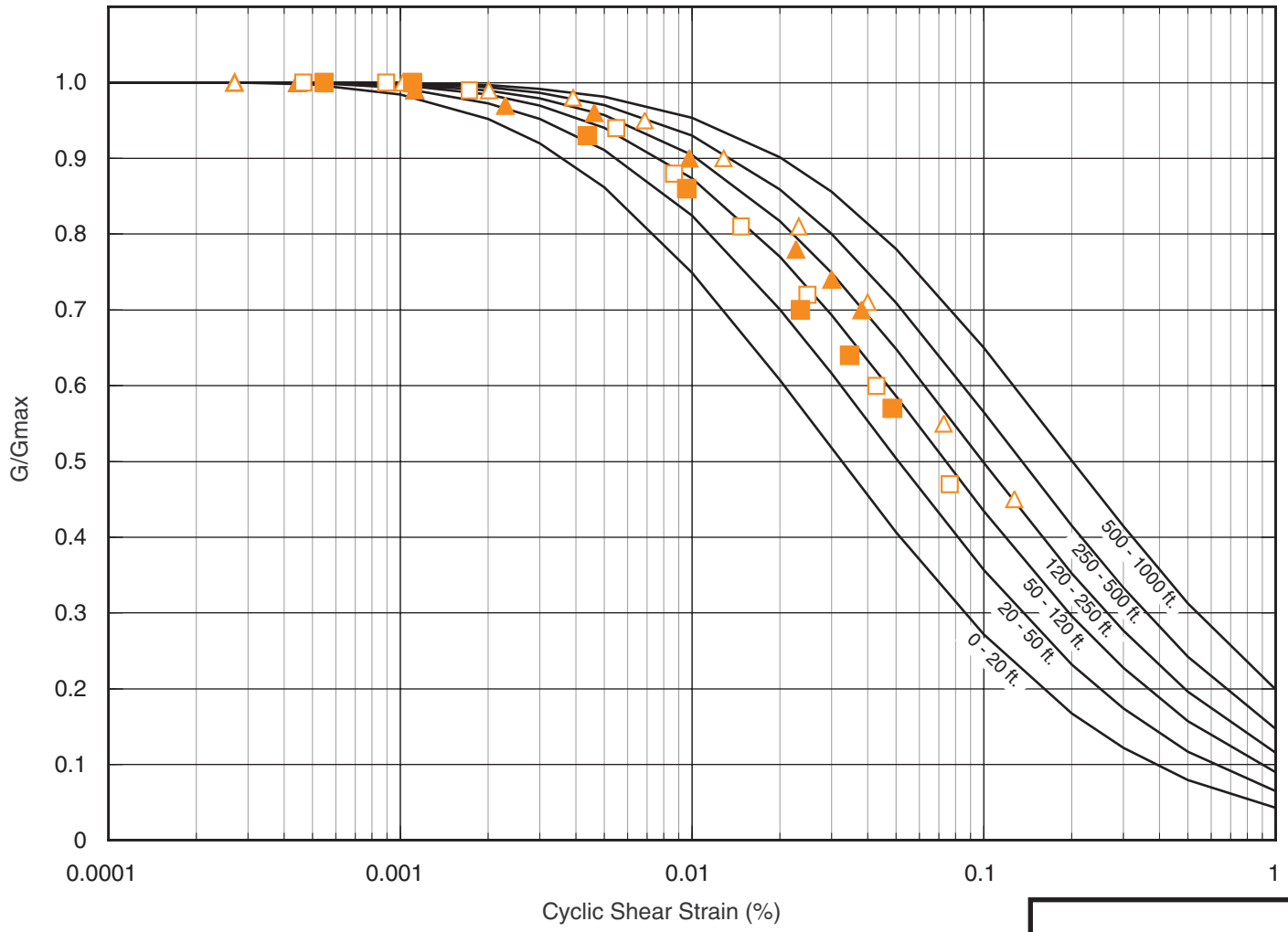

Note:
1. ksf = kips per square foot.
2. RC=Resonant Column test.
3. TS=Torsional Shear test.

Explanation

Loess

UTA Test No.	Confining Stress	Sample No.	Sample Depth
△	RC-2 (4.32 ksf);	B-2-11;	59 feet
▲	TS-2 (4.32 ksf);	B-2-11;	59 feet
□	RC-1 (2.30 ksf);	B-1-10;	30 feet
■	TS-1 (2.30 ksf);	B-1-10;	30 feet

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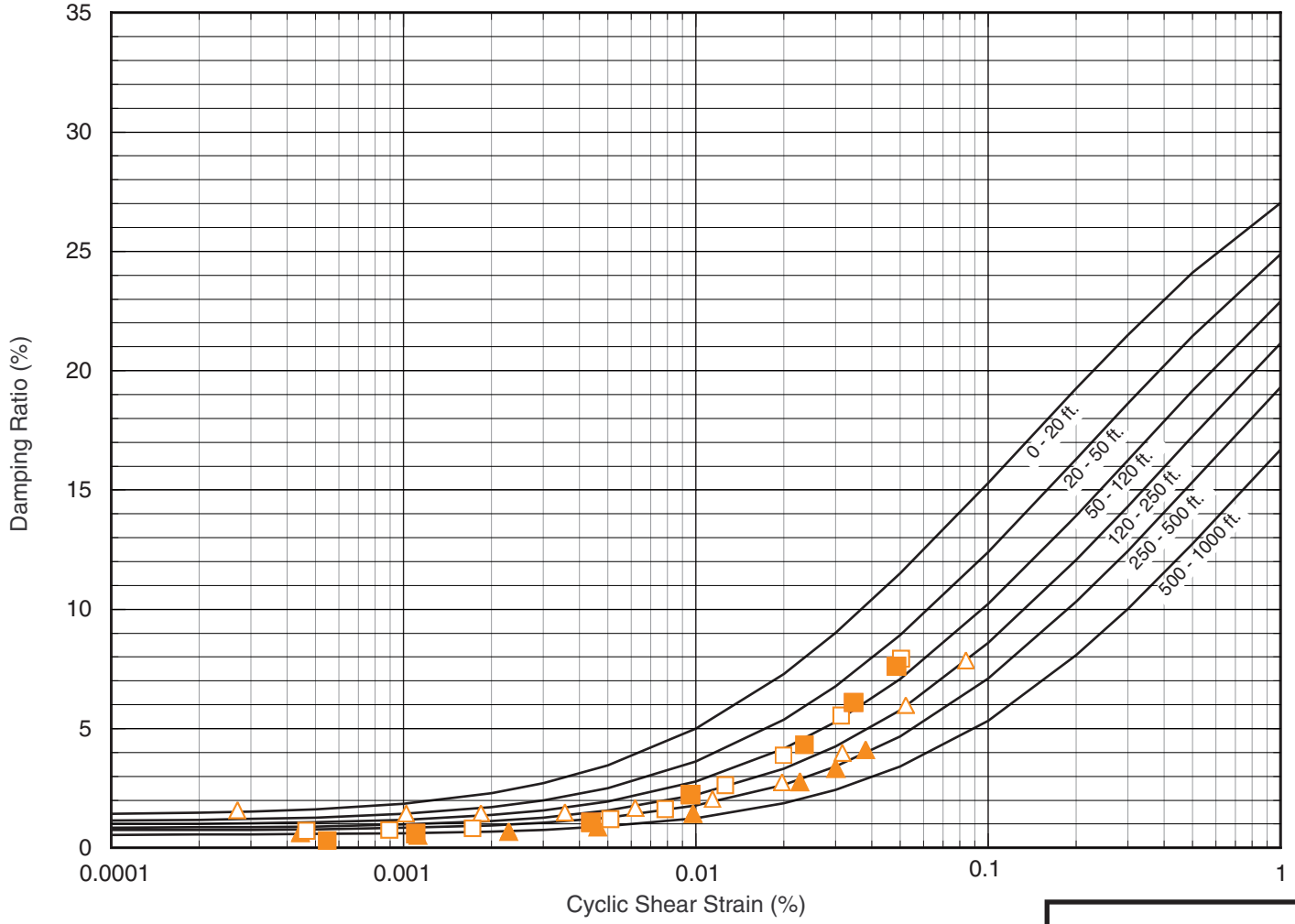
SHEAR MODULUS REDUCTON CURVES FOR LOESS

FIGURE 2.5-87 REV. 0



Note:
1. ksf = kips per square foot.
2. RC=Resonant Column test.
3. TS=Torsional Shear test.

Explanation

Loess

UTA Test No.	Confining Stress	Sample No.	Sample Depth
△	RC-2 (4.32 ksf);	B-2-11;	59 feet
▲	TS-2 (4.32 ksf);	B-2-11;	59 feet
□	RC-1 (2.30 ksf);	B-1-10;	30 feet
■	TS-1 (2.30 ksf);	B-1-10;	30 feet

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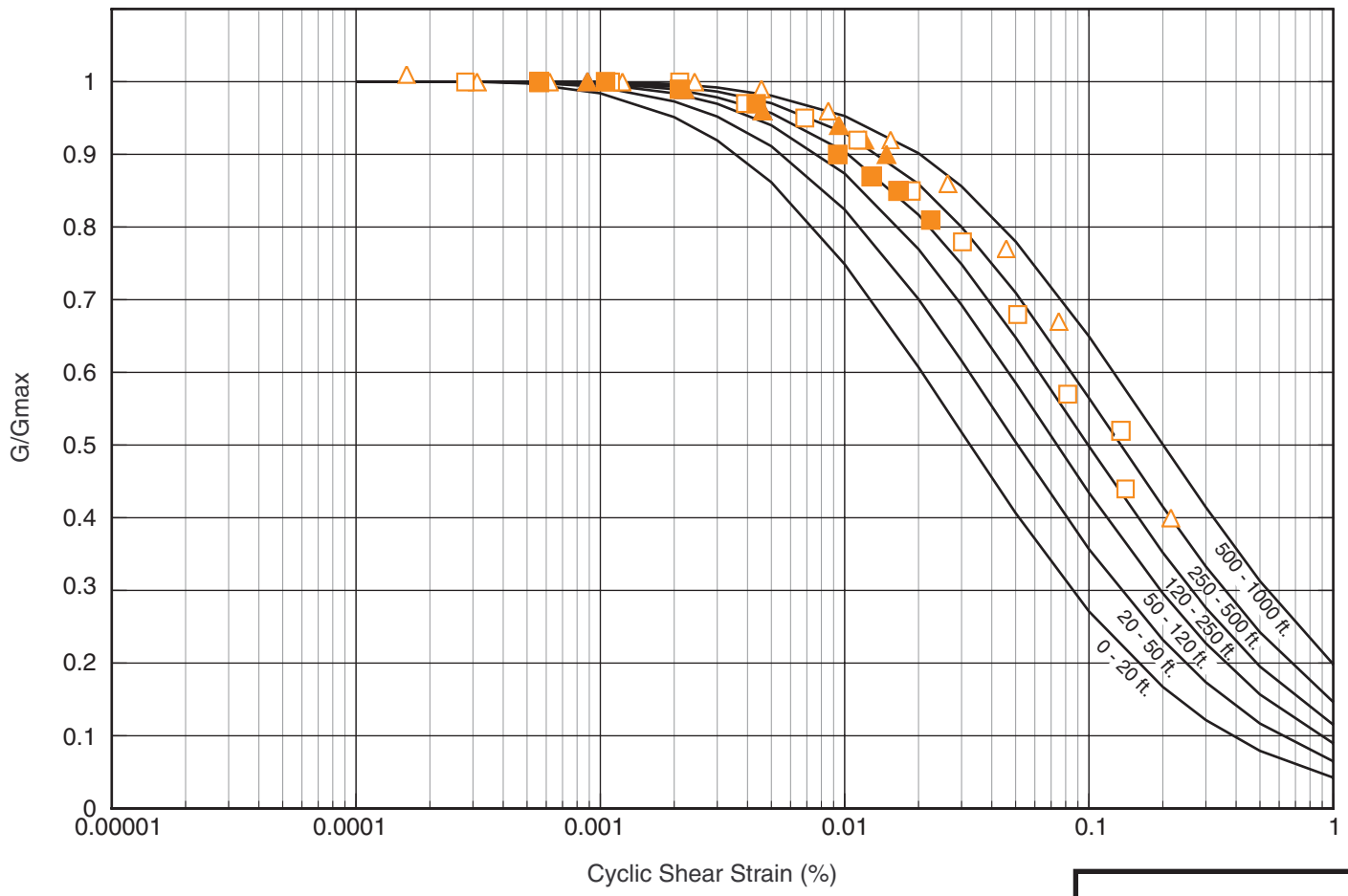
DAMPING RATIO CURVES
FOR LOESS

FIGURE 2.5-88 REV. 0



Explanation

Loess

UTA Test No.	Confining Stress	Sample No.	Sample Depth
△	RC-2 (17.28 ksf);	B-2-11;	59 feet
▲	TS-2 (17.28 ksf);	B-2-11;	59 feet
□	RC-1 (9.22 ksf);	B-1-10;	30 feet
■	TS-1 (9.22 ksf);	B-1-10;	30 feet

Note:
1. ksf = kips per square foot.
2. RC=Resonant Column test.
3. TS=Torsional Shear test.

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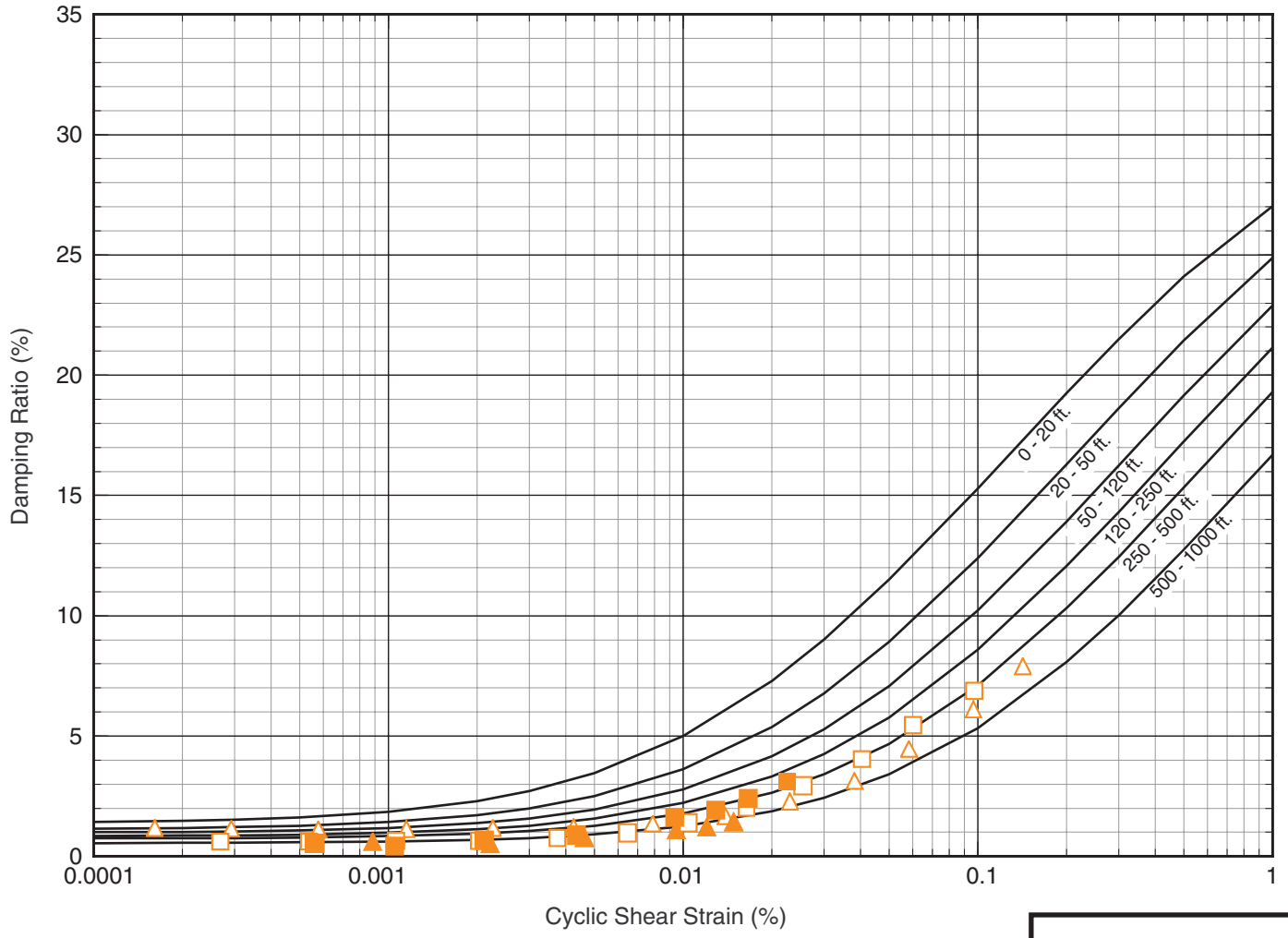
SHEAR MODULUS REDUCTON CURVES
FOR LOESS AT 4X CONFINING STRESS

FIGURE 2.5-89 REV. 0



Note:
1. ksf = kips per square foot.
2. RC=Resonant Column test.
3. TS=Torsional Shear test.

Explanation

Loess

	UTA Test No.	Confining Stress	Sample No.	Sample Depth
△	RC-2	(17.28 ksf);	B-2-11;	59 feet
▲	TS-2	(17.28 ksf);	B-2-11;	59 feet
□	RC-1	(9.22 ksf);	B-1-10;	30 feet
■	TS-1	(9.22 ksf);	B-1-10;	30 feet

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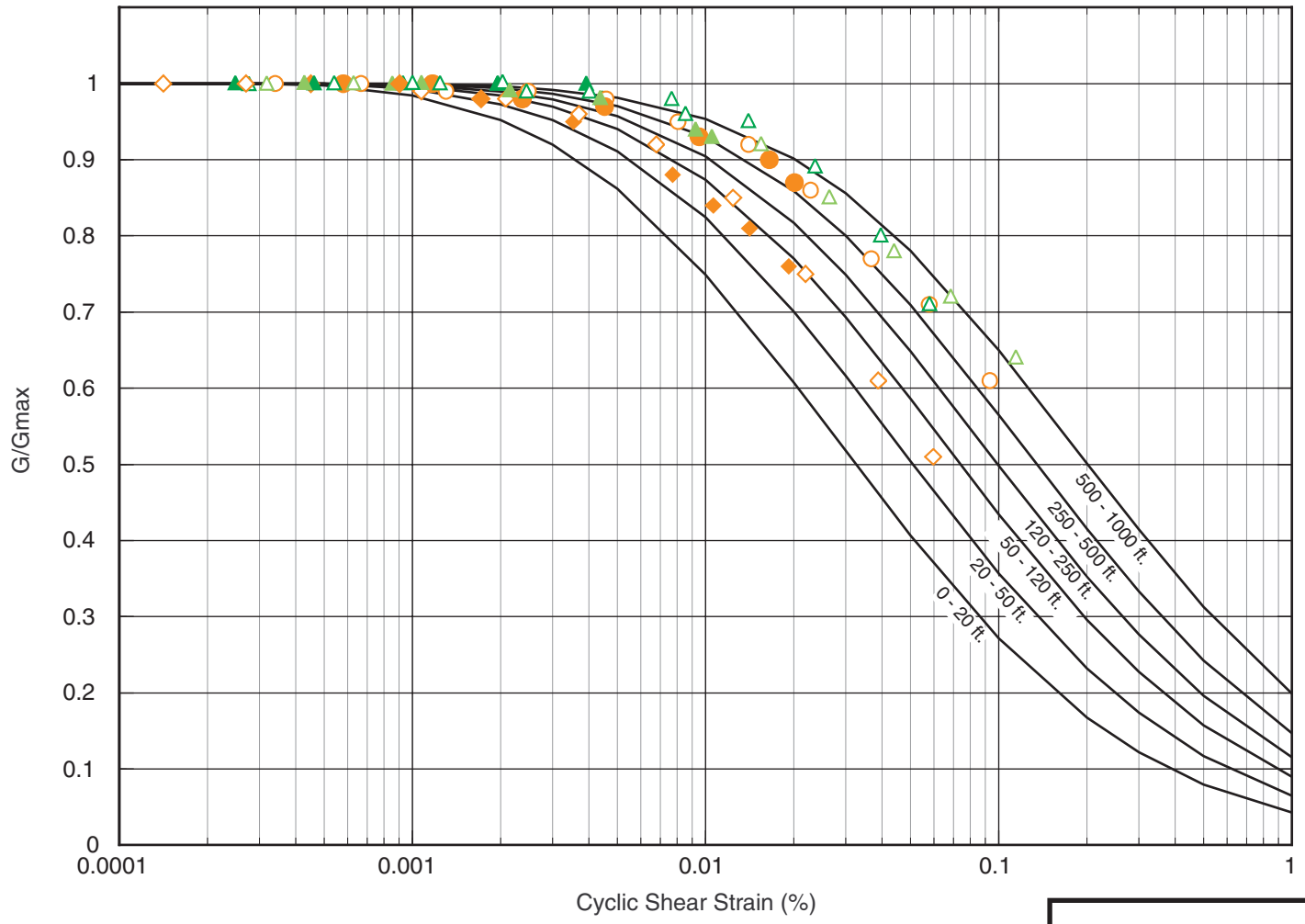
DAMPING RATIO CURVES FOR
LOESS AT 4X CONFINING STRESS

FIGURE 2.5-90 REV. 0



Explanation

Alluvium

UTA Test No.	Confining Stress	Sample No.	Sample Depth
RC-3	7.92 ksf	B-1-21	65 feet
TS-3	7.92 ksf	B-1-21	65 feet
RC-4	8.64 ksf	B-3-13	81 feet
TS-4	8.64 ksf	B-3-131	81 feet

Old Alluvium

UTA Test No.	Confining Stress	Sample No.	Sample Depth
RC-6	12.96 ksf	B-2-11	165 feet
TS-6	12.96 ksf	B-2-11	165 feet
RC-5	10.37 ksf	B-2-11	109 feet
TS-5	10.37 ksf	B-2-11	109 feet

Note:
1. ksf = kips per square foot.
2. RC=Resonant Column test.
3. TS=Torsional Shear test.

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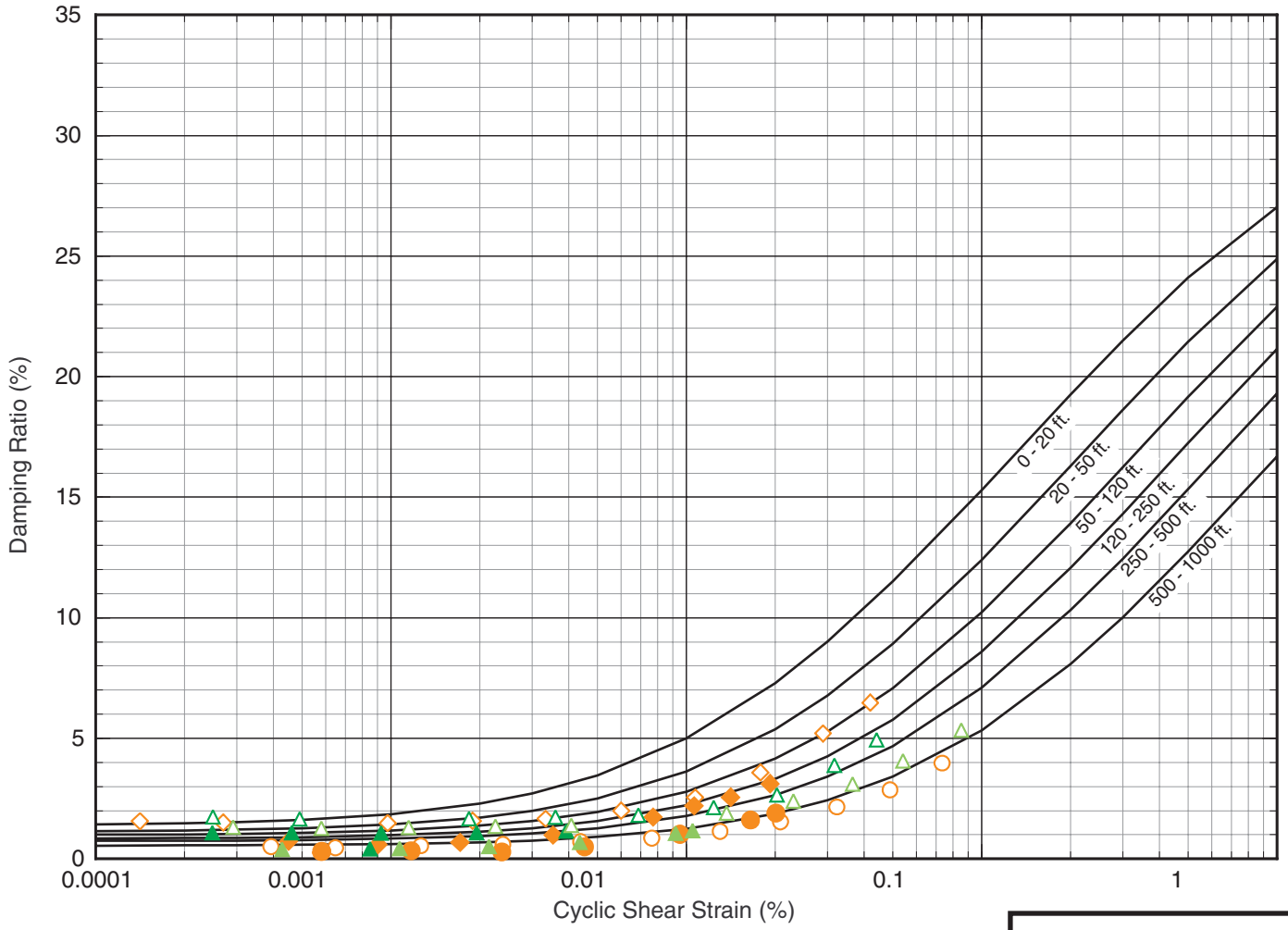
SHEAR MODULUS REDUCTION CURVES
FOR UPLAND COMPLEX ALLUVIUM
AND OLD ALLUVIUM

FIGURE 2.5-91 REV. 0



Explanation

Alluvium

UTA Test No.	Confining Stress	Sample No.	Sample Depth
○ RC-3	(7.92 ksf);	B-1-21;	65 feet
● TS-3	(7.92 ksf);	B-1-21;	65 feet
◇ RC-4	(8.64 ksf);	B-3-13;	81 feet
◆ TS-4	(8.64 ksf);	B-3-13;	59 feet

Old Alluvium

UTA Test No.	Confining Stress	Sample No.	Sample Depth
△ RC-6	(12.96 ksf);	B-1-43;	165 feet
▲ TS-6	(12.96 ksf);	B-1-43;	165 feet
△ RC-5	(10.37 ksf);	B-2-16;	109 feet
▲ TS-5	(10.37 ksf);	B-2-16;	109 feet

Note:
1. ksf = kips per square foot.
2. RC=Resonant Column test.
3. TS=Torsional Shear test.

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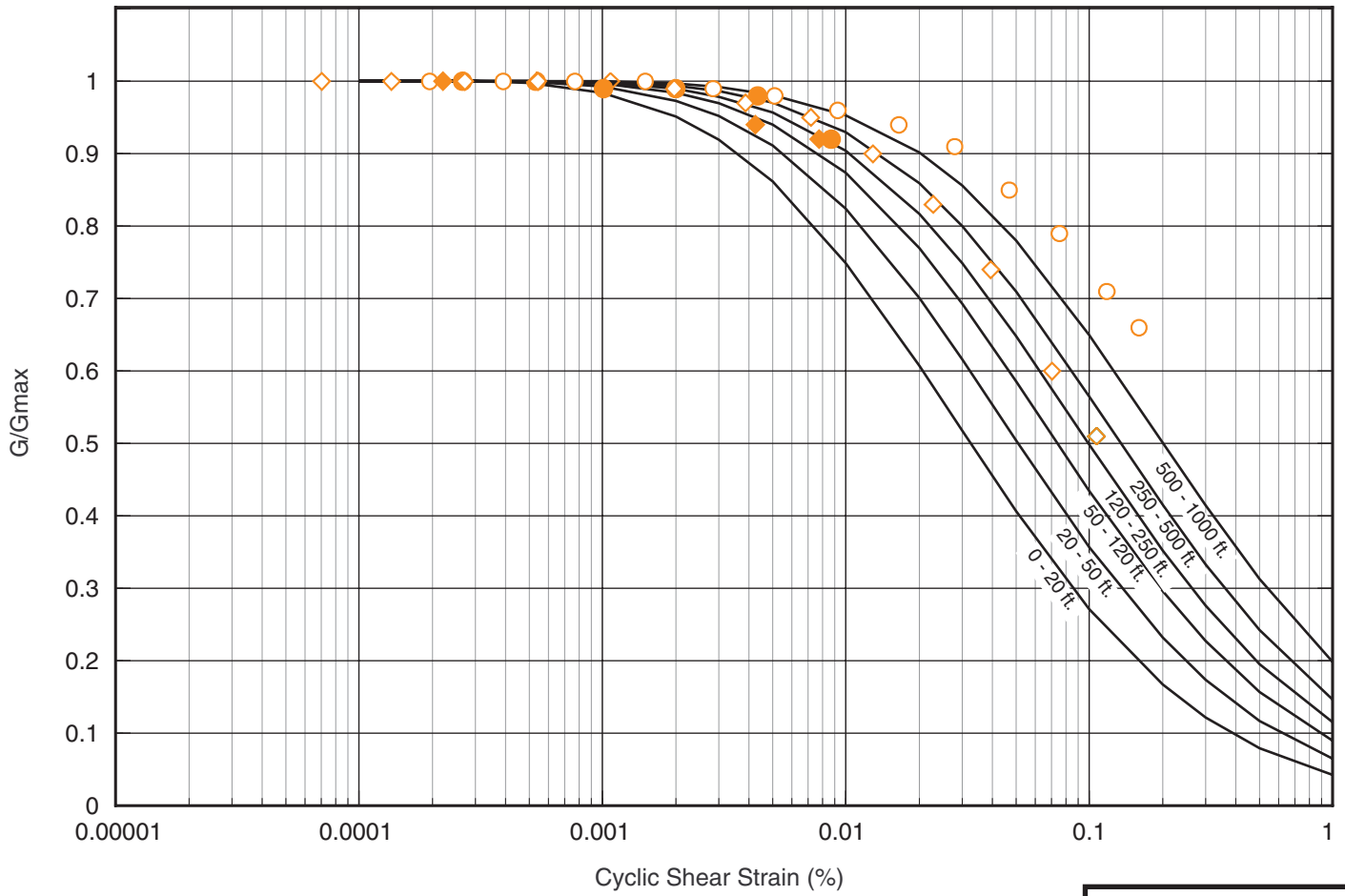
DAMPING RATIO CURVES FOR
UPLAND COMPLEX ALLUVIUM
AND OLD ALLUVIUM

FIGURE 2.5-92 REV. 0



Explanation

Alluvium

UTA Test No.	Confining Stress	Sample No.	Sample Depth
○	RC-3 (7.92 ksf)	B-1-21	65 feet
●	TS-3 (7.92 ksf)	B-1-21	65 feet
◇	RC-4 (8.64 ksf)	B-3-13	81 feet
◆	TS-4 (8.64 ksf)	B-3-13	81 feet

Note:
1. ksf = kips per square foot.
2. RC=Resonant Column test.
3. TS=Torsional Shear test.

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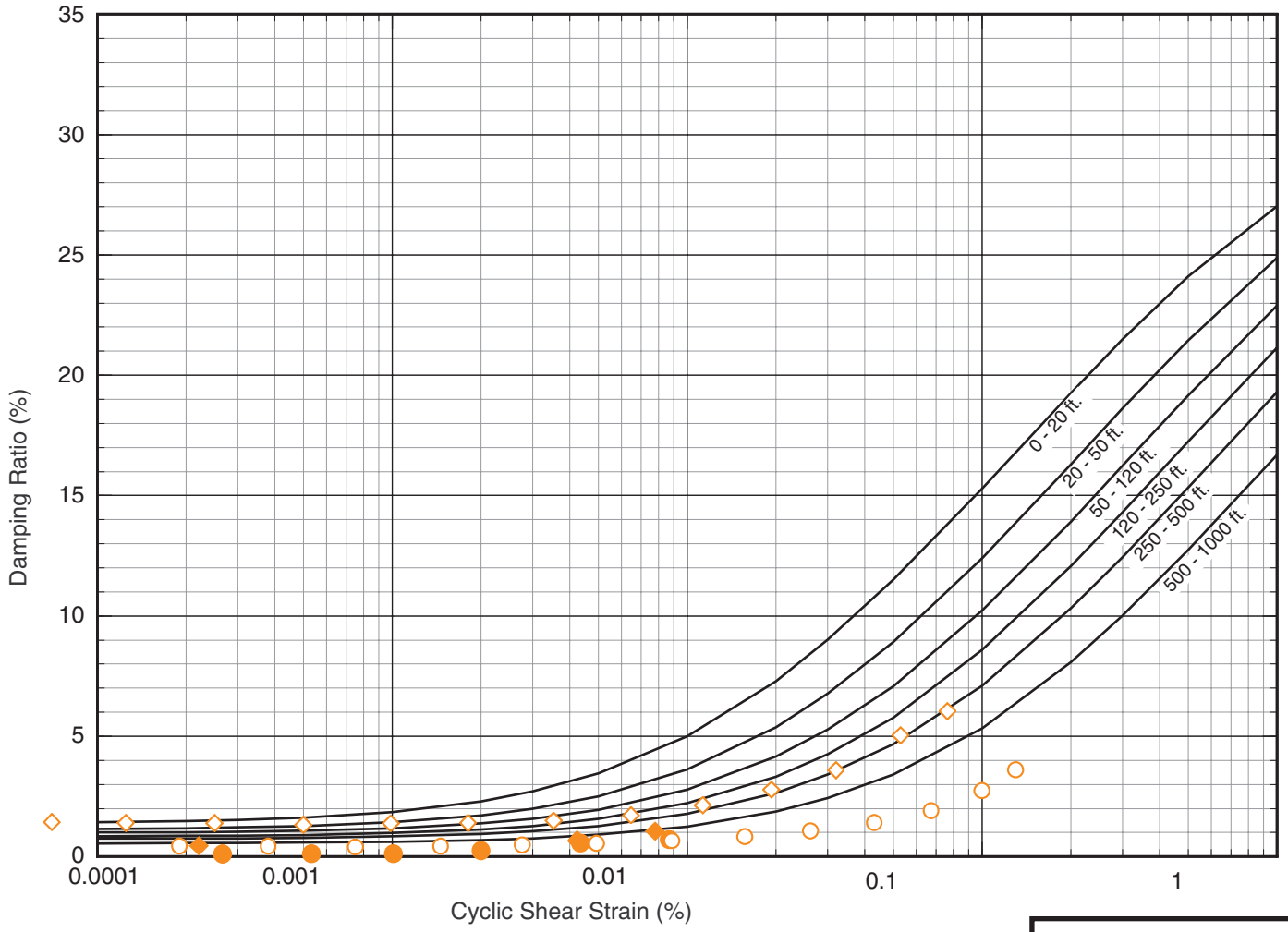
SHEAR MODULUS REDUCTION CURVES FOR UPLAND COMPLEX ALLUVIUM AT 4X CONFINING STRESS

FIGURE 2.5-93 REV. 0



Note:
1. ksf = kips per square foot.
2. RC=Resonant Column test.
3. TS=Torsional Shear test.

Explanation

Alluvium

UTA Test No.	Confining Stress	Sample No.	Sample Depth
○	RC-3 (7.92 ksf);	B-1-21;	65 feet
●	TS-3 (7.92 ksf);	B-1-21;	65 feet
◆	RC-4 (8.64 ksf);	B-3-13;	81 feet
◆	TS-4 (8.64 ksf);	B-3-13;	81 feet

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DAMPING RATIO CURVES FOR
UPLAND COMPLEX ALLUVIUM AT 4X
CONFINING STRESS

FIGURE 2.5-94 REV. 0