Dear Mr. Anderson:

I have read parts of the PAPA-SEIS and wish to make comments on the part that is concerned with Paleontological Resources. My comments are attached in a word document. I am a vertebrate paleontologist who has worked in Wyoming on and off since 1949. The Institution which I worked at for 41 years (University of Colorado) has collections made in Sublette County.

Yours truly

Peter Robinson
912 Hover Ridge Circle
Longmont, Colorado 80501-4141Emailed to BLM – 1-15-2007
by

Comments in regard to the Pinedale Anticline Project Area Supplemental Draft Environmental Impact statement (PAPA-SEIS)

This statement is in regard to Paleontological Resources only

The Pinedale Anticline occurs in a NW-SE elongate area in Sublette County, Wyoming, including all or parts of Townships 29 to 33 North and Ranges 107 to 110 West. The surface of the area consists of a relatively thin veneer of Quaternary soils and alluvium over Eocene bedrock (Green River and Wasatch Formations). The northeast boundary of the area is the New Fork River which then turns southwestward and bisects it. The area in the southern part of the Pinedale Anticline and nearby areas east, southeast and west of it have produced many vertebrate fossils whose descriptions are in the scientific literature. A brief listing of such papers is attached. This list is far from exhaustive but it cites the papers with primary concern about the vertebrate fossil resources of Sublette County. While fossil vertebrates are my primary concern, the possibility of finding significant invertebrate and plant remains is also present.

The Eocene bedrock within the project area is known to produce vertebrate fossils in the lower third of the area (south of the New Fork River, and for the most part south of State Highway 351). The area extending northwestward of the New Fork River has received little if any exploration for paleontological resources, primarily because access has been limited up until the last few years. The last known professional effort to explore for vertebrate fossils was in 2001 and carried out by personnel of the University of California at Berkeley (Patricia Holroyd and collaborators). This effort did not go north of the New Fork River.

A recent geologic map of the area (H. W. Roehler, 1992, U. S. Geol. Survey Professional Paper 1506A) indicates that the same units that are present south of the New Fork River are present north of it. An examination of aerial photograph coverage (available on "Google Earth") indicates that the area north of the New Fork River has similar exposures to the known producing area south of the river. This same examination reveals that the relief is more developed and that the possibility of finding vertebrate fossils might be even greater.

P-1 I-17-1 That no vertebrate fossils are currently known from the area is not a reason for dismissal of the area; it is an artifact of prior inaccessibility and therefore lack of exploration.

Brief listing of papers on Fossil Vertebrates of Sublette County

Breithaupt, B. H., 1990, Early Tertiary fossils and environments of Wyoming; Jackson to Fossil Butte National Monument; geologic field tours of western Wyoming and parts of adjacent Idaho, Montana, and Utah. Public Information Circular - Geological Survey of Wyoming 29, : 57-72,

Gazin, C. L., 1952, The Lower Eocene Knight Formation of Western Wyoming and its mammalian faunas. Smithsonian Miscellaneous Collections, V. 117, no. 18, p. i-VI, 1-82, Pl. 1- 11

Gazin, C. L., 1962, A further study of the Lower Eocene mammalian faunas of southwestern Wyoming. Smithsonian Miscellaneous Collections V. 144, No.1, p i-v, 1-98, Pl 1-14.

Gingerich, P. D., and Dorr, J.A. Jr., 1979, Mandible of *Chiromyoides minor* (Mammalia, Primates) from the upper Paleocene Chappo Member of the Wasatch Formation, Wyoming. Journal of Paleontology 53, (3) (May): 550-552

McGrew, P. O., 1959, The geology and paleontology of the Elk Mountain and Tabernacle Butte Area, Wyoming. American Museum Natural History, Bulletin V. 117 Art. 5 p. 117-176, Pl. 50-57

Polly, P. D., 1996, The skeleton of *Gazinocyon vulpeculus*, gen. et comb. nov. and the cladistic relationships of the Hyaenodontidae (Eutheria, Mammalia). Journal of Vertebrate Paleontology, v. 16, no 2, p. 303-319

Simpson, G. G.. 1959. Two new records from the Bridger Middle Eocene of Tabernacle Butte, Wyoming. American Museum Novitates 1966.:1-5

Smith, K. T., and Holroyd, P.A., 2003, Rare taxa, biostratigraphy and the Wasatchian-Bridgerian boundary in North America. In Wing, S. l., Gingerich, P. D., Schmitz, B., and Thomas E, eds. Causes and consequences of globally warm climates in the Early Paleogene. Geol. Soc. Amer., special paper 369. p. 501-511.

West, R. M., 1972, Sequence of mammalian faunas of Eocene age in the northern Green River Basin, Wyoming. In Field conference on tertiary biostratigraphy of southern and western Wyoming. United States (USA): [Adelphi Univ., Dep. Biol.], [Garden City, New York]

West, R. M., 1973, Geology and mammalian paleontology of the New Fork-Big Sandy area, Sublette County, Wyoming, Fieldiana: Geology V. 29, p. i-vii; 1- 193, 16 plates interspaced in text.

West, R. M., and Dawson, M. R., 1973, Fossil mammals from the upper part of the Cathedral Bluffs Tongue of the Wasatch formation (early Bridgerian), northern Green River Basin, Wyoming. Contributions to Geology 12, (1): 33-41.