

MEMORANDUM REPORT ON BRICK CLAYS IN VIRGINIA

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Virginia Geological Survey

(A Division of the Department of Conservation and Development)

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UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 GEOLOGICAL SURVEY

MEMORANDUM REPORT ON BRICK CLAYS IN VIRGINIA  
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Purpose and Scope of Report

It is the purpose of this Memorandum Report to provide a summary statement regarding clays in Virginia known or thought to be adapted to the manufacture of common brick, face brick, building blocks, drain tile, pipe and other structural clay products, pottery and other ceramic products. Information contained herein has been obtained from numerous available published reports of the Virginia and U. S. Geological Surveys and other agencies, notes in the files of the Virginia Geological Survey, and a study of geologic maps, particularly the Geologic Map of Virginia, published by the State Survey in 1928, and the Geologic Map of the Appalachian Valley of Virginia, published by the same agency in 1933. The more important sources of information consulted, and to which the reader is referred for more specific information, are listed under "References on Clay in Virginia" (pp. 38 - 39). Copies of these and other publications which may contain additional information of interest may be consulted in the Library of the Virginia Geological Survey. Several of the publications cited are now "out of print" and copies available for consultation only in a few scientific libraries throughout the country.

General Statement

Deposits of clay of considerable variation in character, composition, and economic possibilities occur throughout the State. Deposits of variable character and extent have been worked as a source of brick clays at many localities and in certain places large plants have been in operation for many years. The major production of bricks has been from the Norfolk-Suffolk district, the Richmond district, the Alexandria district, the Fredericksburg district, the Staunton district, the Buena Vista district, the Roanoke-Salem district, the Winchester district, the Danville district, and the Tazewell-Bluefield district. Brick-making plants have been in operation at various periods in the Newport News district, the Petersburg district, the Emporia district, the Culpeper district, the Charlottesville district, the Harrisonburg district, the Covington district, the Marion district, and locally in or near a number of other towns throughout the State.

Due in part to the exhaustion of local deposits or variations in the character of the clay, but more particularly to the importation of bricks into the Norfolk, Petersburg, Richmond, Roanoke, Danville, Lynchburg, Bristol, and Washington, D. C. areas, from brick plants in the Carolinas, both by truck and by rail, during the past 12 to 15 years, many former operating plants in Virginia have been forced to severely curtail production or "close down" their operations.

The results of previous studies of clay deposits, more detailed geologic investigations, and mining and quarrying explorations, together with the opening, as along railroad and new highway locations, of additional showings of clay, indicate sufficient reserves of clay of potential brick and ceramic quality to merit detailed explorations and testing of known and reported deposits. A careful and more intensive study in the field in areas or localities where geological conditions appear favorable will doubtless reveal new workable deposits adapted to the manufacture of brick and structural clay products, and probably also pottery and ceramic clays.

## Sources of Clays

### Coastal Plain Region

In the Coastal Plain region sedimentary (bedded layers) clays occur inter-layered with beds of sand, gravel, and marl. The main clay-bearing formations are the Nanjemoy (Eocene), Calvert, and locally the overlying St. Mary's and Yorktown (Miocene), and the Lafayette, Sunderland, Wicomico, and Talbot (Quaternary) terrace formations. The Nanjemoy formation contains compact pink and white clays in the vicinity of Fredericksburg and south of Stafford Court House. The Calvert formation contains considerable sandy blue clay in the western part of the Coastal Plain region, as in the Richmond and Petersburg districts, as also along Rappahannock and James Rivers. Clays from the Calvert formation have been used for bricks in the Richmond and Arlington districts. The Lafayette, Sunderland, Wicomico, and Talbot terraces consist mainly of surface loams but also contain considerable quantities of clay. Clays from these sources have been used for brick making at Alexandria, Fredericksburg, Petersburg, Emporia, Suffolk, Norfolk, Hampton, and other places.

Nearly all of the clay deposits of the Coastal Plain region, regardless of geologic age, are lenticular, though some, as in the vicinity of Sturgeon Point and Oldfield along Rappahannock River, are reported to be quite extensive. The majority of the clays are red-burning. A few are buff-burning, but no large deposits of white-burning clays have been developed.

Numerous occurrences of clay throughout the Coastal Plain region have been studied, their physical and chemical characteristics described, and tests made on them to determine their brick-making possibilities. The best available information is given in Bulletins 2, 4, 37, and 38 of the Virginia Geological Survey. The location of many of the deposits is shown on maps accompanying these reports, as well as on the Geologic Map of Virginia (1926). See References 3, 5, 7, 10, 12, 13, 18, 24.

### Piedmont Region

Deposits of clay derived from the weathering of various bedrock formations, and thus termed residual deposits, occur locally throughout the Piedmont region. Other deposits, termed flood-plain or stream-bed deposits, occur along most of the larger streams, as also locally along some of the smaller streams. In addition mixtures of both residual and stream-deposited (or transported) clay occur in some places. Most of the known deposits of clay in this region are of limited extent.

Clays derived from weathered or decomposed granite and gneiss are known locally in the vicinity of Lynchburg and Bedford and between these cities, as near Lowry and Forest, and in Pittsylvania County. Clay from weathered schist has been used to a limited extent at several places throughout the region. Areas of Triassic shales, as in the western parts of Fairfax and Prince William County; east, northeast, and southeast of Culpeper, in Culpeper County; between Glendower and Howardsville in Albemarle County, north and southwest of Farmville in Cumberland and Prince Edward counties, and between Spring Mills in Campbell, and Danville in Pittsylvania County, offer possibilities for residual clay. Brick has been made from weathered Triassic shales in the Culpeper district, Farmville district, and Danville district. North

of Wolftrap, about 8 miles east of South Boston in Halifax County, is a small area of Triassic rocks which is reported to offer one of the best sources of plastic materials in the Piedmont region. It is reported that clay from this locality probably could be used for hollow brick and drain tile, as well as for common brick.

Floodplain clays, along streams, have been used for brick making at or near Culpeper, Lynchburg, and Danville.

Occurrences of white-burning residual clays derived from weathered pegmatite bodies have been reported near Motley and near Altavista in Pittsylvania County, also locally near Oak Level and Ridgeway in Henry County, and near Forest in Bedford County. The first two mentioned deposits should warrant investigation as possible sources of fire brick, structural clay and ceramic products, provided they are not now occupied and sufficient reserves of clay remain. It is thought that the deposits in Henry and Bedford counties are too limited to offer much promise of economic development. Detailed field studies in the vicinity of other known pegmatite areas and in localities from which mica and feldspar have been mined in the past may reveal other deposits of white clay of commercial importance.

Information on a number of clay deposits throughout the Piedmont region, descriptions of the physical and chemical properties of the clays, and known or probable uses, are given in Bulletins 13, 29, 48, and 54 of the Virginia Geological Survey. The location of many deposits and the local geological formations are shown on a map accompanying Bulletin 13, and on the Geologic Map of Virginia (1928). See References 2, 6, 8, 9, 13, 14, 17, 24.

#### Appalachian Ridges and Valley Region

The Main sources of brick and possible related clay and ceramic materials throughout the Appalachian Ridges and Valley region consist of local occurrences of clay derived from weathered and decomposed shales and limestones (Cambrian, Ordovician, Devonian, and Mississippian) and flood-plain or terrace deposits along stream valleys. Due to the persistence in extent throughout the length of the region of certain beds of shale and limestone, and the relatively extensive areas in certain parts of the region underlain by shales, as is well shown on the Geologic Map of the Appalachian Valley of Virginia, published by the Virginia Geological Survey in 1933 (Reference 23), detailed investigations of geologically favorable locations, and localities adjacent to those in which brick clays have been worked or reported to occur, should reveal additional prospects for commercial developments. Three of the largest brick manufacturing plants in Virginia, each of which has been in operation for a number of years, are located in this region.

A belt of Cambrian shales and limestones (Shady-Tomstown, Rome-Waynesboro) along the northwest base of the Blue Ridge, from Clarke County southwestward into Washington County, offers possibilities along or near both railway and main highway (truck) transportation. Brick-making plants using clays and shales from this belt of rocks have been operated locally in Rockingham, Augusta, Rockbridge, Botetourt, Roanoke, and Pulaski counties. Large plants producing clay and manufacturing bricks are now in operation in this belt at

Cold Spring (Ellard) in Augusta County, Webster (near Roanoke) in Botetourt County, and Buena Vista in Rockbridge County.

Ordovician shales and limestones (Martinsburg and Athens) have relatively extensive areas of outcrop in parts of Frederick, Warren, Shenandoah, Page, Rockingham, Augusta, and Rockbridge counties.

Belts of Devonian and Mississippian shales and limestones, along (some extending nearly continuously) the western and southwestern parts of the region offer additional sources of materials for brick making. Brick-making plants using residual clays and shales from these horizons, particularly the Devonian beds, have been operated locally. One of the largest manufacturers of brick in the State, at Richlands in Tazewell County, is using Devonian shale.

Of particular interest in this region are known occurrences of light- and white-colored clays in the belt of Cambrian shales and limestones along the northwestern base of the Blue Ridge. The most northerly is in the vicinity of Island Ford in Rockingham County. Others are near Lipscomb, Stuarts Draft, Cold Spring (Ellard), Lofton, and Pekin in Augusta County, and near Vesuvius in Rockbridge County. All are near the Valley Division of the Norfolk and Western Railway.

Flood-plain or terrace deposits along the main stream beds, locally contain relatively thick beds of clay. They have been worked at a number of places for the manufacture of common brick, as near Bridgewater in Rockingham County, Waynesboro, Lipscomb, and Stuarts Draft in Augusta County, and near Covington, Alleghany County, and at Roanoke and Salem in Roanoke County.

Information on clays and shales in the Appalachian Ridges and Valley region, together with data on their physical and chemical properties, and a map showing the location of numerous deposits, are contained in Bulletin 20 of the Virginia Geological Survey. Additional information regarding local geological conditions and limestones and shales will be found in Bulletins 34, 43, 49, 51-B, 59, 60, and 61. See References 1, 4, 8, 13, 15, 21, 23.

#### Economic Factors

Not only present markets and market conditions, but changes in economic conditions and particularly possible new developments, new products, and new or expanded uses of clay products, will affect, in variable measure, the successful development and operation of clay-using plants. Availability and accessibility of usable materials, water, fuel, supplies, and labor, together with transportation, facilities, and costs are among the important factors which affect, or will affect, the successful operation (and expansion) of clay-using industries.

Many of the known and reported occurrences of clay and shale throughout Virginia are favorably located with regard to transportation to reasonably large markets and to relatively distant points, by water, rail, and highway (truck). Ample supplies of water are available in many apparently favorable localities, and it is most probable that increased needs for water could be met by developing additional sources from drilled wells or not-too-distant

surface sources. As previously mentioned, unfavorable freight rates have considerably affected operations of brick-producing plants throughout the State in relatively recent years. More favorable transportation conditions and costs should tend to encourage renewed and expanded operations, as well as the development of new operations in favorable locations.

#### Suggestions Re Possible New Developments

Prior to the development of definite plans for, or the initiation of, any projected development of new clay and brick or related operations, it is suggested that careful consideration be given to

- (1) Present and potential markets and demands for brick and related clay and ceramic products;
- (2) Location of presently operating brick-making plants, and the type or variety of products and quantity produced;
- (3) Known, reported, or estimated reserves of satisfactory material in the vicinity of previously or currently productive localities;
- (4) Topographic, economic, and geologic factors influencing or prevailing in localities under consideration for proposed development;
- (5) A thorough investigation, including exploratory testing by pits, shafts, trenches, and drilling, of properties under consideration to determine the thickness and extent of clay that may be reasonably worked, followed by
- (6) Collection and examination of samples of material from the property or locality investigated, to determine the physical and chemical properties of the clay, and
- (7) Testing of the material (samples) to determine the use for which it may be adapted and the type and character or quality of products that may be made from it. Such tests should be made by a qualified person and preferably by a reputable ceramic (testing) laboratory, such as the laboratory of the Department of Ceramic Engineering at Virginia Polytechnic Institute, or some institution or testing laboratory approved and accredited by the American Ceramic Society.

Information regarding topographic and geological conditions and factors, and their importance in the selection and testing of sites for proposed development can be obtained from published maps and reports of the State Geological Survey and from conferences with members of the technical staff of that agency.

#### Possible Sites for Commercial Development

The following listing of possible sites for the location of brick-making plants, under the title of "Known and Possible Brick Clays in Virginia" (pp. 7 - 20), has been prepared as a tentative guide, from a study of the references cited at the end of this memorandum (pp. 38 - 39), and from an examination of available geological maps. In this listing, and also in that of "Possible Pottery Clays in Virginia" (pp. 21 - 22), and "Clays in Virginia Reportedly Adapted to Manufacture of Fire Brick, Hollow Brick, and Drain Tile"

(pp. 23 - 27), which have been prepared from the same sources above cited, the known and believed prospective sites are listed by districts and counties for the three main regions of the State, in which deposits of clay occur — the Coastal Plain, the Piedmont, and the Appalachian Ridges and Valley.

In the listings cited (pp. 7 - 20):

\* (Before the numbered location)

Indicates that the particular location has not been investigated in detail or material from it tested, but that, on the basis of previous operations in similar material or a nearby locality, and in view of local geological conditions, the location or site so indicated is considered worthy of consideration and investigation.

X (In parentheses, following a listed location or site)

Indicates that clay or shale has been obtained, and bricks or other clay-shale products made in that location. Some of these deposits very probably have been abandoned or "worked out", but it is possible that detailed investigation and testing may reveal nearby new or more extensive occurrences of material that can be successfully and profitably utilized.

R6 (In parentheses, following a listed location or site)

Indicates that the material at such location is described in the reference bearing the number indicated in the listing of "References on Clay in Virginia" (pp. 38 - 39), and to which the reader is referred for additional or specific information.

KNOWN AND POSSIBLE BRICK CLAYS IN VIRGINIA

I - Coastal Plain Region

Norfolk District (Princess Anne and Norfolk Counties)

1. Localities on the east, south, and west of Norfolk and south and west of Portsmouth (X); (R. 3 and 12).
- \*2. Localities between Norfolk and Lynnhaven and in the vicinity of Lynnhaven (X).
- \*3. Localities south of Norfolk, along and near the Norfolk Southern Railway, near Oak Grove, Fentress and southward.
- \*4. Localities along or near U. S. 17, from Deep Creek southward.
- \*5. Localities in vicinity of Oceana, London Bridge, and southward in Princess Anne County. (X).
- \*6. Localities on west of Elizabeth River and south and southwest of West Branch of that river.
- \*7. Localities along Virginian Railway south of Portsmouth.
- \*8. Localities along Atlantic and Danville and Atlantic Coast Line railways west of Portsmouth (X).
- \*9. Localities along Norfolk and Western Railway between Suffolk and South Norfolk.

Suffolk District (Nansemond, Southampton, Surry, Isle of Wight, and Sussex Counties)

1. Vicinity of Suffolk, Nansemond County (X); (R. 3 and 12).
- \*2. Localities east of Suffolk, Nansemond County, along and near U. S. 460 and Norfolk and Western Railway.
- \*3. Localities near U. S. 460, about 3 miles west of Suffolk, previously operated as brickyard (X).
- \*4. Localities along Norfolk and Western Railway, near U. S. 460, from 3 above, westward to vicinity of Myrtle, Nansemond County.
- \*5. Vicinity of Windsor, Isle of Wight County, near U. S. 460 and Norfolk and Western Railway.
- \*6. Vicinity of Smithfield, Isle of Wight County, and between Smithfield and Windsor, near or along U. S. 258, and between Smithfield and Elizabeth River, along U. S. 258 and between that highway and James River (Hampton Roads).
- \*7. Localities along Seaboard Air Line Railway between Suffolk, Nansemond County and Branchville, Southampton County.
- \*8. Localities along Atlantic and Danville Railroad and U. S. 58 between Suffolk, Nansemond County and Drewryville, Southampton County.
- \*9. Localities along Virginian Railway between Suffolk, Nansemond County and Jarratt, Sussex County.
- \*10. Localities along Nottoway River from southern Southampton County (near Franklin) northwestward to vicinity of Homeville, Sussex County.
- \*11. Localities along Blackwater River (swamp) and its tributaries, from southern Nansemond County northward and northwestward to vicinity of Disputanta, Prince George County.
- \*12. Vicinity of Claremont, Surry County (X), and locally between Claremont and Bacons Castle, near State Highway 10 and between it and James River.
- \*13. Locally along U. S. 460 and Norfolk and Western Railway in vicinity of Ivor, Southampton County, and Wakefield and Waverly, Surry County.

I - Coastal Plain Region (cont'd)

Newport News District (Elizabeth City, Warwick, and York Counties)

1. Vicinity of Morrison, Warwick County (X); (R. 3 and 12).
2. Vicinity of Hampton, Elizabeth City County (X); (R. 3).
- \*3. Locally, along U. S. 60 and between it and James River, between Morrison and Fort Eustis, Warwick County.
- \*4. Vicinity of Lee Hall, Warwick County (X).
- \*5. Along or near York River in vicinity of Yorktown, York County (X); (R. 18).
- \*6. Along York River, from Yorktown northwestward beyond Magruder, York County.

Williamsburg District (James City, Charles City, and New Kent Counties)

1. Vicinity of Williamsburg, James City County (X); (R. 18).
- \*2. Along James River in vicinity of Yorktown, James City County (X).
3. Along James River from Yorktown, James City County, westward to Sturgeon Point (vicinity of Charles City), Charles City County (X); (R. 3); also between Carter's Grove and Kings Mill Landing.
- \*4. Along Chickahominy River, from James River, Charles City County, northward and northwestward to vicinity of Bottoms Bridge, New Kent County.
- \*5. Locally along U. S. 60 and Chesapeake and Ohio Railway from vicinity of Williamsburg, James City County, to Providence Forge, and westward, New Kent County.
- \*6. Vicinity of Toano, James City County (X).
- \*7. Locally along York River between Magruder, York County and vicinity of West Point, King William County.
- \*8. Locally along Pamunkey River, from vicinity of West Point to Lester Manor and westward, New Kent County.

Alexandria District (Arlington, Fairfax, and Prince William Counties)

1. Vicinity of Alexandria (X); (R. 3 and 12).
- \*2. Localities between Alexandria and Occoquan Creek, along Potomac River and between Potomac River and Richmond, Fredericksburg and Potomac Railway, particularly localities north of Fort Humphreys, northwest of Mount Vernon and Fort Hunt, Fairfax County (X).
- \*3. Localities along Occoquan Creek, from Occoquan southeastward to Potomac River, Prince William County (X).
- \*4. Localities between Dumfries and Quantico, along Potomac River and between the river and U. S. 1.

Fredericksburg District (Stafford, Spotsylvania, King George, and Caroline Counties)

1. Vicinity of Stafford, Stafford County (X); (R. 3 and 7).
2. Vicinity of Fredericksburg, Spotsylvania County (X); (R. 3, 7, and 12).
- \*3. Localities between Stafford, Stafford County and Fredericksburg, Spotsylvania County, particularly along Potomac Creek (X); (R. 3, 7, and 12).

I - Coastal Plain Region (cont'd)

Fredericksburg District (Stafford, Spotsylvania, King George, and Caroline Counties) (cont'd)

- \*4. Locally between Chopawamsic Creek and Potomac Creek, from Potomac River westward to U. S. 1.
- \*5. Localities along south side of Potomac Creek and Potomac River, from vicinity of Fredericksburg, Spotsylvania County, eastward to Mathia's Point, King George County (R. 7).
- \*6. Locally along Rappahannock River and its tributaries, from vicinity of Fredericksburg, Spotsylvania County, southeastward to vicinity of Port Conway, King George County.
- \*7. Locally along Mattaponi River and its tributaries, from vicinity of Milford and Penola, Caroline County, southeastward to vicinity of Aylett, King William County (R. 7).
- \*8. Vicinity of Bowling Green, Caroline County, and northwestward along Richmond, Fredericksburg and Potomac Railway to vicinity of Fredericksburg.
- \*9. Between Bowling Green and Milford, Caroline County (R. 3 and 7).

Northern Neck District (Westmoreland, Northumberland, Richmond, and Lancaster County)

- \*1. Locally along Potomac River from vicinity of Potomac Beach to Mt. Holly, Westmoreland County.
- \*2. Locally along Rappahannock River, from vicinity of Port Conway (Port Royal), King George County, southeastward beyond Leedstown, Westmoreland County.
- \*3. Vicinity of Oak Grove, Westmoreland County.
- \*4. Locally between Mt. Holly and Coles Point, and between Hague and Sandy Point, Westmoreland County.
- \*5. Vicinity of Lodge and between there and Lewisetta, also locally between Walnut Point and Burgess, and in vicinity of Reedville (X), Smith Point, and Chesapeake Beach, Northumberland County.
- \*6. Along Rappahannock River, from vicinity of Leedstown, Westmoreland County, southeastward to vicinity of Weems, Lancaster County, particularly near Templemans Cross Roads, Naylor's, Warsaw, Tidewater, Sharps, and Simonson, Richmond County.
- \*7. Locally along Rappahannock River, in vicinity of Morattico, Mollusk, Irvington (X), Weems (X), and Lancaster, Lancaster County.
- \*8. Locally in vicinity of Kilmarnock (X) and Palmer, Lancaster County.

Middle Peninsula District (Essex, Middlesex, King and Queen, Mathews, Gloucester, and King William Counties)

- 1. Along Rappahannock River, from vicinity of Port Royal, Caroline County southeastward to Tappahannock, Essex County (X); (R. 3).
- \*2. Vicinity of Tappahannock, and between there and Caret, near U. S. 17, Essex County (X).
- \*3. Locally between Rappahannock River and U. S. 17, from Tappahannock southeastward to Bowlers Wharf, Essex County.
- \*4. Locally along Rappahannock River from vicinity of Bowlers Wharf, Essex County southeastward to Deltaville, Middlesex County, as in the vicinity of Water View, Urbanna, Saluda, and Greys Point, Middlesex County.
- \*5. Locally along Dragons Run and Piankatank River from vicinity of Saluda to Cobbs Creek, Mathews County.

I - Coastal Plain Region (cont'd)Middle Peninsula District (Essex, Middlesex, King and Queen, Mathews, Gloucester, and King William Counties) (cont'd)

- \*6. Along Mattaponi River from vicinity of Newtown southeastward to vicinity of West Point, as near Newtown, Walkerton, King and Queen Court House, Shackelfords, and Gressitt, King and Queen County.
- \*7. Along York River from vicinity of Gressitt southeastward to Gloucester Point, Gloucester County, as near Almonds Wharf and Gloucester Point.
- \*8. Locally between Gloucester Point and Gloucester, Gloucester County, and between Gloucester and Mathews, Mathews County.
- \*9. Vicinity of Cobbs Creek, Mathews, New Point, Bayside, and Mobjack, Mathews County.
- \*10. Along Mattaponi River from Aylett southeastward to West Point, King William County.
- \*11. Along Pamunkey River from vicinity of Hanover southeastward to Lester Manor and thence to West Point, King William County.

Richmond District (Hanover, Goochland, Henrico, and Chesterfield Counties)

- 1. Vicinity of Richmond, Henrico County (X); (R. 3, 5, and 12).
- 2. Vicinity of South Richmond, Chesterfield County (X); (R. 3, 5, and 12).
- 3. Vicinity of Highland Springs, Henrico County (X); (R. 3 and 5).
- 4. Vicinity of Manbur on Southern Railway and along U. S. 60, east of Richmond, Henrico and New Kent Counties (X); (R. 3 and 5).
- 5. Along Chesapeake and Ohio Railway, from vicinity of Fort Lee, Henrico County, southeastward to Mt. Pleasant School, Charles City County (X); (R. 3 and 12).
- 6. Between Oldfield and Sturgeon Point, Charles City County (X); (R. 3 and 12).
- 7. Vicinity of Curles Neck and between Curles Neck (swamp area) and Bermuda Hundred, Chesterfield County (X); (R. 3 and 12).
- \*8. From vicinity of Doswell, Hanover County, southeastward along Pamunkey River to vicinity of Lester Manor, King William County.
- \*9. From Doswell, southward to Dumbarton and Richmond, Henrico County.
- \*10. Vicinity of Hanover and Studley, Hanover County.
- \*11. From vicinity of Dumbarton southeastward along Chickahominy River to Providence Forge and Toano, New Kent County.
- \*12. Along U. S. 1 and Chesapeake and Ohio Railway near Poplar Spring and White Oak Swamp, Henrico County (X).
- \*13. Locally between U. S. 1 and James River, from South Richmond to vicinity of Chester, Chesterfield County (R. 3 and 12).
- \*14. Between Howlett House and Point of Rocks, Chesterfield County.
- \*15. Between Port Walthall and U. S. 1, along Ashton Creek, Chesterfield County.
- \*16. Vicinity of Chester, Drewrys Bluff and Bon Air, Chesterfield County.

I - Coastal Plain Region (cont'd)

Petersburg District (Chesterfield, Prince George, and Dinwiddie Counties)

1. Vicinity of Petersburg, Dinwiddie County (X); (R. 3 and 12).
2. Vicinity of Petersburg, Prince George County (X); (R. 3 and 12).
3. Ettrick, Chesterfield County (X); (R. 3).
4. Vicinity of Colonial Heights, Chesterfield County (X); (R. 3).
5. Vicinity of City Point, along Bailey Creek, and locally, Prince George County (X); (R. 3).
- \*6. Along Atlantic Coast Line and Seaboard Air Line railroads and near U. S. 1, between Chester, Chesterfield County and Petersburg, (R. 3).
- \*7. Between Ettrick and Matoaka, along or near Appomattox River, Chesterfield County (X).
- \*8. Between Petersburg and Stony Creek, Sussex County, along U. S. 301 and Atlantic Coast Line Railway.
- \*9. Between Petersburg and Waverly, Sussex County, along or near U. S. 460 and Norfolk and Western Railway.
- \*10. In vicinity of Prince George Court House (X), and Burrowsville, Prince George County.
- \*11. Between Petersburg and Hopewell, near State Highway 36 and between it and Appomattox River.
- \*12. Locally between U. S. 1 (near Chester) and Hopewell, along State Highway 10, and Atlantic Coast Line and Seaboard Air Line railways, Chesterfield County.

Emporia District (Southampton, Sussex, and Greensville Counties)

1. Vicinity of Emporia, Greensville County (X); (R. 3 and 12).
- \*2. Along or near Atlantic Coast Line Railway and U. S. 301, from Stony Creek, Sussex County, via Jarratt to Emporia, Greensville County.
- \*3. Southeast of Emporia, along Meherrin River, to North Carolina State Line.
- \*4. Locally between Emporia and Franklin, Southampton County, near U. S. 58 and Atlantic and Danville Railway.
- \*5. Locally along Nottoway River from vicinity of Homeville, Sussex County, to vicinity of Franklin, Southampton County.
- \*6. Locally along Virginian Railway between Jarratt, Sussex County, and Suffolk, Nansemond County.
- \*7. Vicinity of Boykins and Newsoms, along Seaboard Air Line Railway, Southampton County.

KNOWN AND POSSIBLE BRICK CLAYS IN VIRGINIA

II - Piedmont Region

Fairfax District (Fairfax and Loudoun Counties)

- \*1. Locally along route of Washington and Old Dominion Railway, in areas underlain by weathered Triassic shale, between Herndon, Fairfax County, and Leesburg, Loudoun County.
- \*2. Locally between Sterling, Pleasant Valley, and Centreville, and in vicinity of Bull Run, in areas underlain by weathered Triassic shale; also locally between Bull Run, Fairfax County, and Aldie, Loudoun County.
- \*3. In vicinity of, or localities between Hillsboro, Furcellville, Round Hill, Bluemont, and Goose Creek, in areas underlain by weathered Catoctin greenstone, Loudoun County.

Warrenton District (Prince William and Fauquier Counties)

- \*1. In vicinity of Manassas, Wellington, and Nokesville, and locally, along the Southern Railway between these towns, in areas underlain by weathered Triassic shale, Prince William County.
- \*2. Locally between Gainesville, Prince William County, and Midland (Calverton-Midland), Fauquier County, in areas underlain by weathered Triassic shale.
- \*3. Locally in the vicinity of and between The Plains, Broad Run, New Baltimore, and Warrenton, in areas underlain by weathered Catoctin greenstone, Fauquier County (X); (R. 6).

Culpeper District (Stafford, Spotsylvania, Culpeper, and Rappahannock Counties)

1. Vicinity of Culpeper, Culpeper County (X); (R. 6 and 14) in areas of weathered Triassic shale and Catoctin greenstone within short distances of the town.
2. Locally between Culpeper and Brandy, Culpeper County, along Southern Railway in areas of weathered Triassic shale (X); (R. 6 and 14).
3. Locally between Culpeper and Stevensburg and Culpeper and Rapidan, Culpeper County, in areas of weathered Triassic shale (R. 6 and 14).
- \*4. Locally along Southern Railway and State Highway 28, between Brandy (Elkwood), Culpeper County, and Bealeton (Calverton), Fauquier County, in areas of weathered Triassic shale.

Orange District (Madison, Greene, and Orange Counties)

- \*1. Possible local deposits along Robertson River in vicinity of Madison Mills.
- \*2. Possible local deposits along Rapidan River from vicinity of Dawsonville, Greene County, to vicinity of Rapidan, Culpeper County.
- \*3. Locally along or near Southern Railway and U. S. 15 between Rapidan and Orange and between Orange and Gordonsville, Orange County (R. 14).

II - Piedmont Region (cont'd)

Louisa-Mineral District (Hanover, Goochland, Louisa, and Fluvanna Counties)

- \*1. Locally along and between North Anna River and Chesapeake and Ohio Railway from Doswell, Hanover County across Louisa County to Gordonsville, in Orange County, in areas of weathered granite, gneiss, and schist.
- \*2. Locally along U. S. 33 between Richmond, across Hanover and Louisa counties to Gordonsville, Orange County, in areas of weathered granite, gneiss, and schist.
- \*3. Locally along U. S. 250 from Richmond across Henrico, Goochland, and Fluvanna counties to Zion Cross Roads, Louisa County, in areas of weathered granite, gneiss, and schist.
- \*4. Locally along State Highway 6 and Chesapeake and Ohio Railway, between Richmond and Scottsville, Albemarle-Fluvanna County, in areas of weathered granite, gneiss, and schist.
- \*5. North of Mineral, Louisa County, and locally along U. S. 522, between Mineral and Goochland Court House, Goochland County, in areas of weathered gneiss and schist (R. 14).
- \*6. Locally in vicinity of Gordonsville, Orange County, and along U. S. 15 and Chesapeake and Ohio Railway, between Gordonsville and Brems Bluff, Fluvanna County, in areas of weathered schist and gneiss.

Charlottesville District (Albemarle, Nelson, and Amherst Counties)

- \*1. Locally along U. S. 250 and Chesapeake and Ohio Railway between Keswick and Greenwood, Albemarle County, in areas of weathered schist, gneiss, and granite (X); (R. 14).
- \*2. Locally along U. S. 29 and Southern Railway from Greene-Albemarle County line, through Charlottesville, North Garden, Covesville, Rockfish, Shipman, Lovingsston, Amherst, Monroe, to Lynchburg, Amherst-Bedford counties, in areas of weathered schist, gneiss, and granitic rocks.
- \*3. Locally along State Highway 20, from Charlottesville to Scottsville, Albemarle, and in vicinity of Scottsville, Esmont, Howardsville, in areas of weathered schist, gneiss, greenstone, and Triassic shale.

McKenney District (Dinwiddie, Greensville, and Brunswick Counties)

1. Along Great Creek and Rose Creek and near the Southern Railway in vicinity of Lawrenceville, Brunswick County, transported clays in area of weathered granite (X); (R. 14).
2. In vicinity of Broadnax, Brunswick County, transported clay in area of weathered schist and gneiss (X); (R. 14).
- \*3. In vicinity of and west of Dinwiddie Court House, Dinwiddie County, in an area of weathered granite (R. 14).
- \*4. Locally along Seaboard Air Line Railway and U. S. 1, from vicinity of Petersburg through Dinwiddie, McKenney, Alberta, across Brunswick County to South Hill and La Crosse in Mecklenburg County in areas of weathered granite and gneiss.

II - Piedmont Region (cont'd)

McKenney District (Dinwiddie, Greensville, and Brunswick Counties)  
(cont'd)

- \*5. Locally along U. S. 58 and Atlantic and Danville Railway; also along Meherrin River, from Emporia, Greensville County, through Lawrenceville to Brodnax, Brunswick County, in areas of weathered granite and gneiss.
- \*6. Locally along Nottoway River from vicinity of Jarratt, Sussex County, to vicinity of Camp Pickett, Dinwiddie and Nottoway counties, in areas of weathered granite and gneiss.

Cumberland District (Buckingham, Cumberland, Powhatan, and Chesterfield Counties)

- \*1. Locally along U. S. 60 between Richmond and vicinity of Bent Creek, Buckingham County, in areas of weathered gneiss, schist, and granitic rocks (vicinity of Midlothian and Moseley, Chesterfield County, Powhatan in Powhatan County, Cumberland in Cumberland County, Sprouses and Buckingham in Buckingham County).
- \*2. Along Chesapeake and Ohio Railway in vicinity of and between New Canton, Arvonia, and Dillwyn in Buckingham County in areas of weathered slate and schist (R. 14).
- \*3. Locally along James River from Richmond westward to vicinity of New Canton, Buckingham County, in areas underlain by weathered gneiss, granite, and schist, and containing floodplain deposits along river (vicinity of Subletts, Crozier, Lee, Maidens, Cartersville, and Columbia).
- \*4. Locally along Appomattox River, from Petersburg westward to Farmville, Prince Edward County (Particularly floodplain deposits along river in vicinity of Farmville and Petersburg).

Lynchburg District (Appomattox, Bedford, and Campbell Counties)

- 1. Vicinity of Pamplin City, Evergreen, and Appomattox, Appomattox County (X); (R. 14).
- 2. Vicinity of Forest, Bedford, and Thaxton, Bedford County (X); (R. 14).
- 3. Along floodplains of James River east of Lynchburg, Campbell County (X); (R. 14).
- 4. Locality northeast of Altavista, Campbell County, in area of weathered schist (X); (R. 14).
- \*5. Locally along James River between Big Island and Lynchburg, Bedford County, in areas of weathered granitic and gneissic rocks, and floodplain deposits along river.
- \*6. Locally along U. S. 460 and Norfolk and Western Railway between Roanoke and Lynchburg, Bedford County, in areas of weathered shale, gneiss, and granite.
- \*7. Locally along U. S. 29 and Southern Railway between Lynchburg and Altavista, Campbell County, in areas of weathered gneiss, schist, and marble.
- \*8. Locally along U. S. 501 and Virginian Railway between Lynchburg and Brookneal, Campbell County, in areas of weathered schist, gneiss, and shale.

II - Piedmont Region (cont'd)

Farmville District (Nottoway, Prince Edward, and Lunenburg Counties)

- 1. Vicinity of Farmville, Prince Edward County, in area of weathered Triassic shale (X); (R. 14).
- \*2. Vicinity of Blackstone, Nottoway County, and locally along Norfolk and Western Railway from Blackstone through Farmville and Prospect in Prince Edward County, to Pamplin City in Appomattox County, in areas of granite and gneiss.
- \*3. Locally along Virginian and Norfolk and Western railways and U. S. 360 in vicinity of Burkeville, Nottoway County, in areas underlain by granite and gneiss.
- \*4. Locally from Farmville to Hampden Sydney and Prospect, Prince Edward County, in areas of weathered Triassic shale and gneiss.
- \*5. Locally between Farmville, Prince Edward County, and Cumberland Court House, Cumberland County, in areas of weathered Triassic shales.

South Boston District (Mecklenburg, Halifax, and Charlotte Counties)

- 1. Locally in vicinity of Clarksville, Mecklenburg County, areas of weathered granite (to west) (X); (R. 14).
- 2. In vicinity of Wolftrap, east of South Boston, Halifax County, in area of weathered Triassic shale (X); (R. 14).
- 3. Along the Southern Railroad in vicinity of Drakes Branch, in area of weathered granitic rocks (X); (R. 14).
- 4. Along Roanoke Creek between Charlotte Court House and Drakes Branch, in area of Triassic shale (X); (R. 14).
- \*5. Locally along U. S. 1 and Seaboard Air Line Railway in vicinity of South Hill and La Crosse, Mecklenburg County, in areas of weathered gneiss.
- \*6. Locally along Dan River, Southern Railway, and U. S. 58, between South Boston, Halifax County, and Danville, Pittsylvania County, in areas of weathered granite, gneiss, and schist; flood-plain deposits.

Danville District (Pittsylvania, Franklin, and Henry Counties)

- 1. Along Dan River and Southern Railway east of Danville, Pittsylvania County (X); (R. 14); weathered schist and granite; flood-plains.
- \*2. Locally, in a belt of Triassic shales and sandstones extending from the southwest corner of Pittsylvania County, northeasterly through Mt. Airy to Spring Mills in Campbell County.
- \*3. Locally along U. S. 58 between Danville, Pittsylvania County, and Spencer in Henry County, in areas of weathered granite, gneiss, and schist.
- \*4. Locally along Smiths River and Norfolk and Western Railway between Ridgeway and Martinsville, Henry County, in areas of weathered granite, gneiss, and schist.
- \*5. Locally along U. S. 29 and the Southern Railway between Danville and Altavista, Campbell County, in areas of weathered granite, gneiss, and schist and local bodies of Triassic rocks.
- \*6. Locally along Norfolk and Western Railway and U. S. 220, from Martinsville, Henry County, across Franklin County to Roanoke, in areas of weathered gneiss and schist.

floodpl  
 weathered  
 and granite  
 deposits

II - Piedmont Region (cont'd)

Hillsville-Galax District (Patrick, Floyd, Carroll, and Grayson Counties)

- 1. Vicinity of Galax, Carroll County, in areas of weathered gneiss and local transported bodies of clay (X); (R. 1A).
- \*2. Locally along U. S. 58 and South Mayo River from Stuart to southeastern corner of Patrick County, in areas of weathered gneiss and granite.
- \*3. Locally along U. S. 58-211 from Floyd, Floyd County, southwesterly across Carroll and Grayson counties, via Willis, Dugspur, Hillsville, Woodlawn, Galax, Old Town, Independence, and Mouth of Wilson, in areas of weathered gneiss, schist, and granite.

KNOWN AND POSSIBLE BRICK CLAYS IN VIRGINIA

III - Appalachian Ridges and Valley Region

Winchester District (Clarke, Frederick, Warren, and Shenandoah Counties)

1. Vicinity of Berryville, Clarke County (X); (R. 15).
2. Vicinity of Winchester, Frederick County (X); (R. 15).
3. West of Mountain Falls on North Mountain, Frederick County (X); (R. 15).
4. Vicinity of Strasburg, Shenandoah County (X); (R. 15).
5. Vicinity of Woodstock, Shenandoah County (X); (R. 15).
- \*6. Vicinity of Riverton, Warren County.
- \*7. Between Front Royal and Bentonville, Warren County.
- \*8. Localities between Strasburg and Woodstock, Shenandoah County.
- \*9. Locally between Edinburg and New Market, Shenandoah County.
- \*10. Vicinity of Stephens City, Frederick County.
- \*11. Between Stephens City and Middletown, Frederick County.

Harrisonburg District (Page and Rockingham Counties)

1. Vicinity of Elkton, Rockingham County (X); (R. 15).
2. Vicinity of Harrisonburg, Rockingham County (X); (R. 15).
3. Vicinity of Dayton, Rockingham County (X); (R. 15).
- \*4. Vicinity of Grottoes, Rockingham County.
- \*5. Locally along northwest base of the Blue Ridge and in "Valley area", along South Fork of Shenandoah River, between Lursy and Shenandoah, Page County.
- \*6. Locally in vicinity of Stanley.
- \*7. Locally along northwest base of the Blue Ridge and in valley along South Fork of Shenandoah River, from vicinity of Elkton to Grottoes, Rockingham County.
- \*8. Locally, near Southern Railway, between Harrisonburg and Timberville, Rockingham County.

Staunton District (Augusta and Highland Counties)

1. Vicinity of Staunton, Augusta County (X); (R. 15).
2. Vicinity of Waynesboro (Basic), Augusta County (X); (R. 15).
3. Vicinity of Lipscomb, Stuarts Draft, Cold Spring, Augusta County (X); (R. 15).
4. Vicinity of Lofton, Augusta County (X); (R. 15).
5. Vicinity of Pekin, Augusta County (X); (R. 15).
6. North Mountain, Augusta County (X); (R. 15).
7. Vicinity of Fordwick, Augusta County (X); (R. 15).
8. Vicinity of Stokesville, Augusta County (X); (R. 15).
- \*9. Vicinity of Spotswood, Augusta County.
- \*10. Localities along or near Chesapeake and Ohio Railway, between Buffalo Gap and Goshen, Augusta County.
- \*11. Locally along basal ridge slopes and valley areas along Jackson River and U. S. 220 between Warm Springs in Bath County and Vanderpool in Highland County.

III - Appalachian Ridges and Valley Region (cont'd)

Lexington District (Rockbridge County)

1. Vicinity of Lexington (X); (R. 15).
2. Vicinity of Goshen (X); (R. 15).
3. Vicinity of Glasgow (X); (R. 15).
4. Vicinity of Buena Vista (X); (R. 15).
5. Vicinity of Vesuvius (X); (R. 15).
- \*6. Vicinity of Fairfield and area between Fairfield and Lexington, local possibilities.

Covington District (Bath and Alleghany Counties)

1. Vicinity of Millboro, Bath County (X); (R. 15).
2. Vicinity of Longdale, Alleghany County (X); (R. 15).
3. Vicinity of Clifton Forge, Alleghany County (X); (R. 15).
4. Vicinity of Lowmoor, Alleghany County (X); (R. 15).
5. Vicinity of Covington, Alleghany County (X); (R. 15).
- \*6. In Warm Springs Valley, locally between Clifton Forge and Warm Springs.
- \*7. From Warm Springs, northeastward along and near U. S. 220, local possibilities.

Roanoke District (Craig, Botetourt, and Roanoke Counties)

1. Vicinity of Lithia, Botetourt County (X); (R. 15).
2. Vicinity of Nace, Botetourt County (X).
3. Vicinity of Daleville, Botetourt County (X).
4. Vicinity of Cloverdale, Botetourt County (X).
5. Vicinity of Lignite, Botetourt County (R. 15).
6. Vicinity of Fenwick, Botetourt County (R. 15).
7. Vicinity of Hollins Station on Norfolk & Western Railway, Roanoke County (R. 15).
8. Vicinity of Salem, Roanoke County (X); (R. 15).
9. Vicinity of Bonsacks, Roanoke County (X); (R. 15).
10. Vicinity of Roanoke, Roanoke County (X); (R. 21).
11. Locally along southeast slope of North Mountain on northwest side of Catawba Valley in Roanoke and Botetourt Counties (old Catawba Furnace site) (R. 21).
12. Locally along the lower slope of Little Brushy Mountain northwest of Salem, Roanoke County (X); (R. 21).
- \*13. Locally along the valley and ridge slopes of Craig Creek in Craig and Montgomery Counties.
- \*14. Locally in vicinity of Craig Healing Springs and in valley of Johns Creek southwestward, Craig and Giles Counties.
- \*15. In vicinity of Newcastle and along valley of Sinking Creek northeastward.

Radford District (Montgomery, Pulaski, and Giles Counties)

1. Vicinity of Blacksburg, Montgomery County (X); (R. 15).
2. Vicinity of Radford, Montgomery County (X); (R. 15).
3. Vicinity of Christiansburg, Montgomery County (X); (R. 15).
4. Vicinity of Merrimac, Montgomery County (R. 15).

III - Appalachian Ridges and Valley Region (cont'd)

Radford District (Montgomery, Pulaski, and Giles Counties) (cont'd)

5. Vicinity of Hiwassee, Pulaski County (R. 15).
6. Localities south of Radford, Pulaski County (R. 15).
7. Along Norfolk & Western Railway northwest of Pulaski, Pulaski County (R. 15).
- \*8. Vicinity of Dublin, Pulaski County.
- \*9. Vicinity of Pulaski, Pulaski County.
- \*10. Possible localities north of Pembroke, Giles County.
- \*11. Possible localities along New River near the Norfolk and Western and Virginian railways, between Eggleston and Narrows, Giles County.

Wytheville District (Wythe and Bland Counties)

1. Vicinity of Wytheville, Wythe County (R. 15).
2. Vicinity of Ivanhoe, also area between Ivanhoe and Austinville, Wythe County (R. 15).
- \*3. Possible location about 4 miles north of Wytheville, Wythe County.
- \*4. South and southwest of Rural Retreat, Wythe County.
- \*5. Possible locations along New River and along Norfolk & Western Railway, from Austinville, Wythe County to vicinity of Hiwassee, Pulaski County.
- \*6. Area northwest of Bland, Bland County.
- \*7. Vicinity of Kimberling, Bland County.
- \*8. Localities along Kimberling and No Business creeks, southwest and northeast of Kimberling, Bland County.
- \*9. Localities along Wolf Creek northeast of Bastian, and area between Bastian and Kimberling, Bland County.

Marion District (Smyth County)

1. Vicinity of Marion (R. 15).
2. Vicinity of North Holston (R. 15).
- \*3. Localities adjacent to Norfolk & Western Railway between Marion, Smyth County and Rural Retreat, Wythe County.
- \*4. Localities between Sugar Grove and Camp, along Iron Mountains.
- \*5. Vicinity of Maccrady.
- \*6. South and southwest of Marion, along northwest base of Iron Mountains.
- \*7. Vicinity of Chilhowie.

Tazewell District (Tazewell County)

1. Vicinity of Richlands (X); (R. 15).
- \*2. Localities from Richlands and Cedar Bluff northeastward along Norfolk & Western Railway to Bluefield, Virginia-West Virginia.
- \*3. Burkes Garden (R. 4).
- \*4. Along Laurel Creek, from Broadford northeastward.

III - Appalachian Ridges and Valley Region (cont'd)

Bristol District (Washington, Russell, and Scott Counties)

1. Vicinity of Castlewood, Russell County (R. 15).
2. Vicinity of Dante, Russell County (R. 15).
- \*3. Vicinity of Abingdon, Washington County.
- \*4. Vicinity of Glade Springs, Washington County.
- \*5. Along North Fork of Holston River, from Mendota, Washington County to Saltville, Smyth County.
- \*6. Locally between Abingdon and Bristol, as in vicinity of Wallace, Washington County.
- \*7. Vicinity of Clinchfield, and area between Clinchfield and Dante, Russell County.
- \*8. Vicinity of St. Paul, Russell County.
- \*9. Vicinity of Elk Garden, Russell County.
- \*10. Vicinity of Gate City, Scott County.
- \*11. Vicinity of Hiltons, Scott County.
- \*12. Localities between Hiltons, Scott County and Mendota, Washington County, along North Fork of Holston River.
- \*13. Localities between Gate City and Cassard, Scott County.
- \*14. Localities between Clinchport and Dungannon, along Clinch River and near Clinchfield Railroad, Scott County.
- \*15. Vicinity of Dungannon, Scott County.

Norton-Big Stone Gap District (Wise and Lee Counties)

1. Vicinity of Norton, Wise County (X); (R. 15).
2. Vicinity of Appalachia, Wise County (R. 15).
3. Vicinity of Glamorgan, Wise County (R. 15).
4. Vicinity of Pennington Gap, Lee County (R. 15).
5. Vicinity of Rose Hill, Lee County (R. 15).
- \*6. South of Big Stone Gap along northwest slope of Powell Mountain, Wise County.
- \*7. Vicinity of Coeburn and locally between Coeburn, Wise County and St. Paul, Russell County.
- \*8. Locally between Wise and Pound, Wise County.
- \*9. Vicinity of Jonesville and southward, Lee County.
- \*10. Locally throughout Powell Valley, Lee County.

Buchanan-Dickenson Counties District

- \*1. Possible locations in vicinity of Grundy, Vansant, and along Norfolk & Western Railway or Russell Fork to southeast, Buchanan County.
- \*2. Possible locations in vicinity of Haysi, Clinchco, Freemont, and Nora, along McClure Creek and Clinchfield Railroad, Dickenson County.

POSSIBLE POTTERY CLAYS IN VIRGINIA

Coastal Plain Region (See References 3, 5, 7, 9, 12, 13, 19)

Chesterfield County (Richmond District)

1. Vicinity of Curle's Neck, along and near James River (also adjoining parts of Henrico County).  
Miocene (Calvert) clay; possibly also Eocene and Cretaceous clay, locally.
2. Vicinity of Bermuda Hundred, along and near James River and between Bermuda Hundred and Curle's Neck (also adjoining parts of Charles City County).  
Miocene (Calvert) clay.

Charles City County (Richmond District)

1. Vicinity of Sturgeon Point and between there and Oldfield.  
Miocene (Calvert ?) clay. Reportedly an extensive deposit of clay here.

Piedmont Region (See References 9, 13, 14)

Bedford County (Lynchburg District)

1. Vicinity of Forest, along or near Norfolk and Western Railway, especially about 1 - 1½ miles north of Forest.  
Residual clay from weathered pegmatite; should be tested to determine quality and quantity.
2. West of Lynchburg, along or near U. S. 460 and Norfolk and Western Railway, near Lowry and Forest.  
Residual clay from weathered granite. Blue clay reported to be adapted to manufacture of pottery, if enough reserves.

Campbell County (Lynchburg District)

1. Vicinity of Altavista, along or near Southern Railway and Roanoke River.  
Residual clay from weathered pegmatite; possibilities for pottery, if enough clay remaining.

Henry County (Danville District)

1. Vicinity of Oak Level, in the northern part of the county, northeast of Bassetts and west of U. S. 220.  
Residual clay from weathered pegmatite; possibilities for pottery, if enough clay remaining.

Nelson County (Charlottesville District)

1. Vicinity of Roseland, along Roseland-Bryant road. Formerly worked for paper clay.  
Residual clay from weathered feldspathic rock (syenite).  
Reportedly adapted to manufacture of pottery. Reserves unknown.

Pittsylvania County (Danville District)

1. Vicinity of Motley, along or near Southern Railway and U. S. 29.  
Residual clay from weathered pegmatite. Considered to have possibilities for pottery, if enough reserves.

Appalachian Ridges and Valley Region (See References 4, 9, 13, 15, 21, 22)

Augusta County (Staunton District)

1. Vicinity of Lipscomb, along and near Norfolk and Western Railway. Residual (white) clay from weathered Cambrian shales and limestones.
2. Vicinity of Stuarts Draft, along and near Norfolk and Western Railway. Residual (white) clay from weathered Cambrian shales and limestones.
3. Vicinity of Cold Spring (Ellard) along Norfolk and Western Railway. Residual (white) clay from weathered Cambrian shales and limestones.
4. Vicinity of Lofton, along Norfolk and Western Railway. Residual (white) clay from weathered Cambrian shales and limestones.
5. Vicinity of Pekin (Spy Mountain) along Norfolk and Western Railway. Residual (white) clay from weathered Cambrian shales and limestones.
6. Vicinity of Vesuvius, near Norfolk and Western Railway. Residual (white) clay from weathered Cambrian shales and limestones (also extends into adjoining part of Rockbridge County ?).

Botetourt County (Roanoke District)

1. Vicinity of Lignite, near Chesapeake and Ohio Railway and U. S. 220. Residual (white) clay from Devonian shales and sandstones.
2. Vicinity of Fenwick, about  $1\frac{1}{2}$  miles southwest of Lignite. Residual (white) clay from Devonian shales and limestones.

Frederick County (Winchester District)

1. Vicinity of Mountain Falls on North Mountain, west of Stephens City and southwest of Winchester. Residual clay from weathered Devonian shale and sandstone (associated with Oriskany iron ore).

Rockbridge County (Lexington District)

1. Vicinity of Buena Vista, along and near Chesapeake and Ohio Railway. Residual (white) clay from weathered Cambrian shales and limestones. Localities, along western slope of Blue Ridge, both northeast and southwest of town have been worked for many years for fire-brick manufacture. Reserves may be limited, but testing both to northeast and southwest appears warranted.
2. Vicinity of Goshen, along or near Chesapeake and Ohio Railway. Residual clay from Devonian shale. Exposed in railroad cut and south of town.

Rockingham County (Harrisonburg District)

1. Vicinity of Island Ford, along or near Norfolk and Western Railway and Elkton-Grottoes road. Residual (white) clay from weathered Cambrian shales and limestones. Same as, or very similar to, clays near Lipscomb, Stuarts Draft, Cold Spring, Lofton, and Pekin in Augusta County.

Shenandoah County (Winchester District)

1. Vicinity of Strasburg, near Southern (Baltimore and Ohio) Railway and U. S. 11. Residual clay from weathered Ordovician (Martinsburg) shale. Formerly used for manufacture of pottery.

CLAYS IN VIRGINIA REPORTEDLY ADAPTED TO MANUFACTURE  
OF FIRE BRICK, HOLLOW BRICK, AND DRAIN TILE  
(Some may be adapted to pottery and other ceramic uses)

Coastal Plain Region (See References 3, 5, 7, 9, 12, 13, 18, 19)

Charles City County (Richmond District)

1. Vicinity of Oldfield and Sturgeon Point, along Chickahominy River and near U. S. 60.  
Miocene (Calvert) clays.

Chesterfield County (Richmond-Petersburg Districts)

1. Vicinity of Bermuda Hundred, near James River and Atlantic Coast Line Railway.  
Miocene (Calvert) clays; possible also Eocene or Cretaceous clays.
2. Vicinity of Ettricks, near Appomattox River and Seaboard Air Line or Atlantic Coast Line Railway.  
Residual terrace (Lafayette ?) clay.
3. Vicinity of Granite Station (Richmond), along Southern Railway, near James River and U. S. 60.  
Residual terrace (Lafayette ?) clay; also locally Recent clay.

Fairfax and Prince William Counties (Alexandria District)

1. Vicinity of Alexandria, between Alexandria and Woodbridge, near Richmond, Fredericksburg and Potomac Railway and U. S. 1.  
Residual terrace (Lafayette) clays; also locally Eocene, Cretaceous, and Recent clays.

Henrico County (Richmond District)

1. Vicinity of Fort Lee, and locally between Fort Lee and Mt. Pleasants School in Charles City County, along or near Chesapeake and Ohio Railway and U. S. 60.  
Miocene (Calvert) clays; also locally terrace or Recent clays.

King George County (Fredericksburg District)

1. Vicinity of Wilmont, along and near Rappahannock River.  
Miocene (Calvert) clays.

Prince George County (Petersburg District)

1. Vicinity of City Point and Hopewell, along and near James River and Bailey Creek; also locally along Appomattox River between Petersburg and Hopewell.  
Miocene (Calvert) clays; and locally Recent clay.

Spotsylvania County (Fredericksburg District)

1. Vicinity of Fredericksburg, locally between Fredericksburg and Stafford, between Potomac River and U. S. 1, near Richmond, Fredericksburg and Potomac Railway.  
Eocene and Recent clays.

Piedmont Region (See References 2, 6, 9, 13, 14, 17, 19)

Appomattox County (Lynchburg District)

1. Vicinity of Pamplin, particularly southeast of town along and near Norfolk and Western Railway and U. S. 460.  
Residual clay from weathered schist and gneiss.

Bedford County (Lynchburg District)

1. Locally between Bedford and Thaxton, and between Bedford and Lynchburg, near Bedford, Lowry, Forest.  
Residual clay from weathered gneiss and granite.

Gulpeper County (Gulpeper District)

1. Vicinity of Stevensburg, Brandy, and Elkwood, along or near Southern Railway and U. S. 29 (also State Highway 3).  
Weathered Triassic shales.

Halifax County (South Boston District)

1. Vicinity of Wolftrap, east of South Boston, along and near Dan River, near Norfolk and Western or Southern Railways.  
Weathered Triassic shales. Reportedly one of the best clays in the Piedmont region.

Orange County (Orange District)

1. Vicinity of Orange; west of town and between Orange and Gordonsville, near U. S. 15 and Southern Railway.  
Weathered Triassic shales.

Pittsylvania County (Danville District)

1. Vicinity of Danville; (a) East of the city along Southern Railway, and (b) in area of Triassic rocks, about six (6) miles west of city.  
Residual and stream clay (a), and residual from Triassic shales (b).

Prince Edward County (Farmville District)

1. Vicinity of Farmville, near Norfolk and Western Railway, north and west of town, and locally between Farmville and Hampden Sydney.  
Triassic shales and locally stream clay.

White Clays or Kaolins in Piedmont Region (Weathered Pegmatites)  
(See also similar listing under Possible Pottery Clays in Virginia)

1. Bedford County, near Lowry and Forest and west of Lynchburg, along or near Norfolk and Western Railway,
2. Campbell County, near Altavista, near Southern Railway,
3. Henry County, near Oak Level, in northern part of county,
4. Nelson County, vicinity of Roseland, along Roseland-Bryant road,
5. Pittsylvania County, vicinity of Motley, along or near Southern Railway and U. S. 29.

Appalachian Ridges and Valley Region (See References 4, 9, 15, 19, 21, 22)

Alleghany County (Covington District)

1. Vicinity of Longdale, along or near Chesapeake and Ohio Railway and U. S. 60.  
Residual clay from Devonian shales.
2. Vicinity of Lowmoor, along or near Chesapeake and Ohio Railway and U. S. 60.  
Residual clay from Devonian shales and limestones.
3. Vicinity of Covington and along Jackson River valley to Hot Springs, along or near Chesapeake and Ohio Railway.  
Residual Devonian shales, and locally stream clays.

Augusta County (Staunton District)

1. Vicinity of Forwick, along and near Chesapeake and Ohio Railway; possibilities also near Augusta Springs and Craigsville (?).  
Residual clay from Devonian shales. May be exhausted or occupied. Worked for many years for manufacture of Portland cement.
2. Vicinity of Staunton; localities north, about 1 to 2 miles, and west, 1 to 2 miles, offer possibilities, near Chesapeake and Ohio Railway.  
Residual clay from Ordovician limestones.
3. Vicinity of Waynesboro, along or near Norfolk and Western, and possibly also along or near Chesapeake and Ohio railways.  
Residual clay from weathered Cambrian shales and limestones.

Botetourt County (Roanoke District)

1. Vicinity of Lithia, also near Nace, along and near Norfolk and Western Railway and U. S. 11.  
Residual clay from Cambrian shales.
2. Vicinity of Lignite in western part of the county; old abandoned iron mines.  
Residual clay from Devonian shales.
3. Vicinity of Fenwick, about 1 mile southwest of Lignite; abandoned open-cut iron mining operations.  
Residual clay from Devonian shales and sandstones. A light-colored clay grades into a blue clay which might be adapted to pottery manufacture (?), if enough reserves.

Lee County (Norton-Big Stone Gap District)

1. Vicinity of Pennington Gap; just north of town is reportedly one of the best Ordovician clays in the State.  
Residual clay from Ordovician (?) shales.

Montgomery County (Radford District)

1. Vicinity of Christiansburg; about 2 miles east of town in a low area; near Norfolk and Western Railway and near U. S. 11.  
Reportedly at least 20 acres underlain by good clay. Should offer good prospects if not occupied or exhausted.  
Residual clay from Devonian shale.

Pulaski County (Radford District)

1. Vicinity of Radford; just south of town, an occurrence of clay in a low spot similar to that near Christiansburg (above); also local occurrences between Christiansburg and Radford.  
Residual clay from Ordovician (?) shales.

Appalachian Ridges and Valley Region (cont'd)

Rockbridge County (Lexington District)

1. Vicinity of Goshen; exposures in cut along Chesapeake and Ohio Railway and locally around town.  
Residual clay from Devonian shale.  
This locality may be occupied or in operation, since a large brick manufacturing plant has been using similar material locally for a number of years.
2. Vicinity of Lexington; local exposures of Cambrian and Ordovician shaly limestones between Lexington and Fairfield, near Norfolk and Western Railway, and between Lexington and Buena Vista, adjacent to Chesapeake and Ohio Railway, offer good possibilities.
3. Vicinity of Buena Vista; both northeast and southwest of town. Along the northwest base of the Blue Ridge are occurrences of light-colored and white clays adapted to fire-brick manufacture. The material is residual from weathered Cambrian shales and limestones, in and near old abandoned iron mine operations. A large brick plant has been in operation here for many years and has used this clay. Local reserves may be limited or occupied, but there may be other similar occurrences to the northeast or southwest (?).

Smyth County (Marion District)

1. Vicinity of Marion; particularly 3 to 4 miles north of town.  
Residual clay from Devonian shales.
2. Vicinity of North Holston, and locally along valley of North Holston River to Saltville.  
Residual clay from Mississippian (Macerady) shale offer possibilities.

Tazewell County (Tazewell District)

1. Vicinity of Richlands, along Norfolk and Western Railway and U. S. 460.  
Residual clay from Devonian shale.  
One of the largest brick manufacturing plants in Virginia has been operating here for many years. Probably the best reserves are owned or occupied by this company, but there may be other similar materials nearby.
2. Vicinity of Tip Top, on Norfolk and Western Railway along southeast slope of Little Stone Ridge, along Clinch River.  
Residual clay from Devonian shale.

White Clays in Appalachian Ridges and Valley Region

(See also similar listing under Possible Pottery Clays)

Along northwest base of Blue Ridge in residual material derived from weathered Cambrian shales and limestones, mostly in or near old abandoned iron and manganese mining operations:

1. Vicinity of Island Ford, near Norfolk and Western Railway, Rockingham County,
2. Vicinity of Lipscomb, along Norfolk and Western Railway, Augusta County,
3. Vicinity of Stuarts Draft, on Norfolk and Western Railway, Augusta County,
4. Vicinity of Cold Spring (Ellard) along Norfolk and Western Railway, Augusta County, occupied by active operations,

Appalachian Ridges and Valley Region (cont'd)

White Clays in Appalachian Ridges and Valley Region (cont'd)

5. Vicinity of Lofton, on Norfolk and Western Railway, Augusta County,
6. Vicinity of Pekin, on Norfolk and Western Railway, Augusta County,
7. Vicinity of Vesuvius, near Norfolk and Western Railway, southwest of Pekin, Rockbridge County.

PRODUCERS OF CLAY IN VIRGINIA

1950 - 1952

AUGUSTA COUNTY

Mine Location

✓ Cold Spring Mining Division  
Yara Engineering Corp.  
433 No. Broad St.  
Elizabeth 3, N. J.

Greenville

Swoope  
near

✓ North Mountain Brick Co., Inc.  
R. F. D. 1, Box 126A  
Swoope, Va.

Swoope near  
Staunton

Blue Ridge Dunbrik Co.  
Waynesboro, Va.

Waynesboro

✓ Staunton Shale Brick Co.  
Staunton, Va. 19

Staunton

BOTETOURT COUNTY

Botetourt

✓ Roanoke-Webster Brick Co., Inc.  
P. O. Box 730  
Roanoke, Va.

Roanoke  
Botetourt

BRUNSWICK COUNTY

✓ Lawrenceville Brick & Tile Corp.  
Lawrenceville, Va.

CHARLES CITY COUNTY

Capt. C. N. Fisher  
Williamsburg, Va.

(formerly) Eureka Brick Co.  
Norfolk, Va.

CHESTERFIELD COUNTY

Chesterfield

✓ Daniels Brick & Tile Co., Inc.  
P. O. Box 4237  
Richmond 24, Va.

Richmond  
Chesterfield

✓ Richmond Clay Products Corp.  
P. O. Box 4082  
Richmond 24, Va.

"

Southside Brick Works, Inc.,  
P. O. Box 927  
Richmond 19, Va.

"

(?)

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FREDERICK COUNTY

Mine Location

Colonial Brick Co.  
Winchester, Va. (7)

Shenandoah Brick & Tile Co.  
P. O. Box 32  
Winchester, Va.

GREENSVILLE COUNTY

Emporia Brick Co.  
Emporia, Va. (7)

Emporia

HENRICO COUNTY

E. T. Mankin, Inc.  
527 East Main St.  
Richmond, Va. (7)

Richmond  
Henrico County

Redford Brick Co.  
12th & Maury Sts.  
Richmond, Va.

Richmond  
Henrico County

Southside Brick Works, Inc.  
P. O. Box 927  
Richmond, Va. 19

Richmond  
Henrico County

HENRY COUNTY

Danville Brick Co. (lessee) (7)  
P. O. Box 654  
Danville, Va.

Martinsville

JAMES CITY COUNTY

Clay Product Corp.  
1610 Boulevard  
Hampton, Va.

Toano

Toano Brick Co.  
Toano, Va.  
(Clay Products Corp., Hampton, Va., owner)

Toano

LANCASTER COUNTY

T. V. Hudson  
Weems, Va.

Kilmarnock

(C. A. Pembroke, owner).  
(Formerly Rappahannock River Brick Corp.)

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NANSEMOND COUNTY

Mine Location

Near

Roanoke-Webster Brick Co.  
Box 780  
Roanoke, Va.

Near  
Suffolk

PITTSYLVANIA COUNTY

Danville Brick Co.  
P. O. Box 654  
Danville, Va.

Danville

PRINCESS ANNE COUNTY

Eureka Brick Co., Inc.  
P. O. Box 185  
Norfolk, Va. 1

Oceana

PRINCE WILLIAM COUNTY

Woodbridge Clay Products Co.  
Woodbridge, Va.

Woodbridge

ROANOKE COUNTY

Salem Brick Co., Inc.  
Salem, Va.

Salem

ROCKBRIDGE COUNTY

Dickinson Fire Brick Co.  
Box 948  
Buena Vista, Va.

Buena Vista

Locher Brick Co.  
Glasgow, Va.

Glasgow

TAZEWELL COUNTY

General Shale Products Corp.  
Johnson City, Tenn.

Richlands

MISCELLANEOUS

Reported producers, during period from 1940 through 1948:

1. L. T. Buck, Weems (Lancaster County), Va.
2. American Brick Corp., Suffolk (Nansemond County), Va.
3. Booker Brick Co., Morfison (Warwick County), Va.
4. Powers & Maynard Brick Co., Richmond, Va.

PRODUCERS OF BRICK CLAY AND MANUFACTURERS

OF BRICK IN VIRGINIA IN 1952

Coastal Plain Region

Norfolk District

1. Oceana, Princess Anne County, Eureka Brick Co. (Plants also at Lynnhaven and Sturgeon Point.)

Suffolk District

1. Suffolk, Nansemond County, Roanoke-Webster Brick Co. (Plant also in Botetourt County, near Roanoke.)

Richmond District

1. Chesterfield County, Daniels Brick & Tile Co., Inc.
2. Chesterfield County, Richmond Clay Products Corp.
3. Henrico County, Redford Brick Co.
4. Henrico County, Southside Brick Works, Inc.

Newport News District

1. Toano, James City County, Clay Products Corp. (Known also as Toano Brick Co.; Clay Products Corp., Hampton, Va., owner.)

Fredericksburg District

1. Woodbridge, Prince William County, Woodbridge Clay Products Co. (Shale?)

Northern Virginia District

1. Weems, Lancaster County, T. W. Hudson (Clay producer) (Operations now near Kilmarnock (?); Rappahannock River Brick Corp., C. A. Pembroke, owner (?).)

Piedmont Region

Southside (South Central Virginia District)

1. Lawrenceville, Brunswick County, Lawrenceville Brick & Tile Corp.
2. Danville, Pittsylvania County, Danville Brick Co. (Formerly known as Douthat-Riddle Co. Reportedly operated also in Henry County (at or near Martinsville).)

Appalachian Ridges & Valley Region

Staunton District

1. Swoope, Augusta County, North Mountain Brick Co., Inc.
2. Greenville, Augusta County, Cold Spring Mining Division (Ellard) Yara Engineering Corp. (Georgia Kaolin Co.)
3. Staunton, Augusta County, Staunton Shale Brick Co.
4. Waynesboro, Augusta County, Blue Ridge Dunbrick Co.

Roanoke District

1. Webster, Botetourt County, Roanoke-Webster Brick Co., Inc.
2. Salem, Roanoke County, Salem Brick Co., Inc. (Known also as Old Virginia Brick Co.)

Winchester District

1. Winchester, Frederick County, Shenandoah Brick & Tile Co.

Appalachian Ridges & Valley Region (cont'd)

Lexington - District

Buena Vista

1. Buena Vista, Rockbridge County, Dickinson Fire Brick Co.
2. Glasgow, Rockbridge County, Locher Brick Co.

Southwest Virginia Area

Tazewell District

1. Richlands, Tazewell County, General Shale Products Corp.  
(Div. of Johnson City, Tenn.)

FORMER PRODUCERS OF BRICK OR BRICK CLAYS IN VIRGINIA  
(1940-1949)

Coastal Plain Region

Norfolk District

1. Eureka Brick Co., plant at Lynnhaven, Princess Anne County.

Suffolk District

1. American Brick Corp., plant at Suffolk (Nansemond County).

Newport News District

1. Booker Brick Co., plant at Morrison (Warwick County).

Williamsburg District

1. Capt. C. N. Fisher, former plant of Eureka Brick Co., near Holdcroft, Charles City County.

Northern Virginia District

1. L. T. Buck & Co., plant at Weems, Lancaster County.
2. Rappahannock River Brick Corp., (C. A. Pembroke, owner) operations near Kilmarnock, Lancaster County (Same operations later acquired by L. T. Buck —?)
3. Hinton-Crosswell Brick Co., plant at Reedville, Northumberland County.

Piedmont Region

Includes localities along or near the contact (boundary) of the Coastal Plain and Piedmont regions.

Washington, D. C. District

Includes localities in or near Alexandria and Arlington.

1. Potomac River Clay Works, former plant at Alexandria (Arlington County). (Operations closed down, machinery sold, moved, 1949.)
2. Hydraulic Press Brick Co., plant at or near Arlington (Arlington County).
3. West Brothers Brick Co., plant at or near Arlington (Arlington County).

Richmond District

1. E. T. Mankin, Inc., operations in Henrico County (Clay producer, 1945-1949).

Petersburg District

1. Brister and Knowles, plant in Petersburg.

Emporia District

1. Emporia Brick Co., plant at Emporia (Greensville County).

Lawrenceville District

1. Lawrenceville Brick & Tile Corp., plant at Lawrenceville, Brunswick County.

Piedmont Region (cont'd)

Danville District

1. Danville Brick Co. (lessee ?), plant at Danville, Pittsylvania County. Also operates plant at Martinsville, Henry County, which was known also as Martinsville Brick Co.
2. Douthat-Riddle Co., former plant at Danville, Pittsylvania County, leased or operated by Danville Brick Co. (see above), and reportedly also operated by Roanoke-Webster Brick Co. of Roanoke (?).
3. Roanoke-Webster Brick Co. of Roanoke operated plant at or near Danville, formerly operated by Hedgcock Brick Co. (Roanoke-Webster Brick Co. also operates plants in Botetourt County, near Roanoke, and near Suffolk in Nansemond County.)

Charlottesville District

1. Monticello Brick Co., former plant in Charlottesville, Albemarle County now reported worked out and abandoned.
2. Old Colonial Brick, Inc., successors (?) to Monticello Brick Co., produced some brick between 1944 and 1949. No recent operation or production of bricks reported.

Appalachian Ridges and Valley Region

Includes all of the State west (northwest and southwest) of the Blue Ridge.

Winchester District

1. Colonial Brick Co., plant at Winchester, Frederick County. (Reported production 1944 through 1949)

Harrisonburg District

1. George E. Shrum, plant at Harrisonburg, Rockingham County.

Staunton District

1. North Mountain Shale Brick Co., plant at North Mountain, near Staunton, Augusta County.
2. Staunton Brick Co., plant in Staunton, Augusta County.
3. Virginia Brick & Tile Co., plant near Gardner or Greenville, Augusta County. (Reported as a producer in 1949.)

Lexington District

1. Alleghany Slag Products Co., plant at Buena Vista, Rockbridge County.
2. Dickinson Fire Brick Co., plant at Buena Vista, Rockbridge County.

Covington District

1. Covington Shale Brick Co., plant at Covington, Alleghany County.

Marion District

1. Marion Brick Co., plant at Marion, Smyth County.

MANUFACTURERS OF FACE BRICK IN VIRGINIA, 1950-1952

Coastal Plain Region

1. Arlington County  
West Brothers Brick Company  
Arlington
2. Charles City County  
Eureka Brick Co. (Norfolk, Va.)  
Sturgeon Point
3. Henrico County  
Redford Brick Co.  
Richmond
4. Lancaster County  
L. T. Buck & Co.  
Weems and Kilmarnock

Piedmont Region

5. Greensville County  
Brick & Tile Corp. (1949)  
Lawrenceville
6. Pittsylvania County  
Danville Brick Mfg. Corp. (1949)  
Danville

Appalachian Ridges and Valley Region

7. Alleghany County  
Covington Shale Brick Co.  
Covington
8. Roanoke County  
Salem Brick Co.  
Salem
9. Rockbridge County  
Locher & Co.  
Glasgow
10. Smyth County  
Marion Brick Co.  
Marion
11. Tazewell County  
General Shale Products Corp.  
Richlands

MANUFACTURERS OF STRUCTURAL CLAY TILE IN VIRGINIA, 1950-1952

1. Covington Shale Brick Co., Covington, Va. - Alleghany County
2. West Brothers Brick Co., Arlington City, Va. - Arlington County
3. Brick & Tile Corp., Lawrenceville, Va. - Greensville County
4. Marion Brick Co., Marion, Va. - Smyth County

BRICK MANUFACTURERS IN VIRGINIA - 1952

Blue Ridge Dunbrik Company, Waynesboro, Augusta County  
Brick

Brick and Tile Corporation of Lawrenceville, Lawrenceville, Greensville, Greenville County  
Brick

Daniels Brick Company, Richmond, Chesterfield County  
Brick

Danville Brick Manufacturing Corporation, Danville, Pittsylvania County  
Brick

Eureka Brick Company, Inc., Norfolk  
(Plant at Oceana, Va., Nansemond County)  
Brick

General Shale Products Corporation, Richlands, Tazewell County  
(Main office: Johnson City, Tenn.)  
Artistic, common and brattice brick; terrace tile

Locher Brick Company, Inc., Glasgow, Rockbridge County  
Brick

North Mountain Brick Company, Inc., Swoope, Augusta County  
Brick

Old Virginia Brick Company, Salem, Roanoke County  
Moulded Colonial brick, smooth brick

Redford Brick Company, Richmond, Henrico County  
Face and common brick

Roanoke-Webster Brick Company, Inc., Roanoke  
(Plants at Suffolk, Nansemond County, and Webster, Botetourt County, Va.)  
Face and common brick

Shenandoah Brick & Tile Corporation, Winchester, Frederick County  
(Main office: Baltimore, Md.)  
Brick

Southside Brick Works, Inc., Richmond, Henrico County  
Face and common brick

Staunton Shale Brick Company, Staunton, Augusta County  
Brick

Woodbridge Clay Products Company, Woodbridge, Prince William County  
(Main office: Pittsburgh, Pa.)  
Brick

References on Clay in Virginia

1. Bates, R. L., Geology of Powell Valley in northeastern Lee County, Virginia: Virginia Geol. Survey Bull. 51-B, p. 94, 1939.
2. Brown, C. B., Outline of the geology and mineral resources of Goochland County, Virginia: Virginia Geol. Survey Bull. 48, pp. 1, 37, 1937.
3. Clark, W. B., and Miller, B. L., Physiography and geology of the Coastal Plain province of Virginia, with sections on the Lower Cretaceous by E. W. Berry, and on the economic geology by T. L. Watson: Virginia Geol. Survey Bull. 4, 274 pp., 1912.
4. Cooper, B. N., Geology and mineral resources of the Burkes Garden quadrangle, Virginia: Virginia Geol. Survey Bull. 60, pp. 266-267, 1945.
5. Darton, N. H., Economic geology of Richmond, Virginia and vicinity: U. S. Geol. Survey Bull. 483, 48 pp., 1911.
6. Furcron, A. S., Geology and mineral resources of the Warrenton quadrangle, Virginia: Virginia Geol. Survey Bull. 54, p. 65, 1939.
7. Gildersleeve, Benjamin, Eocene of Virginia: Virginia Geol. Survey Bull. 57, p. 38, 1942.
8. Holden, R. J., in Virginia: Economic and Civic, Virginia Polytechnic Institute in collaboration with the Virginia State Chamber of Commerce, pp. 101-104, Richmond, Va., Whittet and Shepperson, 1933.
9. McGill, W. M., Outline of the mineral resources of Virginia: Virginia Geol. Survey Bull. 47, pp. 52-53, 1936.
10. McGill, W. M., Mineral resources along the lines of the Norfolk and Western Railway in Virginia . . . , Industrial and Agricultural Department of the Norfolk and Western Railway, Roanoke 17, Va., pp. 6-8, 15, 1946.
11. Ries, H., The clays of the United States east of the Mississippi River: U. S. Geol. Survey Prof. Pap. 11, pp. 49, 67, 247-252, 1903.
12. . . . ., The clay deposits of the Virginia Coastal Plain, with a chapter on the geology of the Virginia Coastal Plain, by W. B. Clark and B. L. Miller: Geol. Survey of Virginia, Geol. Ser., Bull. 2, 184 pp., 1906.
13. . . . ., in Watson, T. L., Mineral resources of Virginia: Virginia-Jamestown Exposition Commission, pp. 167-187, Lynchburg, Va., J. P. Bell Co., 1907.
14. . . . ., and Somers, R. E., The clays of the Piedmont province, Virginia: Virginia Geol. Survey Bull. 13, 86 pp., 1917.
15. . . . ., The clays and shales of Virginia west of the Blue Ridge: Virginia Geol. Survey Bull. 20, 118 pp., 1920.
16. . . . ., Bailey, W. S., and others, High-grade clays of the eastern United States, with notes on some western clays: U. S. Geol. Survey Bull. 708, pp. 18, 99-104, 1922.

17. Roberts, J. K., The geology of the Virginia Triassics Virginia Geol. Survey Bull. 29, p. 132, 1928.
18. ...., The Lower York-James Peninsula: Virginia Geol. Survey Bull. 37, pp. 19, 20, 21, 22, 36-37, 1932.
19. Stow, M. H., The mineral resources and mineral industry of Virginia: Advisory Council on the Virginia Economy Report of the Committee on mining, pp. 45-47, 1951.
20. Whittemore, J. H., in The mineral resources and mineral industry of Virginia: Advisory Council on the Virginia Economy Report of the Committee on mining, p. 47, 1951.
21. Woodward, H. P., Geology and mineral resources of the Roanoke Area, Virginia: Virginia Geol. Survey Bull. 34, pp. 103, 105, 108, 125-131, 135, 137-139, 1932.
22. ...., Outline of the geology and mineral resources of Russell County, Virginia: Virginia Geol. Survey Bull. 49, pp. 45, 78-80, 1938.
23. Butts, Charles, Geologic map of the Appalachian Valley of Virginia: Virginia Geol. Survey (Bull. 42), 1933.
24. Virginia Geol. Survey: Geologic map of Virginia, 1928.

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