

## Introduction

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Bureau of Public Roads

●THE HIGHWAY RESEARCH BOARD Committee on Surveying, Mapping and Classification of Soils described in Bulletins 28, 46, and 65 the status and usefulness of geologic maps for highway engineering purposes. Bulletin 83 listed geologic investigations involving geologic mapping in progress in 1953. Most of those investigations have been completed and new investigations are under way; therefore, a list of current geologic investigations is presented in this bulletin. The geologic mapping information in this bulletin was furnished by the U. S. Geological Survey at the request of the committee.

Bulletin 22, "Engineering Use of Agricultural Soil Maps" gave the status of soil surveys by the U. S. Department of Agriculture. A revision, Bulletin 22-R, "Agricultural Soil Maps, Status, July 1957," lists the soil surveys completed and in progress, and rates the soil surveys with respect to adequacy of the mapping for agricultural and engineering purposes. Bulletin 22-R also gives the names and addresses of Soil Survey staff personnel, State Conservationists, and State Soil Scientists of the U. S. Soil Conservation Service.

## Geologic Survey Mapping in the United States

●THE U. S. GEOLOGICAL SURVEY, in more than one of its divisions, prepares geologic maps for several purposes. The Geologic Division conducts systematic surveys and research and investigations related to mineral resources and to engineering geology problems. Many of the geologic maps prepared by this division are highly detailed and restricted to mineralized areas. The Water Resources Division, through its Ground Water Branch, makes systematic and special geologic investigations in connection with the occurrence of ground water. Many of the studies have special application to highway construction and planning. Geologic maps, cross-sections, and texts are published.

### Current Investigations of the U. S. G. S. Involving Geologic Mapping

The following list of investigations includes only areal geologic mapping which may be useful to engineers engaged in construction work in the areas concerned.

Any inquires about geologists in charge of the Geologic Division projects (listed in Table 1) should be addressed to the Director, U. S. Geological Survey, Washington 25, D. C., since these men are in the field for only a part of the year, and investigations frequently involve considerable laboratory and office research not generally performed in the field area. Water Resources Division projects (Table 2) are directed from permanent offices in the states where both original and published records are available. Inquiry may be made through the field offices or through the Director, as indicated above.

## Index to Geological Mapping in the United States

The map indexes, which are available for all 48 states, show the areas of published geologic maps in each state and give the source of publication of each map. The state index maps and the price of each are listed in the following table. Most indexes are on a scale of 1:750,000, others are 1:500,000 or 1:1,000,000. Each index shows the outline of each area mapped and the approximate scales are shown by patterns in four colors. Bibliographies are printed with the indexes giving the sources and the dates of publication and the names of the geologists responsible for the work.

Copies of these index maps may be obtained from the Chief of Distribution, U. S. Geological Survey, Washington 25, D. C., or for the convenience of persons living west of the Mississippi River, indexes for states in that part of the country may be ordered from the Distribution Section, U. S. Geological Survey, Denver Federal Center, Denver, Colorado. Copies may be consulted in many libraries.

### AVAILABLE GEOLOGIC MAP INDEXES

State	Year of Publication	Price	State	Year of Publication	Price
Alabama	1951	\$0.40	Nebraska	1948	.35
Arizona	1957	.60	Nevada	1955	.60
Arkansas	1952	.65	New Hampshire & Vermont	1952	.50
California(2sheets)	1952 (set)	1.00	New Jersey	1951	.40
Colorado	1954	.60	New Mexico	1956	.70
Delaware & Maryland	1951	.40	New York	1952	.60
Florida	1953	.60	North Carolina	1950	.50
Georgia	1950	.35	North Dakota	1954	.60
Idaho (In prep)	1957		Ohio	1949	.25
Illinois	1954	.60	Oklahoma	1953	.60
Indiana	1950	.45	Oregon	1950	.25
Iowa	1948	.35	Pennsylvania	1952	.60
Kansas	1954	.60	South Carolina	1950	.25
Kentucky	1952	.50	South Dakota	1957	.30
Louisiana	1950	.50	Tennessee	1950	.40
Maine	1949	.25	Texas	1951	.60
Massachusetts, Rhode Island & Connecticut	1952	.40	Utah	1954	.60
Michigan	1953	.60	Vermont & New Hampshire	1952	.50
Minnesota	1953	.60	Virginia	1951	.40
Mississippi	1950	.25	Washington	1950	.35
Missouri	1949	.30	West Virginia	1949	.25
Montana	1955	.60	Wisconsin	1953	.60
			Wyoming	1955	.60

### Investigations by State Geological Surveys

Most of the states have geological surveys or similar state agencies that can furnish information on the availability of geological maps and work in progress within the state. The names of state geologists and the location of their offices are shown in Table 3.

TABLE 1  
CURRENT INVESTIGATIONS INVOLVING GEOLOGIC MAPPING,  
GEOLOGIC DIVISION, 1:62,500 OR LARGER SCALES

<u>Project</u>	<u>Project Chief</u>
ALABAMA	
Pennsylvanian of Alabama in Walker, Winston, Cullman, Blount, and Jefferson Counties	W. C. Culbertson
ARIZONA	
Fuels Potential of the Navajo Reservation, Navajo County	R. B. O'Sullivan
Jerome Copper District, Yavapai County	M. H. Krieger
Globe-Miami Copper District, Gila County	N. P. Peterson
Little Dragoons Copper District, Cochise County	J. R. Cooper
Geologic Studies in Carrizo Mountains, Apache and San Juan Counties	J. D. Strobell
San Manuel, Jr., Pinal County	S. C. Creasey
East Vermillion Cliffs Area, Coconino County	R. G. Petersen
Twin Buttes; Pima County	J. R. Cooper
Klondyke Quadrangle, Pinal County	F. Simons
Holy Joe Peak Quadrangle, Pinal County	M. H. Krieger
Eastern Mogollon Rim Area, Navajo and Apache Counties	W. R. Hansen
ARKANSAS	
Southern Arkansas Oil and Gas in Hot Spring, Clark, Pike, Nevada, Hempstead, and Howard Counties	W. Danilchik
CALIFORNIA	
Engineering Geology of the San Francisco Bay Area in San Francisco, Alameda, Contra Costa, Marin, and San Mateo Counties	J. Schlocker
Surficial Geology of the Beverly Hills and Topanga Quadrangles, Los Angeles County	J. T. McGill
Quaternary Geology of Upper Amargosa Valley, Inyo County	C. S. Denny
Northeast Santa Ana Mountains, Orange County	J. E. Schoellhamer
Quaternary Geology of Death Valley, Inyo County	C. B. Hunt
Funeral Peak Quadrangle, Inyo County	H. Drews
Barney Area, Shasta County	G. A. Macdonald
Panamint Butte Quadrangle, Inyo County	W. E. Hall
Furnace Creek Borate District, Inyo County	J. F. McAllister
Bishop Tungsten; Inyo County	P. C. Bateman
Eastern Sierra Tungsten Belt; Mono and Alpine Counties	D. Rinehart
Sierra Foothills Mineral Belt	L. D. Clark
Cave Mountain Quadrangle, San Bernardino County	A. M. Bassett
Mt. Pinchot Quadrangle, Inyo and Fresno Counties	J. G. Moore
South Klamath Mountains; Shasta and Trinity Counties	W. P. Irwin
Geology of Midland and Big Maria Mountains Quadrangle, Riverside County	W. B. Hamilton
Oakland East Quadrangle, Contra Costa and Alameda Counties	D. H. Radbruch

Table 1 (continued)

<u>Project</u>	<u>Project Chief</u>
COLORADO	
Upper South Platte (North Fork) in Park, Jefferson and Douglas Counties	G. R. Scott
City Geology of Denver in Adams, Denver, Arapahoe and Jefferson Counties, Colorado	R. Van Horn
Mountain Front Recharge Area, South Platte River	Glenn R. Scott
Trinidad Coal Field, Los Animas and Huerfano Counties	R. B. Johnson
Uintah Basin Oil Shale, White River in Uintah, Utah, Garfield and Rio Blanco Counties	W. B. Cashion
Carbondale Coal Field; Garfield and Pitkin County	J. R. Donnell
East Half of Rangely Quadrangle, Moffat and Rio Blanco Counties	A. D. Zapp
North Park in Jackson County	D. M. Kinney
Investigations of Uranium in the Maybelle-Lay Area, Moffat County	M. J. Bergin
Kokomo (Tenmile) mining District, Lake and Eagle County	A. H. Koschmann
San Juan in Dolores, Hinsdale, Ouray, San Juan, and San Miguel Counties	R. G. Luedke
Holy Cross Quadrangle in Eagle, Lake, Summit and Pitkin Counties	O. L. Tweto
Wet Mountain Thorium in Custer and Fremont Counties	Q. D. Singewald
Central City-Georgetown, Jefferson County	P. K. Sims
Creede and Summitville Districts in Mineral, Rio Grande, and Conejos Counties	T. A. Steven
Sage Plain Quadrangle, San Juan County	L. C. Huff
Lisbon Valley Area	G. W. Weir
Gunnison County (Powderhorn), Gunnison County	J. C. Olson
Ralston Buttes District, Jefferson County	D. M. Sheridan
Slick Rock District, San Miguel and Dolores Counties	D. R. Shawe
Uravan District, Montrose and Mesa Counties	R. L. Boardman
Minturn Quadrangle, Eagle and Summit Counties	T. G. Lovering
La Sal Creek Area, Grand and San Juan Counties	W. D. Carter
Ute Mountains Area, Montezuma County	E. B. Ekren
Taylor Park Quadrangle, Gunnison, Chaffee, and Pitkin Counties	M. G. Dings
CONNECTICUT	
Connecticut Cooperative	E. B. Eckel
IDAHO	
Hagerman section across Snake River Valley, Gooding County	H. A. Powers
Cross-section of the Idaho batholith, Valley County	B. F. Leonard
Blackbird Mt. quad. and NW Cobalt, Lemhi County	J. S. Vhay
Coeur d'Alene, Shoshone County	S. W. Hobbs
Soda Springs quad., Bannock, Bear Lake and Caribou Counties	F. C. Armstrong
Aspen Range-Dry Ridge, Bannock, Bear Lake, Caribou and Franklin Counties	E. R. Cressman
Pend Oreille, Bonner County	J. E. Harrison

Table 1 (continued)

<u>Project</u>	<u>Project Chief</u>
IDAHO	
Owyhee-Mountain City, Owyhee County	R. R. Coats
Snake River Valley, Elmore, Bingham, and Power Counties	H. A. Powers
INDIANA	
Quaternary geology, Owensboro quad. Spencer and Warrick Counties	L. L. Ray
IOWA	
Omaha and vicinity, Pottawattamie and Mills Cos.	R. D. Miller
KANSAS	
Kansas Pennsylvanian rocks, Wilson and Shawnee Cos.	W. D. Johnson, Jr.
KENTUCKY	
Geology and mineral resources of a part of the southern Appalachian folded belt, Bell County	J. G. Stephens
Quaternary geology, Owensboro quad.; Davies County	L. L. Ray
Eastern Kentucky underclay studies; Carter, Rowan, Lewis and Elliott Counties	S. H. Patterson
Salem quadrangle; Crittenden and Livingston Counties	R. D. Trace
Geology of the Lee formation, Rock Castle, Pulaski, Laurel, Wayne, and McCreary Counties	E. J. Lyons
MAINE	
Border Mountains, Somerset County	A. L. Albee
Bedrock geology of the Danforth quadrangle, Washington and Aroostook Counties	D. M. Larrabee
Bridgewater quadrangle, Aroostook County	L. Pavlides
Greenville quadrangle, Piscataquis and Somerset Cos.	G. H. Espenshade
MARYLAND	
Stratigraphy of Allegany County	W. de Witt, Jr.
MASSACHUSETTS	
Massachusetts cooperative	L. W. Currier
MICHIGAN	
Michigan copper, Keweenaw and Houghton Counties	W. S. White
Iron River-Crystal Falls district, Iron County	H. L. James
East Marquette, Marquette County	J. E. Gair
Eastern Iron County	K. L. Weir
Southern Dickinson County	R. W. Bayley
MONTANA	
Big Sandy Creek--South half, Chouteau and Blaine Cos.	R. M. Lindvall

Table 1 (continued)

<u>Project</u>	<u>Project Chief</u>
MONTANA	
Wolf Point project, Richland, McCone, Roosevelt, and Valley Counties	R. B. Colton
Great Falls-Sun River project, Teton, Cascae, Lewis and Clark, and Chouteau Counties	R. W. Lemke
Sun River Canyon, Teton and Lewis and Clark Counties	M. R. Mudge
Winnett-Mosby area, Petroleum and Garfield, Rosebud and Fergus Counties	W. D. Johnson, Jr.
Sumatra-Alice Dome area, Rosebud, Garfield, and Musselshell Counties	H. R. Smith
Geology of the Livingston-Trail Creek area, Gallatin and Park Counties	A. E. Roberts
Geology of the Southwest Montana phosphate field, Beaverhead County	W. B. Myers
Browning project, Glacier County	G. M. Richmond
Stratigraphy and structure of the Belt Series in the vicinity of Missoula, Missoula County	W. H. Nelson
Toston quadrangle, Gallatin and Broadwater Counties	G. D. Robinson
Three Forks quadrangle, Gallatin, Jefferson and Broadwater Counties	G. D. Robinson
Duck Creek Pass quadrangle, Broadwater County	W. H. Nelson
Gravelly Range-Madison Range cross section, Madison County	J. B. Hadley
Petrology of the Bearpaw Mountains, Blaine and Chouteau Counties	W. T. Pecora
Coeur d'Alene, Mineral County	S. W. Hobbs
Boulder batholith, Jefferson County	M. R. Klepper
NEBRASKA	
Lower Platte, Valley County	R. D. Miller
Omaha and vicinity, Douglas and Sarpy Counties	R. D. Miller
NEVADA	
Fallon project, Churchill County	R. B. Morrison
Mt. Lewis and Crescent Valley Quadrangles, Lander and Eureka Counties	J. Gilluly
Railroad district, Eureka and Elko Counties	J. F. Smith
Quaternary geology of Upper Amargosa Valley, Nye County	C. S. Denny
Cortez quadrangle, Eureka and Lander Counties	J. Gilluly
Eureka mining district, Eureka and White Pine Counties	T. B. Nolan
Antler Peak quadrangle, Lander and Humboldt Counties	R. J. Roberts
Jarbidge quadrangle, Elko County	R. R. Coats
Snake Range, White Pine County	A. B. Griggs
Humboldt Range (Lovelock), Pershing County	R. E. Wallace
Bullfrog, Nye County	H. R. Cornwall
Owyhee-Mountain City, Elko County	R. R. Coats
NEW JERSEY	
Northeast iron, Warren and Sussex Counties	A. F. Buddington

Table 1 (continued)

<u>Project</u>	<u>Project Chief</u>
NEW JERSEY	
Delaware River Basin, Hunterdon County	J. T. Stark
NEW MEXICO	
Sangre de Cristo Mountains, Santa Fe, San Miguel, Taos, Mora, and Colfax Counties	C. B. Read
Chaco River coal field; San Juan and McKinley Counties	E. C. Beaumont
S.E. New Mexico stratigraphy; Eddy and Otero Counties	P. T. Hayes
Southern Oscura and Northern San Andres Mountains; Socorro and Lincoln Counties	G. O. Bachman
Coking coal of the Raton coal field; Colfax County	A. A. Wanek
Petrology of the Valles Mountains; Sandoval and Rio Arriba Counties	C. S. Ross
Silver City mining region; Grant County	W. R. Jones
Geologic studies in Carrizo Mountains; San Juan County	J. D. Strobell, Jr.
Grants area; McKinley and Valencia Counties	R. E. Thaden
Laguna area; Valencia and Bernalillo Counties	R. H. Moench
NEW YORK	
Delaware Basin surficial geology; Steuben, Tioga, Chemung, and Tompkins Counties	C. S. Denny
Northeast iron; St. Lawrence and Clinton Counties	A. F. Buddington
Richville quadrangle; St. Lawrence County	H. M. Bannerman
NORTH CAROLINA	
Geology and mineral resources of a part of the southern Appalachian folded belt; Morrison and Haywood Counties	J. G. Stephens
Great Smoky Mountains; Swain, Haywood, and Jackson Counties	J. B. Hadley
Grandfather Mountain area; Watauga, Avery, Caldwell and Burk Counties	B. Bryant
Hammes tungsten; Granville and Vance Counties	J. M. Parker
Volcanic slate series; Davidson and Randolph Counties	A. A. Stromquist
Central Piedmont; Cabarrus, Mecklenburg, Gaston, and Lincoln Counties	W. C. Overstreet
OHIO	
Geology of Clinton (Medina); eastern counties	W. deWitt, Jr.
OKLAHOMA	
Permian sediments; Cotton and Jefferson Counties	E. J. McKay
OREGON	
Portland industrial area; Multnomah, Clackamas, and Columbia Counties	D. E. Trimble
Coast Range; Yamhill, Polk, and Marion Counties	E. M. Baldwin
Anlauf-Drain area; Lane and Douglas Counties	L. Hoover

Table 1 (continued)

<u>Project</u>	<u>Project Chief</u>
OREGON	
John Day chromite; Grant and Harney Counties	T. P. Thayer
Geology of Monument 15' quadrangle; Grant County	R. E. Wilcox
PENNSYLVANIA	
Bituminous coal resources; coal-bearing counties of western Pennsylvania	E. D. Patterson
Southern anthracite field; Dauphin, Schuylkill, Carbon, Lebanon, and Northumberland Counties	G. H. Wood, Jr.
Surficial geology of the Delaware Basin; Tioga, Bradford, Lycoming, and Sullivan Counties	C. S. Denny
Northeast iron; York and Lancaster Counties	A. F. Buddington
Mauch Chunk quadrangle; Carbon and Monroe Counties	H. Klemic
Anthracite drainage project; Schuylkill, Carbon, Northumberland, Columbia, Dauphin, Lebanon, Luzerne, Lackawanna, Susquehanna and Wayne Counties	G. H. Wood, Jr.
Delaware River Basin; Bucks County	J. T. Stark
RHODE ISLAND	
Rhode Island Cooperative	A. W. Quinn
SOUTH DAKOTA	
Fort Randall Reservoir Area	C. F. Erskine
TENNESSEE	
Knoxville and vicinity	J. M. Cattermole
Tennessee coal investigations	K. J. Englund
Geology & mineral resources of a part of the southern Appalachian folded belt	J. G. Stephens
Great Smoky Mountains, Sevier County	J. B. Hadley
Geology of the Lee Formation, Jackson County	E. J. Lyons
Mississippi-Embayment-Nashville Dome	J. T. Stark
TEXAS	
Del Rio in Val Verde, Terrell, Brewster Counties	W. R. Hansen
Pennsylvanian oil and gas investigation	A. E. Roberts
Permian Sediments	E. J. McKay
Eagle Mountains, Hudspeth County	J. F. Smith
UTAH	
Upper Green River Valley	W.R. Hansen
Strawberry Valley Quadrangle	A. A. Baker
Southern Colob Plateau Coal, Kane County	W. B. Cashion, Jr.
Uintah Basin Oil Shale, White River Area	W. B. Cashion, Jr.
Cedar City SE Quadrangle	P. Averitt
Fuels Potential of the Navajo Reservation, Navajo County	R. B. O'Sullivan



Table 1 (continued)

<u>Project</u>	<u>Project Chief</u>
UTAH	
Southern half Utah Valley, Utah County	H. J. Bissell
Tintic District, Juab County	H. T. Morris
Abajo (Blue) Mountains	I. J. Witkind
Alta Quadrangle in Salt Lake, Wasatch, and Uintah Counties	M. D. Crittenden, Jr.
Drums - Thomas Range fluorite	M. H. Staatz
Thompson District, Grand County	E. S. Santos
Deer Flat Area, White Canyon District, San Juan County	W. B. Gazdik
Inter-River Area Strip Mapping	E. N. Hinrichs
Sage Plain Quadrangle	L. C. Huff
Circle Cliffs	E. S. Davidson
Lisbon Valley Area	G. W. Weir
Capitol Reef Area, Wayne and Garfield Counties	J. F. Smith, Jr.
San Rafael Swell	C. C. Hawley
Elk Ridge Area, San Juan County	R. Q. Lewis
Orange Cliffs Area, Wayne County	F. H. McKeown
Snake Range, White Pine County	A. B. Griggs
Bingham District, Salt Lake and Toole Counties	R. J. Roberts
San Francisco; Millard and Beaver Counties	D. M. Lemmon
VIRGINIA	
Geologic mapping of Duffield, Sticklelyville, Olinger, Keokee, and Pennington Gap Quadrangles in Lee, Scott, and Wise Counties	L. D. Harris
Geologic and mineral resources of a part of the southern Appalachian folded belt	J. G. Stevens
Geology of the Lee Formation	E. J. Lyons
Hamme Tungsten District	J. M. Parker, 3d
WASHINGTON	
Portland Industrial Area, Clark County	D. E. Trimble
Lower Snake River Canyon in Franklin, Walla Walla, Columbia, Whitman, and Garfield Counties	L. M. Gard
Puget Sound Basin	H. H. Waldron
Olympic Mountains, Lake Crescent Area, Clallam County	R. D. Brown, Jr.
Stevens County lead-zinc	R. G. Yates
Turtle Lake Quadrangle, Stevens County	G. E. Becraft
Metaline District, Pend Orielle and Stevens Counties	M. G. Dings
Republic Area, Ferry County	S. J. Muessig
Bald Knob; Ferry County	M. H. Staatz
WYOMING	
Whalen-Wheatland Fault System	L. W. McGrew
Southeast Gros Ventre	W. R. Keefer
Clark Fork; Park County	W. G. Pierce
Lenore Area, Wind River Basin	J. F. Murphy
Investigation of Uranium Deposits in Baggs Area	G. E. Prichard

Table 1 (continued)

<u>Project</u>	<u>Project Chief</u>
WYOMING	
Investigation of Uranium Deposits in the Crooks Gap Area	J. G. Stephens
Big Piney project	N. C. Privasky
Hiland area - investigations of uranium	E. I. Rich
Grand Teton National Park	J. D. Love
Tertiary geology of SW Wyoming, Lincoln County	J. I. Tracey
Fort Hill Quadrangle, Lincoln County	S. S. Oriel
Powder River Basin	W. N. Sharp
Carlisle Quadrangle, Crook County	M. H. Bergendahl
Storm Hill Quadrangle, Crook County	R. C. Vickers
South Powder River Basin	W. N. Sharp
Hulett Creek, 7½' quadrangle, Crook County	C. S. Robinson
Strawberry Hill, 7½' quadrangle, Crook County	G. Izett

TABLE 2

CURRENT INVESTIGATIONS INVOLVING GEOLOGIC MAPPING,  
1:62,500 OR LARGER SCALES, WATER RESOURCES DIVISION,  
GROUND WATER BRANCH

<u>Project</u>	<u>Project Chief</u>
ALABAMA	
Wilcox County	P. E. LaMoreaux
Tuscaloosa County	J. D. Miller
Montgomery County	D. B. Knowles
Birmingham iron ore district	T. A. Simpson
Marengo County	John Newton
Sylacauga Area	G. W. Swindel
Colbert County	H. B. Harris
Lauderdale County	H. B. Harris
Calhoun County	J. E. Warman
Morgan County	C. L. Dodson
ALASKA	
Matanuska Valley agricultural area	R. M. Waller
Anchorage Area	R. M. Waller
ARIZONA	
Navajo-Hopi Indian Reservations, Arizona-Utah-New Mexico	J. W. Harshbarger
Mogollon Rim region of central Arizona	D. G. Metzger
Navajo and Apache Counties	P. W. Johnson
Northwestern Pinal County	J. W. Harshbarger
Flagstaff Area	J. W. Harshbarger
Lower Bonita Creek area, Graham County	L. A. Heindl
Northern part of Apache County	J. P. Akers
McMullen Valley, Yuma, Maricopa, and Yavapai Counties	W. Kam
Grand Canyon National Park	D. G. Metzger
Hualpai Indian Reservation	F. R. Twenter

Table 2 (continued)

<u>Project</u>	<u>Project Chief</u>
ARKANSAS	
Lincoln County	J. E. Reed
St. Francis County	R. W. Ryling
CALIFORNIA	
Selected valleys in the Mojave Desert	L. G. Dutcher
San Joaquin Valley	J. F. Poland
Edison-Maricopa Area	P. R. Wood
Ducor-Famosa Area	P. R. Wood
Point Mugu Area, Ventura County	R. W. Page
COLORADO	
Kit Carson County	G. H. Chase
South Platte Valley between Denver and Hardin	R. O. Smith
Prowers County	P. T. Voegeli
Ute Mountain Indian Reservation	J. H. Irwin
Yuma County	W. G. Weist
Denver Basin	G. H. Chase
Washington County	H. E. McGovern
CONNECTICUT	
New Haven Area	R. V. Cushman
Farmington River lowland	A. D. Randall
Southington quadrangle	A. M. LaSala
Lower Quinnipiac lowland	A. M. LaSala
Tariffville Quadrangle	A. D. Randall
Thompson Quadrangle	J. E. Upson
DELAWARE	
Clayton and Milton quadrangles	W. C. Rasmussen
D. C., AND VICINITY	
Washington, D. C. and vicinity	P. M. Johnston
Fairfax quadrangle, Virginia	P. M. Johnston
GEORGIA	
Dougherty and Calhoun Counties	R. L. Wait
Dawsonville Area	J. W. Stewart
HAWAII	
Kauai Island	D. A. Davis
IDAHO	
Western Snake River plain	E. G. Crosthwaite
Eastern Spokane River Basin	S. W. West
Mud Lake Basin	P. R. Stevens

Table 2 (continued)

<u>Project</u>	<u>Project Chief</u>
INDIANA	
Westcentral Indiana (Ten-county area)	F. A. Watkins, Jr.
Northwestern Indiana (Ten-county area)	J. S. Rosenshein
IOWA	
Linn County	W. L. Steinhilber
KANSAS	
Wilson County	C. K. Bayne
Pratt County	D. W. Berry
Gove County	Warren Hodson
Douglas County	H. G. O'Connor
Johnson County	H. G. O'Connor
Kingman County	C. W. Lane
Harper County	C. K. Bayne
Sumner County	K. L. Walters
Prairie Dog Valley area	C. R. Johnson
Republican Valley between Concordia and Clay Center	C. K. Bayne
Cowley County	C. K. Bayne
Sedgwick County	C. W. Lane
Trego County	K. Wahl
Wallace County	W. G. Hodson
Montgomery County	H. G. O'Connor
KENTUCKY	
Eastern Coal Field region	W. E. Price, Jr.
Mammoth Cave Area	R. F. Brown
Alluvial terraces of the Ohio and Mississippi River	W. E. Price Jr. & J. T. Gallaher
Jackson Purchase region	L. M. MacCary
MASSACHUSETTS	
Ipswich River Drainage Basin—downstream section	John Baker
Brockton-Pembroke Area	Richard Peterson
MICHIGAN	
Kalamazoo Area	Morris Deutsch
Alma Area	J. C. Ferris
Holland Area	Morris Deutsch
MINNESOTA	
Redwood Falls area, Redwood County	G. R. Schiner
Bedrock topography of the Eastern Mesabi Range Area, St. Louis County	
Mt. Iron-Virginia Area, St. Louis County	R. D. Cotter
Chisholm area and Balkan Township, St. Louis County	
Lyon County	H. G. Rodis
Nobles County	R. F. Norvitch

Table 2 (continued)

<u>Project</u>	<u>Project Chief</u>
MISSISSIPPI	
Greater Jackson Area	E. J. Harvey
MONTANA	
Two Medicine Irrigation Project	Q. F. Paulson
Western Bitterroot Valley, Ravalli County	R. G. McMurtry
Northeastern Blaine County	E. A. Zimmerman
Hardin Bench unit, lower Bighorn River Valley	Q. F. Paulson
Deer Lodge Valley in Powell County	R. L. Konizeski
Fort Belknap Indian Reservation, S. E. Blaine County	E. A. Zimmerman
NEBRASKA	
Hamilton County	Charles F. Keech
North Loup River Valley	Marvin P. Carlson
NEVADA	
Truckee Meadows Area, Washoe County	O. J. Loeltz
Quinn River Valley, Humboldt County	F. N. Visher
Boulder Valley & portion of the Humboldt River Valley	C. P. Zones
NEW HAMPSHIRE	
Seacoast region of New Hampshire and adjacent areas	Edward Bradley
Lower Merrimack River Basin	James W. Weigle
NEW JERSEY	
Salem County	J. C. Rosenau
Monmouth County	L. A. Jablonski
Gloucester County	W. F. Hardt
Cape May County	H. E. Gill
Lebanon State Forest	E. C. Rhodehamel
Phillipsburg and vicinity	J. R. Randolph
Wharton Tract	E. C. Rhodehamel
NEW MEXICO	
Los Alamos area	J. E. Weir
Area between Lake McMillan and Carlsbad Springs, Eddy County	E. R. Cox
Southern Lea County	Alfred Clebsch, Jr.
Northern part of the White Sands Integrated Range, Lincoln and Socorro Counties	J. E. Weir, Jr.
Meade Valley, Lincoln County	W. A. Mourant
Gallup area, McKinley County	S. W. West
Albuquerque area	L. J. Bjorklund
McMillan delta, Eddy County	E. R. Cox
Three Rivers drainage area, Otero and Lincoln Counties	E. H. Herrick
Roswell Basin	Ward Motts

Table 2 (continued)

<u>Project</u>	<u>Project Chief</u>
NEW YORK	
Southern Nassau County	J. E. Upton, N. M. Perlmutter
Northwestern Nassau County	W. V. Swarzenski
Southold Township, Suffolk County	H. C. Crandell
Huntington-Smithtown area, Suffolk County	E. R. Lubke
Ontario County	Frederick K. Mack
Dutchess County	I. G. Grossman
Putnam County	I. G. Grossman
West Milton area, Saratoga County	Frederick E. Mack
Massena Waddington area, St. Lawrence County	Frank Trainer
NORTH DAKOTA	
Kidder County	J. W. Brookhart
Traill County	J. W. Brookhart
OHIO	
Franklin County	J. J. Schmidt
Champaign County	A. J. Feulner
Madison County	S. E. Norris
Portage County	J. D. Winslow
Licking County	G. D. Dove
Dayton area	S. E. Morris
Geauga County	J. Baker
OKLAHOMA	
Southern McCurtain County	L. V. Davis
Harmon County and parts of Greer and Jackson Counties	J. E. Barclay
Terrace deposits flanking the northeast side of the Cimarron River	M. E. Davis
Woodward County	C. E. Steele
Whitehorse group on the north flank of the Anadarko Basin	L. V. Davis
Alluvial Valleys of the Arkansas and Vordigris Rivers	
OREGON	
Grande Ronde Valley, Union County	S. G. Brown
The Dalles area	R. C. Newcomb
PENNSYLVANIA	
The Coastal Plain sediments of southeastern Pennsylvania	D. W. Greenman
The Triassic sediments of southeastern Pennsylvania	D. R. Rima
The Pottsville formation in western Pennsylvania	C. W. Poth
The Plateau sediments of western Pennsylvania	D. W. Greenman
East Providence area	W. B. Allen
The Fall River Quadrangle	
The Coventry-Oneco area	

Table 2 (continued)

<u>Project</u>	<u>Project Chief</u>
SOUTH CAROLINA	
The Northeastern section of the Coastal Plain Parts of Aiken, Barnwell, and Allendale Counties	G. E. Siple G. E. Siple
TENNESSEE	
The Byersburg area The Dover area The Middleton quadrangle	R. L. Schreurs M. V. Marcher S. I. Strausberg
TEXAS	
Kinney County Travis County Moore County Hays County Tyler County Edwards County Bandera County Bexar County Kernes County Uvalde County Knox County Haskell County Live Oak County Grayson County	R. R. Bennett T. Arnow J. G. Cronin K. J. DeCook L. A. Wood A. T. Long E. C. Lee R. M. Pettitt, Jr. R. B. Anders Frank Welder W. Ogilbee W. Ogilbee R. B. Anders E. A. Moulder
UTAH	
Ogden Valley, Weber County Navajo Lake and vicinity Kane County	B. E. Lofgren H. E. Thomas
WASHINGTON	
Central Pierce County Clark County Ahtanum Valley, Yakima County Central Lewis County Whitman County	M. J. Mundorff B. L. Foxworthy J. M. Weigle B. L. Foxworthy
WISCONSIN	
Portage County Fond du Lac County Waushara County Rock County Dane County Waupaca County	C. L. R. Holt, Jr. T. G. Newport W. K. Summers E. F. LeRoux E. F. LeRoux C. F. Berkstresser
WYOMING	
Platte County	D. A. Morris

Table 2 (continued)

<u>Project</u>	<u>Project Chief</u>
ALASKA	
Nenana coal investigations, Central Alaska Range	Clyde Wahrhaftig
Yakataga petroleum investigations	D. J. Miller
Petroleum investigations, Iniskin-Tuxedni Region	R. L. Detterman
Nelchina area Mesozoic investigations	Arthur Grantz
Hecata-Tuxekan nonmetals investigations	G. D. Eberlein
Engineering and construction materials investigations	T. L. Pewé
Stratigraphic and structural studies of the lower Yukon-Koyukuk area	W. W. Patton, Jr.
Tofty placer investigations	D. M. Hopkins
Nome C-1 and D-1 quadrangles	C. L. Hummel
Big Delta-Delta River area, terrain and permafrost studies	T. L. Pewé
Windy Curry area, engineering geology	Reuben Kachadoorian
Mt. Michelson area	E. G. Sable
PUERTO RICO	
Puerto Rico cooperative mineral investigations	W. H. Monroe

TABLE 3

## STATE GEOLOGISTS

Alabama	Dr. Walter B. Jones, State Geologist, Geological Survey of Alabama, University
Arizona	Dr. J. D. Forrester, Director, Arizona Bureau of Mines, University of Arizona, Tucson
Arkansas	Mr. Norman F. Williams, State Geologist, Arkansas Geological and Conservation Commission, State Capitol, Little Rock
California	Dr. Olaf P. Jenkins, Chief, Division of Mines, Department of Natural Resources, Ferry Building, San Francisco 11
Colorado	Mr. Walter E. Scott, Jr., Vice Chairman and State Commissioner of Mines, Colorado Geological Survey, State Museum Building, Denver
Connecticut	Dr. John B. Lucke, Director, Connecticut Geological and Natural History Survey, Department of Geology and Geography, University of Connecticut, Storrs
Delaware	Mr. John J. Groot, State Geologist, Delaware Geological Survey, University of Delaware, Newark
Florida	Dr. Herman Gunter, Director, Florida Geological Survey, P. O. Drawer 631, Tallahassee
Georgia	Capt. Garland Peyton, Director, Department of Mines, Mining and Geology, State Division of Conservation, 19 Hunter Street, Atlanta 3



Table 3 (continued)

Idaho	Dr. Earl F. Cook, Director, Idaho Bureau of Mines and Geology, University of Idaho, Moscow
Illinois	Dr. John C. Frye, Chief, State Geological Survey Division, 121 Natural Resources Building, University of Illinois Campus, Urbana
Indiana	Dr. Charles F. Deiss, State Geologist, Indiana Geological Survey, Indiana Department of Conservation, Indiana University, Bloomington
Iowa	Dr. H. Garland Hershey, Director and State Geologist, Iowa Geological Survey, Iowa City
Kansas	Dr. Frank C. Foley, Director and State Geologist, State Geological Survey, The University of Kansas, Lawrence
Kentucky	Dr. Daniel J. Jones, State Geologist, Kentucky Geological Survey, 307 Mineral Industries Building, 120 Graham Avenue, Lexington
Louisiana	Mr. Leo W. Hough, State Geologist, Louisiana Geological Survey, Geology Bldg., P. O. Box 8847, University Station, Baton Rouge 3
Maine	Mr. John R. Rand, State Geologist, Department of Industry and Commerce, State House, Augusta
Maryland	Dr. Joseph T. Singewald, Jr., Director, Department of Geology, Mines and Water Resources, Johns Hopkins University, Baltimore 18
Michigan	Mr. William L. Daoust, State Geologist, Geological Survey Division, State Department of Conservation, Lansing 13
Minnesota	Dr. G. M. Schwartz, Director, Minnesota Geological Survey, University of Minnesota, Minneapolis 14
Mississippi	Dr. W. C. Morse, Director, Mississippi Geological Survey, University of Mississippi, University
Missouri	Dr. Thomas R. Beveridge, State Geologist, Division of Geological Survey and Water Resources, Box 250, Buehler Building, Rolla
Montana	Dr. Edwin G. Koch, Director, State Bureau of Mines and Geology, Butte
Nebraska	Mr. Eugene C. Reed, Director and State Geologist, Conservation and Survey Division, The University of Nebraska, Lincoln 8
Nevada	Mr. Vernon E. Scheid, Director, Nevada Bureau of Mines, University of Nevada, Reno
New Hampshire	Dr. T. R. Meyers, Geologist, New Hampshire State Planning and Development Commission, Conant Hall, University of New Hampshire, Durham

Table 3 (continued)

New Jersey	Mr. Meredith E. Johnson, State Geologist, Bureau of Geology and Topography, Department of Conservation and Economic Development, 520 East State Street, Trenton 7
New Mexico	Mr. Alvin J. Thompson, Director, New Mexico Bureau of Mines and Mineral Resources, Socorro
New York	Dr. John G. Groughton, State Geologist, State Geological and Natural History Surveys, State Education Building, University of the State of New York, Albany 1
North Carolina	Dr. Jasper L. Stuckey, State Geologist, Division of Mineral Resources, Department of Conservation and Development, State Office Building, Raleigh
North Dakota	Dr. Wilson M. Laird, State Geologist, North Dakota Geological Survey, University of North Dakota, Grand Forks
Ohio	Mr. Ralph Bernhagen, Chief, Division of Geological Survey, Orton Hall, Ohio State University, Columbus 10
Oklahoma	Dr. Carl C. Branson, Director, Oklahoma Geological Survey, Norman
Oregon	Mr. Hollis Dole, Director, State Department of Geology and Mineral Industries, 1069 State Office Building, Portland 5
Pennsylvania	Mr. Carlyle Gray, State Geologist and Director, Bureau of Topographic and Geologic Survey, Department of Internal Affairs, Harrisburg
Rhode Island	Dr. Alonzo W. Quinn, Chairman, Mineral Resources Committee, Rhode Island Port and Industrial Development Commission, Providence 3
South Carolina	Dr. Laurence L. Smith, State Geologist, Department of Geology, Mineralogy and Geography, University of South Carolina, Columbia 19
South Dakota	Dr. Allen F. Agnew, State Geologist, State Geological Survey, State University, Lock Drawer 351, Vermilion
Tennessee	Mr. W. D. Hardeman, State Geologist, Division of Geology, Department of Conservation, State Office Building, Nashville 3
Texas	Dr. John T. Lonsdale, Director, Bureau of Economic Geology, The University of Texas, University Station, Box B, Austin 12
Utah	Mr. Arthur L. Crawford, Director, Utah Geological and Mineralogical Survey, College of Mines and Mineral Industries, University of Utah, Salt Lake City 2
Vermont	Dr. Charles G. Doll, State Geologist, State of Vermont Development Commission, East Hall, University of Vermont, Burlington

Table 3 (continued)

Virginia	Mr. James L. Calver, State Geologist, Division of Geology, Virginia Geological Survey, Box 3667, University Station, Charlottesville
Washington	Mr. Marshall Huntting, Supervisor, Division of Mines and Geology, Department of Conservation and Development, 335 General Administration Building, Olympia
West Virginia	Dr. Paul H. Price, State Geologist, West Virginia Geological and Economic Survey, P. O. Box 879, Morgantown
Wisconsin	Mr. George F. Hanson, State Geologist, Geological and Natural History Survey, Science Hall, The University of Wisconsin, Madison 6
Wyoming	Dr. H. D. Thomas, State Geologist, The Geological Survey of Wyoming, University of Wyoming, Laramie