

LITHOLOGIC DESCRIPTION OF USBM ROCK SPRINGS SITE 4 WELL PBC-11
SWSWNE SEC 15 T 18 N R 106 W SWEETWATER COUNTY, WYOMING

by
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Footage	Description
60.0-60.3	Oil shale, dark gray to black, faintly laminated blocky fracturing.
60.3-61.4	Oil shale, gray to dark gray, platy fracturing, parts easily horizontally, probable slight heat affect.
61.4-62.0	Oil shale as above, firmer.
62.0-62.3	Ash, siltstone, white, yellow, buff, some very fine sand grains, friable in part, some black shale partings, slight porosity.
62.3-62.7	Oil shale, dark gray to black, platy fracturing, parts easily horizontally.
62.7-64.0	Oil shale, gray, greenish-gray, some dark gray, abundant scattered individual crystal faces, one vein of pyrite at 62.8 ft, parts easily when wet. Inclusions of brown dolomite at 63.5 and 63.7 ft, hard.
64.0-69.8	Oil shale, dark gray to black, faintly laminated, part is firm, part breaks easily horizontally, layer of tan to brown injected siltstone at 64.2 ft, some heat affect below 68.8 ft.
69.8-72.7	Oil shale, gray, greenish-gray, brownish-gray, rare streaks dark gray zones of abundant crystal faces, numerous inclusions of dolomite, purple to tan, hard, microcrystalline, at 70.3, 70.9, 71.4, 71.9, 72.4, 72.6 ft, algal zones at 70.4, 71.5, 71.7 to 71.8, tan, dense, as pods and streaks.
72.7-75.4	Oil shale, dark gray to black, rare crystals, large purple and tan dolomite inclusion, dense, fractured, slight oil stain at 73.1 ft, light brown dolomitic shale pod at 73.5 ft, firm to 74.2 ft then soft horizontally, same type purple dolomite pod at 75.1 ft.
75.4-75.5	Dolomite, brown to purple, microcrystalline, dense, hard.
75.5-75.6	Tuff, ash, sandstone, brown to maroon, fine-grained, some interstitial dolomite, gray, some oil (?) stain, slight porosity.
75.6-76.1	Oil shale, distinctly varved and banded, black and brown to dark brown, firm.
76.1-78.5	Oil shale, gray to dark gray, platy fracturing, parts easily horizontally, some heat affect.
78.5-78.6	Ash, tuff, buff to brown, silty, slight porosity, rare black shale laminae at base.
78.6-79.9	Oil shale as in 76.1-78.5 ft, rare crystal faces, occasional layers tan dolomitic shale (algal?).
79.9-80.4	Oil shale, black with some bands of brown to dark brown, very slight burn evidence in last 0.1 ft, sooty.
80.4-80.5	Missing.
80.5-80.9	Sandstone, pink, reddish-brown, very fine to fine-grained, slight permeability, injected with siltstone, tan from 80.6 to 80.7. Zone gray shale at 80.8 ft. <u>M-bed</u> .
80.9-81.4	Oil shale, black, sooty, may be slightly burned, easily parted horizontally.

Footage	Description
81.4-82.8	Oil shale, brown to dark brown, some gray, soft, parts easily, clayey when wet.
82.8-84.0	Oil shale, as above but with much tan.
84.0-84.9	Oil shale, brown, grayish-brown, gray, some crystal faces, firm, hard.
84.9-85.3	Oil shale, black and brown, distinctly and thinly banded.
85.3-85.4	Ash, siltstone, reddish-brown, bluish-gray, with rare interbeds of tan shale, slight permeability.
85.4-86.6	Oil shale, gray, greenish-gray, some dark gray, broadly banded, part easily horizontally.
86.6-86.7	Ash, siltstone, tuff, white to gray, some dark gray, black shale partings, firmer than normal here, chalky in part, porous.
86.7-90.7	Oil shale (?) or mudstone, tan to brown, light gray to gray, some greenish-gray, soft, parts very easily horizontally when wet.