

LITHOLOGIC DESCRIPTION OF ROCK SPRINGS WELL NO. 3-2  
 SESENW SEC 15 T 18 N R 106 W SWEETWATER COUNTY, WYOMING

February 21, 1966

By

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Footage	Description	Remarks
40.0-41.5	Shale, thickly laminated, 2-3" layers of light green to light gray-green and olive drab green, thinly laminated with light brown varves of oil shale, pyrite and other iron sulphide crystals present in veinlets and scattered in matrix.	
41.5-42.3	Shale, oil, light to medium gray, homogeneous.	
42.3-43.2	Shale, oil, medium to dark brownish-gray and medium brown, laminae apparent with occasional noncontinuous thin zones of minerals.	
43.2-44.1	Shale, oil, medium gray, laminated with medium to dark brown (few) minor mineralization beds.	
44.1-46.1	Shale, oil, as above, darker gray-brown.	
46.1-48.3	Shale, oil, gray brown to olive drab to dark gray, iron sulphide crystals throughout matrix, brown limestone inclusion 48.0.	
48.3-49.0	Shale, oil, medium gray to gray-brown, occasional crystallization zones and veins.	
49.0-49.1	Sandstone, tan to gray, fine-grained, porous, loosely cemented, shaley with abundant shale particles in matrix, some oil stain, wavy bedding.	
49.1-50.8	Shale, oil, dark gray to brownish black thinly laminated with lighter brown and gray varves.	
50.8-50.9	Sandstone, yellowish-buff to gray, very fine to fine-grained, tight, some shale particles in matrix, calcareous streaks, wavy bedding.	
50.9-52.5	Shale, oil, same as in 49.1-50.8.	
52.5-52.7	Shale, oil, gray-green, abundant iron sulphides.	
52.7-52.8	Limestone, tan to brown dense, lithographic, thin zone, dark shales on both sides.	
52.8-53.5	Shale, oil, gray-green to brown with thin, buff to tan limestone stringers abundant iron sulphide crystals.	
53.5-54.2	Shale, oil, medium and some dark gray, both inclusions and thin beds of limestone, buff to brownish-purple, dense.	
54.2-55.3	Shale same as above but increasing in dark shale, occasional sulphide crystals in lower .3 feet.	

Footage	Description	Remarks
55.3-59.0	Shale, oil, dark gray to sooty black, sandy limestone zones, tan, at 56.1 and 56.5.	
59.0-59.1	Limestone, dark brown to purple, some black shale varving, dense, dolomitic.	
59.1-59.6	Shale, same as 55.3-59.0.	
59.6-59.8	Ash, clay, silt, very fine-grained sandstone, white to yellow, fractured, inclusions and veins of dark gray shale which is oil stained.	
59.8-59.9	Limestone, brownish-purple, dense finely crystalline with some shale laminae.	
59.9-60.0	Shale, oil, olive drab to dark gray, abundant iron sulphide crystals.	
60.0-60.1	Shale as above with limestone inclusion, purple, fractures with resinous deposits.	
60.1-60.5	Shale, oil, olive drab to light and dark gray, minerals from 60.2-60.3, some brown shale 60.4-60.5.	
60.5-60.8	Shale, oil, thickly laminated light green to brown and dark gray, mineralized.	
60.8-61.4	Shale, oil, medium gray-green to dark gray with thin belts of tan calcareous limestone, slightly mineralized.	
61.4-61.6	Shale, oil, brownish-green, calcareous.	
61.6-62.8	Shale, oil, medium gray-green, dark gray with thin layers and inclusions of limestone, tan to light gray to brownish gray.	
62.8-62.9	Limestone, purple, semi lithographic, fractured, contains brown resinous oil residue.	
62.9-64.7	Shale, oil, medium to dark gray, occasional thin limestone zones, light grayish-brown, dense.	
64.7-64.9	Sandstone, gray to yellow to buff to maroon, very fine to fine-grained, limestone streaks, tan to brown, fractures filled with shale, oil stained.	
64.9-65.4	Shale, oil, dark gray to black, thinly laminated with thin limestone, tan to buff to brown, minor faulting 65.0-65.1.	
65.4-65.8	Shale, oil dark gray to sooty black probable good yield.	
65.8-65.9	Limestone, brownish-gray, dense fractured, nodular oxidized iron streaks in the fractured nodules, shaley laminae in part.	
65.9-67.0	Shale medium to dark brown with zones of limestone, shaley, medium to light brown, vertical fractures filled with gray shaley limestone, oil stained.	

Footage	Description	Remarks
67.0-67.2	Sandstone, yellowish-brown to gray, loosely cemented, very fine to fine-grained, extensively fractured, fractures filled with quartz, limestone, shale particles, oil-stained, gray limestone.	
67.2-68.0	Shale, oil, medium gray to dark gray to sooty black, laminated with limey varves light brown to gray, fracture 67.3-67.4, filled with pyrite, quartz and black metallic mineral.	
68.0-68.1	Dolomite and limestone, nodular or inclusion, buff and tan, dense, finely crystalline.	
68.1-68.2	Shale same as in 67.2-68.0.	
68.2-68.3	Limestone, tan and bluish-gray, dense, nodular.	
68.3-69.4	Shale, oil, dark gray to sooty black, limestone layer at 69.2, brown to buff.	
69.4-69.8	Sandstone, pink to buff, very fine-grained calcareous, tight, limey veinlets, black shale layers and beds 69.7-69.8.	
69.8-70.2	Shale, oil, sooty black with occasional tan thin limestone beds, argillaceous.	
70.2-71.6	Shale, oil, light brown to medium brown calcareous, thickly banded, some brown limestone.	
71.6-72.1	Limestone, tan to light brown, argillaceous, semi lithographic in part.	
72.1-72.2	Shale, oil, medium brown to olive drab, calcareous.	
72.2-72.3	Limestone, brown to purplish brown, finely crystalline, dense, sucrosic in part.	
72.3-72.5	Shale, oil brownish gray, calcareous with zone of interbedded sandstone at 71.4-71.5, salt and pepper, calcareous, very fine grained, appears as discontinuous veinlets.	
72.5-72.9	Shale, oil gray-brown to olive drab, iron sulphide crystal zones as veins and scattered.	
72.9-73.3	Shale, oil medium brown to dark olive drab and limestone inclusion at 72.9 streaks of limestone cutting across the layering at 73.1-73.3.	
73.3-73.5	Shale, oil, olive drab to black, strongly contorted, with zones and inclusions of tan to buff limestone, clayey, one large tan inclusion prominent.	
73.5-74.0	Shale, oil, gray and black varved and banded with limestone, light brown as contorted bands and inclusions.	

Footage	Description	Remarks
74.0-74.1	Sandstone, white to pink to yellow and buff, porous, shaley, with tan slightly calcareous shale inclusions.	
74.1-75.0	Shale, dark gray to sooty black.	
75.0-75.3	Shale, oil, medium gray to gray green, conchoidal fractures.	