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**U.S. GEOLOGICAL SURVEY LIBRARY  
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**JAMES DAVID VINE**  
(1921 - )

NOTES, CORRESPONDENCE, PAPERS

1947 - 1972

(5.7 linear ft. and 8 map folders)

James David Vine was born in Detroit, Michigan, in 1921, and received a B.S. from the University of Michigan in 1943. He served on the staff of the USGS from 1946 until his 1980 retirement, with a research specialty in geochemistry and the economic geology of lithium deposits.

INVENTORY

By

Clay M. Martin

U.S. Geological Survey Field Records Collection  
MS 914, Box 25046, Federal Center  
Denver, CO 80225-0046  
May 2011

Location of Field Notebooks: CS-5: 9-11

## **URANIUM STUDIES IN BLACK SHALE DEPOSITS IN THE UNITED STATES AND THE PHILIPPINE ISLANDS. 1947-1956.**

<u>Item Number</u>	<u>Description</u>
NO-01075	J.D. Vine and G.W. Monroe. Group of field notebook pages with geologic notes and sketches and measured section and sample data related to field investigations of black shales in Colorado, Idaho, New Mexico, Utah, and Wyoming. Samples 1 through 421 and VC-505 through VC-507. 1951-1952.
NO-01076	J.D. Vine and R.F. Flege, Jr. Group of field notebook pages with geologic notes and sketches and measured section and sample data related to field investigations of black shales in Colorado, Idaho, Utah, and Wyoming. Samples VC-1000 through VC-1109, VC-1188 through VC-1189, VC-1200 through VC-1233, VC-1240, VI-1030 through VI-1081, VI-1085 through VI-1099, VI-1101 through VI-1107, VI-1120 through VI-1176 , V-1260, VU-1016 through VU-1029, VW-1082 through VW-1084, VW-1100, VW- 1177 through VW-1187, VW-1190, VW-1234 through VW-1239, and VW-1241 through VW-1257. 1952-1953.
NO-01077	Expandable envelope with 28 black and white aerial photographs, some with annotations, covering the Fall Creek area, Bonneville County, Idaho. 1941 survey.
NO-01078	J.D. Vine, J.P. McDowell, E.E. Murany, and G.E. Prichard. Group of field notebook pages with geologic notes and sketches and elevation, triangulation, radioactivity, measured section, and sample data related to field investigations of black shales in the Miller Hill area, Carbon County, Wyoming. 1953.
NO-01079	J.D. Vine, J.P. McDowell, E.E. Murany, and G.E. Prichard. Group of field notebook pages with geologic notes and sketches, pit descriptions, and sample data related to field investigations of black shales at Miller Hill, Poison Basin, and surrounding areas, Carbon and Sweetwater Counties, Wyoming. 1953.
NO-01080	J.D. Vine and G.E. Prichard. Group of field notebook pages with geologic notes and sketches and barometer traverse, elevation, and sample data related to field investigations of black shales at Miller Hill, Poison Basin, and surrounding areas, Carbon County, Wyoming. 1953-1954.
NO-01081	J.D. Vine, J.P. McDowell, E.E. Murany, and G.E. Prichard. Envelope with group of five vertical angle books with survey data related to field investigations of black shales at Miller Hill, Carbon County, Wyoming. 1953.
NO-01082	Expandable envelope with 102 black and white aerial photographs, some with annotations, covering the Miller Hill area, Carbon County, Wyoming. 1938 survey

- NO-01083 J.D. Vine. Group of field notebook pages with geologic notes and sketches and sample data related to field investigations of black shales in California, Colorado, Montana, New Mexico, North Dakota, Pennsylvania, South Dakota, Texas, Wyoming, and Zamboanga Province, Mindanao, Philippine Islands. 1953-1956.
- NO-01084 Expandable envelope with measured section and sample analysis data, correspondence, and miscellaneous material related field investigation of black shales in Montana and Idaho. No date.
- NO-02487 Expandable envelope with group of analytical data sheets for samples from uranium deposits in the Miller Hill area, Carbon County, Wyoming. 1953.
- NO-02488 Expandable envelope with group of analytical data sheets for samples of uranium-bearing carbonaceous rocks in Colorado, Idaho, New Mexico, Utah, and Wyoming. 1951-1952.
- NO-02489 Expandable envelope with 14 folders of analytical data sheets for samples of uranium-bearing coal, 1954-1958. Folders are labeled:
- Folder 1. Analyses 1956—TEPCO uranium research and resources section.
  - Folder 2. Analyses 1954-1955—TEPCO research and resources group.
  - Folder 3. Miscellaneous analyses 1956-1957. TEPCO uranium research and resource section.
  - Folder 4. Analyses—California peat bog uranium deposits.
  - Folder 5. North Cave Hills (Suite 1).
  - Folder 6. Cave Hills (Suite 2).
  - Folder 7. Red Desert, Suite 3.
  - Folder 8. Red Desert core hole 72 (Suite 4).
  - Folder 9. Goose Creek core hole 2 (Suite 5).
  - Folder 10. Fall Creek (Suite 6). La Ventana (Suite 7).
  - Folder 11. Slim Buttes (Suite 8).
  - Folder 12. Klym Mine (Suite 9).
  - Folder 13. Johnson Mine, N.D. Suite 10.
  - Folder 14. Suite 11—16 samples from the Church property, Billings County, North Dakota.
- NO-06581 Expandable envelope with 52 black and white aerial photographs, some with annotations, covering the Sand Creek 30' quadrangle, the Baggs vicinity, and other areas in Wyoming. See MA-01026 for related photomosaic index sheets. 1937-1944 surveys.
- NO-06582 Expandable envelope with group of 133 annotated overlay sheets with stream drainage, geology, and cultural data for aerial photographs in NO-06581.
- MA-00253 Map folder with eight sheets of draft and final versions of plates and figures for publications associated with Vine's uranium studies in black shales.

- MA-01026 Map folder with 16 items:
- Nine photomosaic indexes for aerial photo coverage of the Baggs area, Wyoming and Colorado.
  - Unidentified, unannotated 27 x 28-inch Earth Resources Technology Satellite (ERTS) photograph.
  - Six aerial photo composites, with annotations, covering the Baggs SE, Baggs SW, Sand Creek SE, Sand Creek SW, Savery SE, and Savery SW 15' quadrangles, Wyoming.
- MA-01027 Map folder with 36 township plat maps (including multiple editions of some) for T. 12 N., Rs. 90-97 W. and T. 13 N., Rs. 90-97 W.
- MA-01028 Map folder with 16 sheets of draft plates, figures, and diagrams for publications associated with Vine's uranium studies in black shales.
- MA-01029 Map folder with 21 items:
- Map showing uranium claims filed by Thomas-Parker Mining Group in T. 12 N., R. 92 W.
  - Map showing Teton drill holes in Tps. 12 and 13 N., R. 92 W.
  - Two plane table sheets showing drill holes and claim locations in an unidentified area.
  - Map showing the Lucky Strike and Old Gold uranium claims, Carbon County, Wyoming.
  - Three maps showing drill hole layouts for the Poison Basin drilling program, Carbon County, Wyoming.
  - Two maps showing prospect pits and Atomic Energy Commission drill hole locations, Sapphire Petroleum Ltd. Poison Basin Group. 1954.
  - Brunton survey map of a portion of Sapphire Petroleum Ltd. Poison Basin Group. 1954.
  - Map showing layout of Barbara Claims, location unidentified.
  - Map showing Sapphire Petroleum Ltd. Poison Basin and Red Creek Group claims, ground anomalies, and trenching results. 1954.
  - Map showing Irving Pasternak claims, T. 13 N., R. 92 W., Carbon County, Wyoming.
  - Map showing Teton Lode Mining claims, Tps. 12 and 13 N., Rs. 92 and 93 W., Carbon County, Wyoming.
  - Map showing Cedar Hills claims, Arrowhead Uranium Company, Baggs, Wyoming.
  - Sheet with plan and section views of the Shawano Adit, Poison Basin area.
  - Map showing claims of Shawano Development Corporation, Tps. 12 and 13 N., R. 92 W.
  - Map showing Poison Basin claims 7-12.
  - Two sheets with unidentified data points.
- MA-03079 Map folder with 14 items:

- Five sheets with draft versions of Figures 39-43, USGS Bulletin 1055-I.
- Six sheets with draft versions of figures for USGS Trace-elements investigations report TEI-451.
- Three plane-table sheets with maps of the Miller Hill area, Carbon County, Wyoming. One sheet has a map of the Poison Basin area, Carbon County, Wyoming, on reverse.

Published as: U.S. Geological Survey. Trace-elements memorandum TEM-555. 1952.

Published as: U.S. Geological Survey. Trace-elements investigations report TEI-451. 1954.

Published as: U.S. Geological Survey. Circular 344. 1954.

Published as: U.S. Geological Survey. Bulletin 1027-J. 1956.

Published as: U.S. Geological Survey. Bulletin 1030-H. 1956.

Published as: U.S. Geological Survey. Trace-elements investigations report TEI-227. 1956.

Published as: U.S. Geological Survey. Bulletin 1055-I. 1959.

Published as: U.S. Geological Survey. Bulletin 1074-F. 1959.

Published as: U.S. Geological Survey. Professional paper 356-D. 1962.

## **GEOLOGY OF THE STANFORD-HOBSON AREA, JUDITH BASIN COUNTY, MONTANA. 1948-1950.**

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| NO-00600 | Expandable envelope with 110 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1937 survey. |
| NO-00601 | Expandable envelope with 104 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1937 survey. |
| NO-00602 | Expandable envelope with 120 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1937 survey. |
| NO-00603 | Expandable envelope with 99 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1937 survey.  |
| NO-00604 | Expandable envelope with 93 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1937 survey.  |
| NO-00605 | Expandable envelope with 65 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1937 survey.  |

- NO-00606 Expandable envelope with 81 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1937 survey.
- NO-00607 Expandable envelope with 92 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1937 survey.
- NO-00608 Expandable envelope with 90 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1937 survey.
- NO-00609 Expandable envelope with 74 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1937 survey.
- NO-00610 Expandable envelope with 92 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1938 survey.
- NO-00611 Expandable envelope with 71 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1938 survey.
- NO-00612 Expandable envelope with 70 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1938 survey.
- NO-00613 Expandable envelope with 86 black and white aerial photographs, some with annotations, covering the Stanford-Hobson area, Montana. 1938 survey.
- NO-00709 J.D. Vine, W.J. Hail, and R.H. Dott, Jr. Group of field notebook pages with geologic notes and sketches related to field investigation of the Hobson area, Montana. 1948.
- NO-00710 J.D. Vine and W.D. Johnson. Group of field notebook pages with geologic notes and sketches related to field investigation of the Stanford area, Montana. 1949.
- NO-00711 J.D. Vine, W.J. Hail, W.D. Johnson, and R.H. Dott, Jr. Group of vertical angle notebooks with survey data related to field investigation of the Stanford-Hobson area, Montana. 1948-1950.

Published as: U.S. Geological Survey. Oil and gas investigations map OM-107. 1950.

Published as: U.S. Geological Survey. Oil and gas investigations map OM-108. 1950.

Published as: U.S. Geological Survey. Oil and gas investigations map OM-139. 1954.

Published as: U.S. Geological Survey. Bulletin 1027-J. 1956.

## **GEOLOGY OF THE NASH DRAW 15' QUADRANGLE, EDDY COUNTY, NEW MEXICO. 1958-1959.**

NO-02486 J.D. Vine. Field notebook with geologic notes and sketches and photographs related to field investigation of the Clayton Basin, Nash Draw, and West Carlsbad 15' quadrangles. Portions of the Nash Draw 15' quadrangle have been pasted into the notebook to serve as field sheets. 1958-1959.

Published as: U.S. Geological Survey. Open-file report 60-144. 1960.

Published as: U.S. Geological Survey. Bulletin 1141-B. 1963.

## **GEOLOGY AND COAL RESOURCES OF THE CUMBERLAND, HOBART, AND MAPLE VALLEY 7.5' QUADRANGLES, KING COUNTY, WASHINGTON. 1959-1961.**

NO-02490 J.D. Vine, P.J. Pattee, and C.L. Rice. Group of field notebook pages with geologic notes and sketches and stratigraphic section and sample data related to field investigation of the Cumberland, Hobart, and Maple Valley 7.5' quadrangles. Also included are miscellaneous notes on the Black Diamond, Des Moines, Eagle Gorge, Fall City, Issaquah, Mercer Island, North Bend, Redmond, and Seattle South 7.5' quadrangles. 1959-1960.

NO-02491 J.D. Vine. Group of field notebook pages with geologic notes and sketches and stratigraphic section and sample data related to field investigation of the Hobart and Maple Valley 7.5' quadrangles. Also included are miscellaneous notes on the Cumberland, Fall City, and Issaquah 7.5' quadrangles. 1961.

MA-03080 Map folder with two items:  
- Reproduction of the Hobart 7.5' quadrangle, with annotations.  
- Reproduction of the Maple Valley 7.5' quadrangle, with annotations.

Published as: U.S. Geological Survey. Professional paper 624. 1969.

## **MINOR ELEMENT DISTRIBUTION IN BLACK SHALES. 1962-1966.**

NO-12069 J.D. Vine. Field notebook 1 with sample notes related to investigations of minor element distribution in black shales. Samples V-1 through V-105. 1962.

NO-12070 J.D. Vine. Field notebook 2 with sample notes related to investigations of minor element distribution in black shales. Samples V-110 through V-271. 1963.

NO-12071 J.D. Vine. Field notebook 3 with sample notes related to investigations of minor

element distribution in black shales. Samples V-272 through V-436. 1964.

NO-12072 J.D. Vine. Field notebook 4 with sample notes related to investigations of minor element distribution in black shales. Samples V-437 through V-534. 1965.

NO-12073 Expandable envelope with 10 folders of analytical data related to minor element distribution in black shales. Folders are labeled:

- Folder 1. 66 samples of black shale core, Kentucky. Set #1. Samples from Ron Calvert's Owensboro area.
- Folder 2. 45 samples of black shale outcrops from western Kentucky, Kehn's and Calvert's area. Set #2, (42 samples).
- Folder 3. Mecca Quarry Shale Member. 37 samples from Tinton Formation, Parke County, Indiana. Samples from Rainier Zangerl Set #3.
- Folder 4. Kansas black shale reconnaissance: 48 samples. Set No. 5: 40 samples.
- Folder 5. Phosphoria samples, Raymond Canyon, Wyoming, Set No. 6. 43 samples. Loc. V-25, USBM adit.
- Folder 6. 47 Cherokee Shale samples from Marathon Oil. Set 11.
- Folder 7. Doublehorn Member Houy Formation, Kendall County, Texas. Set 10.
- Folder 8. 43 samples Belden Shale, Colorado. Set 9.
- Folder 9. Paradox Black Shales—Omer Raup. Set No. 8. 25 samples.
- Folder 10. 51 samples. Chattanooga Shale, Tennessee and Alabama. Set No. 7.

NO-12074 Expandable envelope with 10 folders of analytical data related to minor element distribution in black shales. Folders are labeled:

- Folder 1. 30 samples. Late Paleozoic black shale, Arkansas. Set 12. 30 samples.
- Folder 2. 33 samples. Lower Paleozoic black shale, Arkansas. Set 13. 32 samples. 6 samples of Stanley and Polk Creek shales at end.
- Folder 3. 19 samples. Pleasanton Shale, SE Kansas. Set 14. 19 samples Tackett Formation of Jewett, Emery, and Hatcher, 1965.
- Folder 4. 29 samples. Heath and Tyler Shales, Montana. Set 15. 28 samples.
- Folder 5. Nonesuch Shale of Michigan. Set 16. 20 samples. HM-241.
- Folder 6. Green River Shale. Quarry samples. Set 17.
- Folder 7. 59 samples. Sharon Springs Member, Pierre Shale. Set 18. 59 samples.
- Folder 8. Eagle Ford Clay samples of Eargle. Texas. Set 19. 28 samples.
- Folder 9. 14 samples black shale from Madison Limestone from Hoback Canyon, Wyo. Set 20. V-20A to V-20N.
- Folder 10. 22 Minnesota samples. Set 21.

NO-12075 Expandable envelope with 12 folders of analytical data related to minor element distribution in black shales. Folders are labeled:

- Folder 1. 6 samples from Florida Everglades.

- Folder 2. Fort Union Formation. 23 outcrop samples. HM set [25A] omitted. See set 25B for Au analyses. Note: Bracketed words struck through.
- Folder 3. Fort Union Formation. 53 cores samples. HM [set 25B] omitted plus Au for sets 25A and B. Note: Bracketed words struck through.
- Folder 4. Juhan well 4-1. Green River core. [set 21] omitted. Note: Bracketed words struck through.
- Folder 5. 20 samples black shale and basalt from British Columbia.
- Folder 6. 6 samples Newbury and Mowry Shales.
- Folder 7. 9 samples Nairne Pyritic Shale, Australia.
- Folder 8. 10 samples Lower Cherokee, Wilson County, Kansas. [set 16] omitted. Note: Bracketed words struck through.
- Folder 9. Green River Oil Shale, Piceance Basin wells. [set 20]. Note: Bracketed words struck through.
- Folder 10. Houy Formation. Burnet County, Texas. [set 24. 11 samples] omitted. Note: Bracketed words struck through.
- Folder 11. Kentucky drill logs. Owensboro area, Set No. 1. Ron Calvert.
- Folder 12. Black shale samples V-1 to V-31.

NO-12076 Expandable envelope with 15 folders of analytical data related to minor element distribution in black shales. Folders are labeled:

- Folder 1. Black shale, Nevada and Utah. V-32A to V-101.
- Folder 2. Black shale samples V-34 to V-92B. Mobile spec-truck analyses.
- Folder 3. Black shale, California. V-109 to V-150E.
- Folder 4. Black shale, Nevada and Idaho. V-102 to V-115.
- Folder 5. Black shale V-158 to V-175, Northern California, Washington.
- Folder 6. Black shale V-179A to V-199. Elko County, Nevada; Eagle County, Colorado.
- Folder 7. Black shale—Idaho. V-176A to V-178B.
- Folder 8. Black shale—Nevada. V-200 to V-226A.
- Folder 9. Black shale—Nevada. V-226B to V-237L and V-6 D to F.
- Folder 10. Black shale—Utah and Nevada. (Ketner) V-238 to V-240B.
- Folder 11. Black shale—Indiana, Kentucky, Ohio. V-245A to V-252.
- Folder 12. Black shale—New York. V-253 to V-261.
- Folder 13. Black shale—Ohio and Michigan. V-262A to V-266.
- Folder 14. Black shale—Kentucky (Kehn) V-268 to V-270.
- Folder 15. Black shale—Idaho (Mapel) V-271A to V-271-C.

Published as: U.S. Geological Survey. Open-file report 65-166. 1965.

Published as: U.S. Geological Survey. Open-file report 66-147. 1966.

Published as: U.S. Geological Survey. Bulletin 1214-E. 1966.

Published as: U.S. Geological Survey. Bulletin 1214-G. 1969.

Published as: U.S. Geological Survey. Bulletin 1214-H. 1969.

Published as: U.S. Geological Survey. Bulletin 1314-A. 1969.

## **HEAVY METALS IN BLACK SHALES, COAL, AND ORGANIC MATERIALS. 1966-1968.**

- NO-12077 J.D. Vine. Field notebook with sample notes and photographs related to investigations of heavy metals in black shales, coal, and organic materials. Samples AAN-111 through AAN-363. 1966-1967.
- NO-12078 J.D. Vine. Field notebook with sample notes related to investigations of heavy metals in coal beds. Samples C-1 through C-89. 1967.
- NO-12079 Expandable envelope with nine folders of analytical data and analysis request forms related to sampling of gold and other heavy metals in black shales, coal, and related organic matter. The original packaging for this data associates it with Projects 3010, 7622, and 7642. Folders are labeled:
- Folder 1. Requests for Au analysis.
  - Folder 2. Gold in coal (company analysis).
  - Folder 3. Fort Union coal core from North Dakota. Henry Smith's drilling program. HM-149.
  - Folder 4. Au reconnaissance. Circle Cliffs, Paria, N. Dakota Gravels. HM-71.
  - Folder 5. Colorado peat and driftwood—Au analyses. HM-125.
  - Folder 6. Au reconnaissance. Coal, shale, Salt Lake sediments. Colorado and Utah. 33 samples. HM-186.
  - Folder 7. Eardley's Saltair core, Salt Lake County, Utah. HM-200.
  - Folder 8. Au reconnaissance, Black Hills area, shale and Cambrian coal. HM-201, HM-69.
  - Folder 9. Au reconnaissance, Arkansas, Kansas, British Columbia, Montana. Stanley, Polk Creek, Pleasanton, Quadra Island, Heath. HM-238.
- NO-12080 Expandable envelope with 17 folders of analytical data related to sampling of gold and other heavy metals in black shales, coal, and related organic matter. The original packaging for this data associates it with Projects 3010, 7622, and 7642. Folders are labeled:
- Folder 1. Au reconnaissance. Montana and Texas. HM-240.
  - Folder 2. Au reconnaissance. Kansas, Colorado, Arkansas. Sets 5, 9, 12, 13, 14. HM-246.
  - Folder 3. Au reconnaissance. Kentucky and Kansas. Parts of sets 1, 2, and 5. HM-255.
  - Folder 4. Au reconnaissance. Sharon Springs and Kentucky core. Sets 1, 22. HM-256.
  - Folder 5. Au reconnaissance. Colorado and miscellaneous plants and rocks. HM-259.
  - Folder 6. Au reconnaissance. California. HM-365, HM-366.

- Folder 7. Au reconnaissance. Salt Lake plasticore tubes. HM-261.
- Folder 8. Au reconnaissance. Nevada, Utah, Idaho, California. 122 samples. 38 were ash. HM-4, HM-385.
- Folder 9. California-Nevada. Playa Lake samples. HM-454.
- Folder 10. California-Nevada. Playa Lake tubes. HM-467.
- Folder 11. Au reconnaissance. Carlin Mine—Wales Limestone. Kentucky #6 coal duplicates. HM-462.
- Folder 12. Au reconnaissance. 1952. U in coal samples. HM-477. TEI-336A.
- Folder 13. Au reconnaissance. Florida phosphate samples.
- Folder 14. Au reconnaissance. Cambria Coal. 3 samples for fire assay.
- Folder 15. Gold analyses of UM coal samples, 1951 & 2. Colorado, Wyoming, Utah, and Idaho.
- Folder 16. Au reconnaissance. Kemmerer Coal, Wales Coal. HM-70.
- Folder 17. Au reconnaissance. Low level Washington analyses.

## **GEOCHEMISTRY OF EOCENE AND CRETACEOUS SANDSTONES IN THE ROCKY MOUNTAIN REGION. 1967-1972.**

- NO-06276 J.D. Vine. Field notebook with preliminary study notes on samples of Eocene rocks from the Rocky Mountain region, including Colorado, New Mexico, Utah, and Wyoming. 1967.
- NO-06277 J.D. Vine. Field notebook 1 with geologic notes and sketches, photographs, and sample data related to field investigation of Lower Eocene sandstones in New Mexico, Utah, and Wyoming. 1968.
- NO-06278 J.D. Vine. Field notebook 2 with geologic notes and sketches, photographs, and sample data related to field investigation of Lower Eocene sandstones in Colorado, Utah, and Wyoming. 1968.
- NO-06279 J.D. Vine. Field notebook 3 with geologic notes and sketches, photographs, and sample data related to field investigation of Lower Eocene sandstones in Colorado, Montana, Utah, and Wyoming. 1968.
- NO-06280 J.D. Vine. Field notebook with geologic notes and sketches, photographs, and sample data related to field investigation of Cretaceous sedimentary rocks in Colorado and Wyoming. 1969.
- NO-06281 J.D. Vine. Field notebook with geologic notes and sketches and sample data related to field investigation of altered sandstones in the Spanish Peaks area, Huerfano and Costilla Counties, Colorado. 1969.
- NO-06282 J.D. Vine. Field notebook 1 with geologic notes and sketches and sample data related to field investigation of altered sandstones in the Spanish Peaks area, Huerfano County, Colorado. 1970.

- NO-06283 J.D. Vine. Field notebook 2 with geologic notes and sketches and sample data related to field investigation of altered sandstones in the Spanish Peaks area, Las Animas and Huerfano Counties, Colorado. 1970.
- NO-06284 J.D. Vine. Field notebook 3 with geologic notes and sketches and sample data related to field investigation of altered sandstones in the Spanish Peaks area, Costilla, Las Animas, and Huerfano Counties, Colorado. Also included are notes on Lower Eocene mudstone samples from the Carbon, Shirley, Powder River, and Hanna Basins, Wyoming. 1970.
- NO-06285 J.D. Vine and E.B. Tourtelot. Field notebook 1 with geologic notes and sketches and sample data related to field investigation of Lower Eocene mudstones from various basins in the Rocky Mountain region, including Colorado, Utah, and Wyoming. 1970.
- NO-06286 J.D. Vine. Field notebook 2 with geologic notes and sketches and sample data related to field investigation of Lower Eocene mudstones from various basins in the Rocky Mountain region, including Colorado and New Mexico. 1970.
- NO-06287 J.D. Vine. Field notebook with geologic notes and sketches and sample data related to field investigation of altered sandstones in the Spanish Peaks area, Costilla, Las Animas, and Huerfano Counties, Colorado. 1971-1972.
- NO-06288 J.D. Vine. Field notebook 2 with geologic notes and sample data for related to field investigation of sedimentary rocks in Wyoming, Colorado, and Utah. 1971.
- NO-06289 J.D. Vine. Field notebook 3 with geologic notes and stratigraphic section descriptions related to field investigation of sedimentary rocks in the Spanish Peaks area, Colorado. 1971.
- NO-06290 J.D. Vine. Field notebook 1 with geologic notes, stratigraphic section descriptions, and photographs related to field investigation of sedimentary rocks in the Spanish Peaks area, Colorado. Also included are notes on sedimentary copper deposits in Wyoming, Montana, Idaho, South Dakota, Michigan, Pennsylvania, and the U.S. Virgin Islands. 1972-1973.
- NO-06291 Expandable envelope with four folders of analytical data, laboratory reports, and correspondence related to sampling of Eocene sandstones and other sedimentary rocks in Wyoming, Colorado, New Mexico, Utah, and elsewhere in the Rocky Mountain region. Folders are labeled:
- Folder 1. Mudstone data.
  - Folder 2. Red and green samples of sandstone and mudstone—Eocene.
  - Folder 3. Eocene mudstones. 136.
  - Folder 4. Lower Eocene sandstone samples. 250.

- NO-06292 Expandable envelope with five folders of analytical data, laboratory reports, and correspondence related to sampling of Eocene sandstones and other sedimentary rocks in the Spanish Peaks area, Colorado. Folders are labeled:
- Folder 1. Laumontite-bearing rocks from the Spanish Peaks area, Las Animas and Huerfano Counties, Colorado. #1.
  - Folder 2. Spanish Peaks samples #2. LE-259 to LE-344.
  - Folder 3. Spanish Peaks data #3. 1970 samples.
  - Folder 4. Spanish Peaks samples 1971.
  - Folder 5. Spanish Peaks samples. SP-319—Sp-322—383.
- NO-06293 Expandable envelope with 77 black and white aerial photographs, some with annotations, covering the Spanish Peaks area, Las Animas and Huerfano Counties, Colorado. 1960-1961 surveys.
- NO-06294 Expandable envelope with 742 black and white aerial photographs, some with annotations, covering the Spanish Peaks area, Las Animas and Huerfano Counties, Colorado. 1970 survey.
- MA-00985 Map folder with 22 sheets of spectrometer analysis data for 250 lower Eocene sandstone samples from the Rocky Mountain region. For sample descriptions see Vine's notebooks NO-06277, NO-06278, and NO-06279.

Published as: U.S. Geological Survey. Professional paper 650-D. 1969.

Published as: U.S. Geological Survey. Professional paper 789. 1973.

Published as: U.S. Geological Survey. Miscellaneous investigations map I-833. 1974.

Published as: Wyoming Geologic Association. 22nd annual field conference guidebook. 1970.