

16 AUG 93

NEW TUNNEL

FINISHED INSTALLING WATER LINE.
FINISHED DRILLING THE DRIFT
ROUND. USED ONE OF THE HOLES
THAT I DRILLED ON 9 JULY TO
HANG ANOTHER CHAIN FOR THE
BLASTING MAT.

17 AUG 93

NEW TUNNEL

LOADED THE DRIFT ROUND AND
FIRED AT 8:45 AM. BROKE VERY
GOOD. STEVE MUCKED OUT. SET
UP THE "53" AND DRILLED THE
TEN OUTSIDE HOLES. ALL FOUR
HOLES ON THE LEFT RIB, HIT A
MUD SEAM AT ABOUT 7'.

18 AUG 93

NEW TUNNEL

FINISHED THE DRIFT ROUND. MADE
THE HOOK-UPS TO CONNECT A 2"
HOSE DIRECTLY TO THE AIR PIPE IN
THE TUNNEL.

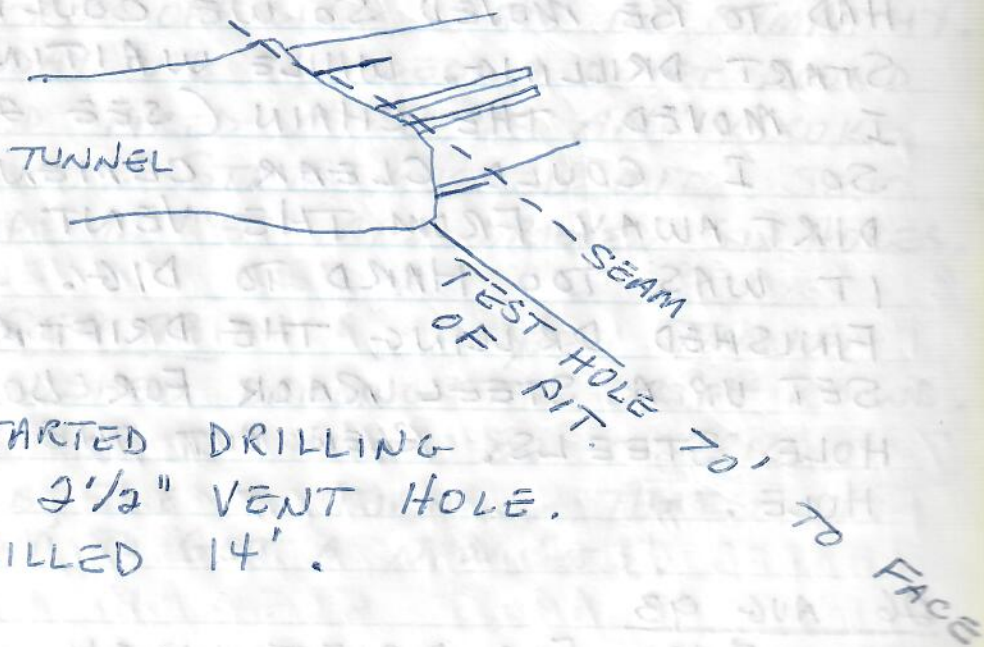
19 AUG 93

NEW TUNNEL

LOADED THE DRIFT ROUND AND FIRED
AT 8:40 AM. THE POWDER BLEW OUT
OF THE HOLES ON THE LEFT RIB.
STEVE MUCKED OUT. SET UP THE
"53" AND DRILLED EIGHT STRIP HOLES.
KEPT THEM SHORT TO AVOID THE

MUD SEAM. FRED CAME IN AT
5 P.M. WE LOADED THE STRIP
AND FIRED AT 5:50 PM. BROKE
GOOD ENOUGH TO DRILL ANOTHER
DRIFT ROUND. STEVE MUCKED OUT.

20 AUG 93 NEW TUNNEL
DRILLED TEN PERIMETER HOLES
AND TWO 4" CENTER HOLES. THE
TWO BOTTOM HOLES ON THE RIGHT
RIB HIT THE MUD SEAM AT ABOUT
FOUR FEET. DRILLED A THREE FOOT
HOLE NEXT TO EACH ONE.



STARTED DRILLING
A 2 1/2" VENT HOLE.
DRILLED 14'.

22 AUG 93 NEW TUNNEL
FINISHED DRILLING THE VENT
HOLE. HIT THE PIT WALL AT
70'. WAS IN ORE FROM 58'
TO 68'.

23 AUG 93 NEW TUNNEL
FRED KIRK AND STEVE M. PUT
A NEW ALTERNATOR ON THE EIMCO
SATURDAY AFTERNOON. THEY LEFT
THE IGNITION SWITCH ON SO THE
BATTERY WAS DEAD THIS MORNING.
STEVE PUT IT ON CHARGE IN THE
GARAGE FOR AN HOUR. THE EIMCO
HAD TO BE MOVED SO WE COULD
START DRILLING. WHILE WAITING
I MOVED THE CHAIN (SEE 2 JUL)
SO I COULD CLEAR CEMENTED
DIRT AWAY FROM THE VENT HOLE.
IT WAS TOO HARD TO DIG.
FINISHED DRILLING THE DRIFT ROUND.
SET UP A STEEL RACK FOR LONG
HOLE STEELS. BLEW OUT THE VENT
HOLE.

26 AUG 93
GOT #230 FOR DRIFT WORK.
THIS COVERS 40' TO 60'.

31 AUG 93 NEW TUNNEL

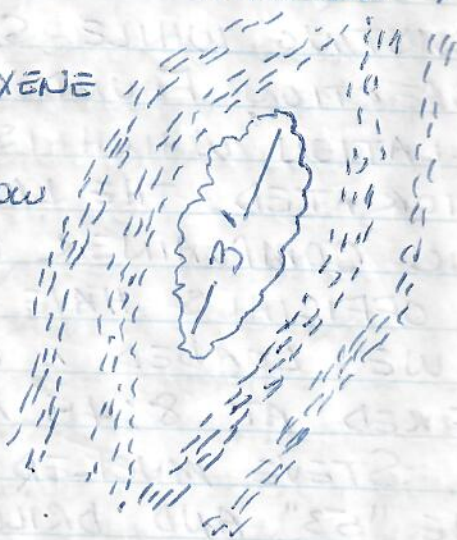
DELAY CAUSED BY JURY DUTY FOR FRED S. FINALLY OVER. FRED ALSO HAD TO INSPECT A COMPLAINT BY A NEIGHBOR WHO THINKS THE BLASTING CAUSED HER CEILING TILES TO FALL DOWN. SHE FOUND THE DAMAGE WHEN SHE GOT BACK FROM FLORIDA. WE HAD NOT DONE ANY BLASTING WHILE SHE WAS GONE. THE INSPECTION FOUND A POOR INSTALLATION WHICH IS ALREADY DETERIORATED. THE LADY IS A CHRONIC COMPLAINER FOR WHOM BORO OFFICIALS HAVE NO SYMPATHY. TODAY WE LOADED A DRIFT ROUND AND FIRED AT 8:45 AM. BROKE GOOD. STEVE MUCKED OUT. SET UP THE "53" AND DRILLED SIX HOLES.

1 SEP 93 NEW TUNNEL

FINISHED DRILLING THE DRIFT ROUND. DRILLED 13' HOLES ON THE RIGHT RIB, DUE TO TURNING THAT WAY. HAD TO GET A NEW "53".

2 SEP 93 NEW TUNNEL
LOADED THE DRIFT ROUND AND
FIRED AT 8:45 AM. BROKE GOOD.
STEVE MUCKED OUT. A HYDRAULIC
HOSE BURST ON THE EIMCO. GOT
A REPLACEMENT FROM THE BLUE
MACHINE. SET UP THE "53" AND
DRILLED EIGHT HOLES. HIT A
BAND OF DISSEMINATED FLUORITE.

BLOB OF PYROXENE
ON SOUTHRIB.
DISSEM. BANDS FLOW
AROUND IT.



3 SEP 93 NEW TUNNEL
FINISHED DRILLING A DRIFT ROUND.

7 SEP 93 NEW TUNNEL
FRED CAME IN AT 4 PM. WE
LOADED THE DRIFT ROUND AND
FIRED AT ABOUT 5:50 PM. BROKE
GOOD. STEVE STAYED TO MUCK OUT.
ADDED 20' TO THE WATER PIPE.

8 SEP 93 NEW TUNNEL
SET UP THE "53" AND DRILLED THE
FIRST TEN HOLES. DRILLED TWO
"4" CENTER HOLES WITH THE LONG
HOLE DRILL. THEN DRILLED THREE
OF THE FIFTEEN INNER HOLES.

9 SEP 93 NEW TUNNEL
DRILLED TWELVE HOLES TO FINISH
A DRIFT ROUND. FRED CAME IN AT
4 PM AND WE LOADED THE
ROUND. FIRED AT ABOUT 5:50 PM.
I TWISTED MY ANKLE PRETTY
BAD WHILE PUTTING UP HAY BALES.
HAD TO LEAVE EARLY.

10 SEP 93
STAYED HOME WITH SWOLLEN ANKLE.
STEVE FINISHED MUCKING AND
CALLED TO SAY THE ROUND BROKE
VERY GOOD.

17 SEP 93
GOT \$287.50 FOR DRIFT WORK. THIS
COVERS 60' TO 85'.

1000/7/11

20 SEP 93 NEW TUNNEL
SET UP THE "53". USED IT TO
KNOCK DOWN LOOSE. DRILLED TEN
OUTSIDE HOLES. DRILLED TWO 4"
CENTER HOLES. TRUCKS ARE HAULING
IN FILL FROM A JOB ON ROUTE 15.
THEY ARE FILLING THE WEST VEIN
AREA OF THE PASSAIC PIT.

21 SEP 93 NEW TUNNEL
DRILLED 15 HOLES TO FINISH A
DRIFT ROUND. DRILLED A STRIP
HOLE TO TAKE CARE OF A HIGH
SPOT IN THE FLOOR. FRED
CAME IN AT 4:45 PM. WE
LOADED THE ROUND AND FIRED
AFTER 6 PM. BROKE GOOD.
VENTILATION IS SO POOR THAT
STEVE WILL HAVE TO WAIT UNTIL
MORNING TO MUCK OUT.

22 SEP 93 NEW TUNNEL
WENT TO THE MINE TO DRILL BUT
STEVE HAD NOT BEEN ABLE TO
START THE EIMCO. SCALED LOOSE
IN THE TUNNEL AND THEN WENT
HOME.

24 SEP 93 NEW TUNNEL
STEVE AND FRED WORKED ON THE
EIMCO FOR TWO DAYS. STEVE GOT
THE TUNNEL MUCKED OUT THIS
MORNING. SET UP THE "53" AND
DRILLED TEN OUTSIDE HOLES. DRILLED
TWO 4" HOLES. THIS TIME THEY
CONVERGED AT THE END.

27 SEP 93 NEW TUNNEL
DRILLED 15 INSIDE HOLES TO
FINISH THE ROUND. DRAGGED THE
DRILL WEST OF THE "TEE". DRILLED
~~THE~~ TWO HOLES IN THE BACK SO WE
CAN HANG THE BIG DRILL INSIDE.
DRILLED HOLES FOR A STEEL RACK.
FRED CAME IN AT 4:15 AND WE
LOADED THE ROUND. FIRED AT 6 PM.
GOT \$400 MINERAL DIVIDEND.

28 SEP 93 NEW TUNNEL
STEVE FINISHED MUCKING AT NOON.
SET UP THE "53". USED IT TO KNOCK
DOWN A LOT OF LOOSE AND DRILLED
TEN OUTSIDE HOLES. GOT \$287.50 FOR
DRIFT WORK. HAVE BEEN PAID FOR
110 FEET SO FAR.

29 SEP 93 NEW TUNNEL

DRILLED TWO 4" CENTER HOLES.

DRILLED 15 INSIDE HOLES. FRED CAME

IN AT 5 P.M. AND WE LOADED THE

ROUND. FIRED AT 6:15 PM. SOUNDED

GOOD.

30 SEP 93 NEW TUNNEL

STEVE FINISHED MUCKING AT 10 AM.

LAST ROUND BROKE GOOD. SET UP

THE "53" AND DRILLED TEN OUTSIDE

HOLES. DRILLED ONE 4" CENTER HOLE.

4 OCT 93 NEW TUNNEL

DRILLED ANOTHER 4" CENTER HOLE.

DRILLED 15 INSIDE HOLES. BLEW

OUT THE HOLES AND PREPARED FOR

BLASTING. STEVE PUT IN TWO PIPE

HANGERS AND HUNG THE LONG

HOLE DRILL INSIDE.

5 OCT 93 NEW TUNNEL

THE BLASTER CAME IN AT 5:30

P.M. WE LOADED THE ROUND AND

FIRED AT ABOUT 7 PM. STEVE CHECKED

IT OUT AND SAID IT BROKE GOOD.

6 OCT 93 NEW TUNNEL

STEVE FINISHED MUCKING AT
10 AM. SET UP THE "53" AND
USED IT TO KNOCK DOWN SOME
LOOSE. SET UP THE LONG HOLE
DRILL TO DRILL A VENT HOLE. BROKE
THRU AT 35'.

7 OCT 93 NEW TUNNEL

REAMED THE VENT HOLE TO 4".
SET UP THE "53" AND DRILLED TEN
OUTSIDE HOLES. DRILLED ONE 4"
CENTER HOLE. LAST YEAR ONLY A
FEW FRINGED GENTIANAS GREW ON
THE SADDLE NORTH OF THE NOBLE
PIT. THIS YEAR THERE ARE HUNDREDS
GROWING THERE. GOT \$230 FOR
DRIFT WORK. NOW PAID TO 130'.

8. OCT 93 NEW TUNNEL

DRILLED ANOTHER 4" CENTER HOLE.
DRILLED 15 INSIDE HOLES. DRAGGED
THE DRILL DOWN THE TUNNEL
DRILLING SHORT HOLES FOR PIPE
HANGERS.

13 OCT 93 NEW TUNNEL

FRED CAME IN AT 3 PM AND WE LOADED THE DRIFT ROUND. FIRED AT 4:45 PM. BROKE GOOD. PUT A BLOW PIPE IN THE NEW VENT HOLE. THE BLAST FUMES CLEARED OUT MUCH FASTER. STEVE BEGAN MUCKING BUT HAD A FLAT TIRE.

14 OCT 93 NEW TUNNEL

STEVE PUT ON SPARE TIRE. FINISHED MUCKING 11:15 AM. SET UP "53" AND USED IT TO KNOCK DOWN LOOSE. DRILLED TEN OUTSIDE HOLES. CUTTINGS LOOK LIKE WORE. USE OF NEW VENT HOLE GREATLY IMPROVED AIR QUALITY WHILE MUCKING. ADDED A TEN FOOT PIPE TO THE WATER LINE.

15 OCT 93 NEW TUNNEL

DRILLED TWO 4" CENTER HOLES. DRILLED 15 INSIDE HOLES. AT 12:45 PM THE SUN SEEMED TO BE SHINING STRAIGHT DOWN THE NEW VENT HOLE. A SPOT OF LIGHT OF SUPERIOR BRILLIANCE WAS CAST ON THE NORTH RIB. A CAP LAMP WAS NOT NEEDED TO SEE CLEARLY.

18 OCT 93 NEW TUNNEL
FRED CAME IN AT 5 PM AND WE
LOADED THE DRIFT ROUND. FIRED
AT ABOUT 6:30. BROKE GOOD.
STEVE DID SOME MUCKING. LOOKS
LIKE LEAN ORE.

19 OCT 93 NEW TUNNEL
STEVE HAD GOOD LUCK AND FINISHED
MUCKING LAST NIGHT. SET UP THE
"53" AND DRILLED TEN OUTSIDE HOLES.
AM TURNING NORTHEAST TO FOLLOW
THE ORE VEIN. DRILLED 1 1/2 4" HOLES.
THE ORE IS TYPICAL BROWN WILLEMITE
ZONE (NOT VERY INTERESTING) SO FAR.

20 OCT 93 NEW TUNNEL
FINISHED SECOND 4" CENTER HOLE.
THE HOLES CONVERGED AT THE END.
DRILLED 15 INSIDE HOLES. ADDED
A 20' PIPE TO THE WATER LINE.
FRED CAME IN AT 5:30. WE LOADED
THE ROUND AND FIRED AT 7:08.
BROKE GOOD. STEVE STARTED MUCKING.
GOT \$230 FOR DRIFT WORK. NOW
PAID UP TO 150'.

21 OCT 93 NEW TUNNEL
STEVE FINISHED MUCKING AT 10:30 AM.
SET UP THE "53" AND USED IT TO
KNOCK DOWN A LOT OF LOOSE. DRILLED
TEN OUTSIDE HOLES. THE "53" QUIT
AND HAD TO BE REPLACED.

22 OCT 93 NEW TUNNEL
DRILLED TWO 4" CENTER HOLES
AND 15 INSIDE HOLES. BLASTING
WILL WAIT UNTIL MONDAY MORNING
TO ALLOW CHANNEL 68 NEWS TO
FILM IT.

25 OCT 93 NEW TUNNEL
FRED ARRIVED AT 7 AM AND WE
LOADED THE ROUND. THE NEWS CREW
GOT HERE IN TIME TO SEE THE
LAST TWO STICKS LOADED. FIRED
ABOUT 9 AM. BROKE VERY GOOD.
DISCOVERED SPHALERITE AND RHODONITE
AT THE H/W CONTACT. STEVE TIPPED
OVER IN THE EIMCO. BOB USED HIS
LOADER TO SET IT RIGHT. WHEN ONLY
A FEW BUCKET LOADS WERE LEFT
THE EIMCO QUIT RUNNING. FUEL FILTER
CLOGGED UP. PROBABLY SEDIMENT
STIRRED UP IN THE FUEL TANK WHEN
THE EIMCO TIPPED OVER.

26 OCT 93 NEW TUNNEL

WE GOT A SHIPMENT OF FUEL FILTERS LAST NIGHT. STEVE GOT THE EIMCO WORKING THIS MORNING AND FINISHED MUCKING OUT. BOB SVECZ CAME IN TO SURVEY THE TUNNEL THIS AFTERNOON. STEVE AND I HELPED HIM.

27 OCT 93 NEW TUNNEL

STEVE CHANGED THE OIL IN THE COMPRESSOR YESTERDAY. WE SPENT TWO HOURS TODAY TRYING TO STOP AN OIL LEAK AROUND THE FILTER. RON TIBBETTS STOPPED BY FOR LUNCH AND FIXED THE LEAK. DRILLED A TEST HOLE TO ESTABLISH POSITION AND THICKNESS OF ROCK OVER HEAD. BROKE THRU AT 28'.

28 OCT 93 NEW TUNNEL

REAMED THE TEST HOLE TO 4" SO WE CAN USE IT AS A VENT HOLE. SET UP THE "53" AND USED IT TO KNOCK DOWN SOME LOOSE. DRILLED 7.5 OUTSIDE HOLES. RAN INTO A MUD SEAM.

29 OCT 93 NEW TUNNEL

FINISHED THE OUTSIDE HOLES. DRILLED TWO 4" CENTER HOLES. DRILLED 15 INSIDE HOLES. TO COMPENSATE FOR THE MUD SEAM I SHORTENED THE ROUND TO SEVEN FEET AND DRILLED FIVE DOUBLE HOLES. FRED CAME IN AT 5:30. WE LOADED THE ROUND AND FIRED ABOUT 6:30. BROKE GOOD.

1 NOV 93 NEW TUNNEL

SET UP THE "53" AND DRILLED TEN OUTSIDE HOLES. DRILLED 1.8 4" CENTER HOLES. DENNIS HELPED OUT UNTIL 1 PM WHEN STEVE CAME IN. THE LAST ROUND WENT OUT OF THE ORE INTO THE H/W. I AM BEARING SLIGHTLY TO THE LEFT TO GET BACK INTO THE ORE.

2 NOV 93 NEW TUNNEL

FINISHED THE CENTER HOLES. DRILLED 15 INSIDE HOLES. FRED CAME IN AT 3:30 AND WE LOADED THE ROUND. FIRED AT ABOUT 6 PM. BROKE GOOD. STEVE STARTED MUCKING OUT.

GLOGGED UP. PROBABLY SEDIMENT STIRRED UP IN THE FUEL TANK WHEN THE GIMCO TIPPED OVER.

3 NOV 93

NEW TUNNEL

STEVE FINISHED MUCKING. SET UP THE "53" AND DRILLED TEN OUTSIDE HOLES. DRILLED ONE 4" CENTER HOLE AND COLLARED THE SECOND. WE ARE IN THE HANGING WALL OF THE BROWN WILLEMITE ZONE. THERE ARE BLOCKS AND LENSES OF GNEISS AND ORE FLOATING IN MARBLE. ADDED 40' TO THE WATER PIPE.

4 NOV 93

NEW TUNNEL

DRILLED ONE 4" CENTER HOLE AND 15 INSIDE HOLES. FRED CAME IN AT 5 P.M. WE LOADED THE ROUND AND FIRED ABOUT 6:30. BROKE VERY GOOD. THE WHOLE FACE IS ~~ST~~ NOW IN BROWN WILLEMITE ORE. THERE IS A LOT OF FAULTING AND/OR FOLDING IN THIS AREA.

5 NOV 93

NEW TUNNEL

STEVE FINISHED MUCKING. SET UP AND DRILLED 10 OUTSIDE HOLES. DRILLED 1.75 4" CENTER HOLES. GOT \$230 FOR DRIFT WORK. NOW PAID UP TO 170'.

FACE 5 NOV 93



8 NOV 93 NEW TUNNEL
ADDED 40' TO AIR LINE WHILE
WAITING FOR TEMPERATURE TO EXCEED
32°. FINISHED SECOND 4" CENTER
HOLE. DRILLED 15 INSIDE HOLES.
FRED CAME IN AT 5:15 PM AND
WE LOADED THE DRIFT ROUND. FIRED
AT 6:50. BROKE VERY GOOD. ALL
ORE.

9 NOV 93 NEW TUNNEL

STEVE FINISHED MUCKING OUT. SET UP AND DRILLED TEN OUTSIDE HOLES. DRILLED ONE 4" CENTER HOLE. ALL HOLES SHOWED ORE. LOTS OF LONG WAVE BARITE IN THE MUCK PILE.

10 NOV 93 NEW TUNNEL

DRILLED ONE MORE 4" CENTER HOLE. DRILLED 15 INSIDE HOLES. FRED CAME IN AT 5:30. WE LOADED THE ROUND AND FIRED AT 6:45. BROKE VERY GOOD. PUT THE HAY BALES INSIDE THE GATE THIS TIME. WORKED GOOD. THE DRIFT IS STILL IN ORE. IT HAS LEFT THE ORE THAT HAS THE LONG WAVE BARITE.

11 NOV 93 NEW TUNNEL

STEVE FINISHED MUCKING OUT. SET UP THE "53" AND USED IT TO KNOCK DOWN LOTS OF LOOSE. DRILLED TEN OUTSIDE HOLES. DRILLED A TEST HOLE TO FIND THE H/W. TWO FEET. DRILLED ONE 4" CENTER HOLE. PICKED UP A PIECE OF ORE SHOWING A ONE INCH BAND OF SPHALERITE AT THE H/W CONTACT. LONG WAVE BARITE IS MIXED IN WITH THE SPHALERITE.

12 NOV 93 NEW TUNNEL
 DRILLED ONE 4" CENTER HOLE. DRILLED
 15 INSIDE HOLES AND ONE STRIP
 HOLE IN SOME HIGH BOTTOM. FRED
 CAME IN AT 4:30. WE LOADED THE
 ROUND AND FIRED AT 6:45. BROKE
 GOOD. STILL IN ORE. DRILLED A
 TEST HOLE TO THE F/W. TWO FEET.
 GOT \$230 FOR DRIFT WORK, NOW
 PAID UP TO 190'. STEVE MUCKED OUT.

15 NOV 93
 SET UP THE "53" AND USED IT TO
 KNOCK DOWN SOME LOOSE ROCK.
 BOB SVECZ GAVE US A LINE AND
 WE DRILLED A TEST HOLE. BROKE
 THRU AT 57'. THIS WILL LET
 US GET THE RIGHT LINE AND GRADE.

16 NOV 93 NEW TUNNEL
 PULLED THE STEELS OUT OF THE
 TEST HOLE. RE-ALIGNED THE
 DRILL AND DRILLED ANOTHER VENT
 HOLE. BROKE THRU AT 23'. REAMED
 IT TO 4". SET UP THE "53" AND
 DRILLED TEN OUTSIDE HOLES. DRILLED
 A SHORT HOLE UNDER A HIGH SPOT IN THE
 BOTTOM.

17 NOV 93

NEW TUNNEL

REMOVED A HIGH SPOT IN THE BOTTOM WITH WEDGE AND FEATHERS. DRILLED TWO 4" CENTER HOLES. DRILLED 15 INSIDE HOLES.

18 NOV 93

NEW TUNNEL

USED A BLOWPIPE TO CLEAN OUT THE HOLES IN THE NORTH EAST ROUND. DRILLED TWO HOLES AND SET UP A NEW STEEL RACK. HANDMUCKED THE SOUTH WEST DRIFT. SET UP THE "53" AND DRILLED THE BOTTOM 5 OUTSIDE HOLES. DRILLED ONE 4" CENTER HOLE. THIS DRIFT GOES DOWN HILL SO DRILL WATER HAS TO BE REMOVED PERIODICALLY. BOB AND I EXPLORED THE EAST VEIN STOPE WITH A BOAT WHILE RICH LUZZI STOOD BY ON THE ROPE. THE WATER IS ABOUT SIX FEET BELOW THE HANGING WALL DRIFT.

22 NOV 93 NEW TUNNEL
WORKED IN THE S/W DRIFT.
DRILLED THE SECOND 4" CENTER
HOLE. DRILLED 15 INSIDE HOLES
AND TWO MORE OUTSIDE HOLES.
NEED THE THREE TOP HOLES TO
FINISH THE ROUND. FRED CAME
IN AT 5:30 PM. WE LOADED
THE N/E ROUND AND FIRED AT
ABOUT 7 PM. BROKE GOOD.
SCALED LOOSE IN THE ADIT.

23 NOV 93 NEW TUNNEL
FOUND THE EIMCO HAD A FLAT.
FIXED AT 10 AM. STEVE FINISHED
MUCKING AT 12 NOON. SET UP
THE "53" AND USED IT TO KNOCK
DOWN SOME LOOSE. DRILLED TEN
OUTSIDE HOLES. ADDED A 20' PIPE
TO THE WATER PIPE.

24 NOV 93 NEW TUNNEL
DRILLED TWO 4" CENTER HOLES. DRILLED
15 INSIDE HOLES. FRED CAME IN AT
5:15 PM. WE LOADED THE N/E ROUND
AND ONE HOLES IN THE S/W ROUND.
FIRED AT 6:50 PM. BROKE GOOD.
GOT \$230 FOR DRIFT WORK. NOW
PAID TO 210.

29 NOV 93

NEW TUNNEL

STEVE FINISHED MUCKING OUT. SET UP THE "53" AND DRILLED TEN OUTSIDE HOLES. DRILLED ONE 4" CENTER HOLE. BOB HAUCK AND RICH LUZZI TOOK THE BOAT TO THE NORTH END OF THE EAST VEIN STOPE. THEY WORKED ON CLEANING OUT THE WASTE RAISE AND OPENED IT UP TO THE SURFACE. BOB USED HIS LOADER ON THE SURFACE TO CLEAN OFF AN OLD CONCRETE FLOOR IN THAT AREA. NOW OUR DRIFT WILL NOT HAVE TO COME OUT AS HIGH AS WE THOUGHT.

30 NOV 93

NEW TUNNEL

DRILLED THE SECOND 4" CENTER HOLE. DRILLED 15 INSIDE HOLES. MOVED THE BIG DRILL TO THE S/W ROUND AND DRILLED A 2.5" HOLE TO THE DRIFT ROUND DEMO ROOM. BROKE THRU AT 25'. WE WILL RUN A WATER HOSE THRU THIS HOLE WHEN IT IS TOO COLD TO USE THE OUTSIDE WATER LINE. FRED CAME IN AT 5:25 AND WE LOADED THE N/E ROUND AND ONE HOLE IN THE S/W ROUND. FIRED AT 6:50 P.M. BROKE GOOD. THE HOLE IN THE S/W ROUND DID NOT GO OFF AND HAD TO BE REFIRED. THE NEW FACE IN THE N/E DRIFT

~~THE~~ HAS A LARGE MASS OF TEPHROITE.



1 DEC 93 NEW TUNNEL
STEVE FINISHED MUCKING AT 11 AM.
RAN A WATER HOSE THRU THE TEST
HOLE. DID NOT NEED IT TODAY. ADDED
A 20' PIPE TO THE WATER LINE.
SET UP THE "53" AND USED IT TO
KNOCK DOWN SOME LOOSE. DRILLED
TEN OUTSIDE HOLES. SET UP THE
BIG DRILL.

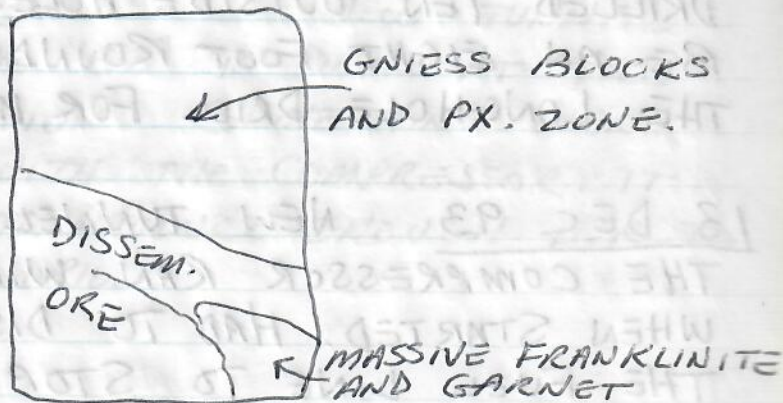
2 DEC 93 NEW TUNNEL
DRILLED TWO 4" CENTER HOLES.
DRILLED 15 INSIDE HOLES. CANT
FIRE UNTIL MONDAY.

6 DEC 93 NEW TUNNEL

CLEANED OUT THE HOLES WITH A BLOWPIPE. FRED CAME IN AT 5 PM. WE LOADED THE N/E ROUND AND ONE MORE HOLE (#3) IN THE S/W ROUND. FIRED AT 6:45. BROKE GOOD. THE HEAVY RAIN OVER THE WEEKEND CAUSED SOME HOLES TO OPEN UP ALONG THE H/W OF THE MUD ZONE.

7 DEC 93 NEW TUNNEL

STEVE MUCKED OUT. SET UP THE "53" AND USED IT TO KNOCK DOWN SOME LOOSE. DRILLED TEN OUTSIDE HOLES. DRILLED ONE 4" CENTER HOLE.



GOT \$230 FOR TUNNEL WORK. NOW PAID UP TO 230'.

8 DEC 93 NEW TUNNEL

DRILLED THE SECOND 4" CENTER HOLE. DRILLED 15 INSIDE HOLES. FRED CAME IN AT 5:30, WE LOADED THE N/E ROUND AND THE FOURTH HOLE IN THE S/W ROUND. BROKE GOOD.

9 DEC 93 NEW TUNNEL

REGRADED THE DRIFT AROUND THE DIAMOND DRILL DISPLAY TO ELIMINATE A LAKE IN THE LOCKER ROOM. STEVE MUCKED OUT THE DRIFT ROUND. SET UP THE "53" AND USED IT TO KNOCK DOWN LOTS OF LOOSE. DRILLED A TEST HOLE. IT IS 12' TO THE OUTSIDE. DRILLED TEN OUTSIDE HOLES. THIS WILL BE AN EIGHT FOOT ROUND. SET UP THE LONGHOLE DRILL FOR MONDAY.

13 DEC 93 NEW TUNNEL

THE COMPRESSOR RAN WIDE OPEN WHEN STARTED. HAD TO DISCONNECT THE FUEL LINE TO STOP IT. NEEDS REPAIRS. FRED KIRK WORKED ON IT.

14 DEC 93

NEW TUNNEL

DRILLED TWO 4" CENTER HOLES.
DRILLED 15 INSIDE HOLES. WORKED
ON SETTING UP TO DRILL AT THE
"T". WE WILL BE STARTING A
NEW DRIFT HEADING NORTH. WE
ARE GOING TO CREATE A MOCK-UP
OF A STOPE THERE FOR THE
TOUR.

15 DEC 93

NEW TUNNEL

ATTENDED THE FORMAL TRANSFER
OF THE UPPER YARD FROM THE
PHILLIPS TO THE MUSEUM. HAD
LUNCH AT THE LYONS HOUSE.

16 DEC 93

NEW TUNNEL

SET UP THE "53" TO DRILL AT THE
WINTERSECTION. SOMETHING WENT
WRONG WITH THE COMPRESSOR. IT
WOULD NOT PRODUCE ENOUGH AIR TO
RUN THE DRILL.

17 DEC 93

NEW TUNNEL

COMPRESSOR NOW OK. DRILLED THE FIRST HOLE IN THE DRIFT ROUND. HIT A BIG MUD SEAM AT 7' SO DECIDED TO DRILL A STRIP ROUND INSTEAD. DRILLED 16 HOLES. ON TWO HOLES IN A ROW THE DRILL TORE UP THE SHANK OF A DRILL STEEL. THIS ALSO DESTROYED TWO WATER NEEDLES. CHANGED DRILLS AND GOT A WATER NEEDLE FROM AN "83" ON A 3-BOOM JUMBO DISPLAY. GOT \$230 FOR DRIFT WORK. NOW PAID TO 250'.

20 DEC 93

NEW TUNNEL

ADDED 20' ~~TO~~ ~~TO~~ TO THE AIR SUPPLY PIPE LINE. BLEW OUT THE HOLES IN THE STRIP AND THE N/E DRIFT ROUND. FRED CAME IN AT 5 PM. WE LOADED THE N/E DRIFT ROUND AND FIRED AT 6:45. BROKE GOOD.

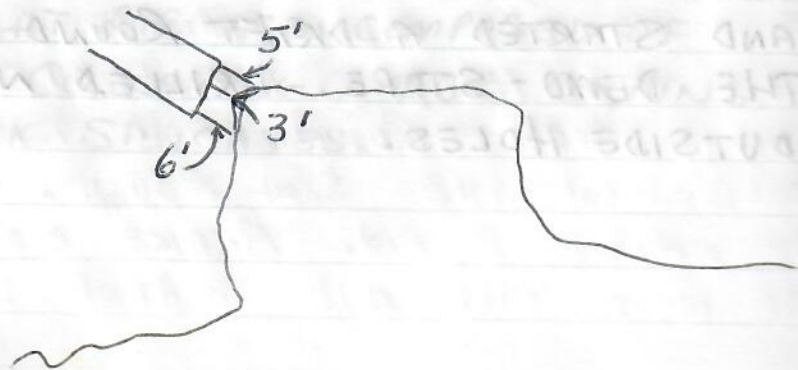
21 DEC 93

NEW TUNNEL

MUCKING DELAYED BY BURST HYDRAULIC HOSE ON EIMCO. STEVE FINISHED MUCKING AFTER LUNCH. SET UP THE "53" AND USED IT TO KNOCK DOWN LOTS OF LOOSE. DRILLED TWO SHORT HOLES TO GET RID OF A HUMP IN THE FLOOR

BUT BROKE OUR SLEDGE HAMMER.
A LARGE AMOUNT OF FILL SUBSIDED
IN THE FILL QUARRY THIS AFTERNOON.

22 DEC 93 AIR IN NEW TUNNEL
WEDGED OUT THE HIGH SPOT IN THE
FLOOR. DRILLED 7 OUTSIDE HOLES
AND TWO 4" CENTER HOLES. BOB
AND STEVE GOT THE BIG PIN BACK
IN PLACE ON THE EIMCO. BOB'S
TORCH BURNED A HOLE IN THE
DIFFERENTIAL. WE ARE GOING TO DRILL
A LINE OF HOLES ABOVE THE ROUND TO
MINIMIZE DAMAGE TO THE FACE WHEN
WE BREAK OUT. TRIED ONE WITH THE
LONG-HOLE DRILL BUT IT DID NOT WORK
OUT. FRED CAME IN ABOUT 2:30. WE
LOADED THE STRIP ROUND AT THE "T"
AND ONE HOLE IN THE S/W ROUND.
FIRED AT ABOUT 4 PM. BROKE GOOD.



27 DEC 93

NEW TUNNEL

STEVE FINISHED MUCKING. WE REINSTALLED THE AIR AND WATER PIPES. AFTER PLAYING WITH THE COMPRESSOR FOR TWO HOURS IT PUT OUT ENOUGH AIR TO RUN THE DRILLS. USED THE BIG DRILL TO CUT A WIDE SLOT FOR THE N/E ROUND. DRILLED EIGHT 3' HOLES TO BREAK TO THE SLOT. STARTED LINE DRILLING THE TOP.

28 DEC 93

NEW TUNNEL

THE PIT GATE OF THE RAINBOW TUNNEL WAS FROZEN SHUT. WE HAD TO WALK AROUND THE LONG WAY. FINISHED LINE DRILLING THE TOP OF THE N/E ROUND. HOPEFULLY THIS WILL MINIMIZE DAMAGE TO THE FACE WHEN WE SHOOT THRU. DRILLED THE LAST THREE HOLES IN THE ROUND. SET UP AT THE INTERSECTION AND STARTED A DRIFT ROUND FOR THE DEMO-STOPE. DRILLED NINE OUTSIDE HOLES.

HOSE ON E/ACO. STEVE FINISHED MUCKING AFTER LUNCH. SET UP THE "53" AND USED IT TO KNOCK DOWN LOTS OF LOOSE. DRILLED TWO SHIRT HOLES TO GET RID OF A HUMP IN THE FLOOR

29 DEC 93 NEW TUNNEL

AFTER THE NORMAL COLD WEATHER START-UP PROBLEMS WE FINISHED DRILLING THE FIRST ROUND IN THE NEW DRIFT. FRED HAD TO CANCEL BLASTING DUE TO BEING STUCK IN A SNOW RELATED TRAFFIC JAM.

30 DEC 93 NEW TUNNEL

MET THE BLASTER AT THE MINE AT ABOUT 3:15. WE LOADED THE ROUND AND FIRED ABOUT 5 PM. TWO HOLES HAD TO BE REFIRED DUE TO A MUD SLIP. BROKE GOOD.

3 JAN 94 NEW TUNNEL

STEVE BLEW A TIRE THURSDAY NIGHT. BOB BOUGHT TWO NEW TIRES AND FINISHED MUCKING OUT. SET UP THE "53" AND KNOCKED DOWN SOME LOOSE. DRILLED TEN OUTSIDE HOLES. DRILLED 1/3 OF A 4" CENTER HOLE. THE FACE AND RIGHT RIB ARE COMPOSED OF CALCITE CONTAINING LARGE GRAINS OF DARK SILICATES.