

LITHOLOGIC DESCRIPTION OF SAMPLES SUBMITTED FOR ASSAY

Core samples from H. M. Byllesby and Company, Inc., Juniper corehole
drilled 185 feet S. 1° E. of NW. corner of sec. 28, T. 12 S.,
R. 20 E., Uintah County, Utah

Surface Elevation 5872 feet

From	To	Description
0	10.0	Drilled through alluvium.
10.0	13.15	Marlstone, gray to tan, badly broken. Eight inches of broken core represent this interval.
13.15	26.3	Marlstone, brown, gray-green, massive to poorly defined bedding, abundant vertical fractures.
26.3	33.5	Dolomite, gray to tan in lower part, massive to poorly defined bedding, rare pyrrhotite bands, common massive calcite stringers in lower part. Vertical fractures at 28.0 to 30.0 feet.
33.5	35.1	Oil shale, medium, tan to brown, massive in upper part, becoming faintly bedded in lower part. Two-inch tan tuff bed at 35.0 feet.
35.1	39.6	Dolomite, gray to dark gray, poorly defined bedding, rare pyrite band.
39.6	43.0	Oil shale, lean, tan to light brown, poorly defined bedding to massive in part. Vertical fractures at 40.5 feet, one-inch brown tuff band at 42.5 feet.
43.0	47.0	Marlstone, brown to greenish-gray, poorly defined bedding, rare pyrite bands. Four-inch white tuff bed at 44.0 feet.
47.0	49.0	Oil shale, lean, tan to light brown, poor to well defined bedding. Brown, bitumen saturated tuff stringers at 48.5 feet. Gradation into marlstone at 49.0 feet.
49.0	51.0	Marlstone, gray, poorly defined bedding. Discontinuous stringers few mm. thick of massive pyrite, parallel to bedding replacing calcareous stringers.
51.0	55.0	Marlstone, tan to greenish-brown, massive to poorly defined bedding. Rare pyrite stringers. 0.8-foot white injected tuff at 52.6 to 53.4 feet.
55.0	56.0	Oil shale, lean, tan to brown, well defined bedding. Common analcitized tuff bands less than 0.5 inches. A 2-inch dark brown tuff band at 55.1 feet (bitumen saturated).
56.0	62.4	Marlstone, brown, greenish-gray, poorly defined bedding. Calcite stringers at 59.5 feet, 0.3-foot thick. Gray tuff bed at 60.0 feet, vertical fractures at 60.5 feet.

Illustration No. SBR-2873P

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From	To	Description
62.4	64.0	Oil shale, medium, brown to dark gray, poorly defined bedding, grades into marlstone in lower part.
64.0	73.0	Marlstone, greenish-gray to gray, faintly bedded to massive, dolomitic in part, rare bitumen saturated tuff bands less than 1-inch thick. Common vertical fractures. (Darker on outer parts of core with light center, gradually entire core becomes dark within few days after splitting. Dark areas partially controlled by fractures but no visible evidence for color change.)
73.0	75.0	Oil shale, medium, brown to dark brown, poorly defined to well defined bedding, common, buff, tuff stringers at 74.0 feet. Grades into gray dolomite in lower part.
75.0	86.2	Dolomite, gray, faintly bedded to massive. Common massive pyrite lenses parallel to bedding. Abundant light gray calcite stringers. Bitumen coated vertical fractures at bottom.
86.2	90.6	Sandstone, tan to light gray, fine-grained, massive, calcareous. Calcite coated fractures near top. 0.3-foot green dolomite band at 90.0 feet. Sharp contact with marlstone at bottom.
90.6	93.0	Marlstone, tan to brown, faintly bedded, grades into dolomite in lower part.
93.0	100.0	Dolomite, gray to dark gray, massive. Common pyrite lenses and stringers.
100.0	103.5	Marlstone, tan to brown, well defined bedding, abundant calcite stringers and lenses.
103.5	105.0	Oil shale, medium, dark brown to dark gray, massive.
105.0	110.0	Dolomite, dark gray, massive to poorly defined bedding. Rare pyrite lenses.
110.0	112.0	Oil shale, lean, brown to gray, poorly defined bedding.
112.0	115.0	Dolomite, gray, massive to faintly bedded. Rare pyrite stringers.
115.0	122.0	Oil shale, lean, brown to gray, faint to poorly defined bedding, vertical fractures at 121.3 feet.
122.0	127.7	Dolomite, dark gray, poorly defined bedding, common pyrite lenses and stringers. One-half-inch tuff bed, saturated with bitumen at 126.5 feet.

Illustration No. SBR-2574P

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127.7	130.0	Oil shale, lean, tan to brown, well defined bedding, rich bands at bottom.
130.0	136.0	Dolomite, gray, poorly defined bedding, rare pyrite lens (color change characteristic present).
136.0	144.4	Oil shale, medium, tan to brown, massive to poorly defined bedding, vertical fractures at 139.0 and 140.3 feet.
144.4	146.4	Marlstone, gray to tan, poorly defined bedding, abundant calcite stringers parallel to bedding.
146.4	161.0	Oil shale, lean, tan, brown, gray-green, faintly bedded to massive. One-inch brown tuff bed at 149.9 feet. Three-inch dark gray tuff bed at 148.2 feet. Vertical fractures at 148.5, 159-160 feet.
161.0	164.0	Marlstone, tan to gray, poorly defined bedding, abundant calcite stringers parallel to bedding.
164.0	167.5	Oil shale, lean, tan to gray, faintly bedded to massive.
167.5	171.7	Dolomite, dark gray, poorly defined bedding (color change apparent).
171.7	174.3	Marlstone, tan, poorly defined bedding, abundant calcite stringers.
174.3	176.0	Oil shale, lean, brown to light gray, massive, bitumen saturated tuff stringers at 175.8 feet.
176.0	206.5	Dolomite, gray to brownish-gray, poorly defined bedding to massive. Lean oil shale in part. Bitumen coated fracture at 185.0 feet, rare pyrite lenses and stringers generally in lower part.
206.5	209.0	Oil shale, lean, brown, poorly defined bedding, saturated tuff bands at 207.9 feet.
209.0	220.2	Marlstone, tan to greenish brown, faintly bedded, lean oil shale in part. Bitumen coated vertical fracture 209-210 feet, 2-inch brown tuff bed at 219.5 feet. Oil-shale stringers associated with tuff.
220.2		Bottom of core.

Illustration No. SBR-2815P

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