21 May 81  1540 U.P.  1500 Lev.
Finished bolting ribs, 8 bolts.
Jarrel went to 1600 to tram. The chute hung up after 27 cars and we had to fire. I slushed after lunch. Had to go back to 1600 at 2:30 to stop Jarrel. He pulled too many cars. We have to leave the ore raise full in order to work around it.

22 May 81  1540 U.P.  1500 Lev.
Slushed. Had more ore than expected. Pulled 19 more cars. Had to fire chute again.

26 May 81  DDH 445  1020 U.P.  500 Lev.
Drilled from 54' to 83'. Hit black ore at 74'. Had to clean stuck core out of barrel. Had to leave it in there on April 8th.
27 MAY 81 DDH 445 & 446 1020 U.P. 500 lev. 
DRILLED FROM 83' TO 94'. ALL ORE, BLACK 
GRADING TO RED (WITH ZINCITE). HOLE 
FINISHED. RESET DRILL TO +30° AND 
STARTED DDH 446. DRILLED 0' TO 7'. 
ALL WHITE ROCK. WE ARE TRYING TO 
FIND THE BOTTOM OF THE MAIN MASS 
OF THE BLACK WILLEMITE ZONE. 

28 MAY 81 DDH 446 1020 U.P. 500 lev. 
DRILLED FROM 7' TO 54'. HIT BLACK ORE 
at 45'. CHECKED OUT 1140 U.P. AT LUNCH 
TIME. NADA. THIS PILLAR WAS ABANDONED 
A FEW YEARS AGO. 

29 MAY 81 DDH 446 
DRILLED FROM 54' TO 94'. 54' TO 60' WAS 
GRAY ROCK WITH FLUORITE. 60' TO 94' BLACK 
ORE WITH UNALTERED WILLEMITE FROM @ 85' 
TO @ 90'. SEE SPEC # 424. WATER COLOR 
WAS RED-BROWN WHILE DRILLING THIS ORE. GOT 
A PIECE OF FLUORITE CORE FROM @ 56'. THIS 
HOLE IS FINISHED.
1 Jun 81  Diamond Drill 500 & 600 Lev.

Packed up gear on 500 Level and moved to 600 Level. We have to set up in 1040 X-cut to drill a hole for 1020 U.P. Began restoring air and water pipes to 1040 X-cut.

2 Jun 81  DDH 447  1020 U.P. 600 Lev.


3 Jun 81  DDH 447

Finished bolting 1040 X-cut, 5 bolts. Finished repairs on air and water pipes. Set up diamond drill, used "38" to make a hole in drift wall to facilitate collaring DDH 447.
4 Jun 81  DDH 447  1020 U.P.  600 LEV.

Drilled 45' 0' - 42' White Rock.
42' - 45' Green Rock.  Checked out
1200 Stope, 600 Level.  This is a block
of ore in the East Vein North of
935 Stope.

- Brown Willemite Zone
  - Calc-silicate
  - Zincite
  - Ore
  - Zincite
  - Hanging Wall
  - Marble
  - Mud Cavity East

Mine Out 935

Mined Out
North

1200 Stope, 600 Level

5 Jun 81  DDH 447

Drilled from 45' to 75', Green Rock
to 55', Red ore w/Zincite to 75'.
Had severe icing problem in drill until
9 A.M.
8 Jun 81 DDH 447 1020 u.p. 600 Level.

Drilled from 75’ to 86’. Ramage stopped us because fill water from 1060 u.p., above 500 level, is running into 1040 stop. No water is coming out into 1040 cross cut on 600 level and he fears that is may be building up a dangerous head of pressure. Dutch and I went to 800 level to work in a mud ditch. Checked out 740 pillar and got a few minor mcgovernite specimens.

9 Jun 81 1060 u.p. 1680 Level

Worked with Bob Williamson. He put in 14 bolts. We set up an air tugger to drop the slusher bucket down the crib. It will be replaced by a heavier one. The bucket is now stuck in the crib box and won’t go up or down.
10 Jun 81 1660 U.P. 1680 Level

Bob went up into the crib box and pried the slusher bucket off the piece of rock it was stuck on. We finally got it out of the chute and took it out to the station in an ore car. Broke down the new bucket and hoisted it up into the pillar. Slushed and trammed. 22 cars. Fired a miss-hole.

11 Jun 81 1660 U.P. 1680 Lev.

Helped Bob scale and bolt. Also drilled and fired a flat bench and 7 block holes. Checked out 1360 stope. A small piece of ore was left in the north end. It includes the large black willemite mass seen last year.

Vein looking up at vein from Floor.
12 Jun 81  1660 U.P.  1680 Level.
Helped Bob scale and bolt, 5 bolts. Slushed and Hand Mucked. Drilled
35' on next flat bench. Left early for a dentist appointment. Picked up
a humite specimen from 1680 shaft station. Fluoresced poorly.

15 Jun 81  1660 U.P.  1680 Level.
Roy came back to work but Bob took off so I wound up in 1660 again.
Roy finished the bench. 70'. I slushed and loaded bench. 50 Pounds
Atlas Powermax. Fired at quitting time.

16 Jun 81  1220 U.P.  800 Lev.
Steve and I took turns bolting. 20 bolts. Drilled and fired a small strip on the
South Rib. 12'. The rich red ore that produced many fine specimens below 800
level is now moving out of the South Rib. (30' 1 800 Lev.). Got some chlorophoenicite
and "replaced zincite" specimens. (29 Feb 80)
17 Jun 81  1220 U.P.  800 Level.

Steve and I took turns bolting, 25 bolts. Fired a hanger. The 1240 transverse stope was bolted with lag and wedge anchor bolts, the ends of which stick out of the north rib of 1220 U.P. The hanger was held up by one of these bolts. Got the stench alarm at 2:10 p.m. Fire drill. Got more "replaced zincite." The material replacing zincite contains minute specks of native copper including some cubic xtalS. Also got some micros (Hodgkinsonite?) from a vein pocket just below the zincite.

18 Jun 81  1220 U.P.  800 Level

Helped Steve put in 6 bolts. Then the drill water ran out. Steve started mucking and I went down to 900 Level to tram 25 cars. A timber broke in the chute and will have to be replaced tomorrow.
19 Jun 81  1220 U.P.  800 Level

Repaired broken timbers in chute.
Went up to the pillar and mucked with CAAVO. Steve bolted and drilled two strips, we loaded and fired strips.

Got some red willemite xtals from a lense of pink carbonate near footwall.

1260 U.P. Bonus paid today. #230.

22 Jun 81  Shaft
Filled in for Ken Henderson as cageman.

23 Jun 81  935 Stope 500 Lev.
Worked on fill crew. Got some samples from a silicate nodule in the hanging wall.

24 Jun 81  935 Stope 500 Lev.
Worked on fill crew. Saw loellingite xtals and dodecahedral franklinites (to 1½") in the black ore in 1060 U.P.

25 Jun 81  935 Stope 500 Level
Worked on fill crew. Pipe plugged at 10 AM.

Had to go to 340 and 160 Lev. to blow out fill pipes. Picked up misc. ore samples.
26 Jun 81 935 Stope 500 Level
Worked on Fill Crew. Had to shut down three times due to excess water. We are getting fill from the Surface Mixing Station. The water pressure is very high. This makes the fill hose hard to handle. The fill sprays out so far that it is hard to get it where you want it. Walked up to 340 Level at lunch time and got some wollastonite.

29 Jun 81 935 St. 500 Level & 1250 St. 800 Level
Worked on Fill Crew. Finished capping 935. Rearranged fill pipe connections on 340 Level so cooling water from surface compressors can be pumped into Marshall Shaft. Went to 800 Level and started filling 1250 Stope.

Brought home wollastonite from 340 Level and a "tephroite in ore" sample from 935.

30 Jun 81 1540 U.P. 1500 Level
Humberto Restrepo and I used two Jacklegs to drill uppers. 450'. A rock fell on my new boot and I discovered it had no steel toe (the boot). Ouch!
1 JULY 81  1200 STOPE  600 LEV.
DRILLED FOOTWALL WITH JACKLEG, 215'.
HANK RIKER DRILLED UPPERS WITH
JUMBO, 400'. CHECKED OUT 1180 U.P.
ON LUNCH BREAK. THEY ARE TAKING
ANOTHER CUT IN LEAN ORE. NO SPECIMENS.

2 JUL 81  1570 E. STOPE  1200 LEVEL
SLUSHED AND BOLTED, 15 BOLTS. STEVE
NOVAK PULLED 30 NEW CARS. WENT TO
1020 STOPE ON LUNCH BREAK AND GOT
SOME WEST VEIN MICRO'S.

3 JUL 81  1340 U.P.  1100 LEV.
CLIFF FIRED LAST NIGHT. ED STOLL AND
I SCALED LOTS OF LOOSE, TOOK DOWN
4 BIG CHANDELIERS, SCALED THE RAISE,
REPAIRED LADDERS, AND PUT IN 6 BOLTS.
GOT SOME QUARTZ XTALS FROM A
SHEAR. THIS IS THE SAME SHEAR THAT
PRODUCED ALLACTITE 10' BELOW.
15 Jul 81  On Vacation

Visited Harvard University. Saw
Matrix of Uraninite Crystal.
It is Pink Calcite with 3/4 inch
Franklinite xls, Zoellinige, Red
Fluorite, Sphalerite. There is
Typical Granular Black Willimite
Ore on one side. The Pink Calcite
Is Burned Orange and Brown to
A Radius of about 3/4 inch around
The Site of the Uraninite Xl. A Letter
From Chas. Key Explaining How he Got
It Says it Came from 500 Level.
1060 U.P. Has Black Ore in it now
Which Closely Resembles the Matrix.

20 Jul 81  1060 U.P.  500 Lev.
Set up Jumbo and Drilled Uppers.
162 Feet. Didn't See Any Uraninite.

21 Jul 81  1060 U.P.  500 Lev.
Drilled Uppers with Jumbo. 280'. Got Some
Kind of Crystal, from Black Ore.
22 Jul 81 DDH 447 1020 U.P. 600 Lev.
Replaced an air hose and spud. Someone took it while I was working elsewhere. Drilled from 86' to 106', ore w/zincite to 97', vuggy ore 97' to 100', mud zone 100' to 106'.

23 Jul 81 DDH 448 1020 U.P. 600 Lev.
Set drill for new hole. Drilled to 50', all white rock. Got some arsenopyrite crystals from 1040 X-cut. They are in Franklin marble from central core.

24 Jul 81 DDH 448
Drilled from 50' to 85', white rock 50' to 58.5', lean ore 58.5' to 67'. Ore (no zincite) 67' to 80'. Scaled loose in keel area on lunch time. Saw some large blue apatite xls. Will have to figure a way to get one out. They are in the franklinite zone.
27 JUL 81 DDH 448 1020 U.P. 600 LEV.

DRILLED FROM 85' TO 107'. ORE (NO ZINCITE) 85 TO 102'. LEAN ORE 102'-106'. MUD ZONE 106'-107'. WENT TO KEEL AREA AT LUNCH TIME. GOT SPECIMENS OF BROKEN APATITE XLS. THEY HAVE A RIM OF A LIGHT CREAM MINERAL.

RESET DRILL FOR DDH 449. 21-17°; 14° SOUTH OF WEST. COLLARED HOLE AND DRILLED TWO FEET IN WHITE ROCK.

28 JUL 81 DDH 449 1030 U.P. 600 LEV.

DRILLED FROM 2' TO 50'. WHITE ROCK TO 44'. GREEN ROCK TO 49'. WHITE 49-50'.

29 JUL 81 DDH 449

DRILLED FROM 50' TO 78'. LOST DRILL WATER IN A CRACK AT 59'. HIT ORE AT 59'.

CHECKED OUT 1200 STOPE AT LUNCH TIME. GOT SOME CALCITE XLS FROM A LARGE CAVITY IN THE HANGING WALL.
30 JUL 81  DDH 449  1020 U.P.  600 LEV

DRILLED 78' TO 92'. ORE TO 86', WHITE ROCK TO 91', MUD TO 92'. TOOK DOWN MACHINE AND COLUMN AND MOVED TO NEW SET-UP. SET THE COLUMN ACROSS THE DRIFT AND STARTED DRILLING DDH 450. (4 -40° AT 280°). THIS WILL CHECK ORE IN 1060 N. SECTION BELOW 600 LEV.

DRILLED 5' ALL WHITE ROCK. FOUND A LENS OF QUARTZ IN THE FOOTWALL OF 1010 STOPE. INSIDE THE QUARTZ IS CALCITE, INTO WHICH QUARTZ XTLS PROJECT. GOT 2 PIECES.

31 JUL 81  DDH 450

DRILLED FROM 5' TO 46'. HIT GREEN ROCK FROM 20 TO 21' AND 24 TO 46'. BROUGHT OUT MORE QUARTZ FROM 1040 X-CUT IN F/W OF 1010 STOPE.
Investors buy Sussex mine

NASHVILLE, Tenn. (AP) — The Natural Resources Group of Gulf & Western Industries Inc. announced it has agreed to sell a Pennsylvania zinc plant, an Illinois facility and a New Jersey mine to a group of private investors.

Gordon Smith, vice president of communications for Natural Resources, said Tuesday that one of the investors is William E. Flaherty, executive vice president of Natural Resources. He will become president and chief executive officer of the new company, Smith said.

The sale of portions of the Nashville-based New Jersey Zinc Co. includes a zinc dust plant in Depepe, Ill., the Palmerton zinc plant in Palmerton, Pa., and the Sterling Mine in Ogdensburg.

Smith said the New Jersey mine supplies ore to the Pennsylvania plant which produces zinc oxide, zinc dust, zinc powder and zinc alloys.

He said investors were asked to keep current employees at the plants and mine.

The combined sales of the operations are about $125 million a year, Smith said. The price of the sale was not disclosed.

He said the sale will be closed Sept. 15, subject to approval by the board of directors and completion of financing.
3 Aug 81  DDH 450 1020 u.p. 600 lev.
Drilled from 46' to 71.5'. White Rock at 47'. Lean ore at 56'. Good ore at 61'. Some of the willemite is the glassy yellow type. Brought home a gneissic rhodonite - gahnite from 1100 x-cut.

4 Aug 81  DDH 450 & 451
Drilled from 71.5 to 85'. ORE to 81'. 81' to 82' white rock. 82'-85' mud zone. Reset column and drill to 260° with X -32°. Collared DDH 451 and drilled two feet of marble. Checked 1200 stope at lunch time. There is a band on the F/W of large grains of all ore minerals showing potential for xtals.

5 Aug 81  DDH 451
Drilled from 2' to 49'. All white rock.

Dissem. Ore  Calcite  Dissem. Ore

Zincite  Zincite

Willemite-fnak  Large grains  Dissem. Ore

Green Willemite Frnaklite  Calc Silicate

1200 stope 600 lev. Detail on F/W
6 AUG 81  935 STOPE  500 LEV.


7 AUG 81  935 ST.  500 LEV.

Scaled loose around strip round. Put ladders and pipes back in raise. Trammed ore. 76 big cars. Got some willemitite specimens.

10 AUG 81  935 ST.  500 LEV.

Jumbo drilled. 250'. Broke a fitting on the track air motor. Had to get an "easy out" from the shop to fix it. Humberto and I took turns drilling blockholes and a small strip. Fired 65 block holes at quitting time. Brought home a galena from a F/W calc-silicate.
11 Aug 81 935 St. 500 Lev.
Jumbo Drilled 320'. Had to wait an hour in AM for powder and caps. Had to break down manway set up to drill over it and then put it back together. Finished H/W rows and moved drill to south end. Reset the booms to drill footwall. Got a piece of red and green.

12 Aug 81 935 Stope 500 Level
Jumbo Drilled 600 Feet.

13 Aug 81 935 Stope 500 Lev.
Jumbo Drilled 560 Feet.

14 Aug 81 935 Stope 500 Level
Jumbo Drilled 535 Feet.

17 Aug 81 935 Stope 500 Lev.
Jumbo Drilled 460 Feet.

18 Aug 81 DDH 451 1020 u.p. 600 Lev. Drilled 49' to 75'. Lean ore 59' to 71'. Got some pretty ore from 1200 stope.
19 Aug 81 DDH 451 1020 U.P. 600 Lev.
Drilled 75' to 88'. White Rock to 78'. Green Rock to 88'. Hole finished.
Moved gear to station. Drilled 2 holes and wedged some quartz specimens off the 1040 X-Cut Location. #443

20 Aug 81 DDH 452 1020 U.P. 500 Lev.
Waited on 600 station until 9:30 AM for cage. Moved gear to 500 level and set up at previous 1020 N. sect. drill site. Put drill at 4 of -28° and drilled 7'. Green and white rock. Brought out a quartz specimen from 1040 X-Cut (600 Lev.).

21 Aug 81 DDH 452
Drilled from 7' to 55'. Alternating green and white rock.

24 Aug 81 DDH 452
Drilled from 55' to 85'. Green and white to 63'. ORE TO 70'. ORE w/Zincite to 79'. ORE TO 85'. Checked out old 1100 U.P. Saw lots of fluorite in F/W of black ore.