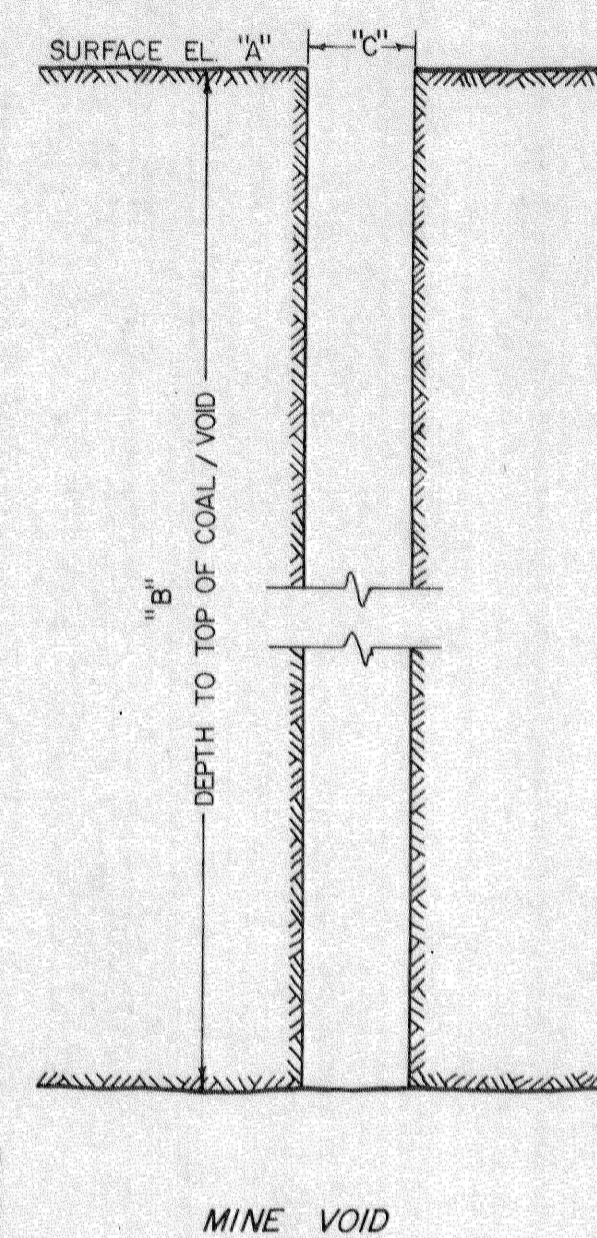
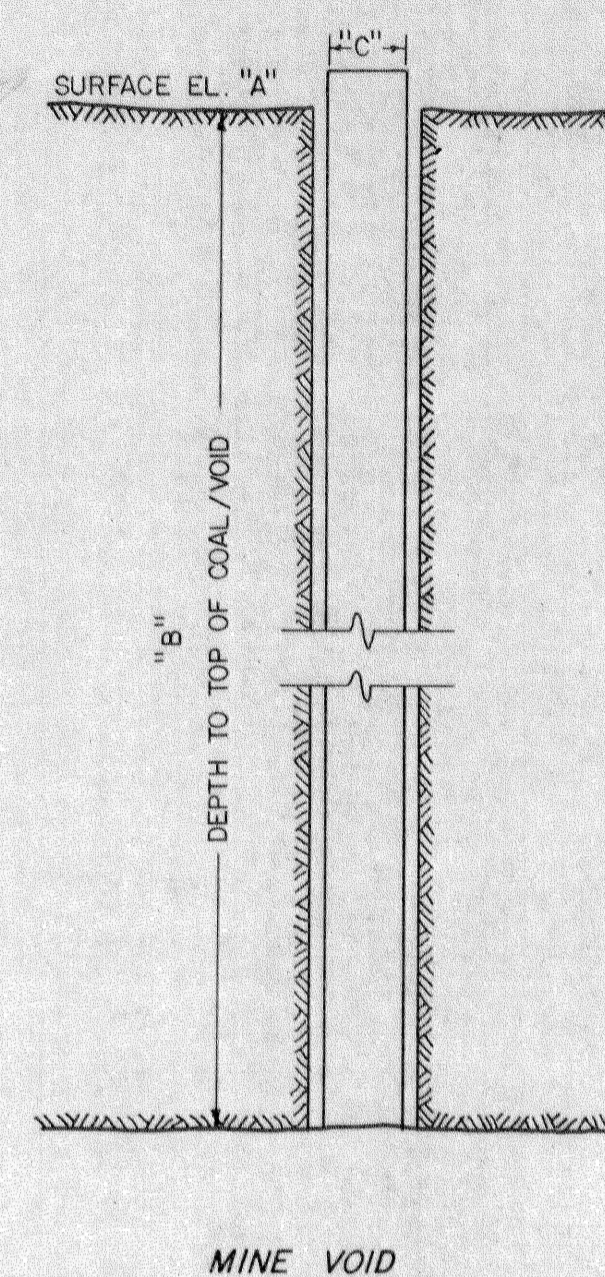


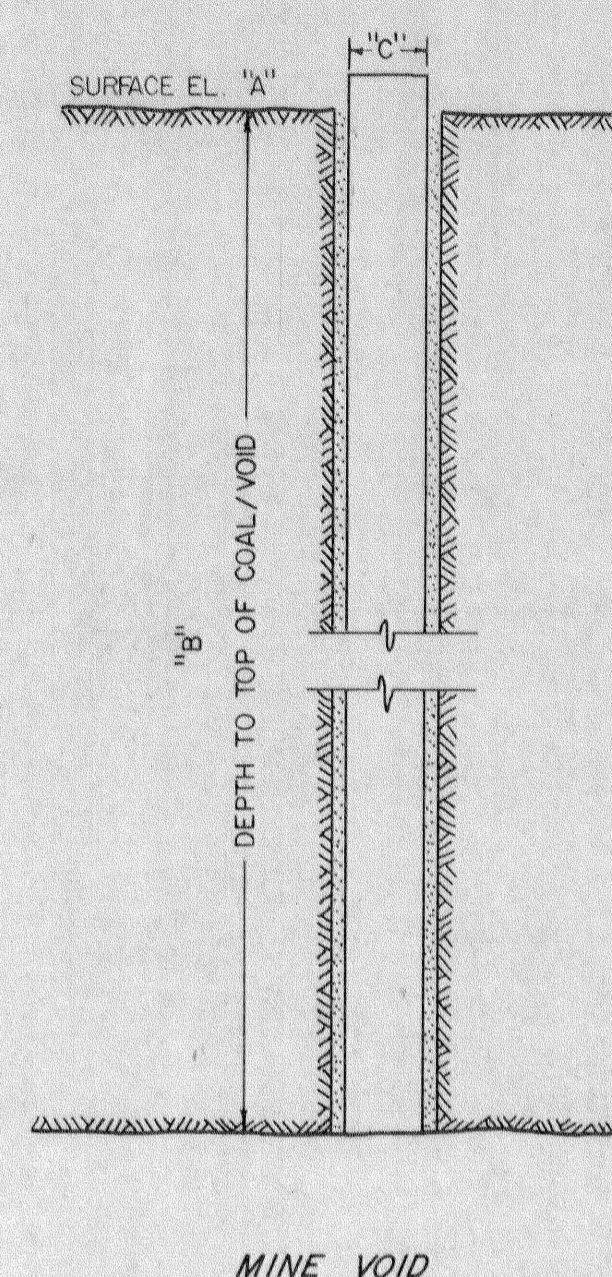
BOREHOLE TYPICAL (1) FOR
(UNCASED / UNGROUTED BOREHOLES)



BOREHOLE TYPICAL (2) FOR
(CASED / UNGROUTED BOREHOLES)

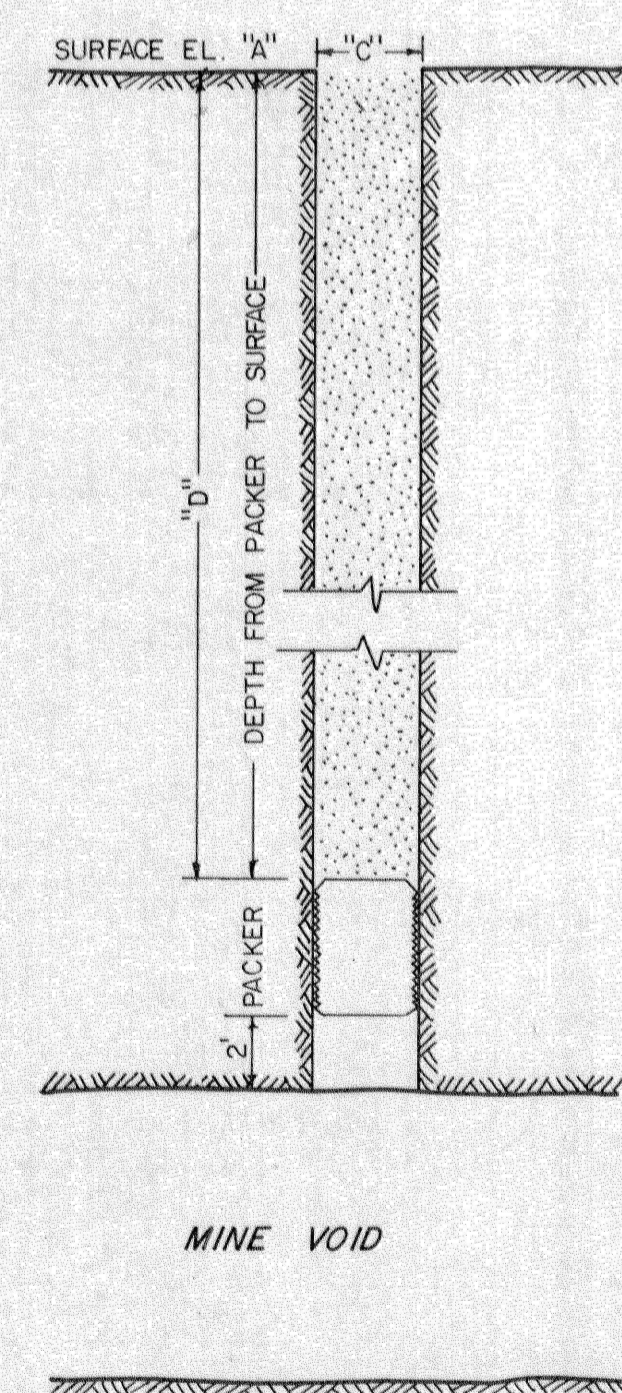


BOREHOLE TYPICAL (3) FOR
(CASED / GROUTED BOREHOLES)

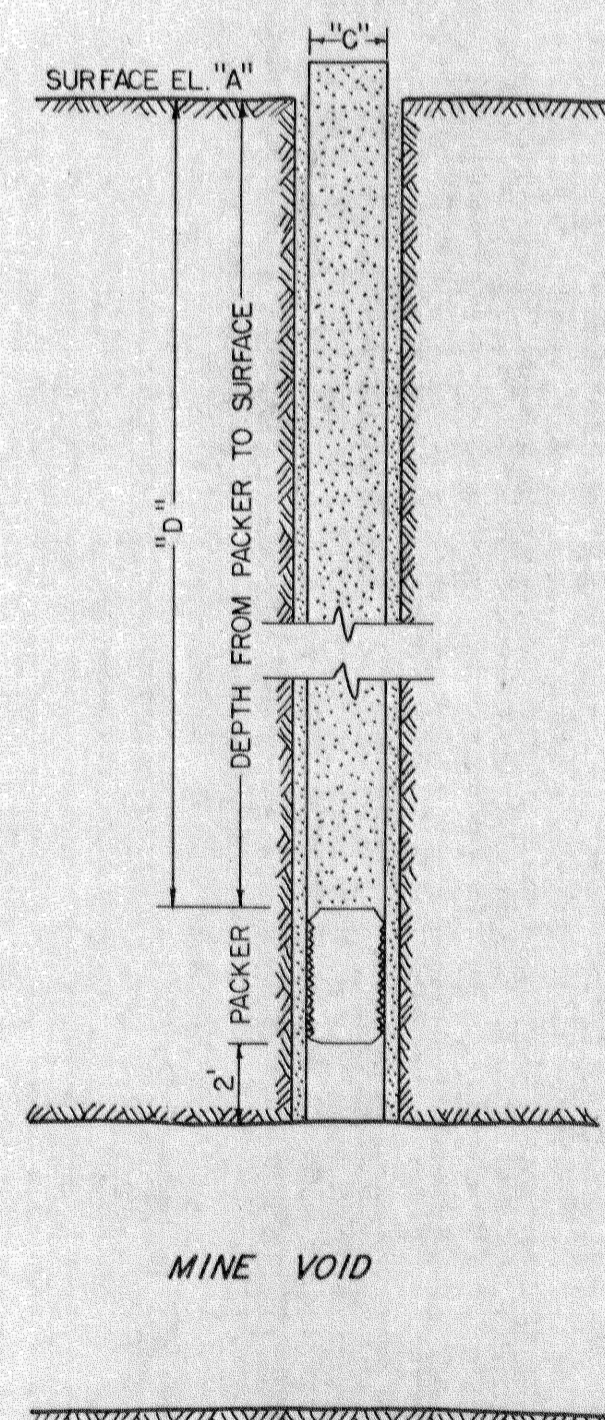


TYPICAL BOREHOLE CONFIGURATIONS

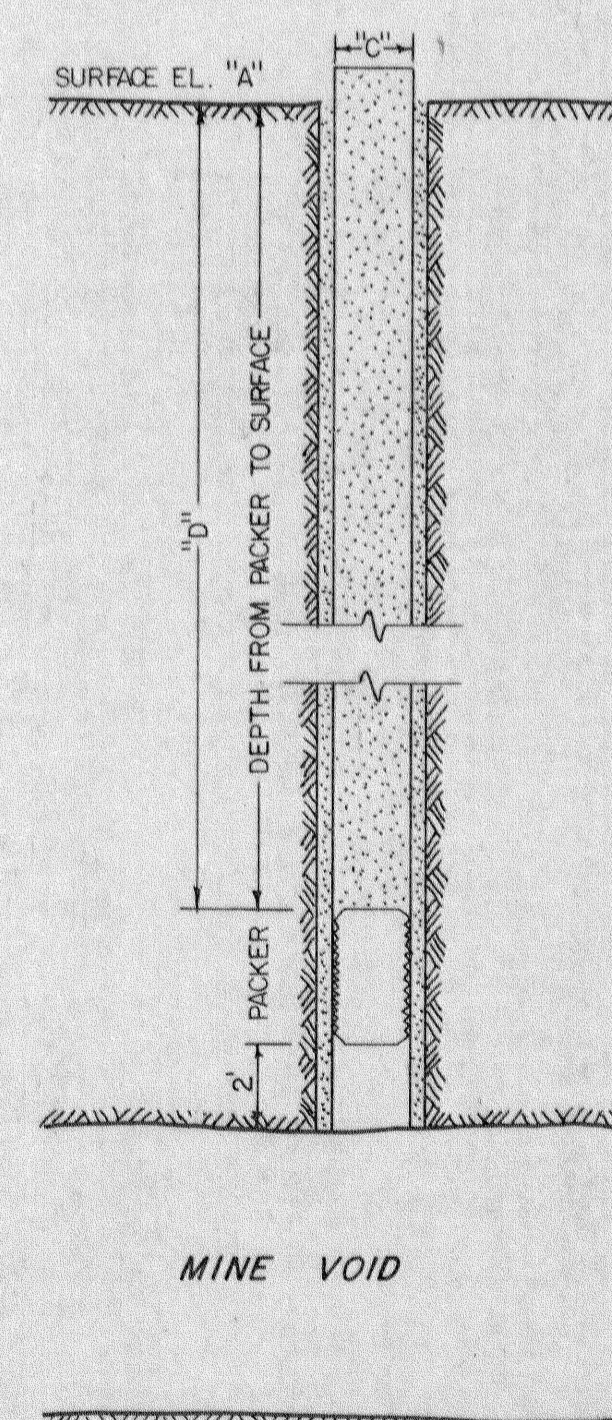
SEALING DETAIL (4) FOR
(UNCASED / UNGROUTED BOREHOLES)



SEALING DETAIL (5) FOR
(CASED / UNGROUTED BOREHOLES)



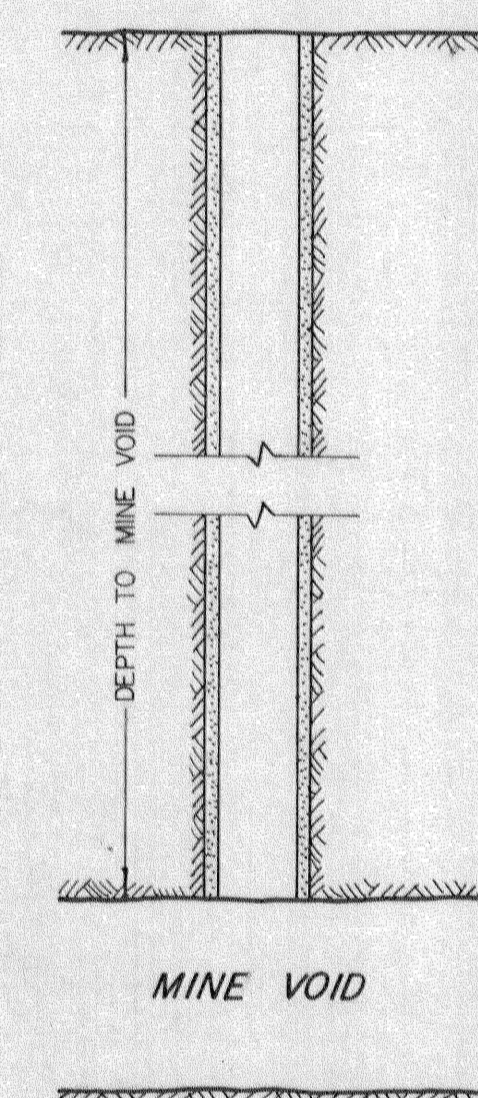
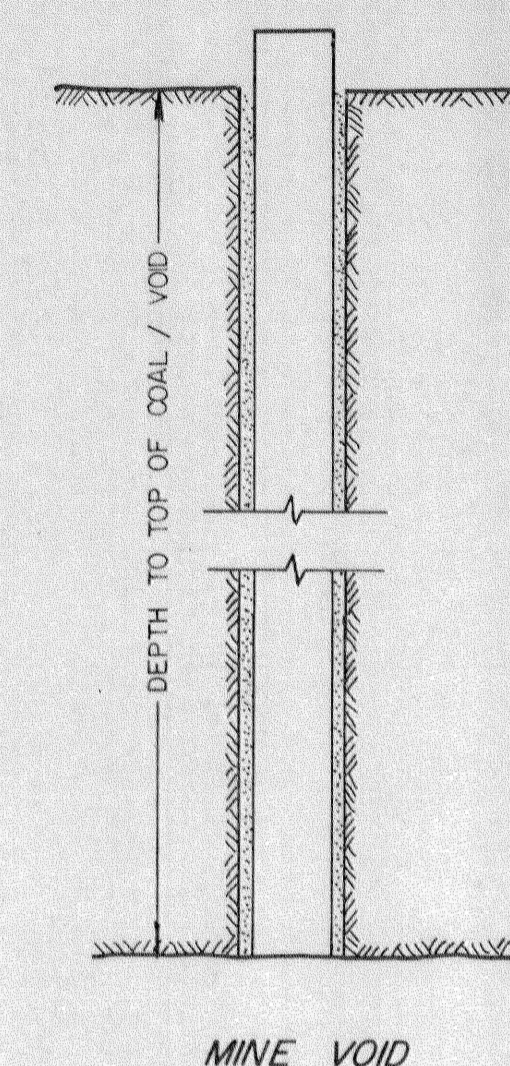
SEALING DETAIL (6) FOR
(CASED / GROUTED BOREHOLES)



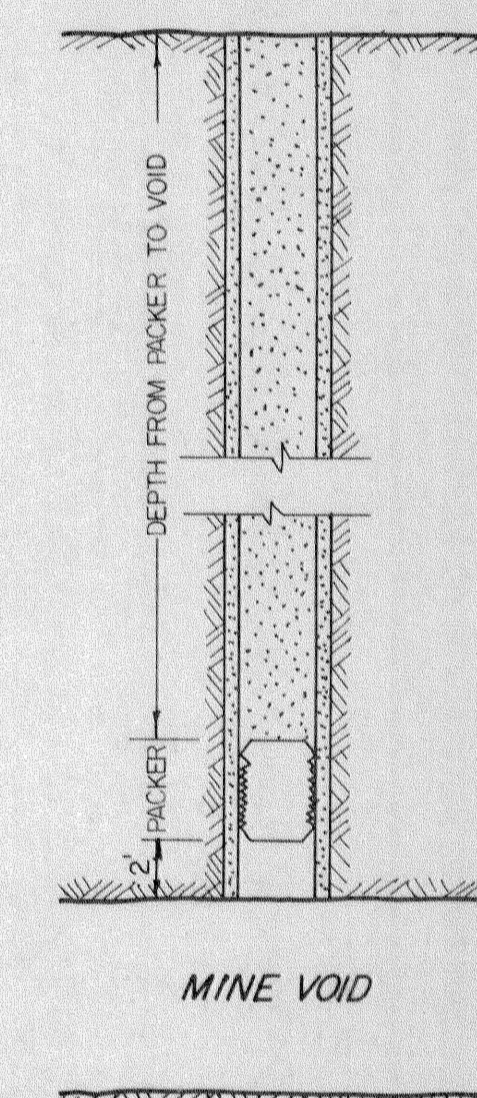
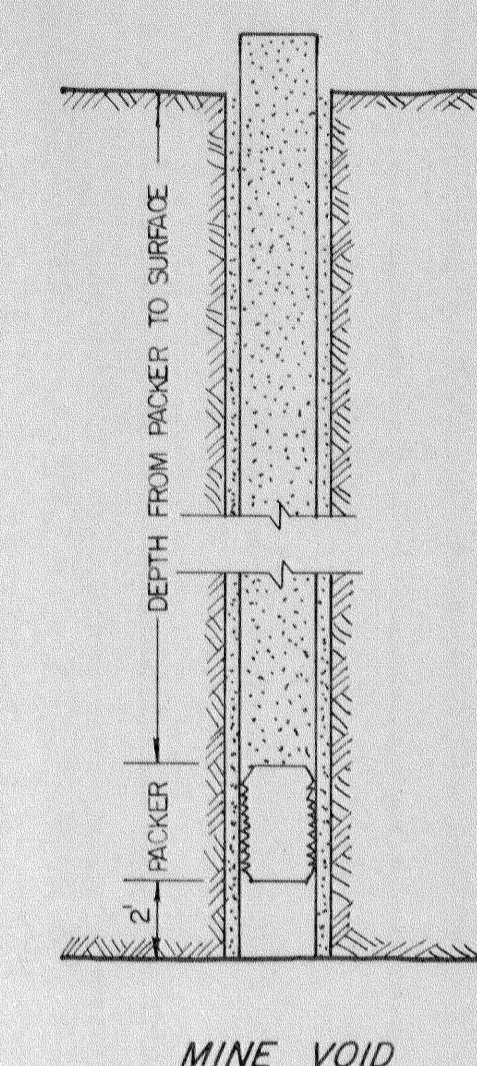
TYPICAL SEALING DETAILS

| SEAL NO. | "A" | "B" | "C" | CASING TYPE | CASING DEPTH | "D" |
|----------|------|------|-----|-------------|--------------|------|
| 4 | 1481 | 286' | 6" | STEEL | 286' | 281' |
| 5 | 1736 | 598' | 6" | STEEL | 598' | 583' |
| 6 | 1384 | 227' | 10" | STEEL | 227' | 222' |
| 9 | 1356 | 211' | 8" | STEEL | 211' | 206' |
| 10 | 1667 | 577' | 6" | STEEL | 577' | 572' |
| 11 | 1557 | 557' | 20" | STEEL | 557' | 552' |
| 12 | 1560 | 560' | 20" | STEEL | 560' | 555' |
| 15 | 1211 | 61' | 10" | STEEL | 61' | 56' |
| 16 | 1286 | 116' | 6" | STEEL | 116' | 111' |
| 18 | 1486 | 480' | 20" | STEEL | 480' | 475' |
| 19 | 1638 | 491' | 6" | STEEL | 491' | 486' |
| 20 | 1791 | 668' | 6" | STEEL | 668' | 663' |
| 21 | 1619 | 515' | 6" | STEEL | 515' | 505' |
| 22 | 1615 | 515' | 6" | STEEL | 515' | 510' |
| 24 | 1632 | 497' | 6" | STEEL | 497' | 492' |
| 25 | 1754 | 565' | 6" | STEEL | 565' | 560' |
| 26 | 1752 | 471' | 6" | STEEL | 471' | 466' |
| 27 | 1752 | 471' | 6" | STEEL | 471' | 466' |
| 28 | 1752 | 472' | 6" | STEEL | 472' | 467' |
| 29 | 2050 | 639' | 6" | STEEL | 639' | 634' |
| 30 | 1924 | 642' | 6" | STEEL | 642' | 637' |
| 31 | 1620 | 454' | 6" | STEEL | 454' | 449' |

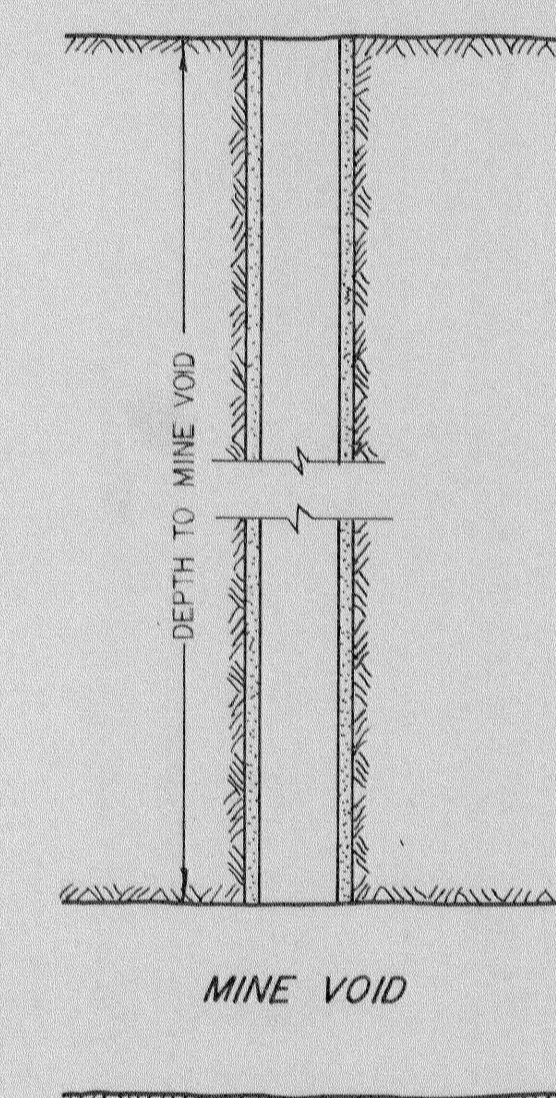
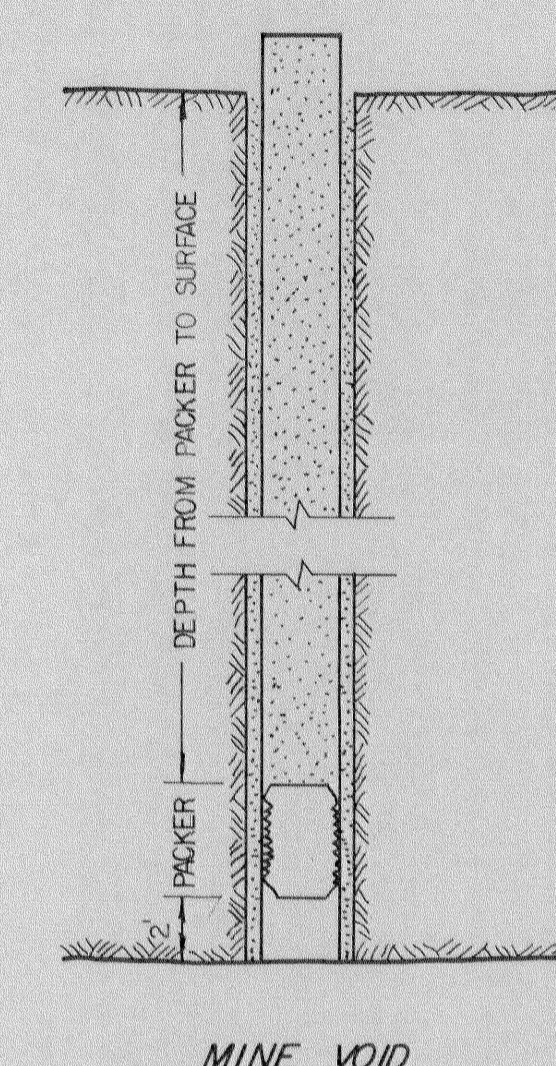
BOREHOLE TYPICAL (7) FOR
SEAL AREA 18
(CASED / GROUTED DRAIN HOLES)



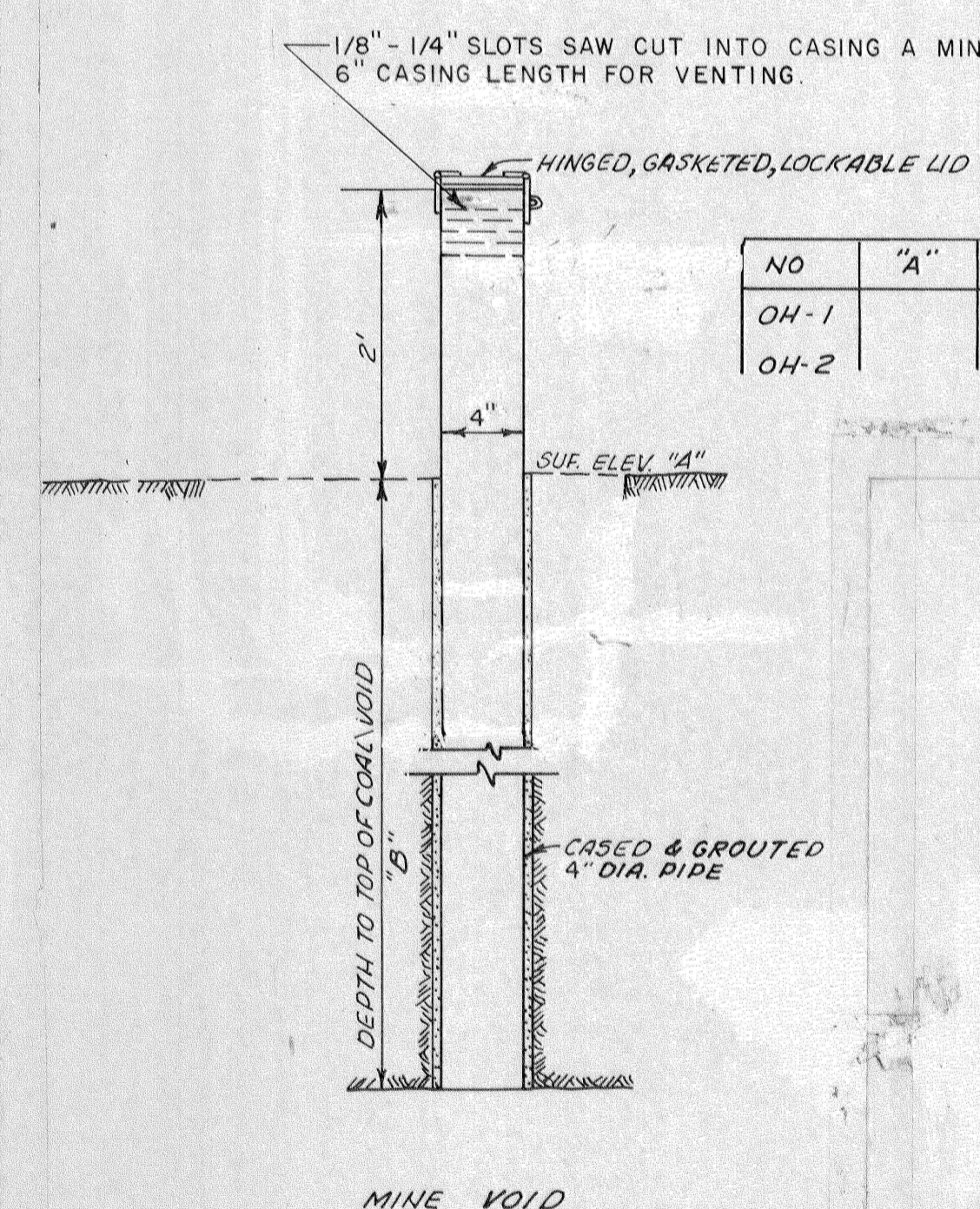
SEALING DETAIL (8) FOR
SEAL AREA 18
(CASED / GROUTED DRAIN HOLES)



SEALING DETAIL (9) FOR
SEAL AREA 18
(CASED / GROUTED DRAIN HOLES)



DRAIN HOLE SEALING



OBSERVATION HOLE DETAIL
NO SCALE

RECEIVED
SEP 29 1989

Dept. of Environmental Resources
McMurray District Office

| REVISIONS | ISSUED | BOREHOLE SEALING DETAILS | SCALE NO SCALE |
|-----------|--------|--------------------------------------|----------------------|
| | | BIRD NO. 2 & 3 | |
| | | BIRD COAL COMPANY | |
| | | SITUATE | |
| | | STONY CREEK TOWNSHIP, CAMBRIA CO, PA | |
| | | CONEMAUGH TWP, SOMERSET CO, PA | |
| | | JOB | |
| | | FILE | |
| | | GWIN, DOBSON & FOREMAN, INC. | SHEET NO |
| | | CONSULTING ENGINEERS | 38 |
| | | ALTOONA, PENNSYLVANIA | |
| | | DRAWN BY: BLK | CHECKED: |