

MAR. MOVEMENT AREA NO.	GENERAL LOCATION	LATITUDE	LONGITUDE	WATER DEPTH	PIEDMONTIC SETTING	DETAIL OF FAILURE AND DESCRIPTION	SLOPE ANGLE	DIMENSIONS (W. width to N. north to S. south) A: area	SIZE CATEGORY	AGE	COMMENTS	DATA SOURCE (Reliable: reflection data shown otherwise indicated)	REFERENCE SHEET D
1	Slope north of Blake Spur	30°08'-33°00' N.	73°06'-73°09' W.	1,000-1,000 m	Slope north of Blake River segment	SLIDE? Untraced and isolated bedding rough and offset bottom debris at base of slope.	4°	Entire length of slope shows evidence of instability.	N.A.	Quaternary	As area of outcrops, poorly-defined mass movements	Alpin, quarter	35,38
2	Off Cape Koralia	33°00' N.	73°04' W.	300-450 m	Relatively steep base of Florida-Holocene slope and inner Blake Plateau feature originating on open ridge	COMPOUND SLUMP with apparent compression features in slump deposit	<1°*	W 1 km; L 3.5 km; T 4.5 m (max); A: 138 sq km	Class II	Pleistocene to Holocene	Probably pre-data but possibly associated with Charleston earthquake (1962) (see MF-2027, sheet 6)	10 and 48 cu. inch alginos, nitelgopher	1, 5, 16, 11, 24, 34
3	Off Cape Fear	31°30'-33°00' N.	72°58'-73°00' W.	1,250-1,350 m	Entire slope and upper rise	SLIDE COMPLEX: slide blocks and troughs, avalanche traces, an echelon slump, rubble, latter faults, major debris down to rim, steep slope 80 m up to lower slope near base north of Blake Outer Ridge	W (overall) 55 km; V (overall) 200-80 km; L 288 km; T 7 m	Class I	Quaternary to Holocene	Scarp on entire slope shows signs of displacement may have caused the mass wasting	3.5 kfile GLORIA and SeaMARC sidescan sonar, nitelgopher	6, 9, 13, 36, 39, 40	
4	Off Cape Fear	33°00' N.	73°00' W.	900-1,000 m	Upper slope and outer Blake Plateau	SLIDE COMPLEX: slide blocks and troughs, avalanche traces, an echelon slump, rubble, latter faults, major debris down to rim, steep slope 80 m up to lower slope near base north of Blake Outer Ridge	W (overall) 10 km; L (overall) 4 km	Class II	Pleistocene to Holocene	Failure may be due to extrinsic-derived free gas in sediment	Nitelgopher, SeaMARC sidescan sonar, 3.5 kfile	5, 6, 15, 34	
5	Off Cape Hatteras	33°00' N.	73°10' W.	900-1,000 m	Lower slope and upper rise	DEBRIS SLIDE? Untraced strata on slope; slope debris on rise	12°	N.D.	Class I	Quaternary?	Coherent block of slope strata slides down into rise	4.0 kfile profiler	43, 44
6	Off Cape Hatteras	33°00' N.	73°40' W.	2,500-1,000 m	Upper rise	SLAB SLIDE? Inland dipping strata at seafloor on rise	12°	W 1 km; L 2.6 km; T 0.5 m	Class I	Quaternary?	Observed on single profile	3.5 kfile	15
7	Off Albemarle Sound	33°30' N.	73°40' W.	400-2,000 m	Broad section of upper and middle slope to upper rise	SLIDE COMPLEX: slide with a wide, steep, thin, somewhat irregularly shaped slide adjacent to well-defined debris flow on rise	3-4°*	W 25 m (overall); L 15 km (15 km (slide) parallel +100 km (debris tongue); T 800 m (estimated maximum total)	Class I	Post early Pleistocene	Large areas on slope between 400 and 700 m (slide) on rise/fault in early Pleistocene clay layer? Event may be recent as 16,000 yrs b.p.	100 cu. inch alginos upper 40 cu. inch alginos 3.5 kfile 8.4 kfile speaker	4, 12, 14, 28, 36, 40, 41
8	Off Albemarle Sound	33°30' N.	73°40' W.	1,000-1,000 m	Smooth section of open slope	SLUMP? Involves recent deep overlying unconformity	4°	W 1; L 0.4 km; T 0.1 m	Class IV	Post early Pleistocene	Slump observed in single profile	3.5 kfile	4
9	Off Albemarle Sound	33°30' N.	73°40' W.	1,000-1,000 m	Smooth section of open slope	SLUMP? Involves recent deep overlying unconformity	4°	W 1; L 0.4 km; T 0.1 m	Class IV	Post early Pleistocene	Slump observed in single profile	3.5 kfile	4
10	Off Albemarle Sound	33°30' N.	73°40' W.	1,000-1,000 m	Smooth section of open slope	SLUMP? Involves recent deep overlying unconformity	4°	W 1; L 0.4 km; T 0.1 m	Class IV	Post early Pleistocene	Slump observed in single profile	3.5 kfile	4
11	Off Albemarle Sound	33°30' N.	73°40' W.	1,000-1,000 m	Smooth section of open slope	SLUMP? Involves recent deep overlying unconformity	4°	W 1; L 0.4 km; T 0.1 m	Class IV	Post early Pleistocene	Slump observed in single profile	3.5 kfile	4
12	Off Albemarle Sound	33°30' N.	73°40' W.	1,000-1,000 m	Smooth section of open slope	SLUMP? Involves recent deep overlying unconformity	4°	W 1; L 0.4 km; T 0.1 m	Class IV	Post early Pleistocene	Slump observed in single profile	3.5 kfile	4
13	Off Chesapeake Bay	33°40' N.	73°30' W.	1,200-1,300 m	Deeply isolated mid-slope area	SLIDERS? Unusually transparent debris lens; clean steep slope bedding	3°	W 1; L 3.4 km; T 0.1 m (dimensions for deposit only)	Class III	Late Pleistocene to Holocene	Coordinates and depths are for deposit only all data are approximate	3.5 kfile	20
14	Off Cape Charles	33°50' N.	73°30' W.	1,200-1,300 m	Deeply isolated mid-slope area	CARPET SLIDE? Irregular bedding, hummocky surface	4°	W 1; L 4.7 km; T 0.1 m (dimensions for deposit only)	Class III	Late Pleistocene to Holocene	Coordinates and depths are for deposit only all data are approximate	3.5 kfile	20
15	Off Cape Charles	33°50' N.	73°30' W.	1,200-1,300 m	Deeply isolated mid-slope area	RUBBLE SLIDE? Irregular bedding, hummocky surface	4°	W 1; L 4.7 km; T 0.1 m (dimensions for deposit only)	Class III	Late Pleistocene to Holocene	Coordinates and depths are for deposit only all data are approximate	3.5 kfile	20
16	Off Cape Charles	33°50' N.	73°30' W.	1,200-1,300 m	Open, irregular mid-slope area	CARPET SLIDE? Slip surface? thin, regularly bedded sediment lenses	4°	W 1; L 4.7 km; T 0.1 m (dimensions for deposit only)	Class III	Late Pleistocene to Holocene	Coordinates and depths are for deposit only all data are approximate	3.5 kfile	20
17	Off Cape Charles	33°50' N.	73°30' W.	900-1,000 m	Off steep sidewall and seamen floor of broad canyon	SLIDE	11° (maximum)	W 1 km; L 3 km; T 0.1 m	Class III	Probable Pleistocene	Diapir identified near steep trace; slide area may be very large	15 cu. inch waterlogs	19
18	Off Delaware Bay	33°40' N.	73°30' W.	1,400-1 m	On southwest sidewall of canyon	SLIDE?	30° (estimated)	W 2 km; L 1; T 0.1 m	Class III	Pleistocene to early Holocene?	This feature may be part of one massive slide complex which extends from 800 to 1,200 m water depth	3.5 kfile	23
19	Off Delaware Bay	33°40' N.	73°30' W.	1,200-1 m	Scarp wraps around terminus of spur	SLUMP? First scarp in retrogressive sequence? (see #20, #21)	<3° (estimated)	W 1 (top) steep scarp in 1 km (length); L 1; T 0.1 m	Class III	Pleistocene to early Holocene?	See comment for area #18 (above)	3.5 kfile	23
20	Off Delaware Bay	33°40' N.	73°30' W.	1,200-1 m	On toe of spur	SLUMP? Possibly part of a retrogressive failure sequence? (see #21, #22)	<3° (estimated)	W 1; L 1; T 0.1 m	Class IV	Pleistocene to early Holocene?	See comment for area #18; scarp observed on one profile	3.5 kfile	23
21	Off Delaware Bay	33°40' N.	73°30' W.	1,200-1 m	On toe of spur	SLUMP? Top of an echelon, retrogressive slide sequence (see #18, #20)	<3° (estimated)	W 1; L 1; T 0.1 m	Class IV	Pleistocene to early Holocene?	See comment for area #18; scarp observed on one profile	3.5 kfile	23
22	Off Delaware Bay	33°40' N.	73°30' W.	800-1 m	Steep sidewall of canyon	?	8°?	W 1; L 1; T 0.1 m	Class IV	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
23	Off Delaware Bay	33°40' N.	73°30' W.	1,400-1 m	On and oriented parallel to ridge on open slope	A set of 3 m echelon scarp over a distance of 1.5 km	1° (estimated)	W 1; L 1.5 km; T 0.1 m (all slides are part of 1 system); T 0.1 m	Class III	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
24	Off Delaware Bay	33°40' N.	73°30' W.	1,400-1 m	Steep valley sidewall	?	1° (estimated)	W 2.5 km; L 1; T 0.1 m	Class III	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
25	Off Delaware Bay	33°40' N.	73°30' W.	1,400-1 m	On axis of intervalley ridge and southwest sidewall of valley	SLUMP? Clean scarp suggestive of flank scarp hummocky floor	<3° (estimated)	W 2.5 km; L 1; T 0.1 m	Class III	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
26	Off Delaware Bay	33°40' N.	73°30' W.	800-1 m	Below nose of spur but above small gully; debris complex	?	12°?	W 1; L 1; T 0.1 m	Class III	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
27	Off Delaware Bay	33°40' N.	73°30' W.	1,000-1 m	On intervalley ridge with slightly irregular topography	?	<3° (estimated)	W 3 km; L 1; T 0.1 m	Class III	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
28	Off Delaware Bay	33°40' N.	73°30' W.	1,200-1 m	Scarp around downflow-feeding spur	SLIDE?	34° (maximum)	W 5 km; L 1; T 0.1 m	Class III	Pleistocene to early Holocene?	See comment for area #18; scarp observed on one profile	3.5 kfile	23
29	Off Delaware Bay	33°40' N.	73°30' W.	2,000-1 m	On top of poorly-defined, broad spur where two canyons merge	?	3°	W 1; L 1; T 0.1 m	Class IV	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
30	Off Delaware Bay	33°40' N.	73°30' W.	1,800-1 m	West side of valley	?	2°	W 1; L 1; T 0.1 m	Class IV	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
31	Off Delaware Bay	33°40' N.	73°30' W.	1,000-1 m	Southwest side of small re-entrant; irregular topography	?	14°	W 1 km; L 1; T 0.1 m	Class IV	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
32	Off Delaware Bay	33°40' N.	73°30' W.	1,800-1 m	Southwest side of valley; irregular topography	?	12°	W 2 km; L 1 km; T 0.1 m	Class IV	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
33	Off Delaware Bay	33°40' N.	73°30' W.	1,800-1 m	Northwest side of valley near terminus of spur	?	4°	W 4 km; L 1; T 0.1 m	Class IV	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
34	Off Delaware Bay	33°40' N.	73°30' W.	600-800 m	Deeply eroded upper slope local setting unknown	CARPET SLIDE? SLUMP? Failed material may have flowed to create "hole"	3°	W 1; L 3.4 km; T 0.1 m (dimensions for deposit only)	Class III	Late Pleistocene to Holocene	Coordinates and depths are for deposit only all data are approximate	3.5 kfile	20
35	Off Delaware Bay	33°40' N.	73°30' W.	900-1,000 m	Steep headwall of canyon	SLIDE?	14°-20°	W 5 km; L 1; T 0.1 m	Class III	Probable Pleistocene	See comment for area #18	15 cu. inch waterlogs	19
36	Off Delaware Bay	33°40' N.	73°30' W.	1,400-1 m	Northwest wall of broad valley	SLAB SLIDE? "penetration" Pleistocene clean scarp debris in valley	?	W 11-15 km; L 2 km; T 0.1 m	Class III	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
37	Off Delaware Bay	33°40' N.	73°30' W.	1,400-1 m	Southwest wall of narrow valley and around top of spur	SLAB SLIDE? of a small amount of sediment debris in valley floor	16° (estimated)	W 3 km; L 2 km; T 0.1 m	Class III	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
38	Off Delaware Bay	33°40' N.	73°30' W.	1,200-1,700 m	Southwest sidewall of canyon	?	12°	W 2.5 km; L 1 km; T 0.1 m	Class III	Probable Pleistocene	Area mapped; see comment for area #18	15 cu. inch waterlogs	19
39	Off Delaware Bay	33°40' N.	73°30' W.	1,400-1,100 m	Near crest of intervalley ridge or on nose of spur	BLOCK SLUMP? hummocky, possible internal deformation in block	6° (top to 1°?)	W 1; L 4.8 km; T 0.1 m (dimensions for deposit only)	Class III	Late Pleistocene to Holocene	See comment for area #18	3.5 kfile	20
40	Off Delaware Bay	33°40' N.	73°30' W.	1,100-1 m	Northeast sidewall of gully	?	3°?	W 1 km; L 1; T 0.1 m	Class III	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
41	Off Delaware Bay	33°40' N.	73°30' W.	1,600-1 m	On northeast wall of gully	?	12°	W 1; L 1; T 0.1 m	Class IV	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
42	Off Delaware Bay	33°40' N.	73°30' W.	1,200-1,400 m	Broad front (nose) of large, truncated (?) spur	SLIDE COMPLEX: upper part is a shallow SLIDE, then steep scarp DEBRIS FLOW or SLIDE material in upper part; the small scarp with steep bedding (lenses) in lower part is a SLIDE, possibly deformed	13° (scarp)	W 2 km; L 1 km; T 0.1 m	Class III	Probable Pleistocene	Diapir between upper slide nose and seamen floor for area #18	15 cu. inch waterlogs	19
43	Off Delaware Bay	33°40' N.	73°30' W.	1,200-1 m	Parallel to ridge crest and down northeast wall of gully	?	1° (estimated)	W 5 km (on scarp trace); L 1; T 0.1 m	Class III	Pleistocene to early Holocene?	See comment for area #18	3.5 kfile	23
44	Off Delaware Bay	33°40' N.	73°30' W.	1,200-1 m	Axis and walls of Holocene Canyon	V-shaped scarp?	original: 3°; scarp: 30° southwest wall: 15°; axis: 4°	W 5 km; L 1; T 0.1 m	Class III	Pleistocene to early Holocene?	Katawba untraced; may be connected to #43; see comment for #18	3.5 kfile	23
45	Off Delaware Bay	33°40' N.	73°30' W.	1,200-1,700 m	Narrow flank of small-nosed spur and flat floored valley	?	16° (on assumed scarp)	W 1.5 km; L 1; T 0.1 m	Class III	Probable Pleistocene	Mass wasting area mapped	15 cu. inch waterlogs	19
46	Off Delaware Bay	33°40' N.	73°30' W.	1,200-1,700 m	Head nose of intervalley spur of promontory	?	4°	W 1 km; L 1; T 0.1 m	Class III	Probable Pleistocene	Mass wasting area mapped	15 cu. inch waterlogs	19
47	Off Delaware Bay	33°40' N.	73°30' W.	1,400-1,100 m	Head nose and partially to southeast wall	?	4°	W 1 km; L 1; T 0.1 m	Class III	Probable Pleistocene	Mass wasting area mapped	15 cu. inch waterlogs	19
48	Off New Jersey	33°30' N.	72°30' W.	850-2,000 m	Large section of steep slope and upper rise; axis across canyon and ridges	BLOCK SLIDE? on slip plane; bedding distorted near base; multiple blocks?	1-14°	W 5-8 km; L 40 km; T 0.1 m	Class II	Late Pleistocene to Holocene	Core data suggest scarp on slope at 800 m	3.5 kfile 16, 40, and 120 cu. inch alginos narrow beam sidescan sonar; submarine observations	3, 5, 26, 36, 27, 46
49	Off New Jersey	33°30' N.	72°30' W.	700-900 m	Steep, slightly-embayed mid-slope area	?	16°	W 1.6 km; L 0.3 km; T 0.1 m	Class III	Probable Pleistocene	Mass wasting area mapped	15 cu. inch waterlogs	19
50	Off New Jersey	33°30' N.	72°30' W.	550-650 m	Steep, regular (level) slope	?	12°?	W 2.4 km; L 0.6 km; T 0.1 m	Class III	Probable Pleistocene	Mass wasting area mapped; depth range uncertain	15 cu. inch waterlogs	19
51	Off New Jersey	33°30' N.	72°30' W.	1,200-1,400 m	Southwest wall of spur re-entrant, just above a mid-slope mound	BLOCK SLUMP? hummocky surface and internal deformation	6° (top to 14°?)	W 1; L 1 km; T 0.1 m (dimensions for deposit only)	Class III	Late Pleistocene to Holocene	Coordinates and depths are for deposit only all data are approximately; diapir present?	3.5 kfile	20
52	Off New Jersey	33°30' N.	72°30' W.	2,200-2,310 m	Gently sloping northeast valley wall and in valley	?	4°	W 1.5 km; L 0.6 km; T 0.1 m	Class III	Probable Pleistocene	Mass wasting area mapped; depth range uncertain	15 cu. inch waterlogs	19
53	Off New Jersey	33°30' N.	72°30' W.	510-650 m	Across steep valley and ridge section; low relief in area	?	12° (maximum)	W 1.6 km; L 0.6 km; T 0.1 m	Class III	Probable Pleistocene	Brown on one seismic line; depth range very uncertain	15 cu. inch waterlogs	19
54	Off New Jersey	33°30' N.	72°30' W.	400-500 m	Smooth, steep part of upper slope	?	11°	W 0.7 km; L 0.6 km; T 0.1 m	Class IV	Probable Pleistocene	Maped, but no data given	?	19
55	Off New Jersey	33°30' N.	72°30' W.	500-600 m	Smooth, steep part of upper slope	?	8° (maximum)	W 1.5 km; L 0.6 km; T 0.1 m	Class IV	Probable Pleistocene	Maped, but no data given	?	19
56	Off New Jersey	33°30' N.	72°30' W.	1,200-1,400 m	Northeast wall canyon	Hummocky, slumped mass?	6° (top to 30°?)	W 1; L 1 km; T 0.1 m (dimensions for deposit only)	Class III	Late Pleistocene to Holocene	Coordinates and depths are for deposit only all data are approximate	3.5 kfile	20
57	Off New Jersey	33°30' N.	72°30' W.	1,200-1,400 m	Open lower slope and upper rise	SLIDE? debris; locally blocky	1° (top to 10°?)	W 3 km; L 1 km; T 0.1 m	Class III	Probable Pleistocene	Pinches out on rise; indication of nondeformation (debris flow)	40 cu. inch alginos	42
58	Off New Jersey	33°30' N.	72°30' W.	2,200-2,400 m	Smooth upper rise	Deposit comprised of massive, jointed, loose blocks and other debris	N.A.	W 5 km; L 1 km; T 0.1 m (deposit only)	Class III	Pleistocene or pre-Pleistocene	Depth range for deposit only debris field is base of canyon	3.5 kfile, 40 cu. inch alginos, 800 kfile speaker, SeaMARC sidescan sonar	42
59	Off New Jersey	33°30' N.	72°30' W.	2,400-2,110 m	Below angular re-entrant or incipient canyon	?	4°	W 1 km; L 1 km; T 0.1 m	Class III	Probable Pleistocene	Data approximate: mass wasting area extends beyond survey limits	15 cu. inch waterlogs	19
60	Off New Jersey	33°30' N.	72°30' W.	740-760 m	Northeast sidewall of valley	SLUMP? RUBBLE SLIDE? debased collapse	12°	W 0.2 km; L 0.6 km; T 0.1 m	Class IV	Pleistocene	See data sources for area #58	42	
61	Off New Jersey	33°30' N.	72°30' W.	770-400 m	Gentle southwest sidewall near head of canyon	SLUMP? SLIDE? off walls wall collapse	12°	W 0.2 km; L 0.6 km; T 0.1 m	Class IV	Pleistocene	See data sources for area #58	42	
62	Off New Jersey	33°30' N.	72°30' W.	1,200-1,200 m	Northeast wall of valley (?) surface irregular	?	2°?	W 0.2 km; L 0.6 km; T 0.1 m	Class III	Pleistocene	Data approximate: mass wasting area extends beyond survey limits	15 cu. inch waterlogs	19
63	Off New Jersey	33°30' N.	72°30' W.	910-1,210 m	Northeast sidewall of canyon; debris in rough and irregular	SLUMP? on canyon walls; involves canyon fill material	24° (maximum)	W 5 km; L 1 km; T 0.1 m	Class III	Pleistocene	See data sources for area #58	42	
64	Off New Jersey	33°30' N.	72°30' W.	300-450 m	Ridge axis with irregular surface may also be on northeast wall of canyon	?	?	W 0.6 km; L 2.4 km; T 0.1 m	Class III	Pleistocene	See data sources for area #58	42	
65	Off New Jersey	33°30' N.	72°30' W.	1,400-1,240 m	Southwest wall of small valley	?	2°	W 0.6 km; L 0.6 km; T 0.1 m	Class IV	Probable Pleistocene	See data sources for area #58	42	
66	Off New Jersey	33°30' N.	72°30' W.	1,200-1,400 m	Entire intervalley ridge area	?	16° (maximum)	W 1.6 km; L 0.6 km; T 0.1 m	Class III	Probable Pleistocene	May be more than one slide; involves ridge crest and both flanks	15 cu. inch waterlogs	19
67	Off New Jersey	33°30' N.	72°30' W.	710-800 m	In canyon (on nose axis)	BLOCK SLUMP? slip surface apparently very hummocky topography	3°	W 1; L 4.8 km; T 0.1 m (dimensions for deposit only)	Class III	Late Pleistocene to Holocene	Coordinates and depths are for deposit only all data are approximate	3.5 kfile	20
68	Off New Jersey	33°30' N.	72°30' W.	400-500 m	Northeast sidewall of broad, shallow valley	?	10°	W 1 km; L 0.6 km; T 0.1 m	Class III	Pleistocene	See data sources for area #58	42	
69	Off New Jersey	33°30' N.	72°30' W.	540-750 m	Canyon axis	BLOCK or RUBBLE SLIDE? jointed, irregular bedding	2° (top to 11°?)	W 1; L 4.1 km; T 0.1 m (dimensions for deposit only)	Class III	Late Pleistocene to Holocene	Coordinates and depths are for deposit only all data are approximate	3.5 kfile	20
70	Off New Jersey	33°30' N.	72°30' W.	1,400-1,600 m	Steep west sidewall of canyon	?	1°	W 0.6 km; L 1 km; T 0.1 m	Class III	Probable Pleistocene	See data sources for area #58	42	
71	Off New Jersey	33°30' N.	72°30' W.	1,400-1,600 m	Smooth area in valley with gentle slope	?	3°	W 1 km; L 1 km; T 0.1 m	Class IV	Probable Pleistocene	This area may be genetically associated with areas #72, #73, and #75	15 cu. inch waterlogs	19
72	Off New Jersey	33°30' N.	72°30' W.	1,400-1,600 m	Gently sloping canyon sidewall	?	4°</						