TABLE 35.—*Analyses of limestone and gypsum from formations of Precambrian, Paleozoic, Triassic, and Jurassic ages*

[Semiquantitative spectrographic determinations made by the rapid visual-comparison method. Comparisons of similar data with those obtained by quantitative methods show that the assigned semiquantitative class interval includes the quantitative value in about 60 percent of the determinations. Analysts: Spectrographic, P. J. Dunton, P. K. Barnett, G. W. Boyes, Jr., and R. G. Havens; Radiometric, S. P. Furman and J. W. Patton]

System	Formation and member	Location	Sample No.[1]	Laboratory No.	Rock type	Semiquantitative spectrographic analyses																								Radiometric analyses
						Si	Al	Fe	Mg	Ca	Na	K	Ti	Zr	Mn	Ba	Sr	B	Sc	V	Cr	Co	Ni	Cu	Ga	Y	Ag	Yb	Pb	Bi	Percent eU
Jurassic	Wanakah formation:																														
	Pony Express limestone member	Placerville, Colo	L-369	D-80402	Limestone	0.x+	0.x−	0.x−	0.x+	xx.	0.0x+	0	0.00x	0	0.0x	0.000x+	0.0x	0	0	0	0	0	0	0.000x+	0	0	0	—	0	0	0.001
	Todilto limestone	Beclabito dome, New Mexico	560	80405	do	x.	x.−	.x	x.	xx.	.x−	.x	.0x−	.00x	.x	.000x+	.0x−	0	0	Tr.	.00x−	.000x	0.000x	.000x+	0	.000x+	0	—	0	0	<.001
Triassic	Moenkopi formation	Sinbad Valley, Colo	WLN-32-52	D-84113	Gypsum	x.	0.x+	0.x	0.x+	xx.	0.x	0.x+	0.0x+	0.00x−	0.0x−	0.00x+	0.0x+	0	0	0.00x	0.00x−	0	0.000x+	0.00x−	0	0	0	0	0	0	<0.001
Permian	Kaibab limestone	Grand Canyon, Ariz	EMS-184-52	D-80987	Limestone	0.x	0.0x+	0.x	x.+	xx.	0.0x+	0	0.000x+	0	0.0x−	0.000x−	0.00x+	0	0	0.00x−	0.000x+	0	0.000x+	0.00x−	0	0	0	0	0	0	<0.001
	do	do	183-52	80986	do	x.	.x−	.x−	x.+	xx.	.0x	0	.0x−	.00x−	.00x+	.000x	.00x+	0	0	.00x−	.00x	0	.000x	.000x	0	0	0	0	0	0	<.001
	do	do	182-52	80985	do	xx.	.x+	.x+	.x+	x.	0	0	.0x	.00x+	.00x+	.00x	.000x+	.00x	0	.00x	.00x	0	.000x+	.00x	0	.000x+	Tr.	.000x−	0	0	.001
	Toroweap formation	do	180-52	80983	do	x.	.x−	.x+	x.+	xx.	.0x+	0	.0x−	.00x	.0x+	.00x	.00x+	0	0	.00x−	.000x	.000x+	.00x−	.00x−	0	0	0	0	.00x+	0	.001
Permian and Pennsylvanian	Supai formation	Grand Canyon, Ariz	EMS-170-52	D-80973	Limestone	x.	0.x+	0.x	0.x	xx.	0.0x	0.x+	0.0x	0.00x+	0.00x+	0.00x+	0.0x−	0	0	0.00x−	0.00x−	0	0.000x	0.000x	0	0	0	Tr.	0	0	<0.001
	do	do	169-52	80972	do	xx.	.x+	.x+	.x+	x.	.0x+	.x+	.0x+	.00x+	.0x+	.0x	.00x	.00x	0	.00x−	.00x	.000x+	.000x+	.000x+	Tr.	.000x+	0	Tr.	0	0	.001
Permian(?) and Pennsylvanian	Rico formation	Moab Valley, Utah	EMS-24-52	D-82289	Limestone	x.	0.x+	x.−	xx.	xx.	0.x−	0.x+	0.0x	0.00x	0.00x−	0.00x+	0.0x−	0	0	0.00x−	0.00x	0.000x	0.00x−	0.00x−	0	.000x	0	0	0	0	<0.001
Pennsylvanian	Hermosa formation:																														
	Paradox member	Castle Valley, Utah	EMS-25-52	D-82290	Gypsum	x.−	0.x−	0.x−	x.−	xx.	0.0x	0	0.0x−	0	0.00x−	.00x	0.x	0	0	0.000x	0.000x	0	Tr.	0.000x+	0	0	0	0	0	0	<0.001
	do	do	WLN-58-53	204848	do	.x−	.0x+	.0x−	.0x−	xx.	.0x	0	.00x	Tr.	Tr.	.00x−	.0x+	0	0	Tr.	.000x	0	0	.000x	0	0	0	0	0	0	<.001
	do	Fisher Valley, Utah	EMS-33B-52	D-82295	do	x.	.x+	.x	.x+	xx.	.0x	.x	.0x	.00x	.00x	.00x	.x−	0	0	.000x	.000x+	0	.000x−	.000x+	0	0	0	0	0	0	.001
	do	Paradox Valley, Colo	DV-1-52	88264	do	.x+	.x−	.0x+	.x−	xx.	.0x+	0	.0x−	Tr.	0	.00x	.x−	0	0	.00x	.000x+	0	.000x+	.000x+	0	0	0	0	0	.00x−	<.001
	do	do	2-52	88265	do	.0x+	.0x−	.00x+	.0x	xx.	Tr.	0	Tr.	Tr.	0	.00x−	.x−	0	0	Tr.	.000x	0	0	.000x	0	0	0	0	0	.00x−	<.001
Mississippian	Redwall limestone	Grand Canyon, Ariz	EMS-168-52	D-80971	Limestone	0.0x+	0.0x−	0.0x	0.0x+	xx.	0	0	0	0	0.00x	Tr.	0.00x+	0	0	0.00x−	0.00x−	0	0	.000x	0	0	0	0	0	0	<0.001
	do	do	167-52	80970	do	.00x	.00x+	.0x	.0x+	xx.	.0x−	0	0	0	.00x+	Tr.	.0x−	0	0	.00x	0	0	0	.000x	0	0	0	0	0	0	<.001
	do	do	166-52	80969	do	.x−	.0x−	.x	xx.	xx.	.0x+	0	0	0	.0x−	Tr.	.00x	0	0	.00x−	.00x−	.000x	.000x+	.00x−	0	0	0	0	0	0	<.001
Devonian	Temple Butte limestone	Grand Canyon, Ariz	EMS-165-52	D-80758	Limestone	x.+	0.x+	0.x	x.+	x.+	0.0x	0.x+	0.0x	0.00x	0.0x−	0.00x−	0.00x	0.00x−	0	0.00x−	0.00x−	0	0.000x	0.000x	Tr.	0.000x	0	Tr.	0	0	0.001
	do	do	164-52	80757	do	x.	x.−	x.−	x.+	x.+	.x−	x.−	.0x+	.00x+	.00x+	.00x−	.00x+	.00x	.000x	.00x	.00x	0	.000x	Tr.	.000x−	.00x−	0	0.000x	0	0	.002
	do	do	163-52	80736	do	x.−	.x	.x	xx.	xx.	.0x	.x−	.00x+	.000x	.0x−	.00x−	.00x	0	0	.00x−	.000x	0	.000x−	.000x−	0	.000x	0	0	0	0	.001
Cambrian	Muav limestone	Grand Canyon, Ariz	EMS-162-52	D-80755	Limestone	xx.	x.−	0.x	x.+	x.+	0.0x+	x.−	0.0x+	0.0x−	0.0x−	0.0x−	0.00x	0.00x−	0	0.00x−	0.00x−	Tr.	0.000x−	0.000x−	Tr.	0.000x	0	0.000x−	0.000x	0	0.001
	do	do	161-52	80754	do	xx.	x.−	.x+	x.+	x.+	.0x+	x.−	.0x+	.00x	.0x	.x−	.00x+	.00x−	.000x−	.00x−	.00x−	Tr.	.000x	.000x−	Tr.	.00x−	0	.000x−	0	0	.002
	do	do	160-52	80753	do	x.+	x.−	x.−	x.+	x.+	.x−	x.	.0x+	.00x	.0x	.0x−	.00x+	.00x	.000x−	.00x−	.00x−	Tr.	.000x+	.000x	0.000x−	.00x−	0	.000x−	.000x	0	.001
Precambrian	Bass limestone	Grand Canyon, Ariz	EMS-152-52	D-80745	Limestone	xx.	x.	x.	x.	x.−	0.x−	x.+	0.x	0.00x+	0.0x+	0.0x	0.00x+	0.00x−	0.000x+	0.00x+	0.00x	0.000x	0.00x−	0.00x−	0.000x	0.00x−	0	0.000x−	0.000x	0	0.004
	do	do	151-52	80744	do	x.	.0x+	x.−	xx.	x.+	.0x	0	.00x+	.00x−	x.−	.000x+	.0x	0	0	.00x−	.00x−	.000x−	.000x−	.00x−	0	.00x	0	.000x−	0	0	<.001
	do	do	150-52	80743	do	xx.	.0x	.x	x.+	x.+	.0x	0	.00x	.000x	.x	.000x−	.0x−	.00x−	0	.00x−	.00x−	0	.000x−	.00x	0	.000x	0	0	0	0	<.001

[1] Samples with prefix "L" furnished by R. A. Cadigan.