## COMMONWEALTH OF VIRGINIA

DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS:

B 3667

DIVISION OF MINERAL RESOURCES OFFICE ADDRESS:

JAMES L. CALVER, COMMISSIONER

Charlottesville, VA 22903 WATER WELL COMPLETION REPORT Charlottesville, Virginia

McCormick Road

| OWNERCourty School Board of Augusta Co., Va.   | _ Mailing A |                  |   |                           |         | 0.7                    | MORT              |
|--|-------------|------------------|---|---------------------------|---------|------------------------|-------------------|
| TENANT: Madrid Elem. School  | _ Mailing A | ddress:_         | rden<br>åå se                           | overbu<br>blue            | Clay    | 3.1                    | 33                |
| DRILLERGilliam & Mundy 15 [15m2  | _ Mailing A | ddress:          | Box 1                                   | 62; B                     | uchana  |                        | 18                |
| WELL LOCATION County - NAugusta  | _ Approx    | _2               | miles                                   |                           | thwest  | ib)7 <u>01</u>         | rection) of       |
| Dooms taggor-metry vollay and 400  | feet        |                  |   | L yezp<br>(direct         |         | Int sof                | 07<br>640% 86     |
| (GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TO COUNTY HIGHWAY OR OTHER MAP.)  | TWO REFE    |                  | -51J 153                                | n Amaria                  |         | - Child                | Calab             |
| DATE STARTED: July, 1972   | DATE        | estone<br>LIAMOS | ETED                                    | harde<br><b>20</b> 444    | tober   | 15, 1972               |                   |
| TYPE OF DRILL RIG USED: Air Rotary   |             | -(caves          | TOT                                     | limest<br>bla <b>J</b> cA | E P.T   | 1601<br>H <u>+5550</u> | 18 100<br>10 feet |
| WATER LEVEL: Stands 80 feet below  |             | OR               | eno                                     | limost                    |         | 220'<br>221'           | 2201              |
| inday nhosa NATURAL flow of_   |             |                  |   | minu                      | t e los |                        | 1788              |
| YIELD TEST: Method test pump   | HOLE        | SIZE             |   | _inches                   | from_   | 1 to 1                 | .00feet           |
| Drawdownfeet   |             |                  | _6                                      | _inches                   | from_   | 100 to 5               | 50 feet           |
| Rate 30 gal. per min.  |             | эло              | one                                     | inches                    | from .  | 1850t 6"               | feet              |
| Duration 48 hrs. 0 min.  | SCREE       | EN SIZE          |   |                           | from_   | 10 to 12               | 10 feet           |
| WATER ZONES: from 76 76 78 feet  |             | anot o           | 9110                                    | inches                    | from_   | 5201                   |                   |
| 6 zones from 317 to 520 feet (See log on back)   | 04.05       |                  |   | _inches                   | from.   | to                     |                   |
| fromtofeet   | CASE        | SIZE             |   |                           |         | <u>+1</u> to 1         |                   |
| WATER: ColorTaste  |             |                  | *************************************** | inches                    | from_   | t o                    | feet              |
| OdorTemp°F   |             |                  |   | _inches                   | from    | to                     | feet              |
| WELL TO SUPPLY: (check one) Home   | GROU        | JTING:           | Metho                                   | _ pum                     | ped     | _                      |                   |
| Farm Town School X   |             | Mater            | ial <u>Ce</u>                           | ment w                    | ater D  | epth10                 | 00 feet           |
| IndustryOther  | PUM         | ρ'.              | Туре                                    | Submer                    | sible   |                        | -                 |
| WATER ANALYSIS AVAILABLE: YesX_No  |             |                  | Capaci                                  | t y5                      | HP      | gal                    | per min           |
| ORILL CUTTINGS SAVED: (59) Yes_X_No<br>(DRILL CUTTINGS SHOULD BE COLLECTED AT 10 FOOT<br>OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISH |             | . THESE          | SAM                                     | PLES                      | MAY BE  |                        |                   |
| R ARKS:  |             |                  |   |                           |         | -                      | -                 |
|  |             |                  |   |                           |         |                        |                   |
|  |             |                  |   |                           |         |                        |                   |

COMMONWEALT DOJE VIRGINIA
DEFANTMENT OF CONSERVATION AND ECONOMIC DEVELORMENT FURNISHED BY:\_\_\_ \_DATE:\_

| DEPTH<br>(feet) |            | TYPE OF ROCK OR SOIL PENET   |  |
|-----------------|------------|--|--|
| FROM            | то         | (gravel, clay, etc., hardness, color,  | etc.) (water, caving, shot, screen, sample, etc.)  |
| 0               | 3'         | Clay overburden  | TENANT Madrid Elem. School   |
| 31              | 81         | Solid blue limestone   | Small dry pocket   |
| 81              | 8' 6"      | TECrevas Box 162; avenue   | Small dry pocket makillog a lange  |
| 8' 6"           |            | Soliā blue limestone   | District Heart Park and Heart Park and Heart   |
| 681             | 70'        | Crevas   | Red mud-sloppy-not thick   |
| 70'             | 76'        | Blue-grey limestone  | British mad Broppy flot chirok   |
|                 | 178 dal    | Crevas dinoi   | Yellow water-soapstone   |
| 70              |            | CIEVAS III.  |  |
| 118'            | 119'       | Soft grey slate  | Lot of water   |
| 119'            | 129'       | Solid harder limestone   | ( SAM WOLLD BO ANABIH ATMOS  |
| 129'            | 129 843    |  | SATE STARTED July, 1972  |
| 29' 8"          | 160'       | Soft reddish shale (no crevas)   | STATE CONTRACTOR OF THE  |
|                 |            | Grey limestone   | Type of oally Rin Used Air Potary  |
| 160'            | 1601 6"    | Grey slate (no crevas)   |  |
| 60' 6"          | 220'       | Solid blue limestone   | 80   |
| 220 '           | 221'       | DOLG TIMODOGIC   | WATER LEVEL' Stands 80 set skipy   |
| 221'            | 317'       | Solid blue-black limestone   |  |
| 317'            | 317' 8"    | Scft shale   | Increase in water  |
| 17' 8"          | 395'       | Solid  |  |
| 395'            | 395' 6"    | Soft limestone   | Increase in water  |
| 431'            | 432'       | C-EL   | Increase in water  |
| 466'            | 467        | Soft shale   | 198LV.L nwn hwb til  |
| 4851            | 485' 6"    | Soft limestone   | Increase in water  |
| 85' 6"          | 510'       | Blue-grey limestone  | 401 101 101 101 101 101 101 101 101 101  |
| 510'            | 510' 8"    | Soft BANK 3512 MBBB38  | Possible increase in water   |
| 10' 8"          | 517'       | Crey limestone   | 100010101010100000000000000000000000000  |
| 518'            | 520'       | Soft limestone   | Increase in water SHOT RETAIN  |
| 520'            | 550'       | Solid blue limestone   | Therease th water 23005 A37AW  |
| 1 - 1           |            | Dolla Said Lines come  | 6 zones 1/00 317 10 520 6081   |
|                 |            |  | (See backoo back)  |
|                 | L L        | CASE SIZE: 6 MERRY FROM #  | WORL GLASMI SOUT   |
|                 |            |  | 1111   |
| teal            |            |  | WATER COMP.  |
|                 |            |  | 10100 A 20MM   |
|                 |            |  | 19 central control   |
|                 |            |  | 1519   |
|                 |            | GROWTHNESS MALESpumped   | to the second of |
|                 |            | CANCELL CONTENT OF A CONTEN | WELL TO SUPPLY REAL PARTNERS OF LIBER  |
| 144             | 100        | Mangadi Cement Water of  | v .  |
|                 | 70.1       | SO TOTAL STEPHEN   | Ferm Town Temp Canada  |
|                 |            | eldieromdos and skue   |  |
|                 |            |  | 11 110 XUBubat   |
|                 |            | CT-171   |  |
| 100             | 10.2       | Titl glunger   | WATER ARREYSIS AVAILAGLETS WALKETS   |
|                 | 200        |  |  |
| 1521            |            |  | ARILL CUTTINGS SAVED (88) 1-X1 CUTTINGS  |
| 0.80            | T TENNETHS |  | TETT OF CHICAGO AN COUNTRY PRINTING LINE   |
|                 | 1          |  | 변화에게 이 2004 - PROPER THE ARTHUR HER STORE HER HER HER HER HER HER HER HER HER H  |
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|                 | 1          |  |  |
|                 |            |  |  |
|                 |            |  |  |

## VIRGINIA DIVISION OF MINERAL RESOURCES Box 3667, Charlottesville, VA 22903

#### INTERVAL SHEET

Page 1 of 1 Well Repository No.: W- 3673

Date rec'd: 11-13-72 Date Processed: 2-15-73 Sample Interval: from 21/2 to: 550'

PROPERTY: Augusta County School Board Number of samples: 57

(Madrid Elem. School)

COMPANY: Gilliam & Mundy Total Depth: 550'

COUNTY: Augusta (Madrid) Oil or Gas: Water: Exploratory:

| Fr   | om-To            | From-To  | From-To          | From-To  | From-To |
|------|------------------|--|------------------|----------|---------|
|      |                  | 225 _ 230  | 475_ 480         | _        | _       |
| 21/2 | _ 3              | 245 _ 250  | 485_ 490         | _        | -       |
| 5    | _10              | 255 _ 260  | 495_ 500         |          | _       |
| 15   | _20              | 265 _ 270  | 505 - 510        | _        | _       |
| 25   | _30              | 275 _ 280  | 515_ 520         | _        | _       |
|      |                  | •  | J1J= J20         | -        |         |
| 35   | _40              | 285 _ 290  | 525 - 530        | _        | _       |
| 45   | _50              | 295 _ 300  | 535 <b>-</b> 540 |          | _       |
| 55   | _60              | 309 _ 310  | 545 - 550        |          | _       |
| 68   | _70              | 310 _ 317  | -                |          | _       |
| 76   | _78              | 317 320  | _                | _        | _       |
|      |                  | 20000000   | -                | _        |         |
| 85   | _90              | 325 _ 330  |                  |          | _       |
| 95   | _100             | 335 _ 340  | -                |          | _       |
| 105  | _110             | 345 _ 350  | <u>-</u>         | _        | _       |
| 125  | _130             | 355 _ 360  | _                | _        | _       |
| 129  | _130             | 365 370  |                  | _        | _       |
|      |                  | and the second s | <u>∞</u>         | _        |         |
| 135  | _140             | 375 _ 380  |                  | <u>_</u> | _       |
| 145  | _150             | 385 390  | _                |          | 1       |
| 155  | _160             | 395 _ 400  | 1-1              | _        | _       |
| 165  | _170             | 405 410  | . <del>-</del>   |          | _       |
| 177  | _178             | 415 420  | , <del>-</del>   | _        | _       |
|      |                  |  | -                |          |         |
| 180  | _181             | 425 430  |                  | ~        | _       |
| 185  | _190             | 435 440  | -                | _        |         |
| 195  | 200              | 445 450  |                  | _        | _       |
| 205  | _210             | 455 460  | -                | _        | _       |
| 215  | _230             | 465 470  | -                | _        | _       |
|      |                  | -  | -                |          |         |
|      |                  |  | _                | _        | _       |
|      | -                |  |                  | _        | =       |
|      | - <del>-</del>   |  | _                | _        | _       |
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|      | _                | _  | _                |          |         |
| ) .  | _                | _  | _                | _        | _       |
|      | - <del>5</del> 5 | -  | _                | _        | _       |
|      | <del></del>      | -  | _                | _        | _       |
|      | _                | <del></del> -  |                  |          |         |
|      |                  | _  |                  |          | _       |
|      | -                | -  | ; <del>-</del> . |          | 332.4   |

All intervals have both washed and unwashed samples.

OWNER: Augusta Co. School Board DRILLER: Gilliam and Munday

COUNTY: Augusta

VDMR # 3673 WWCR # 221 TOTAL DEPTH : 550'

# GEOLOGIC LOG

| 2.5-3   | Dolomite - grey, fine-grained, crystalline; a few buff chips of weathered claystone or slaty dolomite; minor quartz sand.   |
|---------|---|
| 5-10    | Dolomite - grey, fine-grained, crystalline; some light-grey to buff dolomite; minor buff-to-grey slate or phyllite chips with muscovite plates along cleavage.                                      |
| 15-20   | n n   |
| 25-30   | Dolomite - light-grey, fine-grained, crystalline minor pyrite cubes, very few slaty chips.  |
| 35-40   | Dolomite - light-grey to grey, fine-grained, crystalline.   |
| 45-50   | Dolomite - light grey to grey, fine-grained crystalline, minor amounts of light tan to white limestone chips.   |
| 55-60   | Limestone - dark-grey, fine-grained, with dark-grey, fine-<br>grained crystalline dolomite. Minor dark, slaty dolomite<br>chips.  |
| 68-70   | Silty-clay - (cave mud?), yellow, friable, minor chips of dark-grey dolomite.   |
| 76–78   | Limestone - dark-grey, argilloceous, fine-grained, tan and orange weathered phyllite or slaty dolomite; dark-grey, fine-grained, crystalline dolomite.  |
| 85-90   | Dolomite - grey to dark-grey, fine-grained, crystalline dark grey argillaceous limestone, tan calcareous argillite, dark grey calcareous phyllite.  |
| 95-100  | " minor white vein calcite.   |
| 105-110 | Phyllite - dark, silvery-grey; fibrous calcite produces<br>lineatron on schistosity; with dark-grey, fine-grained<br>crystalline dolomite, white calcite (veins) dark-grey<br>calcareous argillite. |
| 125-130 | Limestone - light-grey, fine-to-medium-grained crystalline; with dark grey crystalline dolomite and dark grey lustrous phyllite.  |
| 129-130 | Limestone - light-grey and dark-grey, white and yellow-stained vein calcite, pink and yellow weathered argillite and phyllite.  |
| 135-140 | Limestone - grey, fine-grained, crystalline; not obviously schistose but breaks into flat chips.  |
| 145-150 | Limestone - lighter in color than above, some dark-grey crystalline dolomite.   |

| 155-160 | Phyllite - dark-grey with lustrous cleavage surfaces; white light-grey and dark-grey crystalline limestone, some with fine, rounded quartz sand grains.   |
|---------|---|
| 177-178 | Argillite - finely laminated, dark-grey, weathered yellowish orange; with weathered, yellow-orange phyllite, dark-grey, shiny phyllite, grey and dark-grey limestone and dolomite; some fine calcareous quartz sandstone. |
| 180-181 | Dolomite - dark-grey, fine-grained, crystalline; very minor yellow, weathered, phyllitic chips.   |
| 185-190 | Dolomite - dark-grey as above; white dolomite veins in some larger chips.   |
| 195-200 | 11  |
|         | some dark-grey limestone.   |
| 205-210 | Dolomite - light-grey fine-to-medium-grained, crystalline.  |
| 215-220 | п   |
|         |   |
| 225-230 | Dolomite - very dark-grey to black, fine-grained crystalline; some white vein dolomite.   |
| 245-250 | п   |
| 255-260 | Dolomite - grey, medium-grained, speckled or salt-and-pepper texture; crystalline white dolomite a minor constituent.   |
| 265-270 | " slightly darker.  |
| 275-280 | Dolomite - very dark-grey to black, fine-grained, crystalline.  |
| 285-290 | n n   |
| 295-300 | п   |
| 309-310 | " lighter grey.   |
| 310-317 | Dolomite - dark-grey; weathered, tan phyllite.  |
| 317-320 | Dolomite - grey, fine-to-medium-grained, crystalline.   |
| 325-330 | Dolomite - light-grey to grey, fine-grained white dolomite veins in some larger chips.  |
| 335-340 | п   |
| 345-350 | Dolomite - dark-grey, fine-grained, crystalline; some white dolomite veins in larger chips.   |
| 355-360 | Dolomite - grey, fine-to-medium-grained; crystalline, white dolomite veins in larger chips.   |

| 365-370 | TI T   |   |
|---------|--|---|
| 375-380 | Dolomite - dark-grey, fine-grained, crystalline.   |   |
| 385-390 | ·u   |   |
| 395-400 | grey to dark grey  |   |
| 405-410 | with pyrite.   |   |
| 415-420 | Dolomite - grey to dark-grey, fine-grained, some laminated or platy chips with sericite growth on flat bedding (?) surfaces. |   |
| 425-430 | Dolomite - grey to dark-grey, fine-grained, crystalline, with minor amounts of pyrite.                                       |   |
| 435-440 | Dolomite - light-grey to grey, fine-to-medium-grained, crystalline.  |   |
| 445-450 | Dolomite - grey, fine-to-medium-grained, crystalline.  |   |
| 455-460 | Dolomite - grey, fine-to-medium-grained; a few chips os dark grey slaty dolomite in this interval.                           | [ |
| 465-470 | " with fewer slaty chips.  |   |
| 475-480 | п  |   |
| 485-490 | " some weathered chips.  |   |
| 495-500 | Dolomite - dark-grey, slaty, muscovite plates on cleavage surfaces; pyrite films and lamelli.                                |   |
| 500-510 | Dolomite - light-grey to grey, fine-to-medium-grained, crystalline; minor slaty chips.                                       |   |
| 515-520 | Dolomite - light-grey to dark-grey; some yellow-weathered chips.   |   |
| 525-530 | Dolomite - light-grey to grey, fine-to-medium-grained; with some slaty chips that show muscovite on flat cleavage surfaces.  |   |
| 535-540 | Dolomite - light-grey to grey, medium-to-fine-grained, crystalline; a few slaty chips.                                       |   |

545-550

Dolomite - grey to dark-grey, fine-grained crystalline; a few tan-weathered chips.

## GEOLOGIC SUMMARY

ROCK UNIT

AGE

2.5-550 Elbrook Formation (upper part)

Cambrian

Virginia Division of Mineral Resources William S. Henika - Geologist November 26, 1976