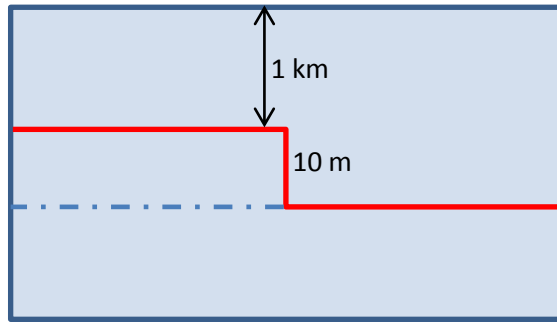


Throw	10
FW top depth	1000
Surface porosity	0.63
Compaction coeff.	0.51
Mid throw depth	1005
FW av. porosity	0.38
FW dc throw	16.83
Displacement loss	6.83
Displacement loss %	40.58



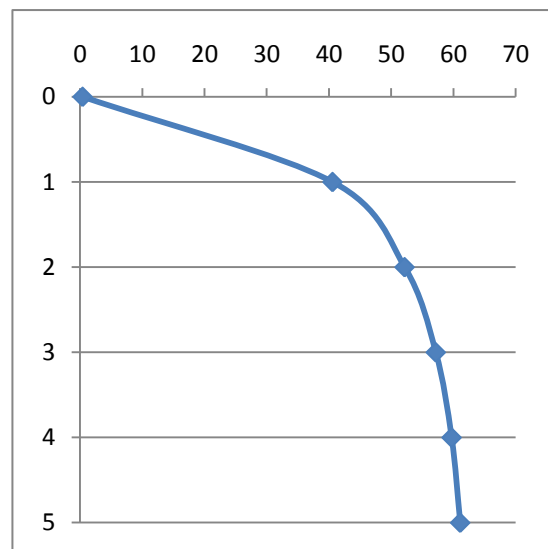
A marker is located at compaction

Assume

- 1) The shale
- 2) Once fa
- 3) Sequen
parame
- 4) Entire c
surface

Shale	0.63	0.51
Sand	0.49	0.27
1:1 sand shale	0.56	0.39

Depth	Loss %
0	0.43
1	40.58
2	52.16
3	57.17
4	59.71
5	61.09



1:1 sand shale	Hor 0	Hor 1	Hor 2	Hor 3	Hor 4	Hor 5
Depth at FW	0	1000	2000	3000	4000	5000
Throw	10	10	10	10	10	10
Initial porosity at FW	0.56	0.38	0.26	0.17	0.12	0.08
Cmpcted throw at 5 kn	4.78	6.75	8.08	8.98	9.59	10.00
Disp. Loss	5.22	3.25	1.92	1.02	0.41	0.00
%	52.19	32.54	19.24	10.23	4.13	0.00

Shale unit surface 100 40

Porosity/C	0.63	0.51
Porosity/C at 1 km	0.38	
Shale unit at 1 km	59.52	23.81
LO (half)	49.40 mm	
Lf (half)	55.09 mm	
Stretch	1.12	

shale layer in the foot wall of a fault with a throw of 10 m is at a depth of 1 km. Find the displacement loss due to compaction.

shale unit got faulted before compaction

faulted, the HW and FW cannot move further

units lower than the shale unit have the same compaction characteristics

decompacted thickness to have the same porosity as the shale unit

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