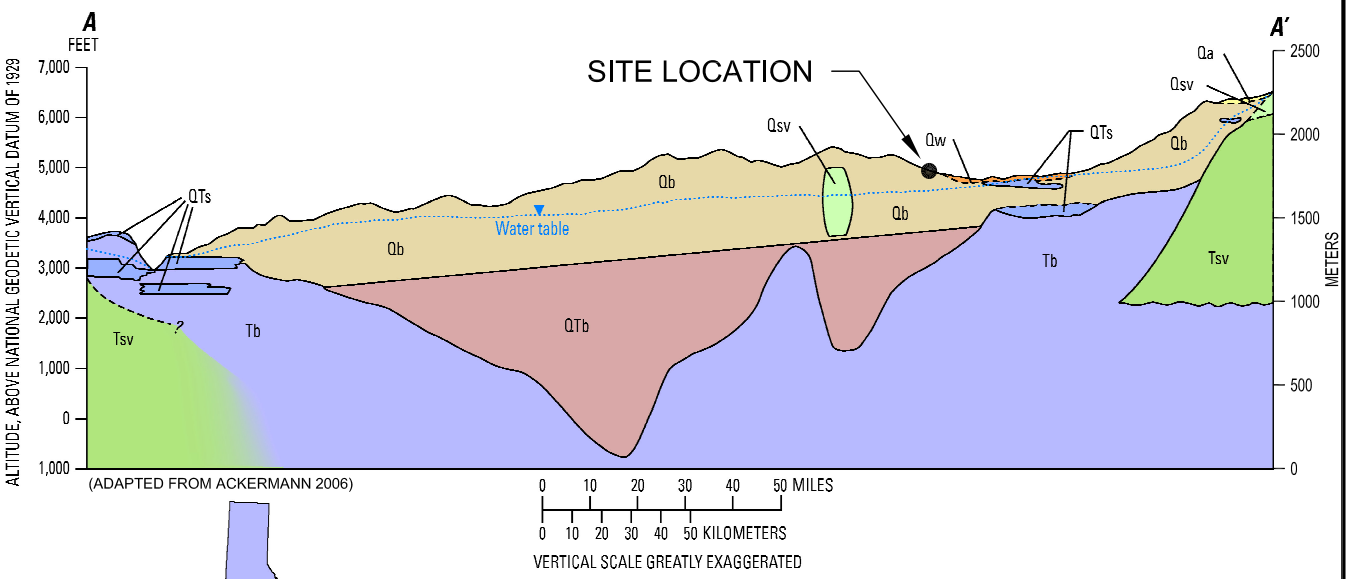
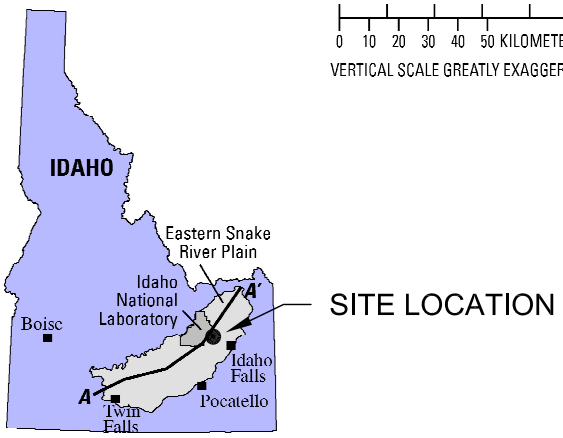
Eon		Era	Period		Epoch	Ma
Phanerozoic		Cenozoic	Quarternary		Holocene	0.01
					Pleistocene	1.8
			Tertiary	Neogene	Pliocene	5.3
					Milocene	23.7
				Paleogene	Oligocene	33.7
					Eocene	54.8
					Paleocene	65.0
		Mesozoic	Cretaceous			144
			Jurassic			206
			Triassic			248
		Paleozoic	Permian			290
			Pennsylvanian			323
			Mississippian			354
			Devonian			417
			Silurian			443
			Ordovician			490
			Cambrian			543
Precambrian	Proterozoic					2500
	Archean					4500

Figure 3.3-3 **Rev. 0**

Geologic Time Scale

EAGLE ROCK ENRICHMENT FACILITY
ENVIRONMENTAL REPORT





EXPLANATION AND DESCRIPTION OF MAP UNITS

Qa	Chiefly flood-plain deposits. May contain some glacial deposits and colluvium in the uplands. Clay, silt, sand, gravel, and boulders.
Qw	Chiefly windblown deposits. Includes some lake and glacial-flood deposits.
Qb	Olivine basalt, dense to vesicular; irregular to columnar jointing; thickness of individual flows averages about 20-25 feet (Mundorff and others, 1964, p.143). Includes beds of basalt cinders, rubbly basalt, and interflow sedimentary rocks.
Qsv	Rhyolitic ash-flow tuff, occurs as thick flows and blankets of welded tuff with associated fine- to coarse-grained ash and pumice beds.
QTb	Olivine basalt similar to Qb above.
QTs	Subaerial and lake deposits of clay, silt, sand, and gravel. Compacted to poorly consolidated.
Tb	Flood-type basalt, dense; columnar jointing in many places. May include some rhyolitic and andesitic rocks. Queried where uncertain.
Tsv	Rhyolitic, latitic, and andesitic rocks, massive and dense.

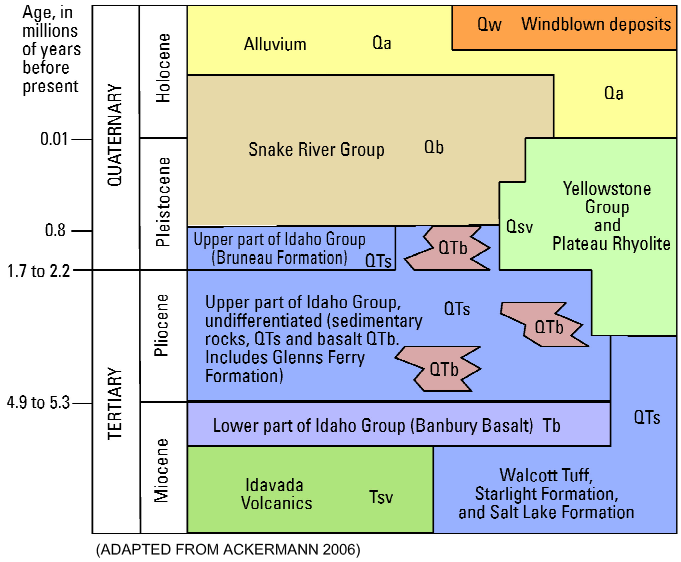
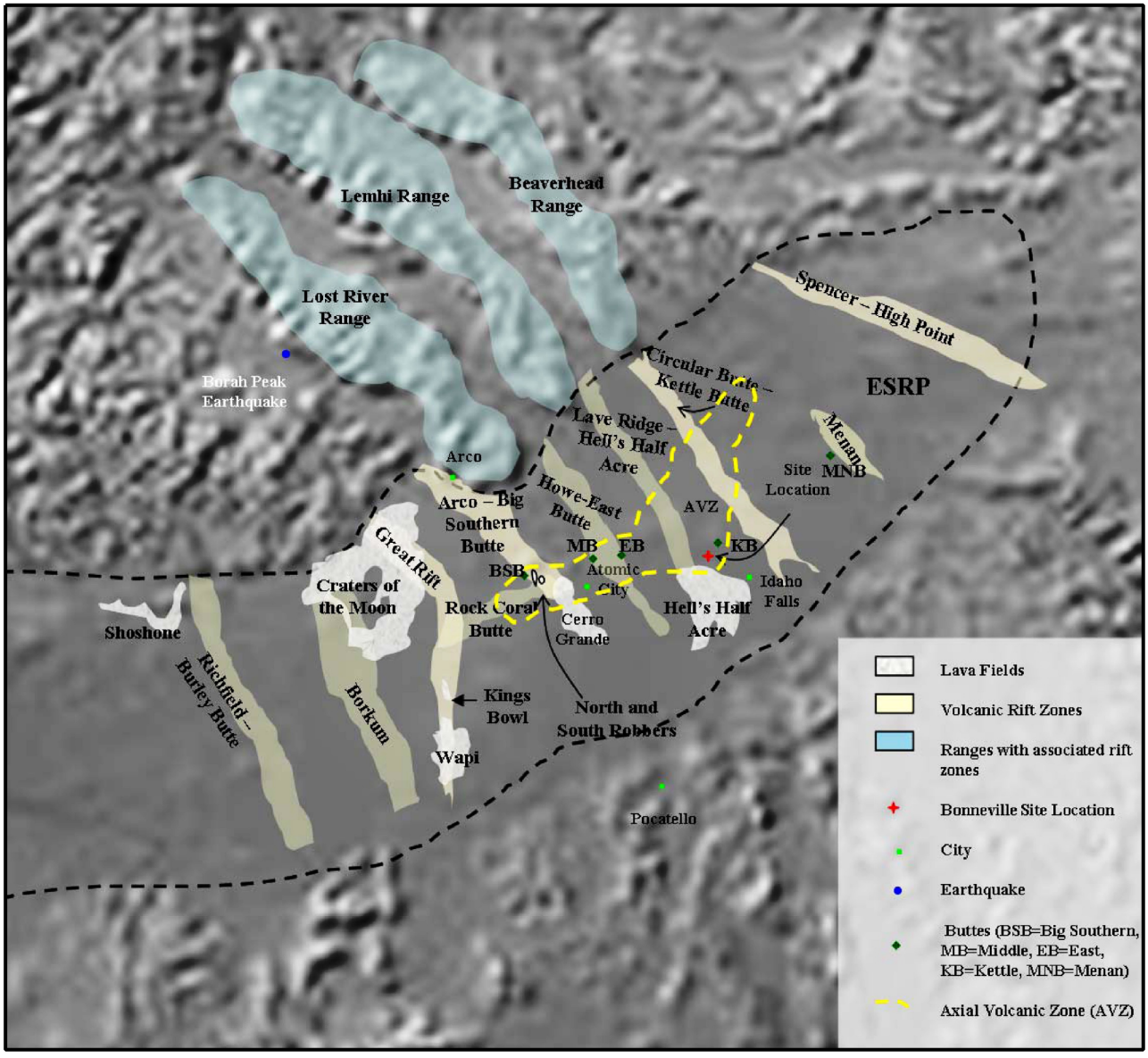


Figure 3.3-4 **Rev. 0**

General ESRP Geology and Stratigraphy

EAGLE ROCK ENRICHMENT FACILITY ENVIRONMENTAL REPORT





SCALE

0 60 (km)

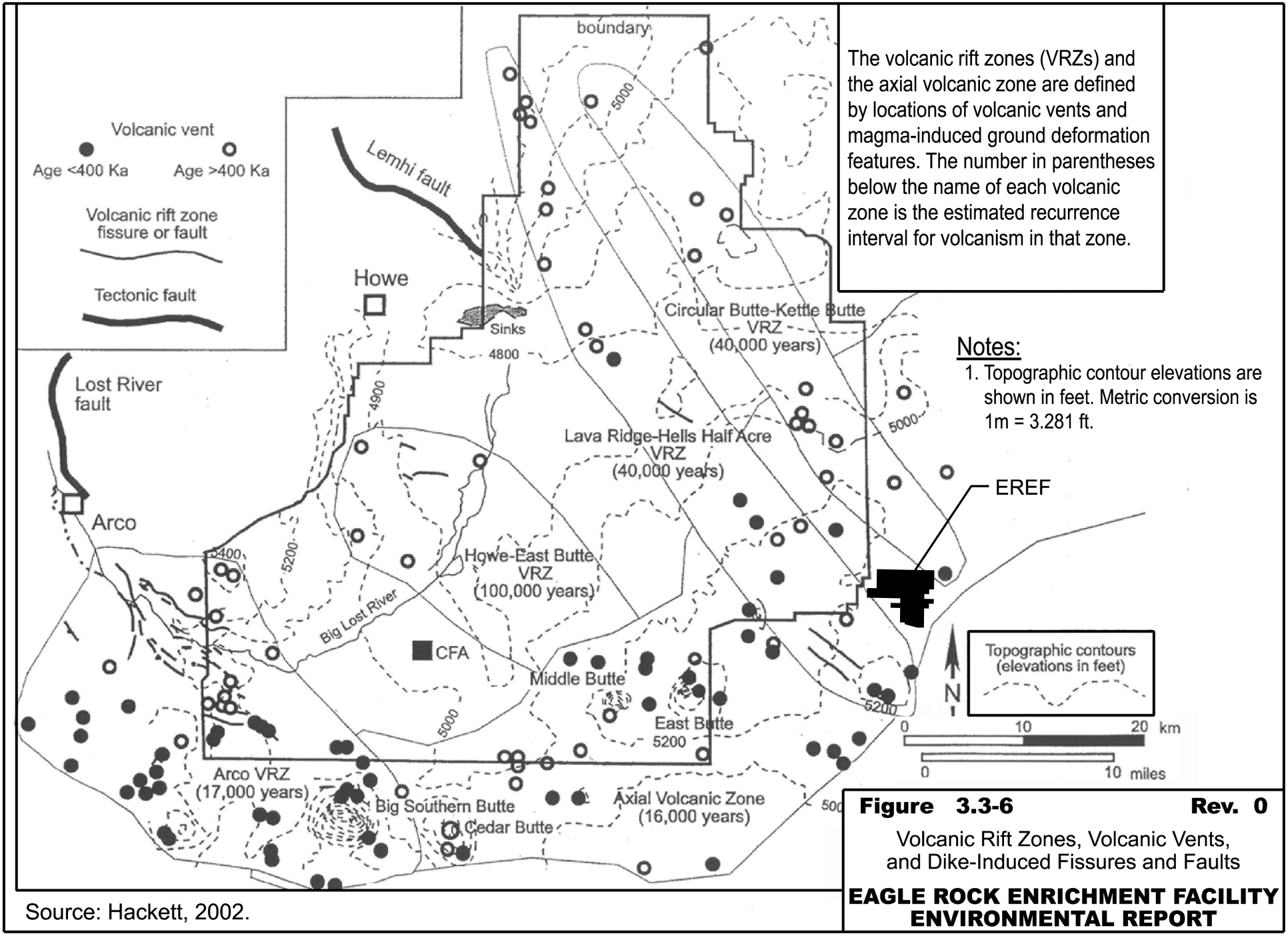
0 40 (mi)

Figure 3.3-5 **Rev. 0**

Regional Shaded-Relief Topographic Map of Eastern Snake River Plain (ESRP) and Local Geology

EAGLE ROCK ENRICHMENT FACILITY ENVIRONMENTAL REPORT

Source: Map features from Kuntz, 2002.



The volcanic rift zones (VRZs) and the axial volcanic zone are defined by locations of volcanic vents and magma-induced ground deformation features. The number in parentheses below the name of each volcanic zone is the estimated recurrence interval for volcanism in that zone.

Notes:

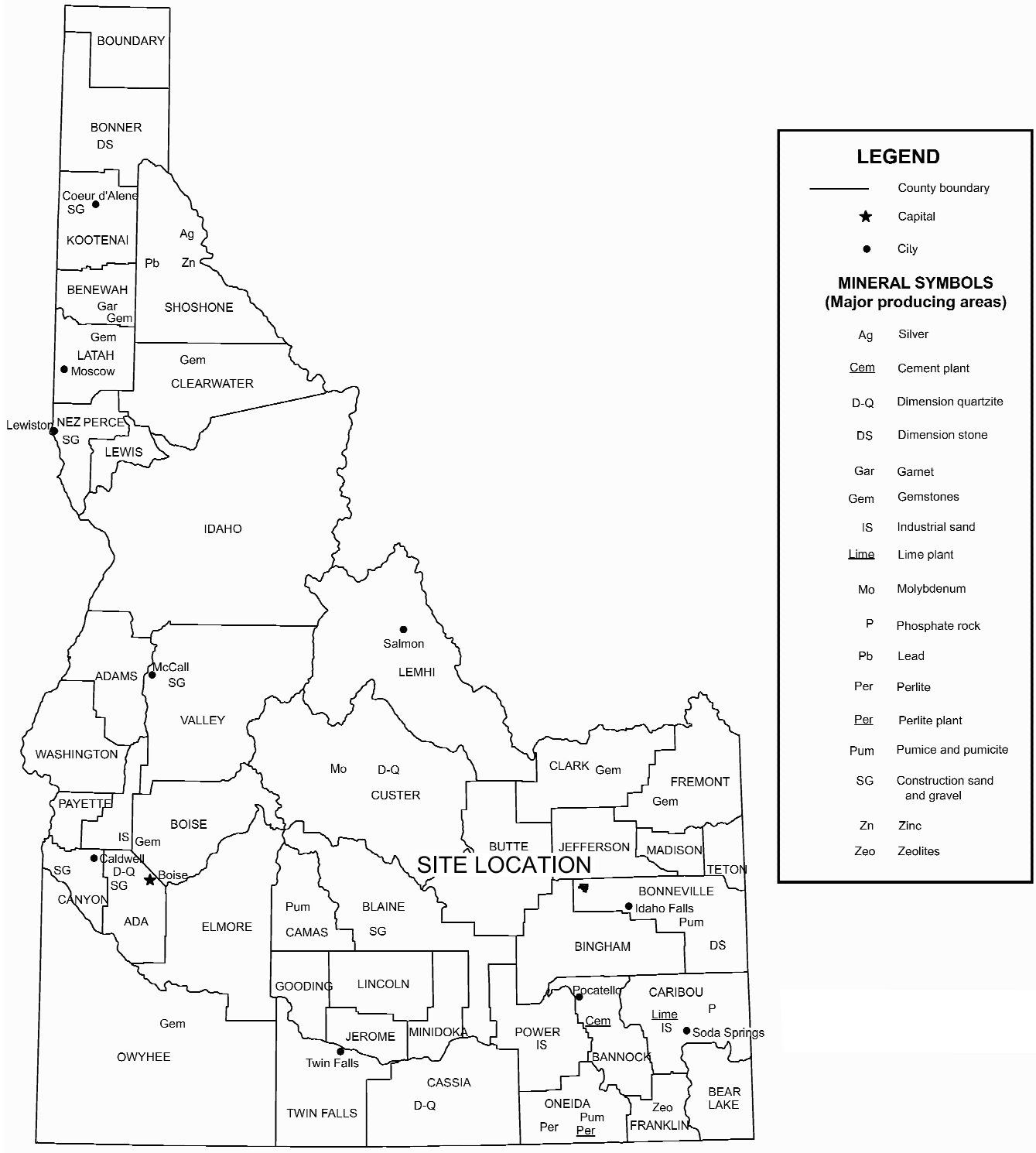
1. Topographic contour elevations are shown in feet. Metric conversion is 1m = 3.281 ft.

Source: Hackett, 2002.

Figure 3.3-6 **Rev. 0**

Volcanic Rift Zones, Volcanic Vents, and Dike-Induced Fissures and Faults

EAGLE ROCK ENRICHMENT FACILITY ENVIRONMENTAL REPORT



LEGEND

———	County boundary
★	Capital
●	City

MINERAL SYMBOLS
(Major producing areas)

Ag	Silver
Cem	Cement plant
D-Q	Dimension quartzite
DS	Dimension stone
Gar	Garnet
Gem	Gemstones
IS	Industrial sand
Lime	Lime plant
Mo	Molybdenum
P	Phosphate rock
Pb	Lead
Per	Perlite
Per	Perlite plant
Pum	Pumice and pumicite
SG	Construction sand and gravel
Zn	Zinc
Zeo	Zeolites

NOTE: ADAPTED FROM IGS, 2004.

SCALE
0 80 160 km

SCALE
0 50 100 miles

N

Figure 3.3-7 **Rev. 0**

Mineral Producing Areas of Idaho

EAGLE ROCK ENRICHMENT FACILITY
ENVIRONMENTAL REPORT

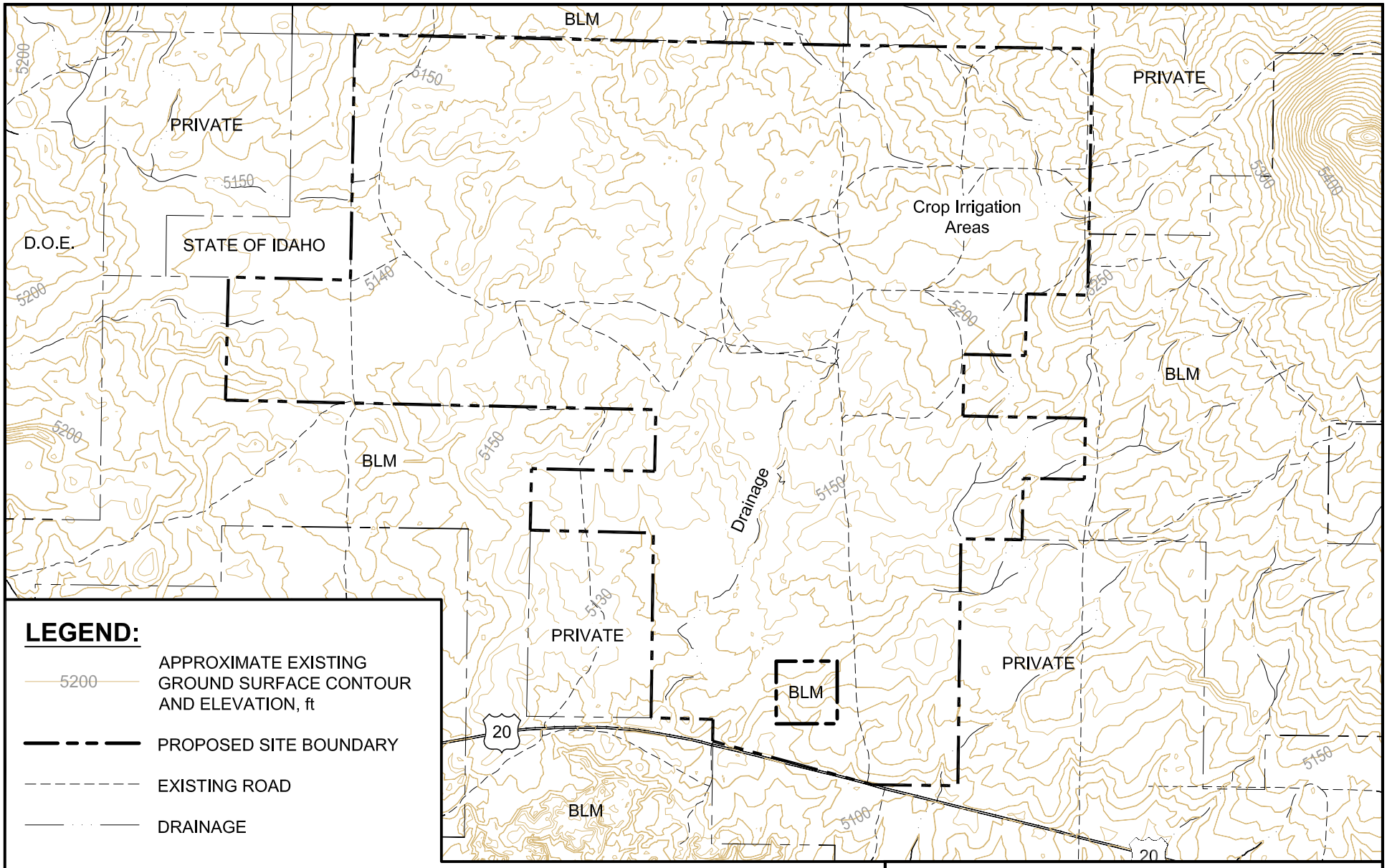


Figure 3.3-8 **Rev. 0**

Topography, Roads and Drainage

EAGLE ROCK ENRICHMENT FACILITY ENVIRONMENTAL REPORT

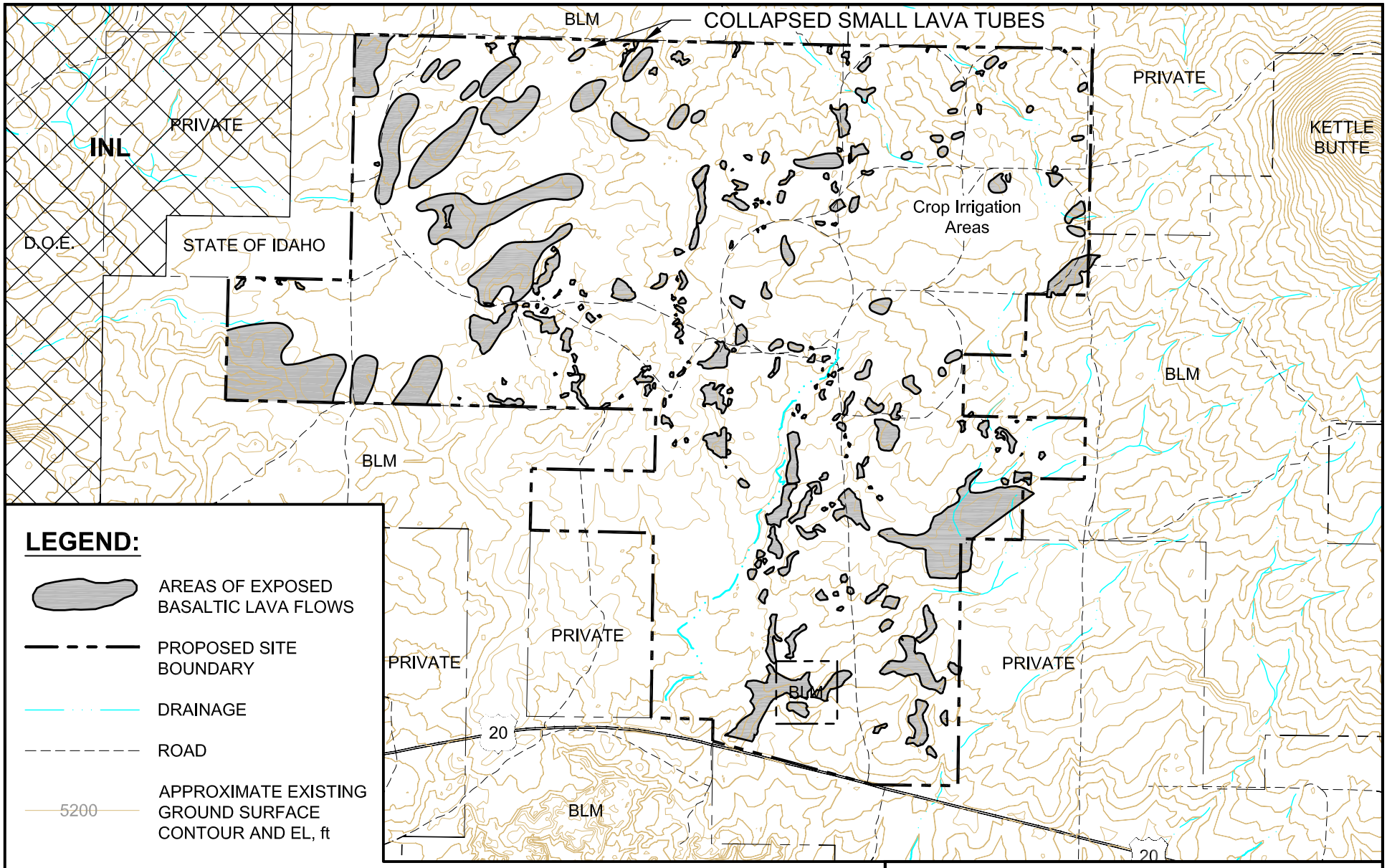


Figure 3.3-9 **Rev. 0**

Areas of Exposed Basaltic Lava Flows

EAGLE ROCK ENRICHMENT FACILITY ENVIRONMENTAL REPORT



a) VESICULAR BASALT



b) COLUMNAR JOINT PATTERN

Figure 3.3-10 **Rev. 0**

Photos of Typical
Basalt Outcrops 1

EAGLE ROCK ENRICHMENT FACILITY
ENVIRONMENTAL REPORT