14 JAN 83 DDH 461 1570E. ST. 1200 LEV.

HELPED BOB WILLIAMSON IN 1300 X-CUT
1300 LEV. UNTIL THE WATER SWIVEL

CAME BACK FROM THE SHOP. DRILLED

FROM 5' TO 25'. ALL WHITE CUTTINGS.

GOT 2 PIECES OF RED & GREEN" FROM
THE SOUTH END OF 1570 E.

## 17 JAN 83 DDH 461

DRILLED FROM 25' TO 59', 25 TO 37.

WHITE; 37-59 GREEN ROCK AND VERY
HARD. CHISELLED SOME CHIPS OFF THE

YEATMANITE LOCATION IN 820 P. CAME
UP EARLY FOR A GEOLOGY LECTURE IN

THE MINE OFFICE.

18 JAN 83 DDH 461 THHT DE 10000 DRILLED FROM 59' TO 85' 59 TO 73 HT GREEN ROCK; 73 TO 81 WHITE ROCK; 81 TO 85 ORE.

. THREADS TURNED BOWN.

19 JAN 83 DDH 461 1570E ST, 1200 LEV,

DRILLED 85'TO 92.5'. ALL ORE,

HELPED STEVE DEKMAR WITH CRUSHER

REPAIRS BEFORE 9 AM AND AFTER

1:30 PM, HE WAS MY HELPER FROM

9 AM TO 1:30 PM. CHISELLED SOME

PIECES OFF THE 1200 LEV, YEATMANITE

LOCATION.

HELPED ROY RUSSMAN TODAY, TRAMMED 28 CARS, HAD TO FIRE THE CHUTE 3 TIMES. GOT A PIECE OF A QUARTZ VIEW FROM A SHEAR ZONE AT THE HANGING WALL CONTACT OF THE C. Z.Z.

21 JAN 83 MINE RESCUE TRAINING.

TOOK A FIRE HOSE TO 1540 U.C.P. AND

USED WATER FROM THE FILL SYSTEM

TO PRACTICE FIRE FIGHTING.

DRILLED FROM 92.5' TO 110'. 92.5 TO

106 WHITE ROCK; 106 TO 110 ORE,

THE REBUILT WATER SWIVEL HAS

DEVELOPED A LEAK. SCALED LOOSE IN

THE 1220-1240 X-CUT AREA. THERE

ARE EPIDOTE VEINS THERE THAT ARE

WORTHY OF INVESTIGATION.

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DRILLED FROM 110' TO 130'. TIO TO 114 CALCITE (FL. RED) WITH SPARSE LARGE ORE GRAINS; 114 TO 130 CALCITE (H/W - NON FL.) LOOKED IN 1020 STOPE. NO SIGN OF ARSENATES IN ENST BRANCH. (10' BELOW 1200)

DRILLED FROM 130 TO 134. ALL WHITE

ROCK, MOVED DRILL TO 430 LEVEL AND

TOOK IT BACK TO 935 STORE.

27 JAN 83 DOH 462 935 ST. 430 LEV. SET UP THE DRILL AT THE SITE OF DOH 389. ANGLE IS + 250 \$. DRILLED 13'. O'TO I' WHITE ROCK; I'TO 9' GREEN ROCK; 9'TO 13' WHITE ROCK.

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DRILLED FROM 13' TO 47'. MOSTLY WHITE ROCK WITH NARROW BANDS OF GREEN.
SET UP ROD PULLER. CHECKED OUT
1060 U.C.P. SAW 2 NARROW BANDS OF
COPPER ALTERATION.

31 JAN 83 1020 ETOPE 1200 LEV.

HELPED DOUG PUT 3 BOLTS IN THE

HANGING WALL, TRAMMED 75 CARS.

TRAMMED 6 CARS FROM 1300 X-CUT.

DRILLED FROM 47' TO 68'. 47 TO 63 WHITE ROCK; 63 TO 68 ORE. STARTED TAKING CORE AT 60'. WALKED DOWN THE 1020 U.C.P. RAISE TO 600 LEV. GOOD ORE ALL THE WAY.

2 FEB 83 DDH 462 935 ST 430 LEV.

DRILLED FROM 68' TO 80', ALL ORE.

HAD TROUBLE WITH FREQUENT BIT
PLUGS.

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3 FEB 83 935 ST. 430 LEV.

HELPED RESTREPO INSTALL ROOF

BOLTS, 19 BOLTS, PULLED CHUTE AFTER

LUNCH. 33 CARS.

4 FEB 83 935 STOPE

TRAMMED 90 CARS. HAD TO GO DOWN

TO 600 LEVEL AFTER LUNCH TO RUN

THE ORE PASS.

DRILLED FROM 80'TO 100'. 80'TO 89'

ORE W/ZINCITE; 89'TO 100' WHITE

ROCK. HOLE FINISHED.

IS FEB 83 1060 CHUTE 600 LEYEL

SPENT ALL MORNING GETTING A

LOADED ORE CAR OUT OF THE HOLE BY

THE BULKHEAD DOOR. REBUILT THE

BRIDGE (IT HAD COLLAPSED). TRAMMED

30 CARS FROM 1060 CHUTE. GOT THE

MOTOR OFF THE TRACK THREE TIMES.

16 FEB 83 DDH 463 935 ST 430 LEV.

MOVED DRILL 20' SOUTH AND SET UP

FOR NEXT HOLE. HELPED RESTREPD

REMOVE AIR & WATER PIPES FROM THE

DRIFT ABOVE 935 STOPE, REPAIRED

CHUTE PLATFORM ON 500 LEVEL.

17 FEB 83 1060 CH UTE 600 LEVEL

PULLED 63 CARS. HAD TO FIRE ONCE;

GOT THE MOTOR OFF THE TRACK TWICE,

PULLED FOUR CARS FROM 1200 CHUTE.

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18 FEB 83 1060 U.C.P. 430 LEVEL.

TRAMMED 27 CARS IN AM WHILE

DOMINIC SLUSHED. WENT INTO THE

PILLAR AFTER LUNCH. DOMINIC WENT

HOME AT 2 PM AND I SLUSHED AFTER

THAT. SCALED A LARGE CHUNK OFF

THE SOUTH RIB. IT HAD A BAND OF

COPPER ALTERATIONS IN IT. BREAKING

IT OPEN PRODUCED A SPECIMEN OF SILVER.

21 FEB 83 DDH 463 935 STOPE 430 LEV.

FINISHED SETTING UP DRILL AND DRILLED

FROM 0' TO 16'. O'TO 9' WHITE ROCK;

9' TO 14.5' GREEN ROCK; 14.5' TO 16'

WHITE ROCK.

22 FEB 83 DDH 463

DRILLED FROM 16' TO 38'. ALL WHITE ROCK.

PUT A NEW SEAL IN THE WATER SWIVEL.

PULLED TWO CARS OUT OF THE OVERSIZE

RAISE. THIS HOLE IS AT +30° 4. IT IS

BEING DRILLED ON THE SAME BEARING AS

DDH 391.

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23 FEB 83 DDH 463 935 ST. 430 LEVEL

DRILLED FROM 38' TO 85', 38 TO 58

WHITE ROCK; 58-66 GRAY CUTTINGS

(BLACK ROCK?); 66 TO 85 WHITE ROCK.

24 FEB 83 DDH 463

CORED FROM 85' TO 105'. 85' TO 96'

WHITE ROCK; 96' TO 101' PYROXENE

ZONE (MASSIVE); 101' TO 105' ORE.

CORED FROM 105' TO 113'. ALL ORE.

LAST FOUR FEET MASSIVE ZINCITE ORE.

HIT RAISE BORE HOLE AT 113'. HOLE

CAME OUT 3'/2 LADDERS BELOW 340

LEVEL. STARTED PACKING UP GEAR FOR

MOVE TO 1100 LEVEL.

THE STATION. DID SOME DID JOBS ON 430
AND 500 LEVELS, SO THAT SOME ONE WOULD
BE NEAR 935 STOPE WHILE CHRIS AVER
JUMBO DRILLS ALONE.

I MAR 83 1060 U.C.P. 430 LEVEL

WORKED WITH LORENZO. WE SLUSHED

AND HAND MUCKED. MOVED THE SLUSHER

AND JUMBO TO THE FOOTWALL SIDE

OF THE CRIB. BEGAN MOVING STEELS,

TOOLS, ETC. IN PREPARATION FOR FIRING

THE BLACK ORE.

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2 MAR 83 1060 U.C.P. 430 LEVEL MOVED EQUIPMENT TO THE FUOTWALL SIDE OF THE CRIB. FIRED THE BREAKING RAISE IN THE BLACK ORE.

MANUMAKETOWANEL WITH 4 BY 6 THIRBER

3 MAR 83 1380 U.C.P. 1300 LEVEL

STOPPED ON 430 LEV. TO PICK UP MY

DRILL LOG BOOK AND "38". WENT TO

1100 LEV. TO FIRE ORE PASS WHICH WAS

HUNG UP ABOVE THE CRUSHER. WENT

DOWN TO 1380 U.C.P. AND PUT IN TWO

BOLTS. RESTREPO AND I TOOK TURNS

MUCKING WITH THE CARVO TIL' LUNCH.

NEVILLE CAME BACK AFTER LUNCH AND

HE MUCKED WHILE I TRAMMED 12 CARS.

4 MAR 83 DDH 464 EAST VEIN 1100 LEV. LOOKED OVER THE SITE FOR THE NEW TEST HOLE. IT WILL BE DRILLED FROM THE BROWN WILLEMITE ZONE DRIFT AT @ 1420 NORTH SECTION. WENT UP TO 1020 U.C.P., 600 LEVEL, WHERE I PLAYED "VICTIM" FUR A MINE RESCUE TEAM PRACTICE RESCUE. WENT BACK TO 1100 AND MOVED DRILL AND TOOLS TO THE DRILL SITE. CHECKED OUT THE 780 PILLAR- FOO TRANSVERSE STOPE AREA AND DISCOVERED A LOCATION FOR GYPSUM IN 780 PILLAR. IT IS A LEACHED OUT ZONE IN THE FOOTWALL OF THE EAST VEIN. THE EAST VEIN IS QUIO WIDE AND RICH IN ZINCITE THUS DUINTOUN OSHEMA

7 MAR 83 DDH 464

SET UP DRILL AND DRILLED 26 INCHES. HAVE TO GET A VALVE TO DRILL THRU BEFORE GOING ANY FARTHER. CLEANED UP SOME MUD UNDER 1220 U.C.P. GOT ANOTHER GYPSUM SPECIMEN.

8 MAR 83 DDH 464 EAST VEIN 1100 LEV,
DRILLED 3' TO MAKE ROOM FOR A
VALVE ON A 5' PIPE, CLEANED MUD
IN 1270 X-CUT WHILE WAITING FOR AN
INSERT FOR THE REAMER BIT, GOT THE
INSERT AND FOUND OUT THAT THE "38"
DIDNOT WORK. HAD TO GO TO THE SURFACE
TO GET A "53". GOT STARTED ON REAMING
THE HOLE. GOT MORE GYPSUM FROM

780 PILLAR. 9000 ONCY -8 NOW C

9 MAR 83 DDH 464

REAMED THE HOLE 5' DEEP. PUT IN
THE 2" PIPE. I HAD TO DRIVE IT IN
WITH THE DRILL. PUT IN TWO 6' BOLTS
TO HOLD IT. WENT UP TO 180 LEVEL
TO GET A WATER REMOVER FROM THE
AIR LINE. I HAVE TO MODIFY IT FOR
USE AS A GROUTER ON THE PIPE I
PUT IN FOR DDH 464. CHECKED OUT THE
GRAVITY TRAM ABOVE 180 LEV. AND THE
OLD SHAFT AREA ON 180. GOT MORE
GYPSUM. ALSO GOT A PIECE OF SPHALERITE
LOELLINGITE FROM 1015 ST. 180 LEV. THAT
HAS STRANGE MICROS IN IT. # 484

10 MAR 83 DON 464 EAST VEIN 1100 LEVEL
GOT THE PIPE FITTINGS FOR THE
GROUTER AND GROUTED THE VALVE.
WENT TO 1540 U.C.P. AND SET UP THE
JUMBO DRILL.

SAR SOME GUARTET AND CALCITE YES SAW

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FINISHED JUMBO DRILL SET UP.

ORILLED UP-HOLES. 450'.

DRILLED FROM 5'6" TO 35', 5'6"-24

GREEN ROCK (VERY HARD); 24' TO 35'

WHITE ROCK. THE VALVE SET-UP I AM

DRILLING THRU SEEMS TO BE WORKING OK.

GOT MORE GYPSUM.

DRILLED FROM 35' TO 67'. 35' TO 64'
WHITE ROCK; 64' TO 67' GREEN ROCK.
SET UP ROD PULLER. GOT ANOTHER
GYPSUM SPECIMEN.

WORKED WITH MIKE HALLOWICH.

WE SCALED AND BOLTED. 25 BOLTS.

HELPED DOUG BOLT. 10 BOLTS. I USED THE LHD TO FILL THE CRIB. TRAMMED 15 CARS WHILE DOUG MUCKED. DRILLED AND FIRED 10 BLOCK HOLES. GOT SOME WILLEMITE XLS.

18 MAR 83 1220 U.C.P. 700 LEV.

HELPED STEVE YANECKO JR. LOAD

7 1/2 BAGS OF ANFO. WIRED UP

AND FIRED AFTER EVERY ONE ELSE

GOT UP TO THE ADIT. FOUND SOME

KRAISSLITE IN A SLIP ON THE

SOUTH RIB. THE SLIP DIPS APPROX.

45° WEST & STRIKES NORTH.

DRILLED FROM 67' TO 100'. 67'TO 71'

GREEN ROCK; 71' TO 83' WHITE ROCK;

83' TO 85' GREEN ROCK; 85' TO 100' WHITE

ROCK. CHECKED OUT 740 PILLAR. EAST

VEIN MINED, WEST VEIN ORE STILL THERE.

SAW A SLIP WITH OPEN POCKETS BUT COULD

NOT GET ANYTHING. BROUGHT OUT A

780 PILLAR GYPSUM.

22 MAR 83 1020 STOPE 1200 LEV.

HELPED ROY MILLER. WE FIRED 2 MISHOLES

IN A DRIFT ROUND. DRILLED AND FIRED

A LARGE STRIP ON THE FOOTWALL OF THE

EAST BRANCH.

23 MAR 83 HAD TO GO TO NEWARK FOR GRAND JURY DUTY. GOT PICKED TO SERVE ON THE TUESDAY GRAND JURY FOR ELEVEN MONTHS.

24 MAR 83 DDH 464

DRILLED FROM 100'TO 125'. ALL WHITE ROCK.

CAME UP AT 1:30 PM TO TAKE A TEST FOR
A BLASTING LICENSE.

USED THE CHEMOX BREATHING AFFARATUS

ON A PRACTICE RESCUE. WENT TO 1220

U.C.P. ON TOO LEVEL AND PUT BOB SVECZ

IN THE NEW STRETCHER, PULLED HIM UP

THE MANWAY. USED THE MCCAAS ON THE

SURFACE TO PRACTICE ON A TIRE FIRE.

28 MAR 83 DDH 464 1000 ST. 1100 LEV.

CORED FROM 125' TO 155'. 125 TO 130.5

WHITE ROCK; 130.5 TO 131 ORE; 131 TO

141 WHITE ROCK; 141 TO 155 PYROXENE

ZONE WITH LOTS OF FRANKLINITE.

29 MAR 83 GRAND JURY DUTY

30 MAR 83 1110 ST. 800 LEV.

TRAMMED ON 900 LEVEL AFTER

SPENDING THREE HOURS ON TRACK

REPAIRS. DID SOME FILL PREP IN

THE STOPE.

31 MAR 83 1110 STOPE 800 LEVEL

WORKED ON FILL PREP. GOT SOME

NORBERGITE FROM 1220 X-CUT. GOT

SOME PYRITE MICROS FROM 1250 STOPE.

5 APR 83 JURY DUTY

6APR 83 ANNUAL SAFETY TRAINING.

7 APR 83 1110 STOPE 800 LEV.

PUT UP CRIBBING. GOT SOME PIECES

OF AN AMPHIBOLE FROM THE F/W.

8. APR 83 1110 STOPE 800 LEV.

FINISHED NORTH CRIB AND NORTH

MANWAY TUBE, MOVED ALL TOOLS

SOUTH TO THE SOUTH CRIB AREA.

THE FILL CREW IS GOING TO START

FILLING THE NORTH END WHILE WE

ARE WORKING ON THE SOUTH END.

CBOLTING AND MUCKING)

FINISHED FILLING 1060 U.C.P. ON

430 LEVEL AND MOVED TO 1220 U.G.P.,

ON 700 LEVEL. INSTALLED A PUMP

AND DISCHARGE HOSES UNDER THE

CHUTE ON 900 LEVEL AND STARTED

RUNNING FILL.

12 APR 83 GRAND JURY DUTY

13 APR 83 1110 ST. 800 LEVEL.

TRAMMED ON 900 LEVEL. 60 CARS.

HAD TROUBLE WITH WEAK BATTERIES

IN THE MOTOR, SCALED LOOSE AT 1580 N

IN THE EAST VEIN DRIFT. NO SPECIMENS.

14 APR 83 1110 ST. 800 LEVEL TRAMMED AGAIN. 66 CARS, GOT SOME PIECES OF CALCITE FROM THE SELIG-MANNITE LOCATION.

TRUP 27 STICKS ATLAS POWERMAKE

IS APR 83 IIIO STOPE SOO LEVEL

RILLED DOWN THE MUCK PILE AND

PUT 5 BOLTS IN THE HANGING WALL.

CONTINUED BOLTING ON TOP. 16 BOLTS.

WE WANTED TO FIRE BLOCK HOLES

BUT A TRAMMING HUSE BLEW OUT ON

THE EIMCO 911.

18 APR 83 1110 ST. 800 LEV.

TRAMMED ON 900 LEVEL. 78 CARS. HAD

TO STOP AND CHARGE THE MOTOR 4 TIMES.

19 APR 83 JURY DUTY

20 APR 83 1110 ST. 800 LEVEL

TRAMMED ON 900 LEV. 78 CARS. HAD TO

STOP AND CHARGE THE MOTOR 4 TIMES.

SCALED LOOSE IN 1120 STOPE. THERE IS

GAHNITE AND RHODONITE IN THE NORTH END.

SCALED AND BOLTED, 25 BOLTS.

TRAMMED ON 900 LEVEL. 78 CARS.
HAD TO CHARGE THE MOTOR 4 TIMES,
TIGHTENED UP LOOSE FISH PLATES
IN THE TRACK. TOOK HOME TWO PIECES
OF ZINCITE ORE.

25 APR 83 1060 U.C.P. 430 LEVEL DRILLED UP-HOLES WITH JACKLEG WHILE BOB WILLIAMSON JUMBO DRILLED. TOTAL OF 700'. GOT SOME LOELLINGITE IN SPHALERITE FROM THE BLACK WILLEMITE ZONE.

26 APR 83 JURY DUTY SERVICE AU

27 APR 83 1660 U.C.P. 1600 LEVEL.
RUSSMAN FIRED DOWN THE RED ORE LAST
NITE. WE WASHED DOWN THE MUCK PILE
AND SET UP TO BOLT. 10 BOLTS.
SCALED DOWN LOTS OF BIG LOOSE.

28 APR 83 1660 U.C.P. 1600 LEV. SPENT THE WHOLE SHIFT SCALING AND FIRING DOWN BIG LOOSE.

29 APR 83 1110 STOPE 800 LEVEL
WORKED ON THE FILL CREW. HAD TO
MAKE ABOUT 8 PIPE CONNECTIONS
BEFORE WE STARTED. WE ARE USING
THE NEW FILL - CRUSHED LIMESTONE
FROM LIMECREST. IT BUILDS UP
FAST AND SEEMS TO HOLD CEMENT
BETTER THAN THE SAND PREVIOUSLY USED.

2 MAY 83 1060 U.C.P. 430 LEVEL JIM BEDNAR AND I DRILLED UP-HOLES WITH THE JUMBO AND JACKLEG. 475'.

3 MAY 83 1660 U.C.P. 1600 LEVEL SCALED AND BOLTED THE BROW. 17BOLTS. SCALED SOME BIG PIECES OFF THE BROW. HAD TO FIRE TO GET THEM DOWN. 1/2 STICK. GOT MOST OF A LARGE FRANKLINITE IN 3 PIECES.

4 MAY 83 1660 U.C.P. 1600 LEVEL SCALED AND BOLTED. 10 BOLTS.

DRILLED 10 BLOCK HOLES AND BROKE THEM WITH WEDGE PINS. GOT SOME QUARTZ XTALS IN CALCITE FROM THE H/W OF AN OLD STOPE IN THE 1020 AREA.

5 MAY 83 DDH 464 1000 ST. 1100 LEV. DRILLED FROM 155' TO 175'. 155' TO 168'- PYROXENE ZONE; 168' TO 175' LOOKS LIKE ORE. NEEDS LAMP TEST.

LOGEN SEEPING THEN THE CRACKS.

6 MAY 83 1060 U.C.P. 430 LEVEL
BEDNAR FIRED ABOUT FIVE ROWS

BACK FROM THE HANGING WALL SLOT
YESTERDAY. WE SCALED AND BOLTED.

13 BOLTS. SINCE THE MUCK PILE WILL
BE TOO HIGH AT THE H/W AND TOO LOW
AT THE CRIB WE SLUSHED SOME MUCK
TOWARDS THE CRIB. GOT 2 PIECES OF
LOELLINGITE IN SPHALERITE.

DATE ISSUED: August 9, 1982

1540 UP - MINING

Contract. # 844

1400 Level

Breaking raises if required will be part of this Contract and will not be paid as a separate development contract.

The base used to calculate this Contract will be 8.5 tons per man shift.

It will include the following operations:

- 1. Drilling uppers with jackleg or stoper, 3.0' between rows and 2.5' between holes, inclination of holes will not be less than 65° from the horizontal and not more than 70°; drilling intermediate rib holes 18" apart;
- 2. Drilling test holes to establish mining limits.
- 3. Drilling strip holes or benches with jackleg or stoper;
- 4. Loading and blasting of all drill holes that are required;
- 5. Scaling and roof bolting as required;
- Secondary blasting (blockholing);
- 7. Mucking out ore with slusher;
- 8. Handmucking;
- 9. Final clean-out (complete ore removal to bare fill floor and clean F.W. and H.W.):
- 10. Tramming all ore on level below;
- 11. Complete hydraulic fill preparation includes:
  - A. Putting up steel crib to proper height including tightening of all crib bolts and shimming if required;
  - B. Putting up manway pipe to proper hight; and tightening bands;
  - C. Drainage pipe installation to proper height and tightening band if required;
  - D. Picking up and hanging all equipment above what will be finished fill elevation;
  - E. Chute and crib clean out (removal of all muck);
  - F. Whatever materials that are required to finish elevating cribs, manways and vent pipe as filling progresses, an ample supply of timber that will be required to complete filling of the working place.
- 12. All pipe work (air, water, and hydraulic fill pipe) that is required;
- 13. Ventilation work (air movers, etc.);
- 14. All work must be done in a safe manner and according to the General Foreman's instructions.

D. W. Smith

Superintendent of Operations