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**State of Utah**

**Department of Natural Resources**

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**Utah Geological Survey**

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*State Geologist/ Division Director*


# MEMORANDUM


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APR - 8 2005

DIV OF OIL GAS & MINING


**TO**: Daron Haddock
**FROM**: Bryce Tripp
**DATE**: 04/07/2005
**SUBJECT**: Geologic setting of Bluffdale mineral extraction operations.

At the request of the Utah Division of Oil, Gas and Mining (DOGM), I accompanied DOGM inspectors to the Bluffdale operations to provide a second opinion about the geologic nature of the material being mined. A brief description of the field investigation and my observations follows:

**Bluffdale Excavations** – On March 15, 2005, I accompanied you and Paul Baker to examine four current operations in section 16, 17, 20-22, 27-28, T. 4 S., R. 1 W. on the Jordan Narrows 7.5' topographic map. The geology of this site consists of widely distributed Tertiary volcanic bedrock outcrops exposed on hill crests and ridges, mantled by a fairly thin veneer of Pleistocene lake shore deposits of Lake Bonneville (Biek, 2003). These excavations are near the Bonneville shoreline level which is often an important sand and gravel unit along the Wasatch Front, but in this area, the lacustrine beds consist of a large amount of Tertiary volcanic cobbles, boulders, and pebbles in a mixture of mostly Pleistocene lacustrine silt and sand with no visible, well developed gravels. I examined the material at several excavation sites, including where a trackhoe had excavated an 8-foot-deep hole, and saw nothing that remotely resembled a sand and gravel deposit. Also there were many trackhoes operating but no sand and gravel washing and screening equipment was on site. The geologic setting, mining and processing methods, and information from several of the workers at the sites characterize these operations as removing and selling volcanic boulders for landscape use, in preparation for post-mining real estate development of the land.


**Reference** – Biek, R.F., 2003, Interim geologic map of the Jordan Narrows quadrangle, Salt Lake and Utah Counties, Utah: Utah Geological Survey Open-File Report 415, scale 1:24,000.


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