

LITHOLOGIC DESCRIPTION OF SAMPLES SUBMITTED FOR ASSAY

Core samples from H. M. Byllesby and Company, Inc., Pinon corehole drilled 1312 feet S. 66° 30' W. of N. 1/4 corner of sec. 14, T. 13 S., R. 20 E., Uintah County, Utah

Surface elevation 6038 feet

From	To	Description
0	15.4	Drilled through alluvium.
15.4	16.6	Oil shale, light brown and dark brown, massive to poorly defined bedding.
16.6	26.6	Oil shale and marlstone, light gray, light brown, and dark brown, massive to poorly defined bedding. Extensive vertical fracture. Core badly broken. A 1/2-inch band of bluish gray limestone occurs at 26.5 feet.
26.6	28.4	Oil shale, dark brown and greenish brown, poorly defined to well defined bedding.
28.4	29.0	Missing.
29.0	32.0	Oil shale, light brown, massive.
32.0	32.8	Oil shale, light brown and dark brown, massive to well defined bedding.
32.8	34.5	Analcite, dark brown, massive. Bitumen impregnated. Becomes sandy and contains some pyrite and calcite in lower part.
34.5	49.7	Oil shale, light brown, dark brown and brownish gray, well defined bedding. A 0.2-foot vertical fracture with fracture faces heavily coated with black sticky bitumen occurs at 35.1 feet.
49.7	53.7	Marlstone, light gray and light brown, well defined and irregular bedding.
53.7	57.0	Oil shale, light brown and dark brown, massive to well defined bedding.
57.0	62.0	Marlstone, light brown and brownish gray, massive to well defined bedding. Contains some low-grade oil shale.
62.0	63.0	Oil shale, light brown, dark brown, and dark gray, well defined bedding.
63.0	70.0	Oil shale, light brown, dark brown, and greenish brown, well defined bedding.
70.0	71.4	Oil shale, light brown, dark brown, and dark gray, well defined bedding.
71.4	74.8	Oil shale, light brown and dark brown, massive to well defined bedding.
74.8	75.8	Oil shale, light brown, dark brown, and dark gray, massive to well defined bedding.
75.8	77.2	Oil shale, light brown and greenish brown, well defined bedding.
77.2	83.0	Marlstone, bluish gray and brownish gray, well defined bedding.
83.0	84.0	Marlstone, tan and light gray, well defined bedding.

Illustration No. SBR-2798P

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Surface elevation 6038 feet

From	To	Description
84.0	84.5	Analcite, dark brown, massive, bitumen impregnated. Contains some calcite and dolomite.
84.5	86.5	Marlstone, light gray, tan, and light brown, massive to well defined bedding. Contains some low-grade oil shale. A 0.2-foot band of dark brown, bitumen impregnated analcite occurs at 86.0 feet.
86.5	95.8	Marlstone, light gray, brownish gray, and light brown, massive to well defined bedding.
95.8	97.8	Marlstone and low grade oil shale, brownish gray and greenish brown, massive to well defined bedding.
97.8	101.0	Marlstone, light gray, tan, and light brown, well defined bedding.
101.0	103.3	Oil shale, light brown and dark brown, massive to well defined bedding.
103.3	104.5	Oil shale, light brown, dark brown, and dark gray. Common 1/4-inch and less bands of clear and bluish gray limestone.
104.5	108.2	Oil shale, greenish gray and greenish brown, massive to well defined bedding. A 0.2-foot band of bluish gray limestone occurs at 105.9 feet.
108.2	112.2	Oil shale, tan, light gray, and light brown, well defined bedding. Common 1-inch and less bands of bluish gray and dark brown analcite.
112.2	118.3	Oil shale, light brown, dark brown, and dark gray, massive to well defined bedding. A 1-inch band of light brown analcite occurs at 117.2 feet.
118.3	150.2	Marlstone, silty, tan, bluish gray, and dark gray, massive to well defined bedding. Contains some low-grade oil shale. Common scattered grains of pyrrhotite. Freshly broken surfaces are tan in color, but turn dark gray after a brief exposure to the air. A 1/4-inch band of black organic material resembling coal occurs at 130.2 feet. A 0.3-foot band of dark brown, bitumen impregnated analcite containing some calcite and pyrite occurs at 135.2 feet.

Mahogany marker 135.2

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From	To	Description
150.2	154.7	Oil shale, light brown, dark brown, and greenish brown, well defined bedding.
154.7	161.5	Oil shale, light brown, dark brown, and dark gray, massive to well defined bedding. Good grade to rich. A 1/2-inch long lens of amorphous clear material in small plates occurs at 160.2 feet.
161.5	164.1	Oil shale, light brown and greenish brown, well defined bedding.
164.1	165.1	Oil shale, light brown, dark brown, and dark gray, massive. Good grade.
165.1	167.5	Oil shale, tan, light brown, and dark brown, well defined bedding.
167.5	168.9	Oil shale, light brown, dark brown, and dark gray, poorly defined to well defined bedding. Good grade.
168.9	171.2	Oil shale, light brown and greenish brown, massive to well defined bedding.
171.2	172.6	Oil shale, light brown, dark brown, and dark gray, well defined bedding.
172.6	174.1	Marlstone, tan and light gray, well defined bedding.
174.1	176.3	Oil shale, light brown, dark brown, and dark gray, massive to well defined bedding. Common bands 1/2 inch and less of dark brown analcite and bluish gray calcite.
176.3	178.5	Marlstone, brownish gray and greenish brown, well defined bedding. Contains some low-grade oil shale.
178.5	181.0	Marlstone, light gray, tan, and light brown, well defined bedding. Contains some low-grade oil shale.
181.0	187.5	Oil shale, light brown, dark brown, and dark gray, well defined bedding. Good grade.
187.5	193.8	Marlstone, light gray, tan, and light brown, well defined bedding. Contains some low-grade oil shale.
193.8	196.3	Oil shale, light brown, dark brown, and greenish brown, well defined bedding. A 1-inch band of blue gray limestone occurs at 195.3 feet.
196.3	204.0	Oil shale, tan, light brown, and greenish brown, massive to well defined bedding.

Illustration No. SBR-2800P

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From	To	Description
204.0	206.7	Siltstone, calcareous, bluish gray and light gray, massive to well defined bedding.
206.7	208.6	Lost in coring.
208.6	214.0	Siltstone, calcareous, bluish gray and brownish gray, poorly defined to well defined bedding. A 0.3-foot band of light brown slightly bitumen impregnated analcite occurs at 211.2 feet. Common scattered grains of pyrite.
		<i>Fred bed 211.2</i>
214.0	215.0	Oil shale, light brown and greenish brown, well defined bedding.
215.0	216.2	Oil shale, light brown, dark brown, and dark gray, massive to well defined bedding. Good grade.
216.2	221.9	Marlstone, silty, greenish gray and greenish brown, well defined bedding. Contains some low-grade oil shale.
221.9	222.7	Oil shale, light brown, dark brown, and dark gray, well defined bedding. Good grade.
222.7	223.8	Analcite, light gray and tan, massive. Contains some contorted stringers of dark brown marlstone. (Possible lower wavy bed.)
		<i>Curly bed</i>
223.8	224.3	Marlstone, light gray and tan, well defined bedding.
224.3	225.0	Oil shale, light brown, massive. Contains stringers of dark gray oil shale.
225.0	227.0	Oil shale, light brown, dark brown, and dark gray, massive to well defined bedding. Common bands 0.6-foot and less of dark brown, bitumen impregnated analcite and siltstone containing stringers of dark gray oil shale.
227.0	228.5	Oil shale, light brown, dark brown, and greenish brown, well defined bedding.
228.5	230.5	Siltstone and sandstone, very fine grained, light gray, tan, and light brown. Bitumen impregnated in part. Some vertical fracture with fracture faces lightly coated with black bitumen. Common bands of randomly oriented fragments of light gray to dark gray marlstones imbedded in a fine grained sandstone matrix.

Illustration No. SBR-2801P

Laramie Petroleum Research Center, Laramie, Wyoming August 7, 1959

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From	To	Description
230.5	253.0	Siltstone, light gray, bluish gray, and greenish gray, calcareous, massive. Interbedded with sandstone, very fine grained, calcareous thin-bedded and cross-bedded. Bitumen impregnated in part. Rare vertical fracture with fracture faces lightly coated with black bitumen. Rare thin beds of dark brown marlstone. 1.9 feet missing within this interval.
253.0		Bottom of hole.

Illustration No. SBR-2802P

Laramie Petroleum Research Center, Laramie, Wyoming August 7, 1959