

Scientific Analysis Administrative Change Notice

Complete only applicable items.

1. Document Number:	ANL-MGR-GS-000004	2. Revision:	00	3. ACN:	02
4. Title:	Peak Ground Velocities for Seismic Events at Yucca Mountain, Nevada				
5. No. of Pages Attached:	2				

6. Approvals:	
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7. Affected Pages	8. Description of Change:
6-21	Editorial change. Table 6-3 "Modeled and Interpolated/Extrapolated Horizontal Peak Ground Velocity for Shear Strain Values", 1 st column, 3 rd data rows in both segments of the table on page 6-21, change: 1 x 10 ⁻⁵ To 1 x 10 ⁻⁶ This change is associated with CR-9064
C-7	Editorial change. Table C-2 "Modeled and Interpolated/Extrapolated Horizontal Peak Ground Velocity for Shear Strain Values", 1 st column, 3 rd data rows in both segments of the table on page C-7, change: 1 x 10 ⁻⁵ To 1 x 10 ⁻⁶ This change is associated with CR-9064

Table 6-3. Modeled and Interpolated/Extrapolated Horizontal Peak Ground Velocity for Shear Strain Values

Annual Frequency of Exceedance (1/yr)	Velocity Profile P1 + Upper Mean Tuff Dynamic Material Property Curves + 1 to 2 Hz		Velocity Profile P1 + Lower Mean Tuff Dynamic Material Property Curves + 1 to 2 Hz		Velocity Profile P2 + Upper Mean Tuff Dynamic Material Property Curves + 1 to 2 Hz		Velocity Profile P2 + Lower Mean Tuff Dynamic Material Property Curves + 1 to 2 Hz	
	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (γ_{yz} , %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (γ_{yz} , %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (γ_{yz} , %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (γ_{yz} , %)
1×10^{-4}	45.26	0.020	47.27	0.023	45.17	0.018	43.67	0.024
1×10^{-5}	110.67	0.050	104.48	0.076	111.40	0.048	105.82	0.089
1×10^{-6}	242.65	0.118	231.98	0.263	244.31	0.116	231.41	0.331
1×10^{-7}	512.01	0.270	499.27	0.869	519.61	0.272	494.90	1.041

	Velocity Profile P1 + Upper Mean Tuff Dynamic Material Property Curves + 5 to 10 Hz		Velocity Profile P1 + Lower Mean Tuff Dynamic Material Property Curves + 5 to 10 Hz		Velocity Profile P2 + Upper Mean Tuff Dynamic Material Property Curves + 5 to 10 Hz		Velocity Profile P2 + Lower Mean Tuff Dynamic Material Property Curves + 5 to 10 Hz	
	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (γ_{yz} , %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (γ_{yz} , %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (γ_{yz} , %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (γ_{yz} , %)
1×10^{-4}	31.63	0.016	29.65	0.018	31.33	0.016	30.00	0.021
1×10^{-5}	99.29	0.051	93.24	0.072	99.70	0.049	93.86	0.085
1×10^{-6}	246.20	0.124	237.70	0.276	249.51	0.127	235.68	0.351
1×10^{-7}	520.46	0.286	522.41	0.905	540.36	0.297	518.23	1.089

Source: Appendix D, *PGV v Shear Strain.xls*

Table C-2. Modeled and Interpolated/Extrapolated Horizontal Peak Ground Velocity for Shear Strain Values

Annual Frequency of Exceedance (1/yr)	Velocity Profile P1 + Upper Mean Tuff Dynamic Material Property Curves + 1 to 2 Hz		Velocity Profile P1 + Lower Mean Tuff Dynamic Material Property Curves + 1 to 2 Hz		Velocity Profile P2 + Upper Mean Tuff Dynamic Material Property Curves + 1 to 2 Hz		Velocity Profile P2 + Lower Mean Tuff Dynamic Material Property Curves + 1 to 2 Hz	
	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (Syz, %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (Syz, %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (Syz, %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (Syz, %)
1×10^{-4}	45.26	0.020	47.27	0.023	45.17	0.018	43.67	0.024
1×10^{-5}	110.67	0.050	104.48	0.076	111.40	0.048	105.82	0.089
1×10^{-6}	242.65	0.118	231.98	0.263	244.31	0.116	231.41	0.331
1×10^{-7}	512.01	0.270	499.27	0.869	519.61	0.272	494.90	1.041

	Velocity Profile P1 + Upper Mean Tuff Dynamic Material Property Curves + 5 to 10 Hz		Velocity Profile P1 + Lower Mean Tuff Dynamic Material Property Curves + 5 to 10 Hz		Velocity Profile P2 + Upper Mean Tuff Dynamic Material Property Curves + 5 to 10 Hz		Velocity Profile P2 + Lower Mean Tuff Dynamic Material Property Curves + 5 to 10 Hz	
	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (Syz, %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (Syz, %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (Syz, %)	Modeled Horizontal Peak Ground Velocity (cm/sec)	Modeled Shear Strain (Syz, %)
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1×10^{-5}	99.29	0.051	93.24	0.072	99.70	0.049	93.86	0.085
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