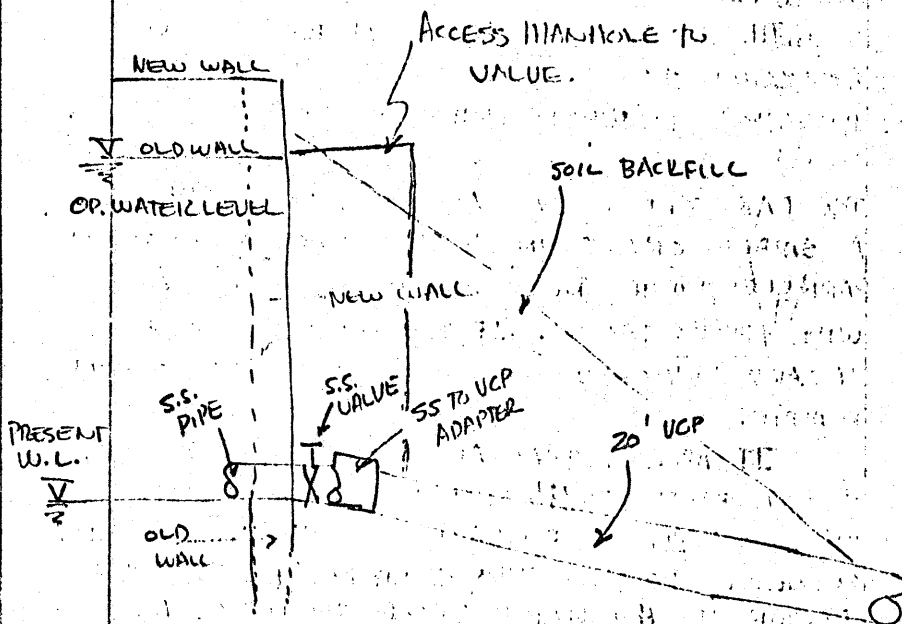


THE SOIL AT 9' DEEP ALONG THE SOUTH SIDE OF THE SHAFT IS A SILT WITH ROCK FRAGMENTS. WE WILL DIG A TEST PIT THERE TO SEE IF A MORE SUITABLE MATERIAL IS AVAILABLE NEAR THIS LOCATION.

ANOTHER THOUGHT ON PLACING THE FRONT WALL



- ADVANTAGES:
1. LOWER VALVE PLACEMENT IS EASIER FOR CONSTRUCTION.
 2. PROTECTION FROM FREEZING.
 3. NO HOUSE TO ATTRACT VANDALS, HUNTERS, ETC.
 4. UCP IS ACID RESISTANT & RELATIVELY CHEAP. (ALSO PERMANENT.)
 5. UCP EASILY JOINED & PLACED.

THE WATER WAS PUMPED FROM THE HOLE FOR FULTON B BOREHOLES, TODAY.

Dale L. Pawson

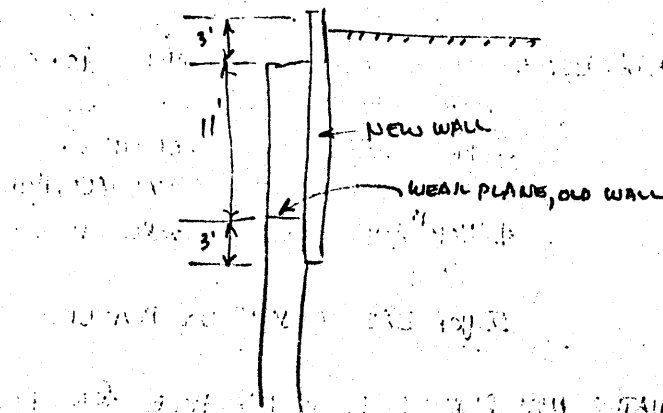
FRIDAY FEB 12, 1971

CLOUDY, COOL
30°

THE CONTRACTOR CONTINUED WORK AT CUMMINGS SHAFT. THE CRACKED CONCRETE SECTIONS ON THE DISCHARGE FACE WERE REMOVED. WHEN THE CENTER SECTION WAS REMOVED, THE NEAR CORNER (ON FEB 11 DWG) CAME DOWN ALSO. THE CRACK IN THE SIDE WALL WAS QUITE LARGE ALSO, SO I DIRECTED THE REMOVAL OF THAT PIECE.

THE REMOVING OF THE CONCRETE REVEALED A SUBSTANTIAL CRACK IN THE FAR CORNER. UPON INVESTIGATION, WE DETERMINED THAT THE CRACK DIDN'T GO DEEPER THAN THE OTHER BREAKS, SO THE FAR CORNER WAS ALSO REMOVED. THERE IS A SMALL CRACK IN THE FAR FACE ESSENTIALLY PARALLEL TO THE NEAR FACE CRACK, BUT NOT AS WIDE (PHOTOS TAKEN). IF THE CONCRETE IS NOT A HAZARD TO WORKING CONDITIONS, THAT PORTION WILL REMAIN.

IT APPEARS THAT ALL OF THE BLOCKS BROKEN SO FAR, BREAK OFF 11' FROM THE TOP OF THE SHAFT. THIS IS A PLANE OF WEAKNESS, PROBABLY A BOUNDARY BETWEEN POURS. THIS COULD BE THE DECIDING FACTOR IN HOW DEEP TO LOCATE THE WALL. (E:

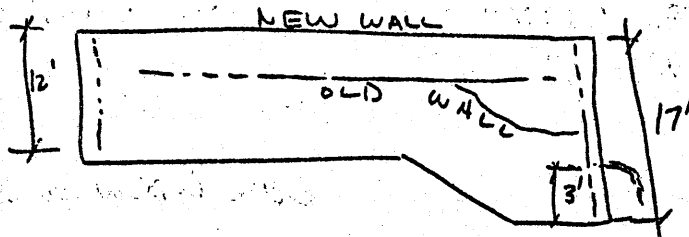


MONDAY, FEB 15, 1971

CLOUDY, COOL
30°

HEAVY SNOW OVER THE WEEKEND ~12"
CONTRACTOR WORKED GETTING THE AREA DRAINED
& CLEANED UP.

I TOLD THE CONTRACTOR THE WALL COULD
GO TO A MIN 5' OVERLAP WITH THE OLD WALL.
THAT MEANS THE 39' EXCAVATION AROUND THE
IS SUFFICIENT. IN FRONT WHERE THE WATER
IS DISCHARGING, THE DEPTH OF WALL WILL BE
ABOUT 14' BELOW THE TOP OF OLD WALL. THE
WALL WILL TAPER IN HEIGHT BETWEEN FRONT &
SIDES



CONTRACTOR ASKED ABOUT GROUT FOR THE DOWELS.
I SAID I'D CHECK TO SEE IF ONE WAS PREFERRED, BE-
CAUSE NONE HAD BEEN SPECIFIED.

CONTRACTOR ASKED ABOUT POURING THE WALL
IN LIFTS. I'LL CHECK FOR SPECIAL PROVISIONS,
CAUSE PLANS SAY ONE SHOT WALLS.

IN CONVERSATION W/ DICK ALMES. I FOUND THAT /

1. GROUT SHOULD BE NON SHRINK TYPE
SUCH AS EMBEGO.
2. COLD JOINTS CREATED BY LIFT CONST
SHOULD BE KEYED & FITTED W/ PVC
WATERSTOP.

DICK WILL VISIT WED TO SEE ABOUT PROGRESS.

Dale L. Rowles

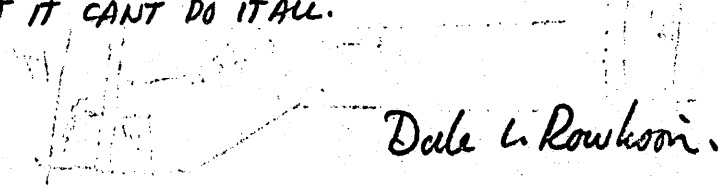
TUESDAY FEB 16, 1971

CLOUDY, COOL
35°

VISIT TO SITE TO TELL CONTRACTOR ABOUT
GROUT (EMBECCO) & PVC WATERSTOPS. HE'S
ALSO TRYING TO DIVERT THE FLOW W/ SIPPONS
OR A SMALL DAM, w/A PIPE IN IT.

WENT TO MOREAU TO GET GROUT & WATERSTOP,
BUT THEY HAD NEITHER. THEY WILL HAVE TO
COME FROM PGH.

WORK AREA REMAINS VERY WET &
HARD TO GET AROUND IN. SOME WET MAT'L
WILL HAVE TO COME OUT IN AREA OF NEW WALL.
A DIVERSION DITCH THROUGH THE EXCAVATION
KEEPS RUNOFF FROM THE WALL VICINITY,
BUT IT CANT DO IT ALL.



Dale L. Rowson.

THE CONTRACTOR HAS BEEN ADVISED
THAT THE GROUT IS NOT AVAILABLE
AT THIS TIME. HE WILL HAVE TO
WAIT FOR IT TO BE DELIVERED
FROM PGH. THE WATERSTOP IS
ALSO NOT AVAILABLE AT THIS
TIME. HE WILL HAVE TO WAIT
FOR IT TO BE DELIVERED FROM
PGH. THE DIVERSION DITCH IS
BEING CONSIDERED AS A
TEMPORARY MEASURE TO
KEEP THE WATER OFF THE
WALL. THE CONTRACTOR IS
ALSO TRYING TO DIVERT THE
FLOW WITH SIPPONS OR A
SMALL DAM WITH A PIPE IN IT.

WEDNESDAY, FEB 17, 1971

CLOUDY, COOL
30-35° RAIN

HEAVY RAIN IN MORNING FROM ~ 9:30 TILL NOON OR LATER. NO WORK IN MORNING.

DICK ALMES & I MET W/ TED BEAHR & JIM (THE CONCRETE SUB). WE DISCUSSED GETTING THE WALLS POURED IN TWO OR THREE LIFTS & HOW & WHERE THE WATER STOP SHOULD BE PLACED. BECAUSE STRENGTH IS NOT A GREAT CONCERN, RATHER IMPERMEABILITY, IT WAS DECIDED THE SHEAR KEY COULD BE ELIMINATED, W/ THE PUC WATER STOP AT THE JOINT & HAVING CONTINUOUS REINFORCING TO HANDLE SHEAR.

ALSO, MANY METHODS OF TEMPORARILY BY-PASSING THE WATER DURING CONSTRUCTION WERE DISCUSSED. THE MOST FAVORABLE WAS A PRE FORMED OPENING WITH A WATER STOP, SO THAT A GROUT SEAL COULD BE INSTALLED AFTER THE WALL IS COMPLETE. ADVANTAGE WOULD BE TO KEEP THE UALVE HIGHER & REDUCE THE DEPTH OF THE DIRT AWAY FROM THE SHAFT. I MADE A ROUGH MEASURE OF FLOW FROM THE SHAFT OF N LPS

DICK ASKED ABOUT MORE CREWS & PRODUCTION. TED INDICATED HE'D START @ E-4 AS SOON AS CUMMINGS CONC. STARTED. ALSO WOULD SEE ABOUT GETTING PIEZ SETTING STARTED. AS FOR MORE EQUIP. & PEOPLE, THAT'S FETTEROLF'S DECISION.

BACK @ PGM I LOCATED EMBECO & PUC WATER STOPS & RELAYED THE INFO TO TED TO HAVE HIS PEOPLE PICK IT UP.

Dale L. Row *lwr*

THURSDAY FEB 18, 1971 SUNNY, COOL
40°

NO SITE VISIT TODAY. CONTRACTOR WAS TO
GET EMBECO GROUT & PVC WATERSTOP & START
FORMING THE CONCRETE.

Dale L. Rowleson

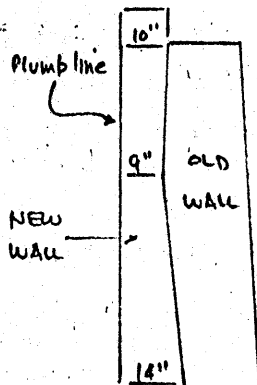
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FRIDAY, FEB 19, 1971

CLOUDY, COOL
40°

THE CONTRACTOR HAD GROUTED IN THE DOWELS W/
EMBECCO & STARTED HANGING STEEL. THE OLD
WALLS ARE NOT PLUMB, SO I TOLD HIM TO MAKE THE
NEW WALLS PLUMB, WITH THE CLOSEST POINT 9".
THE NEW WALL WILL VARY IN THICKNESS, FOR
INSTANCE: ON THE BACK EDGE:



THE CONTRACTOR HAS CUT A NOTCH IN THE FRONT
WALL FOR THE DISCHARGE. SIZE IS ~ 18" X 9" AND
ALL OF THE FLOW IS GOING OUT OF THE NOTCH. THE
CONTRACTOR ALSO TRIED SIPHONING THE FLOW OVER THE
WALL WITH 2- 6" HOSES. THIS DROPPED THE
WATER LEVEL 1/2" IN ABOUT 2 HRS., SO IT APPEARS THE
SIPHONS CAN BE USED WHILE A BYPASS IS INSTALLED.

THE CONTRACTOR WANTS TO RECONSIDER USE OF A PIPE
WITH TWO CUT OFF COLLARS, INSIDE & OUTSIDE. I SAID
I'D CHECK W/ DIK AGAIN.

MEASURED DIMENSIONS OF EXCAVATION W/ CONTRACTOR.
MEASUREMENTS & CALC. OF VOLUME ARE ATTACHED.
IN BACK.

Dale C. Rowleson

MONDAY FEB 22, 1971

CLOUDY, COOL
40° RAIN.

CONTRACTOR CALLED ABOUT 9:00 - RAIN MAKES
WORK IMPOSSIBLE TODAY, SO HE'S GOING TO
CLEAN UP AROUND FULTON AREA & GO BACK.

I TOLD HIM I'D CHECKED ON USING A PIPE
INSTEAD OF A FORMED OPENING.

I CHECKED SPECS ON GROUTEX AS A SUBSTITUTE
FOR EMBEC & GROUTEX IS OK.

Dale L. Rowson

Tuesday Feb 23, 1970

CLOUDY, COLD
20° LIGHT SNOW

No site visit today. Contractor called about
9:00am & will work today. Mostly its getting
dewatered from yesterday. Work is still in
Comming's Area.

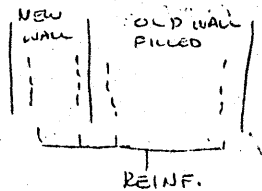
Dale L. Rowson

WEDNESDAY FEB 24, 1970

CLOUDY, COLD
25°, LIGHT SNOW.

AT CUMMINGS, THE CONTRACTOR HAS INSTALLED AN 18" STEEL PIPE IN THE WALL TO TEMPORARILY DIVERT THE FLOW. CRACKS IN THE OLD WALL HAVE BEEN SEALED WITH A DRY "LEAK PATCHING" GROUT, CALLED EUCO. THIS PATCHING IS TO DRY UP THE AREA IN FRONT OF THE WALL, SO THAT THE PERMANENT CONCRETE WALL SEAL CAN BE PLACED. PHOTOS TAKEN OF DIVERSION PIPE, REINFORCING & FORMING FOR THE FRONT WALL WERE NEARLY FINISHED. THE FRONT WALL SHOULD BE POURED TOMORROW, WEATHER PERMITTING.

THE PLANS CALL FOR STEEL IN THE NEW WALL AND IN THE OLD WALL THATS REPLACED. I



BECAUSE THE NEW WALL AND THE REPLACED OLD WALL WILL BE MONOLITHIC & BECAUSE THE STEEL IS FOR

TEMPERATURE, NOT STRENGTH, I ELIMINATED ONE OF THE INTERIOR SETS OF REINFORCING. THE REASON FOR TWO SETS IN THE MIDDLE, AS NEAR TO EACH OTHER IS BECAUSE IT WAS ORIGINALLY PLANNED TO POUR THE WALLS SEPARATELY, ∴ TEMP STEEL, BOTH FACES, BOTH WALLS.

THE CONTRACTOR IS STARTING ON MINE OPENING #2 AND HAS THE 6" PUMP THERE TO START DEWATERING. (PHOTO'S). SOME PRELIMINARY CLEANUP WORK HAS BEEN DONE AT THE SITE.

Dale L. Rowleson

THURSDAY, FEB. 25, 1971

CLEAR, SUNNY
WARM, 45°

AT CUMMINGS: CONTRACTOR WORKED ON GETTING REINFORCING IN PLACE & FORMS UP SO THAT THE POUR COULD BE MADE TOMORROW. SPLIT WATER STOP INSTALLED AROUND THE PIPE SO THAT CAN BE SEALED LATER. CONTRACTOR HAS A CHUTE BUILT TO GET THE CONCRETE TO THE FORMS FROM THE TOP OF THE EXCAVATION. THE BOTTOM WHERE THE CONCRETE TRUCKS WERE TO GO IS SO WET, THEY'D NEVER MAKE IT.

AT E-2, THE PUMP HAS BEEN RUNNING TO DEWATER, BUT HAS HAD NO DROP IN WATER LEVEL.

MEETING TOMORROW ON FEB PAY ESTIMATE w/ FETTEROLF & MANDEL, SAYS ALMES.

Dale L. Rowles

FRIDAY, FEB 26, 1971

AT COMMINGS, THE CONTRACTOR HAD FINISHED FORMING & DEWATERING THE FORMS. AT ABOUT 1:00 12 YARDS OF CONCRETE ARRIVED & WERE PLACED. IN THE AREA AROUND THE PIPE THAT CARRIED THE WATER THERE WAS A SMALL WATER LEAK. THE CONTRACTOR COMPLETELY STOPPED THE FLOW WHILE THAT SECTION WAS POURED, AND KEPT IT STOPPED UNTIL THE POUR WAS COMPLETED.

A WATER STOP WAS INSTALLED IN THE WET CONCRETE TO FACILITATE POURING & WORKING, THE CONCRETE WAS BETTER THAN THE PREVIOUS POURS AT FULTON. GOOD STRENGTHS WERE OBTAINED BEFORE & THIS MIX SHOULDN'T BE EXPECTED ADVERSLY. 4 CYLINDERS WERE TAKEN FROM THE FIRST TRUCK.

I MET WITH GEORGE MANDEL, DON FETTEROLF, & TED BEAHR TO PREPARE THE FEBRUARY PAY ESTIMATE

Dale L. Rowles

MONDAY March 1, 1971 CLEAR, WARM
40°

NO SITE VISIT. CONTRACTOR PLANS TO FINISH FORMING FOR NEXT LIFT. WILL FINISH TONIGHT OR TOMORROW & POUR TOMORROW.

Dale L. Rowleson

Tuesday March 2, 1971 CLEAR, WARM
40°

AT CUMMINGS, THE CONTRACTOR WAS WORKING ON FORMING THE FRONT WALL & THE BROKEN N. SIDE. I INSTRUCTED THAT THE NEXT LIFT COULD BE LESS THICK IN FRONT, DOWN TO 1.5'. THEREFORE THE REINFORCING IN THIS LIFT WILL BE APPROPRIATELY CUT & MOVED.

THE CONTRACTOR HAS AN ELECTRIC PUMP (SHP) TO DEWATER E-2 BY CONTINUOUS PUMPING. HE WILL RUN POWER INTO THE SITE. THE 6" GASOLINE DRIVEN PUMP IS NOT RELIABLE FOR LONG TERM PUMPING, AND WAS TAKEN BACK.

THE DRILLING RIG ARRIVED ON THE SITE AND WILL START REAMING AT FULTON B TOMORROW.

FETTEROLF IS RENTING ANOTHER BACKHOE TO PROVIDE ANOTHER CREW TO WORK AT THE SITE. NO ESTIMATE ON WHEN THE EXTRA BACKHOE & CREW WILL BE HERE.

Dale L. Rowleson

ADDENDUM: I ADVISED TED BEAVER THAT THEY WOULD HAVE TO STAKE THE PIPE TO BE SET ON LINE & GRADE BETWEEN E1 & E2. HE IS AWARE OF THIS & SAYS "GREN" CAN DO IT.

DLR

WEDNESDAY MARCH 3, 1971

CLOUDY, COLD, SNOW
20°

NO SITE VISIT TODAY BECAUSE OF SNOWCOVERED ROADS.
CONTRACTOR AT SITE TRYING TO WORK.

Dale L. Rowleson

THURSDAY MARCH 4, 1971

CLOUDY, COLD, SNOW
15°

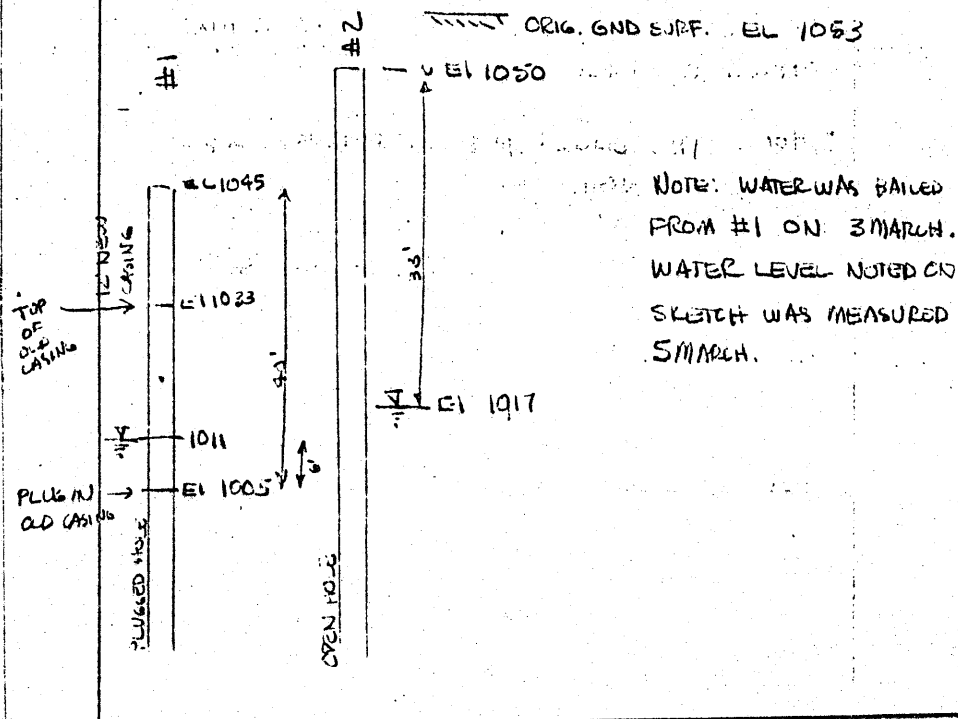
CONTRACTOR CALLED & IS NOT GOING TO ERNEST TODAY CAUSE
OF HEAVY SNOW. CANT GET OUT OF TOWN. HE SAID THE
DRILLING RIG HAS STARTED & HAS PUSHED THE DOUBLE
CASING 20' DOWN & REAMED 20' MORE INTO CASINGS.

FRIDAY, MARCH 5, 1971

CLOUDY, COLD, SNOW
20°

DRILLING CREW HERE, NO WORK AT CUMMINGS DUE TO
SNOW.

MEASUREMENTS TAKEN ON FULTON BOREHOLES ARE:



THE NEW CASING IS NOT CONNECTED TO THE OLD CASING, ONLY SITTING ON TOP. THE OLD CASING WAS PUSHED DOWN WHEN THE PLUG WAS REAMED. THE CONTRACTOR HAD NOT SECURED THE CASING PRIOR TO STARTING, & WHEN REAMING STARTED, THE CASING FELL. (THE WHOLE AREA WAS UNDER WATER, SO THE OLD CASING WAS NOT VISIBLE). THE NEW CASING WAS PLACED IN THE HOLE TO KEEP IT OPEN.

THE DRILLER FILLED THE HOLE WITH WATER, TO CHECK FOR LEAKAGE. FOR THE FIRST 15 MIN, THE LEVEL DROPPED 6". THE HOLE WAS REFILLED & OVER 45 MIN THE LEVEL DROPPED 10.5". THIS INDICATES THE ANNULUS IS PROBABLY SEALED, THE 6" CASING WITH PLUG IS SEALED (SEE NOTE ON SKETCH), AND LEAKAGE COULD HAVE GONE OUT THE SPACE BETWEEN THE NEW & OLD CASING.

THE DRILLER SAID THAT HE HAD INSTALLED PIPES SIMILAR TO THESE & THE ANNULUS WAS ALWAYS SROUTED SHUT, REINFORCING EARLIER OBSERVATIONS. THE 2" OUTSIDE PIPE GOES TO THE TOP OF ROCK & SERVES TO HOLD THE HOLE OPEN WHILE THE 6" HOLE IS COMPLETED.

I TOLD THE DRILLER TO RENT FISHING TOOLS & TRY TO PULL THE CASING.

Dale F. Rowleson

MONDAY MARCH 8, 1971

CLOUDY, COLD
SNOW 20° WINDY

AT CUMMINGS, MINIMAL WORK CLEARING SNOW & PREPARING FOR POUR OF CONCRETE.

AT FULTON B BOREHOLES, THE DRILLERS HAD THE FISHING TOOL TO PULL THE CASING. THEY FIRST TRIED TO DRIVE THE PLUG FURTHER DOWN, WITH NO SUCCESS. THE HELPER SAID THAT WHEN POWER HOLES WERE ABANDONED, THE WIRES WERE OFTEN LEFT IN, SO THIS MAY BE THE PROBLEM WITH THIS HOLE.

THE FISHING TOOL WAS MOUNTED AND PLACED IN THE PIPE. IN ABOUT 1 HR OF WORK, THE CASING CAME UP IS! THEY WERE INSTRUCTED TO KEEP TRYING THROUGH TOMORROW.

Dale L Rowleson

Tuesday March 9, 1971

CLOUDY, COOL,
30°

NO SITE VISIT. THE CONTRACTOR CALLED AT NOON TO INFORM ME THAT THE CASING HAD BEEN PULLED. THE 6" CASING CAME OUT, BUT THE 8" CASING REMAINED IN THE GROUND. THE HOLE WILL BE CALIPERED THIS AFTERNOON.

FORMING & BACKFILLING FINISHED AT CUMMINGS, SO CONCRETE CAN BE PLACED TOMORROW.

Dale L Rowleson

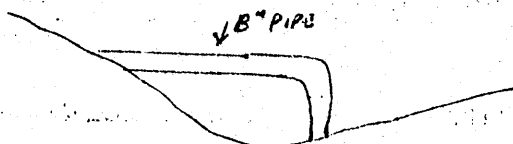
WEDNESDAY MARCH 10, 1911

CLOUDY, COOL
35°

AT CUMMINGS, ANOTHER LIFT OF 46' WAS POURED TO
NEL 1066. THE STAINLESS STEEL PIPE WAS
INSTALLED (WITH 2 - 6" CUT OFF COLLARS) IN THIS
LIFT AT EL 1061. 4 TEST CYLINDERS WERE TAKEN.
THE PVC WATERSTOP WAS INSTALLED AT THE NEW JOINT.
35 YARD³ OF CONC. WAS PLACED.

THE BOREHOLE AT FULTON B WAS PLUGGED WITH
3 FEET OF BRICK AND GROUTED WITH CEMENT-WATER
GROUT TO THE GROUND SURFACE. THERE WAS ABOUT
1 1/2 YARD³ OF CONCRETE LEFT FROM THE CUMMINGS
WORK, SO THIS WAS BROUGHT TO FULTON AND PLACED
ON TOP OF THE GROUTED HOLE AS ADDITIONAL SEALING.
THE HOLE AREA WILL BE BACKFILLED TOMORROW &
WORK BEGUN ON THE OTHER CASING.

WITH TED BEAR & A. J. SPORN WE INSPECTED THE
E3 OPENINGS. AN 8" PIPE WAS NOTICED JUST
BEHIND THE COLLAPSED SHAFT.



ITS ORIGIN AND DESTINATION AND USE ARE NOT
EVIDENT & FURTHER INVESTIGATION WILL BE REQUIRED.

Dale L. Boulton

THURSDAY MARCH 11, 1971

CLOUDY, COOL
40°

NO SITE VISIT TODAY, CONTRACTOR CLEANING UP AT CUMMINGS, STARTING FORMING FOR NEXT LIFT. ALSO SETTING UP ON THE OTHER SHAFT AT FULTON.

Dale L. Rowleson

FRIDAY MARCH 12, 1971

FORMWORK AT CUMMINGS CONTINUES. BECAUSE OF ^{OLD} WALL IRREGULARITIES, THE ^{NEW} WALL THICKNESS AT THE TOP OF THE NEW WALL WILL BE ABOUT 1 FOOT. THE THICKNESS AT THE BASE OF THE WALL WAS 9", BUT THE OLD WALL IS NOT PLUMB, SO THE NEW WALL DIVERGES. (SEE FEB 19 SKETCH) (THE 10" INDICATED VARIES TO 12" AROUND THE SHAFT)

AT FULTON SHAFTS, THE SECOND BOREHOLE, THE INNER (6") CASING WAS REMOVED (~~7 1/2"~~). AFTER CONFERRING W/ ALMES, I TOLD THE CONTRACTOR THE 8" CASING COULD STAY IN THE GROUND. THE HOLE WILL BE PLUGGED & GROUTED MONDAY.

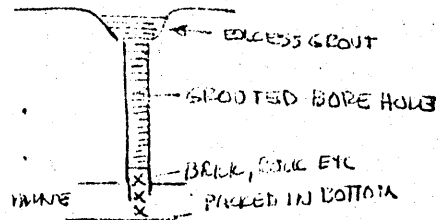
Dale L. Rowleson

MONDAY, MARCH 15, 1971

CLOUDY, COOL
45°

THE 8" HOLE AT FULTON B WAS CLEANED OUT WITH A BIT & LOOSE MATERIAL REMOVED FROM THE SHAFT WALLS. THE HOLE WAS GROUTED SHUT WITH A 1:1 WATER/CEMENT MIXTURE. THE GROUT WAS PUMPED IN THROUGH A HOSE (PVE. PIPE) & PLACED FROM THE BOTTOM UPWARD. THE HOLE ^{BY 150W} WAS PLUGGED WITH BRICK, STICKS & LOOSE DEBRIS WHICH WERE PACKED IN PLACE WITH THE BIT. THE TOP OF THE HOLE WAS MADE INTO A SHALLOW BASIN AND EXCESS GROUT PLACED THEREIN TO PROVIDE

ADDITIONAL SEALING.



AT CUMMINGS, THE BACK HOLE (LS 4000) FELL THROUGH A ~~5~~ 4" THIN REINFORCED CONCRETE FLOOR NEAR THE WORK AREA. THE HOLE IS ~ 4' DEEP AND MAY BE A FOUNDATION FOR A BUILDING, OR ANOTHER SHAFT. EXPLORATORY EXCAVATION WILL BE MADE TOMORROW TO DETERMINE THE EXTENT OF THE CONCRETE.

TED BEAR & THE DRIVER & I WENT TO THE E-4 BORE HOLES & THE CROOKED CREEK BOREHOLE TO SEE ABOUT THE NEXT WORK FOR THE DRILL-TRUCK. THE AREA HAS COMPLETELY THAWED AND IS EXTREMELY WET. THE ROAD OPENED TO THE AREA DURING THE WINTER IS ANKLE DEEP IN MUD (DEEPER IN PLACES). THE 4 WHEEL DRIVE IH TRUCK COULDN'T GET TO CROOKED CREEK, SO WE WALKED. VERY WET, VERY MUDDY, VERY DEEP. THE TRUCK ALSO COULDN'T GET OUT. WE HAD TO BE PUSHED BY THE IH TRACTOR, UP THE HILL. GETTING THE DRILL TRUCK & EQUIPMENT IN WILL BE A PROBLEM.

Dick L. Rowles

TUESDAY, MARCH 16, 1911

CLOUDY, COOL

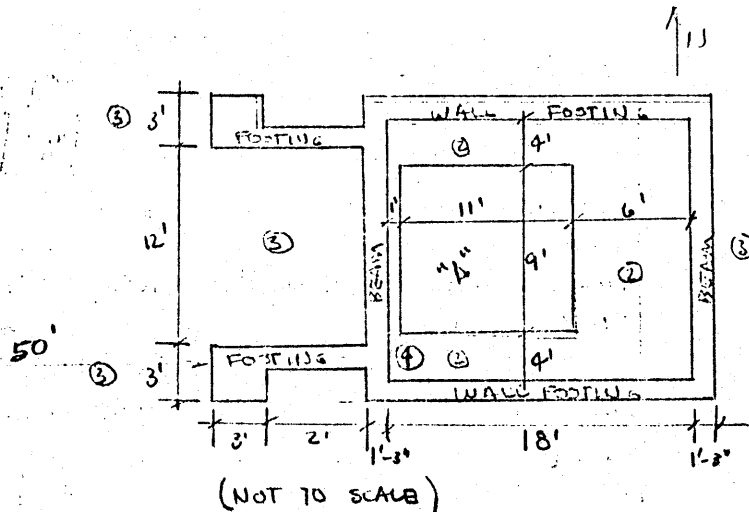
40°

LIGHT SMOG

AT CUMMINGS, FORMING THE LAST LIFT CONTINUOUS.
POURING SHOULD BE THURS OR FRIDAY.

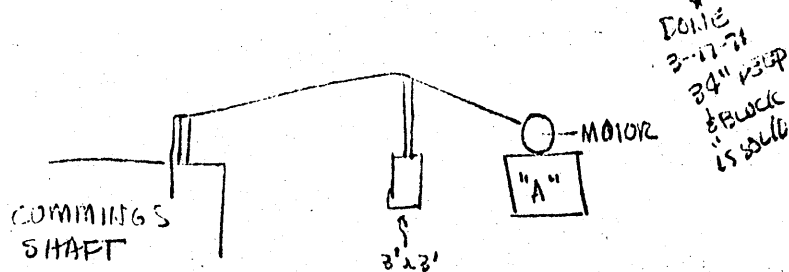
EXCAVATION AROUND THE NEWLY DISCOVERED CONCRETE
SHOWED THE FOLLOWING.

CUMMINGS AIR
START



- NOTES:
- ① ALL WALLS ARE 15" UNLESS OTHERWISE MARKED
 - ② AREA AROUND BLOCK "A" WAS OPEN TO 4' DEPTH, COVERED WITH 4" R/C. SLAB.
 - ③ AREAS ADJACENT TO SKETCHED AREA WERE EXCAVATED TO 6' AND ARE FILL OR PARENT MATERIAL (I.E. NOT FOOTINGS OR BEAM.)
 - ④ A 6" TRAP ON A VERTICAL 6" PIPE WAS FOUND AT POSITION ④
 - ⑤ THE BLOCK "A" APPEARS TO BE A SOLID MASS. THERE IS NO CONSTRUCTION JOINT EVIDENT AT THE TOP OF THE BLOCK. NUMEROUS BOLTS ARE ANCHORED IN IT, WHICH SUGGESTS THE BLOCK WAS A MACHINERY

ANCHOR. THE 3' BLOCKS AT ② COULD BE FOOTINGS FOR A CABLE TOWER TO THE SHAFT, & THE "BLOCK A" WOULD BE THE COUNTER BALANCE FOR LIFTING OUT COAL, ETC ON THE HOIST. THE ESTIMATED WEIGHT OF THE BLOCK (IF ITS SOLID) IS 9000 #, AN ADEQUATE COUNTER WEIGHT. A HOLE WILL BE DRILLED INTO THE BLOCK TO SEE IF IT IS INDEED SOLID. ↓



THE BLOCK IS ROUGHLY 2' HIGHER THAN THE OLD SHAFT WALL.

THIS AREA AROUND THE BLOCK WAS BACKFILLED FOR SAFETY.

Dale Rowhorn

WEDNESDAY, MARCH 17, 1971

NO. SITE VISIT. CONTRACTOR IS PLACING NEXT SET OF FORMS AT CUMMINGS.

CLEANUP AT FULION BORE HOLES & MOVING TO E-4

Dale Rowhorn

ORDERED PRESSURE GAGES & VALVES.

THURSDAY, MARCH 18, 1971

NO SITE VISIT - FORMING CONTINUES @ EUMMINGS.
DRILL RIG MOVED TO CROOKED CREEK BOREHOLE. IT HAD
TO BE PULLED WITH THE TD 24. THE HOLE WAS REAMED &
CLEANED & READY FOR GROUTING.

FRIDAY, MARCH 19, 1971

CLOUDY, COLD
RAIN.

HEAVY RAIN STOPPED WORK AT COMMINGS. FORMING IS
NEARLY COMPLETE & SHOULD BE READY TO POUR MONDAY.

GEORGE MANDEL & DICK ALMES VISITED THE SITE. WE
LOOKED AT COMMINGS & THE PROGRESS THERE. I SHOWED
GEORGE THE OLD MOTOR BLOCK NEXT TO THE SHAFT.

WE WALKED DOWN TO CROOKED CREEK BOREHOLE TO SEE THE
SEALING OF THE HOLE. AS WITH THE FULTON BOREHOLES,
THE BOTTOM WAS SEALED & THE GROUT PUMPED IN FROM
THE BOTTOM UP. A SMALL BLOCK 18" X 18" X 18" WAS
FORMED OVER THE TOP OF THE CASING. BECAUSE THE
AREA IS INACCESSIBLE TO TRUCKS, THE CEMENT-WATER
GROUT WAS MIXED BY HAND AND ^{CONCRETE} PUMPED INTO THE HOLE.
THE AREA WAS EXTREMELY WET & MUDDY FROM THE RAIN. THE
TD 24 PULLED THE 4 WHEEL DRIVE TRUCKS OUT TO THE ROAD.

AT THE TRAILER WE (MANDEL, ALMES, BEATR & ROWLISON)
DISCUSSED THE PROJECT. GEORGE HAD A COPY OF THE MAP
FOR THE MINING AREA AROUND E1. IT MAY NOT BE NECESSARY
TO REMOVE THE BARRIER INDICATED ON THE PLANS. HE WILL
TRY TO GET THE MINE INSPECTOR TO GO INTO E1 & VERIFY
THIS. (WE GOT A COPY OF THE LETTER & MAP)

THE HOLE IN THE ROOF AT E2 WAS DISCUSSED. THIS WILL
HAVE TO BE REMOVED TO PREVENT THE POSSIBILITY OF THE
SHAFT COLLAPSING AFTER IT IS SEALED.

Dale L. Paulson

R. Almes, Ted Benby and George Mandel
looked at E-2 to determine a scheme
to construct pipe and barrier. Two
old mine workers told us the
pooled water outside of E2 was
part of the water in the mine and
that it would not be feasible to
pump it down to construct the
E2 barrier. Ted B. & R. Almes
looked in the area for a culvert
that may be discharging the
pooled water directly into the
creek. This is unlikely, but spent
a 1/2 hour looking. One covered
culvert was found near the
partially filled drifts near E2.
Ted will open the culvert with
his back hoe.....

LEFT THE SITE AT 5:30 PM

R. Almes 3/8/71

~~ELI DAY~~

MONDAY, MARCH 22, 1971

CLOUDY, COLD,
LIGHT SNOW, 30°

THE CONTRACTOR FINISHED FORMING THE LAST LIFT OF THE WALL ABOUT NOON. I ASKED THAT A NOTCH BE LEFT IN THE FRONT WALL 6" DEEP X 4' LONG. THIS IS FOR AN EMERGENCY WIER, SO THAT WATER FROM THE SHAFT HAS AN ESCAPE SHOULD THE VALVE FAIL, AND E1 NOT DRAIN.

CONCRETE ARRIVED AT 3:00 AND 30YD³ WERE POURED. THE CONCRETE WAS VIBRATED INTO THE FORMS. THE CONCRETE WAS COVERED WITH PLASTIC AND HAY AS INSULATION, AND LEFT TO CURE. I TOLD THE CONTRACTOR TO ALLOW 3 DAYS CURING BEFORE REMOVING THE FORMS.

I DISCUSSED SOME CHANGES WITH JED BEATR. IN ACCORDANCE WITH DISCUSSIONS BETWEEN DON FETTEROLF & ALEX MOLENSKI, THE PROTECTIVE HOUSING FOR THE VALVE AT B. CUMMINGS, & E4 NEED NOT BE CREOSOTE TREATED LUMBER.

BECAUSE THE SPECIFIED CONCRETE COATING WOULD NOT BE SUITABLE FOR ACID WATER (MFG RECOMMENDATION), ANOTHER COATING, DURAYOTE WILL BE USED ON EXPOSED CONCRETE SURFACES. ALINES TO ISSUE LETTER OF CHANGE.

I REQUESTED COPIES OF THE CONCRETE CYLINDER TESTS. WE RECEIVED THE FIRST TESTS, BUT NO OTHERS.

Dale L. Paulson

TUESDAY, MARCH 23, 1971

CLOUDY, COLD, SNOW
25°

NO SITE VISIT BECAUSE OF SNOW. CONTRACTOR IS WORKING AT E-3, & E-2.

Dale L. Paulson

WEDNESDAY, MARCH 24, 1911

CLOUDY, COLD
20°

GEORGE MANDEL ARRANGED FOR THE DISTRICT MINE INSPECTOR, GERAUD KEPHART, TO BE AT THE SITE TO ENTER E-1 AND DETERMINE IF THE BARRIER NEEDS TO BE REMOVED. ALMES, KEHR, SPOEY & ROWLSON ALSO PRESENT. THE INSPECTOR SAID THAT E-1 CANNOT BE ENTERED BY ANYONE UNTIL THE SHAFT IS PROPERLY VENTILATED BY HAVING R & P COAL START THE VENTILATION FAN, OR EQUIVALENT VENTILATION. HE ALSO STATED THAT THE CONTRACTOR MUST OBSERVE DEEP MINE SAFETY RULES WHEN WORKING ON COAL MINE PROPERTY. HE MENTIONED THE FOLLOWING:

1. ALL WORKERS AT THE SITE MUST WEAR HARD HATS & SAFETY SHOES
2. TRUCKS SHOULD HAVE 5 LB FIRE EXTINGUISHER.
3. NO OPEN FLAMES AT THE MINE OPENINGS
(e.g. A SALAMANDER)
4. A CERTIFIED PERSON OPERATING A METHANE DETECTION FLAME AT ALL MINE OPENINGS.
OTHER METHANE DETECTION IS DESIRABLE ALSO (e.g. ELECTRONIC)
5. WORK AT MINE OPENINGS MUST BE VENTILATED.
6. CONDITIONS AT MINE OPENINGS CAN CHANGE QUICKLY
AIR MAY BE FLOWING INTO THE MINE AT ONE TIME, AND AN HOUR LATER, METHANE CAN BE FLOWING OUT.

THE CONTRACTOR IS WORKING ON THESE ITEMS. HE CANNOT WORK THE OPENINGS E1 & E2 TILL HE DOES CORRECT THEM.

METHODS OF CHANGING THE SEALING OF E-2, IN LIGHT OF THE CAVED IN POOP WERE DISCUSSED. THE TWO DRIFTS FROM THE SHAFT ARE TO BE SEALED ALSO. ALMES WILL ISSUE PLANS & CHANGE ORDER FOR THE NEW SCOPS OF WORK.

EXPLORATORY WORK FOR DD-44 IN CREEK SIDE WAS BEGUN. THE WHEEL TRACTOR MOUNTED BACKHOE WAS USED. EXCAVATION IN THE AREA INDICATED ON THE PLANS WAS CONDUCTED TO A DEPTH OF ABOUT 1'. AS EACH AREA WAS UNCOVERED, HAND SHOVELING IN THE BOTTOM CLEANED THE LOOSE DIRT AWAY. THE 1' DEPTH WAS SUFFICIENT TO GET INTO THE UNTILLED SOIL (IE ORIGINAL EARTH). THE BOREHOLE WAS NOT FOUND. A RESIDENT OF CREEK SIDE STOPPED BY AND SAID HE COULDN'T REMEMBER A BOREHOLE IN THE AREA.

Dale L. Rowhon

THURSDAY, MARCH 25, 1971 CLOUDY, COLD.

20°

AT COMMINGS, THE CONTRACTOR IS DRESSING & ROBBING THE TOP OF THE WALL. FORM REMOVAL TO BEGIN TOMORROW.

EXPLORATORY WORK FOR DDH 44 CONTINUES, WITH NO SUCCESS. ANOTHER RESIDENT CANNOT REMEMBER A BOREHOLE THERE, AND HIS FATHER, AN OLD TIMER, DOESN'T RECALL ONE. HE ALSO STATED THAT THE COAL HADN'T BEEN MINED THERE (SOURCE OF INFO NOT KNOWN.)

I BROUGHT OUT METHANE DETECTOR FOR USE WHEN NEEDED.

Dale L. Rowhon

FRIDAY, MARCH 26, 1971

CLEAR, COOL
30°

I MET WITH GEORGE MANDEL, TED BEHRZ & DON FETTES
AT THE TRAILER AT FULTON TO PREPARE THE MONTH'S
PAY ESTIMATE. QUANTITIES & PAYMENT FOR CUMMINGS,
E-2, E-3, E-4, & DDH-44 WERE DECIDED.
THE CHANGE ORDER FOR THE WORK AT FULTON BOREHOLES
HAS NOT CLEARED HARRISBURG, BUT IS EXPECTED TO
BE APPROVED SHORTLY. THIS PAYMENT REQUEST WILL BE
HELD UNTIL THE CHANGE ORDER IS RECEIVED, AND
PAYMENT FOR THESE ITEMS INCLUDED. WE DISCUSSED
LEAVING ET AS IS TO SEE IF WORK IS REQUIRED IN THE MING. IF
ET DRAINS WITHOUT WORK, TIME & MONEY COULD BE SAVED.
AT CUMMINGS, THE FORMS ARE BEING REMOVED,
AND THE FORM TIES REMOVED & THE HOLES GROUTED.

Dale L. Rowles

Monday March 29, 1971

NO SITE VISIT. CONTRACTOR IS CLEANING UP CUMMINGS.
PAINTING OF EXPOSED SURFACES W/ DURACOTE BEGINS
FORMING FOR THE CONCRETE BLOCK TO PLUG THE TEMP
DIVERSION PIPE WAS MADE.

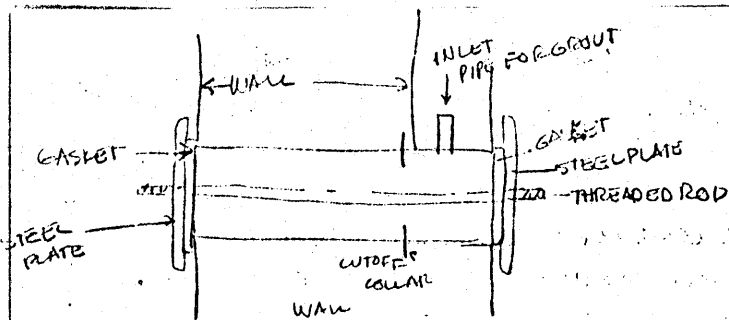
PENN DRILLING UP TO LOOK AT PIEZ LOCATIONS

Dale L. Rowles

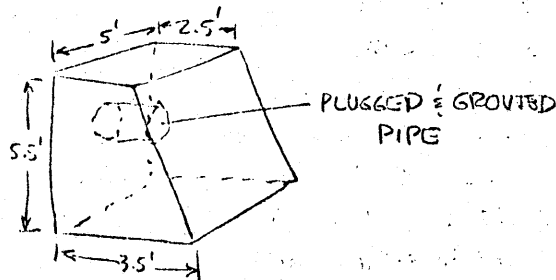
Tuesday, March 30, 1971

COLD CLOUDY, SNOW
FLURRIES.

THE CONTRACTOR SEALED THE DIVERSION PIPE BY
GROUTING THE PIPE & POURING THE BLOCK IN FRONT.
THE FLOW WAS SEALED WITH STEEL PLATES W/
GASKETS.



THE GROUT WAS THOROUGHLY WORKED INTO THE PIPE, AND THEN A BLOCK POURED OVER THE WHOLE ASSEMBLY



I RAN TOPO ABOVE E2 & THE TWO DRIFTS FROM B-2. BELL BELL WAS LOANED AS RODMAN.

ON THE HOUSING FOR THE VALVE AT CUMMINGS! THE DRAWINGS SHOW THE VALVE EMBEDDED IN THE FLOOR OF THE HOUSING. I TOLD THE CONTRACTOR TO ALLOW A SPACE OF ABOUT 6" BELOW THE VALVE TO ALLOW ACCESS TO THE VALVE LATER.

Dale L. Rowhan

Wednesday March 31, 1971

NO SITE VISIT. THE CONTRACTOR IS GRADING AROUND CUMMINGS AND THE DRAIN DITCH.

TINNEY DRIVING UP TO LOOK AT PIEZ LOCATIONS.

Dale L. Rowhan

THURSDAY, APRIL 1, 1971

CLOUDY, WARM
60°

THE CONTRACTOR FINISHED PAINTING WITH DURACOTE & IS GROUTING IN THE FENCE POSTS ON TOP OF THE WALL. THE FLOOR OF THE VALVE HOUSING WAS POURED, WITH THE EXCESS CONCRETE USED FOR A SPLASH PAD FOR THE OULET PIPE.

TED BEHR REQUESTED THE LOCATION OF THE PIEZOMETER SO AN ACCESS ROAD COULD BE MADE WHILE THE EQUIPMENT IS THERE. I TALKED TO DICK LAMES AND ASKED IF THE PIEZOMETER HAD TO BE LOCATED AS SHOWN ON THE PANS. THIS WOULD MEAN CROSSING THE CREEK, AND SOME EFFORT COULD BE SAVED IF THE PIEZOMETER COULD BE LOCATED ON THE SAME SIDE AS THE SHAFT. DICK SAID THERE'S NO NEED FOR IT BEING ACROSS THE CREEK, SO WE LOCATED IT ON THE SAME MINE SHAFT AS SHOWN ON THE DRAWINGS, BUT CLOSER TO LAMMINGS, ABOUT MIDWAY BETWEEN THE SHAFT & THE CREEK. THE TOP OF THE PIEZOMETER WILL BE ABOVE THE SHAFT WALL. THE DRILLER WILL HAVE TO CASE THE HOLE DOWN TO ROCK UNTIL THE PIEZOMETER IS INSTALLED & GROUTED. THE CASING COULD THEN BE REMOVED.

I TIED THE SURVEY OF 30 MAR TO THE PREVIOUS SURVEY.

J. L. Rowland

FRIDAY, APRIL 2, 1971

CLOUDY, WARM
50°

NO SITE VISIT. CONTRACTOR IS BUILDING THE VALVE SHED & INSTALLING THE VALVE.

MONDAY APRIL 5, 1971

CLOUDY, COOL
45°

NO SITE VISIT - THE CONTRACTOR HAS MOVED TO E3 AND IS WORKING THERE.

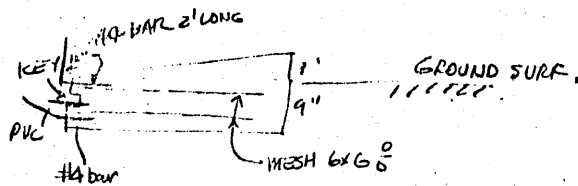
TUESDAY, APRIL 6, 1971

THE CONTRACTOR HAS ESSENTIALLY COMPLETED CUMMINGS SHAFT. THE FENCE & VALVE ARE INSTALLED, AND THE VALVE HOUSING IS COMPLETED. THE HOUSING WAS FINISHED WITH A WOOD SEALER, AND THE ROOF IS TAR PAPERED. THE ROOF IS CONSTRUCTED SO THAT IT MAY BE REMOVED FOR VALVE MAINTENANCE. THE AREA AROUND THE SHAFT IS GRADED WELL. SOME CLEAN-UP IS NECESSARY YET, BUT THIS IS SMALL ITEMS SUCH AS BARRELS, LOOSE BOARDS ETC.

THE CONTRACTOR IS NOW WORKING AT E3, AT BOTH THE INTACT SHAFT AND THE COLLAPSED SHAFT. AT THE COLLAPSED SHAFT, THE EARTH ABOVE THE SHAFT HAS BEEN EXCAVATED BACK ABOUT 75' AND NO COMPETENT ROCK HAS BEEN FOUND TO BUILD THE WALL AGAINST. (S.W.) THE SHAFT HAS SOME WATER IN IT, BUT IT CANNOT BE DETERMINED IF IT IS MINE DRAINAGE. THE SHAFT IS HIGHER THAN THE INTACT SHAFT, WHICH IS DRY. THIS WOULD POINT TO LOCAL OR SURFACE WATER AS THE SOURCE. THE 8" PIPE NOTED IN MAR 71 GOES INTO THE SHAFT ROOF & TERMINATES. NO WATER IS FLOWING IN THE PIPE. THE SHAFT AREA THAT HAS BEEN EXCAVATED HAS BEEN SNOW FENCED WHEN WORK IS NOT GOING ON.

AT THE INTACT E3 OPENING, THE CONTRACTOR HAD SOME DIFFICULTY FORMING THE FLOOR AND FOOTER TOGETHER. HE FELT IT WOULD BE EASIER TO FORM THE FLOOR NOW, AND THE FOOTER & WALL TOGETHER. I ALLOWED THIS, PROVIDED A PROPER CONSTRUCTION JOINT WAS CONSTRUCTED. IE: A SHEAR KEY AND WATERSTOP. THE REINFORCING WAS CONTINUED FROM THE

WIRE MESH TO THE FOOTER & WALLS WITH #4 BARS AT
 ~ 8". THESE WERE INSERTED THROUGH HOLES DRILLED
 IN THE FORMS & OVERLAPPED WITH THE MESH 24 DIAMETERS (12")



THE WALLS OF THE SHAFT HAVE BEEN NOTCHED BACK 3"
 INTO THE WALL. AT THAT DEPTH IS AN I BEAM, OR REINFORCING
 OF SOME TYPE 3" WIDE. BECAUSE OF THE STEEL, NO DEEPER
 NOTCH IS POSSIBLE. THE CONCRETE IN THE WALL IS STILL IN
 GOOD SHAPE AND WAS DIFFICULT TO REMOVE.

THE FLOOR WAS FORMED & PLACED (2YD³) LATE IN THE
 AFTERNOON.

THE GAS LAMP (BUG LITE) WAS USED IN THE SHAFT
 ENTRANCE. NO METHANE WAS DETECTED, BUT SOME
 BLACK DAMP WAS NOTICED INTO THE SHAFT. AT THE
 OPENING WHERE THE WORK WAS PROGRESSING, THE OXYGEN
 LEVEL WAS ACCEPTABLE.

Dale L. Poulson

Wednesday, April 7, 1971

Clear, warm.
 50°

FORMING OF THE INTACT SHAFT WILL CONTINUE TOMORROW
 AFTER YESTERDAY'S POUR HAS SET UP.

AT THE COLLAPSED SHAFT THE EXCAVATION WAS CONTINUED
 BACK TO THE PIPE INTO THE SHAFT. NO ROCK IS EVIDENT
 YET. THE WATER IN THE SHAFT IS APPARENTLY
 LOCAL RUNOFF AND NOT MINE WATER. I TOLD THE
 CONTRACTOR TO FLATTEN THE SLOPES THEY'VE CUT
 BUT NOT GO BACK ALONG THE SHAFT. THE WALLS

OF THE SLOPES CUT WERE NEARLY VERTICAL FOR THE
EXPLORATION FOR ROCK. THEY ARE BEING CUT TO A 1:1
THE MATERIAL REMOVED STILL APPEARS TO BE FILL.

Dale L. Rowleson

Thursday, April 8, 1971

clear, warm
60°

THE FRONT WALL OF THE OPEN SHAFT (E-3) IS BEING
FORMED. THE AIRFLOW WAS INTO THE OPENING, AND NO
BLACKDAMP OR METHANE WAS DETECTED. IN THE AFTERNOON
THE FLOW REVERSED, WITH BLACKDAMP, BUT NO METHANE.
THE BUG-LIGHT WOULD BURN, AND THE DETECTOR SHOWED
O₂ AT 17%.

AT THE COLLAPSED SHAFT, THE EXCAVATION REACHED
BEDROCK, AN EXPOSED A LARGE ROOM (EST 25'-35'
ACROSS AND PARTLY COLLAPSED, THE SEAL WILL HAVE TO
GO WELL BACK OF THIS. WITH THE TOP OF THE
TIMBERED SHAFT EXPOSED, THE TIMBERING CAN BE REMOVED
FOR ITS LENGTH AND BACKFILLED CAREFULLY. NEXT TO THE
WALL, EXTRA EFFORTS SHOULD BE USED IN COMPACTION, SUCH AS
USING TWIN LIFT'S & THE WACKER. IN CONSULTING W/
PELLOT, WE DECIDED THE CONCRETE WALL MAY NOT
BE NECESSARY. THIS WILL BE DISCUSSED W/ ALMES.

REMOVAL OF THE TIMBERS STARTED AND WILL PROCEED TO ABOUT
1/2 THE LENGTH OF THE EXCAVATION.

Dale L. Rowleson

FRIDAY, April 9, 1971

CLEAR, WARM
WINDY 75°

THE FRONT WALL & FOOTER WERE FORMED & POURED IN THE MORNING (2 1/4 yd³). THE CONCRETE WAS VIBRATED WELL TO INSURE PLACEMENT AROUND THE REINFORCING.

THE CHANNELS WERE INSTALLED IN THE TOP OF THE WALL FOR THE GATE. THE MIDDLE HINGE ON THE GATE WILL NOT BE INSTALLED AS SHOWN ON THE PANS BECAUSE THERE IS NOTHING TO ATTACH IT TO.

THE TIMBERS WERE CLEANED OUT OF THE COLLAPSED SHAFT. THE WALLS OF THE SHAFT WERE FOUND TO BE DOUBLE TIMBERED. THE



EXCAVATED AREA OF THE TUNNEL WAS SHOWING SIGNS OF INSTABILITY, SO IT WAS BACKFILLED IN 1' LIFTS AND COMPACTED WITH THE MACHINERY. THE BACKFILL MATERIAL WAS A GOOD CLAY FROM THE SIDEHILL ADJACENT TO THE SHAFT.

AT CUMMINGS, THE WATER LEVEL IS 1/2 UP TO THE OUTLET PIPE.

Dale L. Rowleson

MONDAY, APRIL 12, 1971

CLEAR, WARM

WITH ALMES, IT WAS DECIDED THE CONCRETE WALL PLANNED FOR THE COLLAPSED E3 SHAFT WAS NOT NECESSARY. I CALLED GEORGE MANDEL AND EXPLAINED WHAT THE EXCAVATION HAD SHOWN AND THAT THE WALL IS NOT NECESSARY. HE AGREED AND I INSTRUCTED THE CONTRACTOR TO BACKFILL THE SHAFT WITH THE CLAY ADJACENT TO THE SHAFT. THIS WAS DONE IN ONE FOOT LIFTS, USING THE BACKHOE TO PACK THE MATERIAL.

THE CONTRACTOR ASKED ABOUT THE PIPE FOR THE WATER TRANSFER FROM E4 TO E2. HE HAD THOUGHT IT WAS SPIRAL CORRUGATED PIPE. UPON CHECKING THE SPECS, I TOLD HIM THAT THE PIPE IS SPIRAL WELDED, BUT NOT CORRUGATED. STANDARD STEEL WATER MAIN PIPE IS REQUIRED.

Dale L. Rowleson

TUESDAY, APRIL 13, 1971

CLOUDY, COOL,
RAIN IN P.M.

NO SITE VISIT. I CALLED DON FETTEROLF & TOLD HIM ABOUT THE PIPE REQUIREMENTS, HE INDICATED THAT PENN. DRILLING WAS TO START PIEZ WORK NEXT WEEK. ALSO BOREHOLE WORK AT E4 SHOULD BEGIN SOON.

Dale L. Rowleson

WEDNESDAY, APRIL 14, 1971

CLEAR, WARM

NO SITE VISIT. CONTRACTOR IS FINISHING AT E3 COLLAPSED SHAFT. THE BACKFILL IN THE SHAFT WAS FINISHED YESTERDAY, AND THE REST OF THE BACKFILL & GRADING ARE BEING FINISHED TODAY.

Dale L. Rowleson

THURSDAY, APRIL 15, 1971

CLEAR, WARM.
60°

I SHOWED THE CONTRACTOR THE WORK ANTICIPATED AT THE E2 DRIFTS AND LOCATED THE EXCAVATION. TED BEATH & I LOCATED THE PIEZOMETER BORINGS. SOME OF THE LOCATIONS INDICATED ON THE PLANS WERE MOVED BECAUSE OF TOPOGRAPHY, OR EASE OF ACCESS. THE CHANGES WERE NOTED ON THE PLANS.

CLEARING FOR THE WORK AT E2 DRIFTS STARTED. BOTH DRIFTS, E2 & E1 WERE CHECKED FOR GAS (METHANE) BY BLACKDAMP, BUT NONE DETECTED.

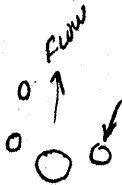
MR. ERNE BUTTERBALL OF THE DEPT OF MINES, VISITED THE SITE.

FRIDAY, APRIL 16, 1971

CLEAR, WARM.
60°

EXCAVATION AT E2B, THE TWIN SHAFT, STARTED. THE CONTRACTOR HAS BUILT A RAMP TO THE SITE ACROSS THE PONDED WATER. THE MATERIAL BEING REMOVED IS DRY AND SHOULD BE GOOD BACKFILL (CLAY) THE CONTRACTOR WILL BRING A SHEEPSFOOT TO THE SITE TO USE IN BACKFILL.

THE DRILLING CREW (PETEROLFS) IS AT THE SITE. THE DRILLING MACHINE WAS MOVED FROM ^{CRACK} CRACK B.H. TO THE E4 BOREHOLE. THE DRILLER SET UP ON THE BOREHOLE & REAMED IT CLEAN. AT THE BOTTOM OF THE HOLE, THE BIT WAS LODGED AGAINST SOMETHING AND WOULDN'T COME OUT. IT WAS LEFT IN THE HOLE OVER THE WEEKEND.



John Paulson

MONDAY, 19 APRIL 1971

CLEAR, WARM,
70°

AT E2B, THE CONTRACTOR HAS EXCAVATED INTO THE AREA OF THE TWIN SHAFTS. THE SHAFT ON THE DOWNHILL SIDE HAS APPARENTLY BEEN CLOSED FOR SOMETIME. IT WAS FILLED WITH CLAY, AND THE ONLY REMAINING EVIDENCE OF IT WAS SOME RANDOM TIMBERS, WHICH WERE REMOVED. THE SHAFT ON THE UPHILL SIDE HAD TIMBER WALLS AND ON ONE SIDE A BRICK & MORTAR WALL. THE BOTTOM STILL HAD TIES & TRACKS FOR THE COAL CARS. THE MINE SIDE OF THE SHAFT HAD CAVED & WAS HOLDING THE MINE WATER BACK. THIS CAVED AREA GAVE WAY & FLOODED THE EXCAVATION AREA TO A DEPTH ABOUT 1.5' BELOW THE TOP OF THE SHAFT. SOIL WAS PLACED IN THE SHAFT & PUSTED BACK UNTIL A GOOD TEMPORARY SEAL WAS PROVIDED. THE EXCAVATION AREA WAS DEWATERED BY PUMPS, & THE REMAINING SHAFT, TIES & RAILS REMOVED.

AT E4, THE BIT THAT WAS LODGED IN THE BOREHOLE WAS BROKEN LOOSE. THE BAILER BROUGHT UP 2" DIA TREE BRANCH. THE HOLE WAS REAMED & CLEANED.

WATER STARTED COMING THROUGH THE VALVE AT GUMMINGS TODAY.

Dale L. Paulson

TUESDAY, APRIL 20, 1971

NO SITE VISIT TODAY. THE CONTRACTOR CONTINUED WORK AT E2B & E4.

Dale L. Paulson

WEDNESDAY APRIL 21, 1971 - CLOUDY, COOL, 46°

A.J. SPORN & CREW WERE AT E3 TO REMOVE FORMS FROM THE SEAL, AND INSTALL THE ACCESS GATE. BLACKDAMP WAS A PROBLEM & THE WORK WAS SLOW. THE FLAME ON THE BUE LAMP COULDN'T BE MAINTAINED, AND THE GAS METER GAVE READINGS IN THE YELLOW ZONE OF 14-15%. THE CREW WOULD WORK FOR A FEW MINUTES & COME OUT FOR AIR. THIS IS THE MOST BLACKDAMP DETECTED, AND THE INCREASE MAY BE DUE TO THE SEALING OF THE ADJACENT AIR SHAFT.

THE SEAL AT E2B WAS COMPLETED, AFTER THE WATER WAS REMOVED, THE BACKFILL WAS PLACED IN 1' TO 1.5' LAYERS & COMPACTED WITH THE SHEEPSPOOK. THE BACKFILL WAS CONTINUED IN THIS MANNER TO 8' ABOVE THE TOP OF THE SHAFT (APPROX EL 1068). FROM THAT ELEVATION TO THE ORIGINAL GROUND SURFACE THE BACKFILL WAS PLACED WITH THE JOHN DEER & IH TRACTORS.

AT E4, THE DRILLER HAD SET UP ON THE PARTIALLY CLOSED HOLE & WAS REAMING & CLEANING IT. NUMEROUS STICKS (2" 3" DIA) WERE REMOVED. THE CLEANING WENT TO THE BOTTOM (~100'), AND THE FLOW FROM THE PIPE INCREASED SUBSTANTIALLY.

~~THE~~ THE VALVE AT CUMMINGS WAS CLOSED AT 10:30 AM, THE WATER ELEVATION WAS 9.5' BELOW THE TOP OF WALL, OR 1061.97

THURSDAY, APRIL 22, 1971

NO SITE VISIT. THE CONTRACTOR FINISHED CLEANING UP BOREHOLES. AT E2A THE CONTRACTOR OPENED UP THE SHAFT & PLUGGED IT WITH A TEMPORARY DIKE. THE EXCAVATION WAS PUMPED DRY. WALLS & FLOOR OF THE SHAFT WERE REMOVED.

Dale L. Rowland

FRIDAY, APRIL 23, 1971

CLEAR WARM
60°

ARRIVE AT SITE @ 1:00 PM W/ RICHARD LITTLE. VISITED ALL CONSTRUCTION AREAS TO SHOW PIEZ LOCATIONS WHEN DRILLING STARTS. CALL TO PENNA DRILLING INDICATED ON RIG WILL BE OUT MON OR TUES NEXT WEEK.

@ CUMMINGS, THE WATER LEVEL WAS UP 4', BUT THE VALVE WAS OPENED BECAUSE OF THE WEEKEND. IT WILL BE CLOSED MONDAY & MONITORED AGAIN.

ATEZA THE CONTRACTOR WAS SEALING THE SHAFT WITH CLAY FROM THE HILLSIDE. LIFTS WERE 1' & COMPACTED W/ THE SHEEPSFOOT. THE COMPACTED BACKFILL WENT TO 3' ABOVE THE SHAFT. THE BALANCE WAS BACKFILLED WITH THE DOZERS & COMPACTION BY THE EQUIPMENT WEIGHT.

Dale L. Rowland

MONDAY, APRIL 26, 1971

CLEAR, WARM

THE CONTRACTOR CLOSED THE VALVE AT CUMMINGS AGAIN (10:00 AM) TO ALLOW THE WATER TO RISE.

THE DRILL RIG FROM PENNA DRG. ARRIVED (CARL SMITH) AND HE WAS SET UP AT CUMMINGS FOR THE 1ST PIEZOMETER. RICH LITTLE WENT OUT TO GET HIM SET & STARTED.

Dale L. Rowland

TUESDAY, APRIL 27, 1971

CLOUDY, COLD
30° - 45°

LITTLE & ROWLISON AT SITE.

PENNA DRG. (SMITH) CONTINUED AT CUMMINGS WITH THE CORE BORING FOR THE PIEZOMETER. 20' OF SOIL BORING & 30' OF ROCK CORING IN TODAY. BEATR BROUGHT WELL POINT, PIPE & COUPLINGS & CEMENT TO CUMMINGS.

BEATR'S CREW WORKING CLEARING ABOVE E2, PREPARING FOR INSTALLING THAT BARRIER WHEN THE PIPE ARRIVES. THE ACCESS ROAD TO E4 & CROOKED CREEK BH WAS GRADED & DRAINED. LITTLE & I & BEATR LOCATED CROOKED CREEK BH WITH COMPAS & THE BEARINGS FROM THE MINE MAP.

Julie L Rowison

WEDNESDAY APRIL 28, 1971

CLOUDY am
SUNNY pm

LITTLE & ROWLISON AT THE SITE.

PA. DRG (SMITH) IS CONTINUING AT CUMMINGS. AT ~ 52' HE HIT A 3' COAL SEAM. CALLED ALMES & WAS DIRECTED TO GO DOWN MORE. DICK HAS MORE INFO ON COAL @ CUMMINGS, & DIDNT THINK THAT WAS THE MAIN SEAM. HE'LL CHECK IT FORSURE.

AFTER LUNCH THE SECOND PA RIG ARRIVED, ALSO A SKID. DRILLER IS TOM JULIAN. HE STARTED AT E2.

THE CONTRACTOR WAS WORKING ON THE BRIDGE, REMOVING
PLANING & RELOCATING THE GARD RAIL.

Dale L Rawlson

Thursday April 29, 1971

CLOUDY, COOL

SOME LIGHT RAIN.

THE CONTRACTOR CONTINUED WORKING ON THE BRIDGE
AT E2-E1. THE LINE OF THE PIPE SHOULD FOLLOW THE
CENTER SET OF CHANNELS TO BE REMOVED.

SMITH CONTINUED PELLING AT CUMMINGS, BUT APPARENTLY
THE COAL @ 50 IS THE ONE MINED. HE'LL GO TO 100' TO
MAKE SURE. TOM GOT INTO ROCK ON E2 & IS CORING.

I TRAVELED TO JENNERSTOWN & MET WITH GEORGE MANDER,
DIN PETEROLF & TED BEAHL TO MAKE OUT THE MONTHS
BILLING. LITTLE STAYED WITH THE DRILLERS.

FRIDAY APRIL 30, 1971

CLOUDY, COOL

LITTLE AT SITE W/ DRILLERS. SMITH GOT TO 113' AT CUMMINGS,
THEY HIT A BONEY SHALE @ 103' & WENT 10' MORE TO SEE IF
COAL WAS THERE, BUT NO. IN PRESSURE TESTING THE
PACKER WOULDN'T FUNCTION BELOW 37'. TRIED UNSUCCESSFULLY
AT 60, 45 & 38' WITH NO LUCK. THE PACKER PULLED UP &
WOULDN'T HOLD IN THE HOLE.

TOM JULIAN PRESSURE TESTED E2 HOLE (P-3) &
INSTALLED THE PIEZOMETER.

Dale Rawlson

MONDAY, MAY 3, 1971

CLOUDY, COOL
LT. RAIN.

THE CONTRACTOR IS DOING MOSTLY CLEANING UP OPERATIONS NOW & GETTING PIPE GROUT ETC FOR DRILLERS, WAITING FOR THE 18" PIPE. SOME WORK CAN BE DONE ON THE PIPE SUPPORT FOR THE BRIDGE & GRADING AT FULTON. ALSO THE GRADING AT DDH 44.

SMITH PRESSURE TESTED FROM 87' UP IN THE CUMMING'S HOLE. LITTLE WAS OUT WITH SMITH SATURDAY FOR 2 HOURS GETTING VARIOUS TRYS AT MAKING THE PACKER WORK. THE RODS WERE INTERCHANGED, THE PACKER INSPECTED, BUT NO LUCK. AFTER PRESSURE TESTING TODAY, I TOLD SMITH TO LEAVE THE CASING IN AT P1 & COME BACK TO PULL IT & BACKFILL. HE LOADED & MOVED TO E3 (P-4)

TOM JULIAN LOADED AT E2 (P-3) & MOVED TO (P-5) E3 COLLAPSED SHAFT & GOT STARTED THERE.

Dale L. Rowleson

TUESDAY MAY 4, 1971

CLEAR, COOL

SMITH STARTED P-4, HIT THE ^{DRIFT} ~~SHALE~~, PRESSURE TESTED THE HOLE, SET THE PIEZOMETER & LOADED FOR THE MOVE TO E4 (P-8)

JULIAN ALSO CONTINUED AT P-5, HIT THE DRIFT, PRESSURE TESTED & SET THE PIEZOMETER.

TED'S CREW WAS NOT OUT. TED & BILL BELL WERE THERE TO HAUL MAT'L & INSTALL PIEZ HOUSINGS.

Dale L. Rowleson

WEDNESDAY, MAY 5, 1971

PTY CLOUDY, COOL.

CARL SMITH GOT LOADED & MOVED TO E4 & STARTED SOIL SAMPLING. HE JUST GOT TO ROCK & STARTED CORING BY THE MIDDLE OF THE DAY.

TOM JULIAN LOADED AT E-3(CP-5) & MOVED TO FULTON A. HE GOT TO TOP OF ROCK & STARTED CORING.

I WENT OVER THE PLANS FOR THE BRIDGE CROSSING OF THE TRANSFER PIPE (E1-E2) WITH TED. HE WANTS TO FABRICATE THE BOX & PIPE SUPPORT NOW & PLACE THE PIPE LATER. THE LINE FROM E1 TO E2 SHOT BY GREN WITH A TRANSIT DOESN'T PARALLEL THE CHANNELS, SO THE SIDE SUPPORT CHANNELS WILL HAVE TO BE MOVED, OR SLIGHT ADJUSTMENTS MADE IN THE SUPPORT HANGERS.

Dale L. Rowles

THURSDAY, MAY 6, 1971

CLOUDY, COOL, RAIN

NO WORK TODAY BECAUSE OF RAIN. TED BEHR & CARL SMITH @ SITE, BUT WENT HOME RIGHT AWAY.

Dale L. Rowles

FRIDAY, MAY 7, 1971

CARL & TOM CONTINUED DRILLING AT P8 & P10 RESP. P8 LACKS 25 FT OF EXPECTED DRIFT EL. & P10 LACKS 15'. BOTH ARE TO COMPLETE THE HOLES TOMORROW.

BEHR'S CREW STILL WORKING AT THE BRIDGE MAKING THE PIPE SUPPORT.

WATER LEVEL AT CUMMINGS ~10.695, 15' TO GO TO E1
E1-

Dale L. Rowles