel.*
- b). Set up power pole for camp & shop temporary service.*
- c). Relieved ground above proposed Boyle Tunnel's new portal.*

SUMMARY :

- a). The Boyle Tunnel is completed as far as surface dirt moving is concerned from an economical standpoint. Some 100' of "daylighted" portal area has been achieved. Approximately 14,200 tons of earth and rock has been moved on this project todate. About 3,000 additional tons will finish what the surface contractor can accomplish before going underground.*

- b). The Boyle Tunnel "daylighting" estimate was : \$ 6,500.00*  
*Actual cost will be :*

<i>Contractor .....</i>	<i>3,500.00</i>
<i>All other cost .....</i>	<i>2,500.00</i>
	<hr/> <i>\$ 6,000.00</i>

*Note : This does not include the 100' of new timbering and cave cleanup inside the tunnel which was not part of the estimate of November 2, 1963. That will cost \$2,500.*

*James H. Wren*  
*James H. Wren.*



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

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

May 11, 1963

TO : Mr. Charles Oster,  
Silver State Mines, Inc.  
40 West 1st Street  
Reno, Nevada.

FROM : James H. Wren.

SUBJECT :

Apex Minerals Corporation's treatment plant some 22 miles  
Easterly from Austin, Nevada off of Highway No. 50.

1. An inspection of the milling installation equipment, buildings, warehouse inventory and related fittings was made on May 4, 1963. The Apex President, Mr. Walter Mc Fadden of Colton, California and his superintendent accompanied me on the examination. On May 4th they were not in position to issue an inventory list nor the kind of deal they want.
2. On May 9th an inventory was delivered and a copy sent forward to you. This inventory is accurate excepting for some minor items and the major crushing unit of the mill.
3. All equipment is in either new or excellent condition. Some of the treatment units and motors are new and have not been used at all. Buildings are in excellent condition. Some of the buildings are so constructed to allow economical and easy moving. Buildings contain full inventory of furnishings and plumbing fittings. Please refer to the extensive inventory list with reference to this paragraph.



Apex Mill Data of May 11, 1963 :

4. ITEMS NEEDED IN THE APEX MILL INVENTORY FOR ROCHESTER :

- a). Cyanide unit, estimated cost, ..... \$25,000.00
- b). Crushing, primary and secondary assembly  
estimated cost ..... 10,000.00
- c). Part or maybe all of the above procurement cost  
can be saved by selling or trading units in  
the Apex inventory that Silver State Mines,  
Inc. will not need.

5. ROCHESTER METALLURGY :

- a). The writer has not made a scrutiny of the Rochester ones nor has seen any technical mill test data. If the ore is 100% amenable to cyanidation, no flotation unit will be needed. If sulphides in some zones have to be concentrated, concentrates roasted before cyanide treatment, a roasting unit will have to be added to paragraph "4" above.
- b). It is recommended by the writer that Mr. Arthur Lakes who has done the engineering to date be contacted for a metallurgical report to enable laying out an efficient Rochester flow sheet. We cannot estimate detailed cost until this has been accomplished. However, in the case of the Apex equipment and related units, it is timely to negotiate at this stage. The flotation equipment, for instance, if not needed can be sold or traded to Amco Silver Mines, Inc. where it is a mandatory requirement.



Apex Mill Data of May 11, 1963 :

6. APEX OFFER :

- a). Mr. Mc Fadden, President, Apex Minerals Corporation advised on May 9, 1963 that his firm would accept \$80,000 for the whole inventory on the property including buildings, tankage, pipe lines, etc. It can be paid out on the basis of a purchase contract.

7. PURCHASE RECOMMENDATIONS :

- a). The Apex Company claims to have spent \$1,000,000 on the plant and plant site. About one half of that amount was wasted! The equipment is highly specialized machinery and cannot be sold at will. Consequently it will be to their advantage to effect a sale to a reputable firm at a lower figure than they quoted on May 9th. They have no operating capital themselves and the Apex Mill is a source of tax and watchman expense to them.
- b). Please bear in mind that a new flotation-cyanide mill of 250 tons capacity would cost \$2,500 per ton-capacity or \$625,000. This would not include anything but the bare mill.
- c). The writer would recommend two available deals to Apex :
- 1). \$18,500 cash against a \$60,000 total purchase price. Payout of \$41,500 @ \$1.25 per ton put through the Silver State Mines, Inc. plant.
  - 2). \$35,000 cash for all Apex inventory on the property plus some minor units that are stored in Fallon, Nevada. The Fallon storage request would apply on "1)." above too.
- d). Of the above options number two would be the most economical and preferable to your company providing adequate setup capital subscription is available.



Apex MILL Data of May 11, 1963 :

8. ESTIMATED COST 250 TON PLANT :

Note : Following is based upon a \$35,000 outright purchase price for the Apex inventory. This cost can be reduced if cyanide treatment is all that is necessary for the Rochester ones.

- a). Apex mill, buildings, warehouse supplies, determination equipment ( lab ), pipe, etc..... \$ 35,000.00
- b). Primary-secondary crushing units, cyanide treatment equipment at 1/2 normal procurement cost, based upon the assumption, that extra Apex equipment can be sold on traded for the needed units..... 17,500.00
- c). Concrete pour @ \$60 per Cu.Yd. 200 Cu.Yds. 12,000.00
- d). Tear-down-setup 250 tons per day plant including haulage, employee change room, warehouse, assay office, shop, utility buildings, mill building..... 35,000.00

---

\$ 99,500.00

Contingency 20% 19,900.00

---

TOTAL ESTIMATE..... \$119, 400.00

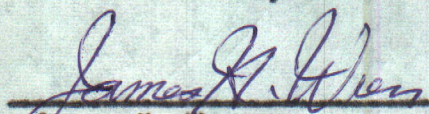
9. SUMMARY :

a). Other mills :

Bogdanich, Mountain City, 100 tons, maybe small.

Union Mill, Carson-Reno, 250 tons, available for \$35,000 but is old.

Candalaria cyanide plant, new but lacking essential items,

  
James H. Wren



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

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

May 11, 1963

TO : Mr. Charles Oster,  
Silver State Mines, Inc.  
40 West 1st Street  
Reno, Nevada.

FROM : James H. Wren.

SUBJECT :

Apex Minerals Corporation's treatment plant some 22 miles  
Easterly from Austin, Nevada off of Highway No. 50.

1. An inspection of the milling installation equipment, buildings, warehouse inventory and related fittings was made on May 4, 1963. The Apex President, Mr. Walter Mc Fadden of Colton, California and his superintendent accompanied me on the examination. On May 4th they were not in position to issue an inventory list nor the kind of deal they want.
2. On May 9th an inventory was delivered and a copy sent forward to you. This inventory is accurate excepting for some minor items and the major crushing unit of the mill.
3. All equipment is in either new or excellent condition. Some of the treatment units and motors are new and have not been used at all. Buildings are in excellent condition. Some of the buildings are so constructed to allow economical and easy moving. Buildings contain full inventory of furnishings and plumbing fittings. Please refer to the extensive inventory list with reference to this paragraph.



Apex Mill Data of May 11, 1963 :

4. ITEMS NEEDED IN THE APEX MILL INVENTORY FOR ROCHESTER :

- a). Cyanide unit, estimated cost, ..... \$25,000.00
- b). Crushing, primary and secondary assembly  
estimated cost ..... 10,000.00
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can be saved by selling or trading units in  
the Apex inventory that Silver State Mines,  
Inc. will not need.

5. ROCHESTER METALLURGY :

- a). The writer has not made a scrutiny of the Rochester ones nor has seen any technical mill test data. If the one is 100% amenable to cyanidation, no flotation unit will be needed. If sulphides in some zones have to be concentrated, concentrates roasted before cyanide treatment, a roasting unit will have to be added to paragraph "4" above.
- b). It is recommended by the writer that Mr. Arthur Lakes who has done the engineering to date be contacted for a metallurgical report to enable laying out an efficient Rochester flow sheet. We cannot estimate detailed cost until this has been accomplished. However, in the case of the Apex equipment and related units, it is timely to negotiate at this stage. The flotation equipment, for instance, if not needed can be sold or traded to Amoco Silver Mines, Inc. where it is a mandatory requirement.



Apex Mill Data of May 11, 1963 :

6. APEX OFFER :

- a). Mr. Mc Fadden, President, Apex Minerals Corporation advised on May 9, 1963 that his firm would accept \$80,000 for the whole inventory on the property including buildings, tankage, pipe lines, etc. It can be paid out on the basis of a purchase contract.

7. PURCHASE RECOMMENDATIONS :

- a). The Apex Company claims to have spent \$1,000,000 on the plant and plant site. About one half of that amount was wasted ! The equipment is highly specialized machinery and cannot be sold at will. Consequently it will be to their advantage to effect a sale to a reputable firm at a lower figure than they quoted on May 9th. They have no operating capital themselves and the Apex Mill is a source of tax and watchman expense to them.
- b). Please bear in mind that a new flotation-cyanide mill of 250 tons capacity would cost \$2,500 per ton-capacity or \$625,000. This would not include anything but the bare mill.
- c). The writer would recommend two available deals to Apex :
- 1). \$18,500 cash against a \$60,000 total purchase price. Payout of \$41,500 @ \$1.25 per ton put through the Silver State Mines, Inc. plant.
  - 2). \$35,000 cash for all Apex inventory on the property plus some minor units that are stored in Fallon, Nevada. The Fallon storage request would apply on "1)." above too.
- d). Of the above options number two would be the most economical and preferable to your company providing adequate setup capital subscription is available.



Apex Mill Data of May 11, 1963 :

8. ESTIMATED COST 250 TON PLANT :

Note : Following is based upon a \$35,000 outright purchase price for the Apex inventory. This cost can be reduced if cyanide treatment is all that is necessary for the Rochester ones.

- a). Apex mill, buildings, warehouse supplies, determination equipment ( lab ), pipe, etc..... \$ 35,000.00
- b). Primary-secondary crushing units, cyanide treatment equipment at 1/2 normal procurement cost, based upon the assumption, that extra Apex equipment can be sold or traded for the needed units..... 17,500.00
- c). Concrete pour @ \$60 per Cu.Yd. 200 Cu.Yds. 12,000.00
- d). Tear-down-setup 250 tons per day plant including haulage, employee change room, warehouse, assay office, shop, utility buildings, mill building..... 35,000.00

---

\$ 99,500.00

Contingency 20% 19,900.00

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TOTAL ESTIMATE..... \$119, 400.00

9. SUMMARY:

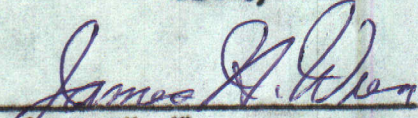
a). Other mills :

Bogdanich, Mountain City, 100 tons, maybe small.

Union Mill, Carson-Reno, 250 tons, available for

\$35,000 but is old.

Candalaria cyanide plant, new but lacking essential items,

  
James H. Wren



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

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

May 11, 1963

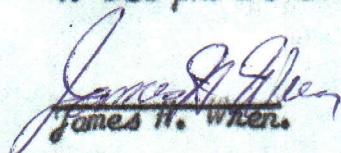
TO : Mr. Chas. Oster,  
Anmco Silver Mines, Inc.

FROM : J. H. Wren.

SUBJECT :

Special memo with regard to Boyle Tunnel Rehabilitation.

1. Please refer to "a)." of the Summary of the Weekly Report "May 1 through 7, 1963". At that time it was thought that cost would be lower to commence timbering. However, subsequent events indicate that we will take another 50' cheaper and faster with use of earth moving equipment now on the job. Eason will receive an hourly basis for this phase as it cannot be estimated by us or him to an exact degree of accuracy.
2. The ground for 25' above the tunnel line is so blocky that timbering will be costly and slow. Consequently the present alignment will be the most efficient and less costly.
3. If you'll recall we had estimated that between 100' and 200' would probably have to be daylighted. This next 50' will make a total of 150' daylighted. The contract price for the first 100' could not be used for the next 50' as there is twice as many cubics. So instead of doubling the footage cost I suggested that we pay a straight hourly price which I can halt at anytime we are not satisfied as it will cost less than a contract for footage gained.
4. See photos in next week's report concerning this tunnel section.

  
James H. Wren.



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

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

May 16, 1963

TO :

*Anmco Silver Mines, Inc.*

FROM :

*J. H. Wren*

SUBJECT :

*Weekly Report, May 8 through 14, 1963*

1. *May 8, 1963 :*

- a). Boyle Tunnel contractors progressed.*
- b). Slippery road conditions due to snow and mud prevented Donothe Tunnel work.*

2. *May 9, 1963 :*

- a). Set camp power poles.*
- b). Worked hourly time with shovel and D-6 Tractor bulldozer-ripper.*
- c). Hauled supplies.*
- D). Very bad weather - note photo.*

3. *May 10, 1963 :*

- a). Need about 30' more of Byle Tunnel daylighting. Ground is too blocky and soft to handle as cheap as daylighting if we would now go underground. Will setup to pay hourly basis until finished.*
- b). Much snow, no surface work, no work at Donothe Tunnel.*



Weekly report May 8 through 14 :

4. May 11, 1963 :

- a). Strung camp electrical service line.
- b). No other work done on account of snow.

5. SUNDAY, May 12, 1963 :

6. May 13, 1963 :

- a). No work at Boyle and Donothe projects due to snow.
- b). Looked over crawler type underground diesel powered loader in San Francisco for the Boyle Tunnel. Machine was too big.
- c). Placed numerous contracts for shuttle car and loader on rubber.
- d). Handled negotiations for Apex Mill.

7. May 14, 1963 :

- a). Worked D-6 5½ hours on strip above Boyle Tunnel.
- b). Completed setup of Witte diesel-electric plant.
- c). Drilled and blasted one round in the Donothe Tunnel.

8. Summary :

The Donothe Tunnel contractors were informed to get more footage. They have advanced only 55 feet plus sideswiping, back raising, track installation, equipment setup, pipe installation and regrading dump track.

The removal of Boyle Tunnel timber set caps at some past time allowed the ground to settle. Am going to work out the next 30' to the surface with the power shovel, bulldozer and a couple trucks.

The Apex mill has more inventory than Silver State Mines, Inc. needs. Como may be able to use the surplus units. All inventory negotiations have been finished and reports sent forward on the Apex transactions.

---

James H. Wren.



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

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

May 23, 1963

TO : Amco Silver Mines, Inc.

FROM : J. H. Wren.

SUBJECT : Weekly Report, May 15 through May 21, 1963.

1. Total expenditures todate on the Como project including, full cost of pickup, insurance of all kinds, trailer house, camp supplies, tools, all labor and contracts' payment up-to-date is : \$ 13,433.95 .
2. May 15 : Hauled camp supplies, bulldozed Boyle Portal area  $7\frac{1}{2}$  Hrs., drilled and mucked Donothe Tunnel, surveyed .
3. May 16 : Bulldozed Boyle Tunnel overburden, Drilled and blasted, mucked 32 cars in Donothe Tunnel
4. May 17 : Drilled 20' holes Boyle Tunnel, Drilled, mucked, blasted Donothe.
5. May 18 : Drilled Boyle, 20' holes, drilled, mucked, blasted Donothe Tunnel.
6. May 19 : Sunday, no project work. Wren inspected diesel haulage equipment.
7. May 20 : Drilled Boyle 20' holes, drilled, blasted, mucked Donothe Tunnel.
8. May 21 : Drilled, blasted 54 20' Boyle Tunnel holes, Drilled blasted Donothe Tunnel. Face is now 276' from Portal. A highly mineralized vein was hit at 251' of 5-6 Ft. width. It will be sampled-reported.

Summary : Jenses are still trying to get two shifts on Donothe advance. See assay determinations reverse side of this sheet. Boyle Tunnel is progressing as fast as we can and still meet with cost requirements of November 5, 1962 estimate.

*James H. Wren*  
James H. Wren



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

May 18, 1963

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

Mr. Chas. Oster,  
40 West 1st Street  
Reno, Nevada.

Dear Mr. Oster:

The following will confirm our telephone conversations:

1. Tried to contact Mr. Walter McFadden, President of the Apex organization to obtain a cash price on the Austin mill, on the 17th. He was not available.
2. The good weather the past three days has allowed us to make good progress on the Boyle Tunnel job. I am drilling and shooting 7,000 tons today. This will be the last, I believe, of the bad ground at the portal. It would be finished now if we had not lost most of last week's advance during storms.
3. The Donohue Tunnel contractors have to get three more men to build their crew out. They are supposed to have them coming out Monday. In the interim the Jensens are working straight through Sunday.
  - a). I sent samples of a mineralized break 48" wide into a laboratory for determinations. This vein cross the drift at 229' from the new portal.
4. I am drilling and handling the last 25' of the Boyle Tunnel daylighting job now. There will be about 140' of daylighted tunnel line. It was the only efficient and economical manner in which to do the job permanently.
5. There is some considerable metallurgical work to do on your Rochester project. For your own information, a check sampling of your mine run reserves is highly in-order.

*James H. Wren*  
James H. Wren.



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

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

May 29, 1963

TO : *Amco Silver Mines, Inc.*  
FROM : *J. H. Wren.*  
SUBJECT : *Weekly Report, May 22 through 28, 1963.*

1. May 22, 1963 : *Donothe Tunnel is in 271' feet from the newly established portal. Contractors need a second shaft badly in-order-to obtain good daily advance. They also require a ventilation line. A 6' vein was cut in the Donothe Tunnel at 251 feet. Samples were taken. Tunnel line was surveyed.*

*1,000 tons of Boyle Tunnel rock was loaded and trucked out of the new cut to the dump.*

2. May 23, 1963 : *Advanced Donothe Tunnel one round on about 5½ feet*

*Handled 750 tons of Boyle Tunnel rock.*

*Checked camp water lines and found that they will require renewal. Springs require cleanout and new transmission line*

3. May 24, 1963 : *Drilled, blasted, mucked out Donothe Tunnel.*

*Drilled, blasted Boyle Tunnel overhang rock.*

*Rained all day. Laid off Boyle Tunnel equipment until ground dries out.*



Amco Silver Mines, Inc. Weekly Report May 22, through 28 :

May 25, 1963 : Drilled, blasted , mucked Donothe Tunnel.

May 26, 1963 : Sunday, no work on Boyle Tunnel, drilled, blasted  
mucked Donothe Tunnel.

May 27, 1963 :Handled 700 tons Boyle Tunnel.

Drilled blasted mucked Donothe Tunnel.

May 28, 1963 :Rained all day but was able to handle 600 tons at  
Boyle Tunnel.

Jensens went to Wyo Nevada to get blowing equipment and  
a second shift badly need on the Donothe Tunnel project.

Summary :

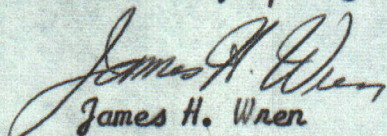
Bad weather has affected progress during this period.

Unless some units become available for diesel haulage on rubber tires  
for the Boyle Tunnel, we shall have to install track and cars. Numerous  
public utility tunnel projects have depleted the market of used units.  
Delivery of new units is three to six months and cost is not within our  
budget .

The new vein hit in the Donothe Tunnel at 251' is not economic one. However,  
it is likely that drifting advance at some future time will open an ore  
shoot on this occurrence as the vein is highly mineralized.

Expect to have the Boyle Tunnel Portal open May 30, 1963. There will be  
cleanup to follow and then commencement of underground rehabilitation.

McFadden, Apex Company President is waiting for closing of mill negotiations.

  
James H. Wren



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

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

June 6, 1963

TO : Amco Silver Mines, Inc.

FROM : J. H. Wren.

SUBJECT : Weekly Report, May 29 through June 4, 1963.

May 29, 1963 : No work Donothe Tunnel, contractors hauling supplies.

Handled 600 tons Boyle Tunnel, scaled back slope.

May 30, 1963 : Opened Boyle Tunnel new portal, handled 700 tons. Found cave 70' feet from opening. It does not look too serious.

May 31, 1963 : Scaled Boyle Tunnel Portal back and side slopes. Cleaned grade line.

June 1, 1963 : Drilled, blasted, mucked Donothe Tunnel.  
Scaled Boyle Tunnel adjusted grade line.

June 2, 1963 : Drilled, blasted, mucked Donothe Tunnel.

June 3, 1963 : Drilled, blasted, mucked Donothe Tunnel.  
Cleaned Boyle Tunnel grade line, removed rotten timber from underground.

Inspected 250 ton mill at Austin, Nevada.

June 4, 1963 : Drilled, blasted, mucked Donothe Tunnel. One new vein 4' wide crossed at 310' and another 2' wide at 320'.  
Cleaned rotten timber out of 50' of Boyle Tunnel.

Note : Henceforth a formal monthly report will be issued instead of weekly reports. Daily and monthly data can be seen in the mine office at any time.

James H. Wren.



Phone ELgin 9-9962

James H. Wren  
Armco Silver Mines, Inc.  
Dayton, Nevada

# ASSAY REPORT

## MINERAL SERVICES, INC.

ASSAYERS & CHEMISTS

Merwin G. White, President  
Don Johns, Vice-President

158 South West Temple Street  
Salt Lake City 1, Utah

Lab # 2244-7

May 21, 1963

ASSAY PER TON OF 2000 POUNDS

DESCRIPTION	NO.	GOLD OUNCES	SILVER OUNCES	WET LEAD %	COPPER %	ZINC %	INSOL %	%	%	%	VALUE OF GOLD PER TON
# 1021		0.005	0.3	14" Vein Dono the face 5/16/63 - 229' from portal							
# 1022		Trace	0.2	48" mineralization Dono the face 229' from Portal May 16							
# 1023		0.005	0.4	2' wide channel road vein 250' NW road crossing							
# 1024		0.910	2.1	2' wide channel 300' SE road crossing total Val. \$34.53							

CHARGES \$ 10.00

Paid

BY

*Don Johns*



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

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

June 12, 1963

TO : Amco Silver Mines, Inc.

FROM : J. H. Wren.

SUBJECT : Weekly Report June 5 through 11, 1963.

1. June 6, 1963 :

Excessive snow and rain, no project work accomplished.

2. June 6, 1963 :

Drilled, blasted, mucked Donothe Tunnel. Too wet to work Boyle Tunnel.  
Made trip to Rochester.

3. June 7, 1963 :

Drilled, blasted, mucked Donothe Tunnel. No work Boyle Tunnel.

4. June 8, 1963 :

Drilled, blasted, mucked Donothe Tunnel. Rain and snow no Boyle work.

5. June 9, 1963 :

Drilled and blasted Donothe Tunnel. Heavy rains.

6. June 10, 1963 :

Drilled-blasted Donother Tunnel. Received load of timber for Boyle Tunnel.

7. June 11, 1963 :

Drilled-blasted Donothe Tunnel.

Summary :

a). Donothe Tunnel is now in 324' from new portal. Their first advance round was on May 6, 1963. However, before that date 191' of pipe, rail, sidexwiping was done underground and 100' of pipe, switches, and track was laid on the surface. They need a second shift badly but have been unable to get miners. Reportedly they will have them Monday.



Weekly Report, June 5th through June 11, 1963 :

Summary, Continuation :

- b). Over 30,000 tons of material has been handled at the Boyle Tunnel portal. Throughout the years fault lines in the portal area for 150' have allowed the ground to settle, timber rotted and some was taken out after suspension of operations in 1936. This has created a very bad ground condition. The portal needs four sets of timber which is being commenced now. 70' inside of the portal is a cave 15' wide by 30' high and has run out on the sides some 20' each way. This was an unexpected cave. After the timber sets have been removed and the new portal sets are in, am set up with a slusher to handle the above mentioned cave.
- c). Need six men at this time to work on a three shift basis in the Boyle Tunnel. Am now trying to hire experienced men to handle rehabilitation.
- d). Serious thought should be given recovery of the Como on Buckeye shaft for service lines. In the Boyle Tunnel almost 5,000' of air, water, electric cable and ventilation lines will be needed whereas only some 800' of service lines will be needed via of the shafts. The state laws require a second exit in any event so a decision should be made at this time with regard to this question.
- e). Every possibility is being sought relative to a rubber tired haulage setup with diesel power for the Boyle Tunnel. So far no equipment for rental-purchase has been located although numerous contacts have been made. This equipment will be needed within 10 days, if we are successful in hiring 6 new men now.
- f). 10,368 B. F. of timber was delivered to the mine for the Boyle tunnel portal @ \$55 per thousand board feet. 12"x12" and 4"x12" dimensions delivered are difficult to procure and usually cost \$100 M B F, FOB lumber yard. Wedges also were bought at .04 ¢ each.

James H. Wren



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

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

June 28, 1963

TO : Amco Silver Mines, Inc.

FROM : J. H. Wren.

SUBJECT : Como Mine Progress Report for the Period June 12 through 27th.

### 1. Boyle Tunnel :

- a). Balance of Portal rock was handled.
- b). Two steel sets were installed at Portal.
- c). 110' of tunnel was cleaned and scaled.
- d). 75 tons of caved ground was removed from the sloughed area 115' from portal. Spiling is now in progress here.
- e). 6" steel sets were purchased at 5¢ per pound for some of the bad ground in the tunnel.
- f). Electric lights were installed in the tunnel.
- g). A night shift was started on June 24th.
- h). If this cave is the last for the next 700' as is possible, some acceptable advance will be made during the month of July. If rubber tired equipment can be rented we could possibly be at the end of the Boyle Tunnel by the end of July if no more than the anticipated cave 800' from the old portal is experienced.
- i). It is recommended to give consideration relative to rehabilitation of the Como Shaft manway. If the manway and a raise to the Boyle Tunnel is recovered we will save over 3,000' of air and power line purchase and installation and at the same time comply with Nevada Safety Laws regarding a second exit.
- j). The steel sets at the Boyle Tunnel Portal will be a permanent fixture which will never give future repair cost and time loss.
- k). If haulage and loading equipment on rubber is acquired on a rental purchase basis soon, we can complete the Boyle Tunnel recovery next month, if we do not have more than one serious cave at the expected point 800' from the old portal.



Como Mine Progress Report June 12 through June 27th, '63 :

2. DOROTHE TUNNEL :

- a). A night shift finally was installed by the contractors June 24th.
- b). Arthur Lakes is laying out the Dorothe Tunnel area geology.
- c). A 20 degree turn was started at 381' from the Portal. This will intersect the Easterly striking vein which intersects the Lucky Sunday Vein at the Highgrade Shaft Collar. If the Lucky Sunday Vein and the Easterly Vein maintain their respective dips to the Dorothe Tunnel elevation we should contact our objective within the next three weeks.
- d). As of the end of shift, June 27th, distance from the Dorothe Tunnel Portal to face was 396'.
- e). Progress to-date by the contractors is : 191' of track and pipe installation underground in the old tunnel section, 50' of side-swiping and back raising in the old tunnel section, 100' of surface air and water line installation, 145' of surface track and switches, machinery installation, and 200' of new tunnel.

3. MSC :

- a). Equipment procurement at reasonable prices is being sought continuously - particularly the rubber tires loading-haulage units. With the exception of the latter units most other needed items have been procured or we know where to obtain them at nominal cost.
- b). Camp water Spring has been recovered. A service line will soon be laid.
- c). We do not furnish housing for employees. Some have their own trailer houses, others live in Dayton.
- d). Samples to start the Dorothe Tunnel assay chart were sent out yesterday.
- e). Weather has affected progress to some extent while we were working at the Boyle Tunnel surface. Unusual rain and snow fell in May and June. As a matter of fact it is raining and snowing today, June 28th !

James H. Wren.



## J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS  
WRENCO

July 4, 1963

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

TO : Amco Silver Mines, Inc.

FROM : J. H. Wren.

SUBJECT : Progress for the period June 28 through July 4, 1963.

### 1. Dorothe Tunnel :

- a). Tunnel is now in 421' from portal. Contractor advance = 225'.
- b). Arthur Lakes has spent two days surveying and making geologic observations. Tunnel line has been turned 20 degrees to intersect a possible E-W vein. The bulldozer will be used tomorrow to channel surface to prove presence of this above vein.

### 2. Boyle Tunnel :

- a). 650 tons of caved tunnel line rock has been handled and three sets of timber installed at the cave some 100' from portal. There will be a large amount of timber and timbering time required to catch up the hole. Its dimensions are : 25'x12'x 18'.
- b). After handling the 650' tons of cave, it was found that the tunnel line for at least 50' requires cleaning of slough and rotten timber past the cave. The tunnel condition is far worse than anticipated. We had not expected any cave for 800' from the original portal. This is seriously affecting rehabilitation time as well as cost.
- c). Various contacts are placed for mechanized loading-hauling equipment to work in the Boyle Tunnel. The tractor front end loader used under ground for the last cave has about served its useful purpose and cost is too high.

### 3. SUMMARY :

- a). Two shifts are on Boyle Tunnel recovery and two shifts are on the Dorothe Tunnel advance. This speeds up work and cuts down overhead reflection.

James H. Wren