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FEB 27 1959  
SOIL CONSERVATION  
DIST. 2

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Sample Description

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Federal No. 1

GEOLOGICAL SURVEY  
WASHINGTON NEW MEXICO

Samples start at 3800 feet in the Menefee formation.

3800-3860	95% SHALE, gray to black, soft, clayey, some bentonitic with traces of bentonite. Some black carbonaceous with traces of coal.
	5% SANDSTONE, gray, fine to medium grained, soft, argillaceous, no shows.
3860-3870	100% SHALE, light gray to black varying from soft, clayey, bentonitic to black carbonaceous with traces of coal.
3870-3900	85% SHALE, as above, 10% COAL, 5% SANDSTONE, white, to light gray, glossy, fine to medium grained. Fairly clean and porous, no shows.
3900-3920	95% SHALE as above, 5% COAL, Trace of sandstone.
3920-3930	85% SHALE as above, 15% COAL.
3930-3940	95% SHALE as above, 5% COAL.
3940-3980	95% SHALE as above, 5% COAL.
3960-3980	100% fluorescence-pipedeops?
3980-4000	100% SHALE, gray to black, clayey, carbonaceous.
4000-4010	5% SANDSTONE, 95% SHALE, as above.
4010-4060	25% COAL, 75% SHALE, as above.
4060-4070	100% COAL.
4070-4080	100% SHALE, gray, clayey, bentonitic.
4080-4090	As Above.
4090-4100	5% SANDSTONE, gray, fine to medium grained, slightly argillaceous, no shows.
	95% SHALE, as above.
4100-4130	20% SANDSTONE, as above, 80% SHALE as above.
4130-4140	20% SANDSTONE, light gray, salt and pepper, fine to very fine grained, argillaceous, bentonitic, no shows. 80% SHALE, gray to black, bentonitic to clayey.
4140-4150	10% SANDSTONE as above, 90% SHALE.
4150-4160	20% SANDSTONE, as above, 80% SHALE, as above.
4160-4170	100% SHALE, light to dark gray, clayey.
4170-4180	As above.
4180-4190	40% SANDSTONE, light gray to tan, fine grained, salt and pepper, slightly argillaceous, poor porosity, no shows. 60% SHALE, dark gray, clayey, carbonaceous.
4190-4200	10% SANDSTONE, as above, 90% SHALE, as above.
4200-4210	10% SANDSTONE, as above, with trace of fluorescence (one fragment), 90% SHALE as above.

4210-4230	5% SANDSTONE, as above, no shows, 95% SHALE, as above.
4230-4250	100% SHALE, dark gray to black, clayey, carbonaceous, traces sandstone.
4250-4270	15% SANDSTONE, light gray, fine grained, silty, slightly argillaceous, salt and pepper, no shows. 85% SHALE, as above.
4270-4300	20% SANDSTONE, as above, 80% SHALE, as above.
4300-4310	10% SANDSTONE, as above, 90% SHALE, as above.
4310-4320	95% SHALE, as above, 5% SANDSTONE, as above.
4320-4330	5% SILTSTONE, 95% SHALE, as above.
4330-4340	5% SANDSTONE, as above, 5% SILTSTONE, as above, 90% SHALE, as above.
4340-4420	100% SHALE, dark gray to black, silty to clayey, slightly carbonaceous.
4420-4500	As above.
4500-4600	100% SHALE, black carbonaceous, clayey with traces of light gray shaly siltstone.
4600-4670	100% SHALE, dark gray to black, clayey to silty, carbonaceous.
4670-4690	90% SHALE as above, 10% SILTSTONE, light gray, hard, dense, shaly, no shows.
4690-4770	100% SHALE, black, carbonaceous, silty to clayey.
4770-4900	100% SHALE, as above with traces of light gray shaly siltstone.
4900-5000	As above.
5000-5130	100% SHALE, dark gray to black, silty to carbonaceous with traces of light gray shaly siltstone.
5130-5140	No sample.
5140-5150	100% SHALE, dark gray to black, clayey to silty, slightly carbonaceous.
5150-5180	10% SILTSTONE, salt and pepper, light gray, sandy, dense, hard, tight, no shows. 90% SHALE, as above.
5180-5190	10% SILTSTONE, as above, 90% SHALE, gray to brown to black, carbonaceous, silty.
5190-5200	15% SILTSTONE, light gray to tan, shaly, dense, tight, calcareous, 5% SILTSTONE, light gray, hard and dense, calcareous with shale laminations, faint yellow fluorescence, no cut.
5240-5250	90% SHALE, as above, 10% SILTSTONE, as above.
5250-5260	100% SHALE, gray to black, carbonaceous, clayey.
5260-5340	5% SILTSTONE, light gray, hard, dense, tight with slight mineral fluorescence, 95% SHALE, gray to black, silty, carbonaceous.