

LITHOLOGIC DESCRIPTION OF USBM ROCK SPRINGS SITE 4 WELL PBC-2
SWSWNE SEC 15 T 18 N R 106 W SWEETWATER COUNTY, WYOMING

by
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| Footage | Description |
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| 60.0-60.7 | Oil shale, gray, some very fine crystal faces. |
| 60.7-60.8 | Sandstone, buff, fine-grained, porous, oil stain, as injection or flow feature. |
| 60.8-63.6 | Oil shale, dark gray to black, firm, sandy injection feature at 62.4', natural vertical fracture at 62.6-63.3'. |
| 63.6-63.7 | Ash or sandstone, gray, very fine-grained with abundant black shale laminations or partings. |
| 63.7-63.9 | Sandstone, pink, buff, maroon, very fine-grained, iron oxide stain, some stringers of light gray shale. |
| 63.9-64.4 | Oil shale, dark gray, some diagonal natural fractures. |
| 64.4-65.5 | Oil shale, gray to greenish gray, abundant crystals, hard but parts easily horizontally. |
| 65.5-66.7 | Oil shale, medium to dark gray, parts easily but not strongly heat affected except 66.2-66.4', brown limestone inclusion 65.7'. |
| 66.7-70.6 | Oil shale, dark gray to black, fractured, parts easily horizontally, heat affected, diagonal natural fractures at 67.2-67.5' and 68.9-69.1' and 69.9-70.2'. |
| 70.6-71.0 | Oil shale, black, badly burned, very soft, clayey in part. |
| 71.0-74.8 | Missing. |
| 74.8-75.8 | Oil shale, medium to dark gray, some scattered crystals. |
| 75.8-76.5 | Oil shale, dark gray, fractures easily horizontally. |
| 76.5-76.7 | Ash, siltstone, some sandy, light to medium gray, soft, crumbly, fractures contain black tar residue, porous. |
| 76.7-77.9 | Oil shale, dark gray, breaks easily horizontally, heat affected, some thin zones brown, dolomitic to sandy shale. |
| 77.9-80.2 | Oil shale, medium gray, some dark, medium soft, natural fracture 78.0-78.6'. |
| 80.2-80.4 | Oil shale, dark greenish-gray, rare crystals, firm. |
| 80.4-80.7 | Oil shale, black with streaks of dark brown, firm. |
| 80.7-81.1 | Sandstone, buff-pink-maroon, fine-grained, internal fractures filled with gray shale or siltstone. <u>M-bed.</u> |
| 81.1-81.7 | Oil shale, black, breaks easily horizontally, diagonal natural fracture 81.3-81.5'. |
| 81.7-82.8 | Oil shale, gray to brownish-gray, appears heated, residue oil in natural fracture 81.9-82.4'. |
| 82.8-83.8 | Oil shale or mudstone, tan to greenish-gray, dolomitic in part, with two zones of algal or ash flow at 83.3' and 83.6' containing some iron stain, firm. |
| 83.8-84.8 | Oil shale, gray to greenish-gray, veinlets of crystals and single crystals, hard, firm. |
| 84.8-85.3 | Oil shale, dark gray to black, interbedded distinctly with brown to dark brown oil shale as pods and layers. |

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| 85.3-85.4 | Inclusion of brown dolomite in fractured oil shale, crystalline dolomite is gray and shows flow characteristics. |
| 85.4-87.7 | Oil shale, medium to dark gray, firm, vertical fracture 86.5-87.5'. |
| 87.7-87.8 | Ash, siltstone, white to gray, very contorted and laced with black shale partings, chalky, soft, basal halo of iron stain. |
| 87.8-90.3 | Oil shale or mudstone, gray and grayish-green, banded with tan and buff layers, not heat affected. |