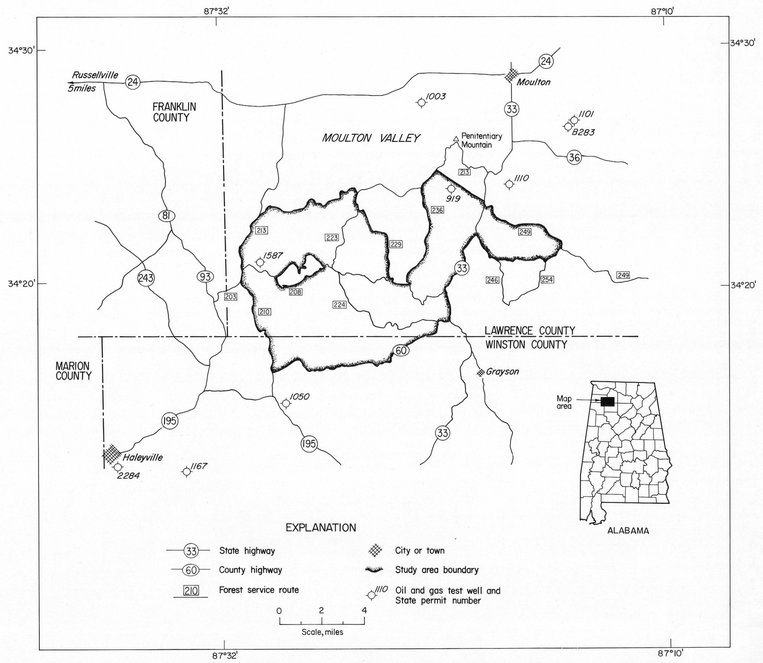

Figure 1.--Index map, Sipsey Wilderness and additions.

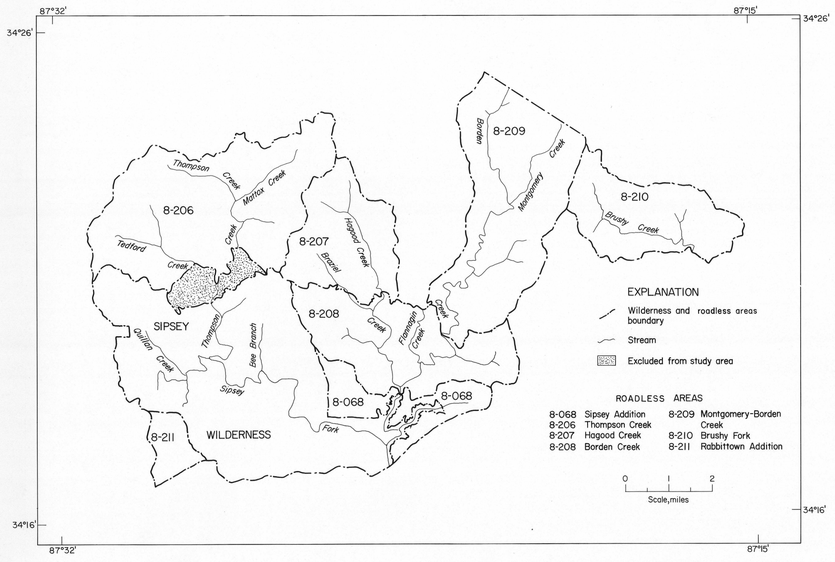

Figure 2.--Boundary map, Sipsey Wilderness and additions.

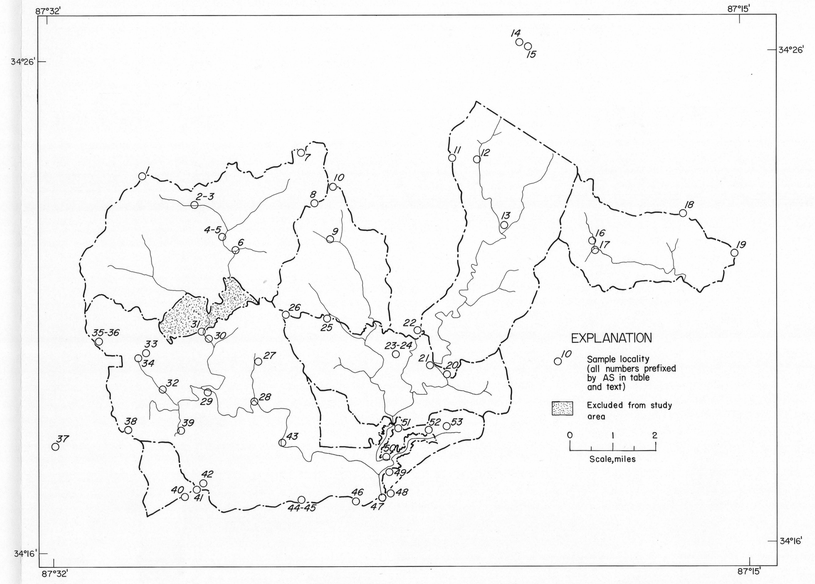

Figure 3.--Sample localities, Sipsey Wilderness, additions, and vicinity.

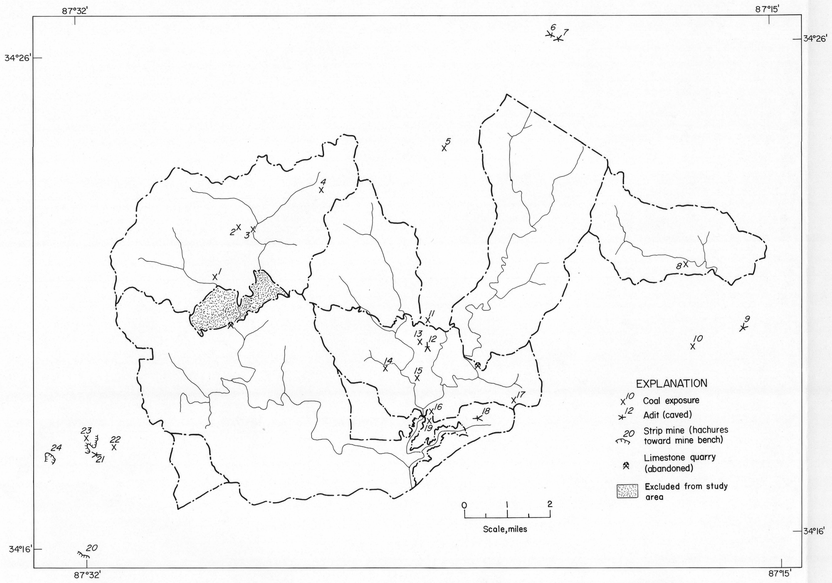

Figure 4.--Mines, quarries, prospects, and coal exposures, Sipsey Wilderness, additions, and vicinity. Numbers are keyed to entries in table 1.

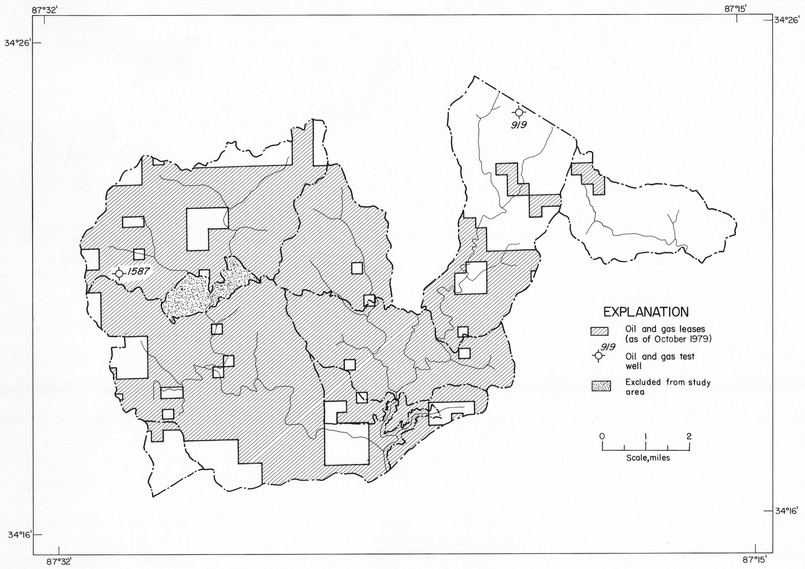

Figure 5.--Land leased for oil and gas exploration as of October 1979, Sipsey Wilderness and additions.

Table 1.--*Coal mines, prospects, and exposures in Sipsey Wilderness, additions, and vicinity*

Map Number (Figure 4)	Sample Number[1]	Coalbed	Description	Coal Thickness (Inches)
1	N/S	Unnamed coal, lower part of Parkwood Formation	Coal blossom[2]	--
2	do	do	Coal exposure	7
3	AS-4	do	do	6
4	N/S	do	Coal exposure in stream bank	6
5	do	do	Coal blossom	--
6	AS-14	do	Adit open for approximately 40 ft; 6 caved adits occur within 200 yds. to the north on west side of ridge	16
7	AS-15	do	Adit, caved; 8 additional caved adits, nearby to south on east side of ridge	23
8	N/S	Unnamed coal, upper part of Parkwood Formation	Coal blossom in stream bank	--
9	do	do	Coal and carbonaceous shale in stream bank; caved adit and 6 prospect pits within 200 yds. downstream	18
10	do	do	Two coal blossoms in road, 0 ft and 30 ft below base of Boyles Sandstone	--
11	do	do	Coal blossom in roadcut	--
12	AS-23, 24	do[3]	Adit, caved; coal and carbonaceous shale	16
13	N/S	do	Coal and carbonaceous shale in base of rockhouse; 2 additional exposures (12 in. and 4 in.) are within 100 yds. to north, along cliff-base	18
14	do	do	Coal at base of rockhouse	5
15	do	do[4]	Coal and carbonaceous shale in base of rockhouse; coal exposures of 12 in. and 11 in. occur in small tributaries to the north and south respectively	32
16	do	do	Two blossoms in road, 10 ft and 40 ft below base of Boyles Sandstone	--
17	do	do	Weathered coal and carbonaceous shale at cliff-base	--
18	AS-53	do[3]	Coal and carbonaceous shale; two caved adits	26
19	AS-51	do[3]	Coal exposed at base of rockhouse	6
20	N/S	Bear Creek(?)	Abandoned strip mine; coal not visible	--
21	N/S	do	Adit, abandoned; Bill Glass mine	8-13
22	N/S	do	Coal blossom in jeep trail	--
23	AS-37	do	Stockpile coal, sampled near recently reclaimed strip mine	18[5]
24	N/S	do	Abandoned strip mine; coal not visible	--

[1] N/S, not sampled.
[2] All blossoms represent weathered coal for which accurate thicknesses could not be determined.
[3] Sample from unnamed coal bed c of Schweinfurth and others (1981 and 1982).
[4] Exposures of unnamed coal bed e of Schweinfurth and others (1981 and 1982).
[5] Coal thickness reported by strip mine operator.

Table 2.--*Oil and gas test well data, Sipsey Wilderness, additions, and vicinity*

Permit[1] number	Operator and well name	Location	Depth (feet)	Completion date	Deepest rock unit penetrated	Oil and[2] gas shows
B283	Fidelity Oil and Gas Co., Rob Jacobs No. 1	Cen. SW 1/4 SE 1/4 sec. 11, T. 7 S., R. 7 W.	1,500	1928	Silurian	A,O
919	David K. Brooks, United States of America No. 1	410' EWL and 660' NSL, SE 1/4 SE 1/4 sec. 26, T. 7 S., R. 8 W.	1,815	6/5/59	Ordovician	O
1003	Clyde H. Seitz, Young Brothers No. 1	500' WEL and 600' SNL, NW 1/4 NW 1/4 sec. 10, T. 7 S., R. 8 W.	615	1959	Tuscumbia Limestone (Upper Mississippian)	G
1050	R. G. Houser, E. M. Hawkins No. 1	2,314' NSL and 2,138' WEL SE cor. sec. 21, T. 9 S., R. 9 W.	1,575	10/1/60	Tuscumbia Limestone (Upper Mississippian)	N
1101	FWA Drilling Co., No. 1 John H. Previt Tract No. 2	Cen. NE 1/4 SE 1/4 sec. 11, T. 7 S., R. 7 W.	185	8/6/61	---	O
1110	FWA Drilling Co., No. 1 Chenault Brothers Tract No. 6	Cen. SW 1/4 SW 1/4 sec. 29, T. 7 S., R. 7 W.	905	9/14/61	---	A,O
1167	Mt. Carmel Drilling Co., No. 1 Marwin Corp.	Cen. NW 1/4 SW 1/4 sec. 1, T. 10 S., R. 10 W.	1,534	6/2/62	Tuscumbia Limestone (Upper Mississippian)	O
1587	Murphy Oil Corp., Core Test No. 2	1,980' FWL and 2,017' FSL sec. 17, T. 8 S., R. 9 W.	908	2/20/71	Hartselle Sandstone (Upper Mississippian)	A,O
2284	Energy Explorations, Inc., I. Batchelor No. 32-14, No. 1	650' FWL and 675' FSL SE 1/4 SW 1/4 sec. 32, T. 9 S., R. 10 W.	3,220	---	Knox Group (Lower Ordovician and Upper Cambrian)	G

[1] State oil and gas board permit number; source of data: Poe and others, 1979, and Haley, 1981.
[2] A, asphalt; O, oil; G, gas; N, log not available.

STUDIES RELATED TO WILDERNESS

The Wilderness Act (Public Law 88-577, September 3, 1964) and related acts require the U.S. Geological Survey and the U.S. Bureau of Mines to survey certain areas on Federal lands to determine their mineral resource potential. Results must be made available to the public and be submitted to the President and the Congress. This report presents the results of a mineral survey of the Sipsey Wilderness and additions, William B. Bankhead National Forest, Lawrence and Winston Counties, Alabama (fig. 1). The Sipsey Wilderness was established by Public Law 93-622, January 3, 1975. The Sipsey Addition and Borden Creek roadless areas were classified as proposed wilderness areas, and the Thompson Creek, Hagood Creek, Montgomery-Borden Creek, Brushy Fork, and Rabbittown Addition roadless areas were classified as further planning areas during the Second Roadless Area Review and Evaluation (RARE II) by the U.S. Forest Service, January 1979 (fig. 2).

INTRODUCTION

The U.S. Bureau of Mines conducted a field reconnaissance of Sipsey Wilderness in the fall of 1978 and of the roadless areas in the spring and summer of 1979. Mines, quarries, prospects, exposures, and drill sites in and near the study area were examined. Fifty-three samples were collected during the field work; sample localities are shown in figure 3. Analyses and preliminary test results for all limestone, clay and shale, sandstone, and coal samples were reported by Mory and others (1981). Mineral resource potential of the Sipsey Wilderness and additions is reported by Schweinfurth and others (1982).

No mining activities are being conducted in the study area at present. Previous mining has been limited to small-scale production of limestone and coal. Two oil and gas test holes have been drilled inside the study area.

LIMESTONE QUARRYING

The Bangor Limestone has been quarried for crushed stone north and west of the study area and for dimension stone near Russellville, Franklin County. Crushed limestone was produced from two quarries in the Bangor Limestone within the study area (fig. 4), principally for use as road metal to surface local Forest Service roads. The U.S. Forest Service quarried the stone and operated a portable crusher during the late 1940s and early 1950s. Limestone from the quarry immediately west of Thompson Creek in the Sipsey Wilderness (figs. 2 and 4) has also been used for construction of bridge abutments.

COAL MINING

Coal has been mined locally from the Parkwood Formation and Boyles Sandstone Member(?) of the Pottsville Formation (Schweinfurth and others, 1981). Adits in Parkwood coal beds occur on Penitentiary Mountain, about 2 mi north of the Montgomery-Borden Creek roadless area (localities 6 and 7, fig. 4; table 1); and on Coal Branch, 1.5 mi south of the Brushy Fork roadless area (locality 9, fig. 4; table 1). Mines on Penitentiary Mountain are reported to have been first worked by local blacksmiths prior to the turn of the century (McCalley, 1891). Electrical wires observed in one mine and a small settling pond nearby indicate that some production continued well into this century. Recent surface mining of the Bear Creek coal in the Pottsville Formation (localities 21-24, fig. 4; table 1) has been conducted immediately west and southwest of the study area.

Parkwood Formation coal beds have been mined from at least two adits inside the study area (localities 12 and 18, fig. 4; table 1). These operations were small and supplied coal for local domestic heating or blacksmithing. Other exposures within the study area were located in the Thompson Creek, Borden Creek, Sipsey Addition, and Brushy Fork roadless areas.

OIL AND GAS ACTIVITY

In northern Alabama, 16 oil and gas fields were producing in Lamar, Fayette, and Walker Counties as of 1977 (Masingill and others, 1977). Seventy-eight exploratory wells, located within 10 mi of the study area, were completed between 1928 and 1971 (fig. 1, table 2). All were abandoned as dry holes with minor shows of oil, gas, or asphalt.

Oil and gas leases cover most of the study area. Tracts leased for oil and gas exploration, as of October 1979, and locations of two test wells inside the study area are shown in figure 5. In Montgomery-Borden Creek roadless area, the Brooks No. 1 U.S.A. well (State permit No. 919, table 2) was completed in 1959 to a total depth of 1,815 ft. Oil shows were reported in the Bangor Limestone, Hartselle Sandstone, and Tuscumbia Limestone. The Murphy Oil Corp. Core Test No. 2 (State permit No. 1587, table 2), located in Thompson Creek roadless area, was completed as a dry hole in 1971, to a total depth of 908 ft.

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MAPS SHOWING MINES, QUARRIES, OIL AND GAS ACTIVITY, AND SAMPLE LOCALITIES IN AND NEAR THE SIPSEY WILDERNESS AND ADDITIONS, LAWRENCE AND WINSTON COUNTIES, ALABAMA

By
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1982

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