Joint Localities in Sandstone and Siltstone

[SY, system; A.B., attitude of bedding; T.O., type outcrop; S.S., sample size; OR, Ordovician SI, Silurian; DV, Devonian; MS, Mississippian; PA Pennsylvanian; PE, Permian; HWC, highway cut; QRR,quarry or strip mine; STC, stream bank, floor, gorge, or gully; CON, construction site; LAK, lake-shore cliff; RRC, railroad cut; VAL, valley side]

County	No.	Latitude	Longitude	SY.	Formation	A.B.*	T.O.	S.S.	Miscellaneous
KENTUCKY									
Bell	1	36° 40′ 52″	83° 41′ 09″	PA	Lee	0	HWC	22	
Bell	2	36° 48′ 20″	83° 45′ 25″	PA	Breathitt	0	HWC	19	
Boyd	2	38° 21′ 59″	82° 46′ 32″	PA	Breathitt	0	HWC	5	
Breathitt	1	37° 36′ 49″	83° 25′ 06″	PA	Breathitt	0	HWC	23	Joints poorly developed.
Carter	1	38° 20′ 52″	82° 56′ 50″	PA	Lee	0	QRR	20	
Carter	2	38° 19′ 38″	83° 01′ 42″	PA	Lee	0	HWC/QRR	17	
Carter	3	38° 18′ 25″	83° 09′ 47″	MS	Borden	0	HWC	18	
Clay	1	37° 06′ 20″	83° 49′ 43″	PA	Breathitt	0	HWC	25	Poor exposure.
Clay	2	37° 18′ 40″	83° 40′ 50″	PA	Breathitt	0	HWC	9	
Clay	6	37° 05′ 58″	83° 39′ 57″	PA	Breathitt	0	HWC	6	
Estill	2	37° 36′ 08″	83° 58′ 03″	MS	Borden	0	HWC	16	
Estill	3	37° 36′ 01″	83° 57′ 54″	MS	Borden	0	HWC	18	Joint pattern well developed.
Fleming	2	38° 14′ 03″	83° 33′ 43″	MS	Berea	0	HWC	4	Poor outcrop sample inadequate.
Fleming	3	38° 15′ 33″	83° 31′ 56″	DV	Ohio Shale	0	HWC	12	Small exposure; adequate sample.
Floyd	2	37° 30′ 30″	82° 50′ 20″	PA	Breathitt	0	?	19	
Floyd	4	37° 42′ 14″	82° 46′ 05″	PA	Breathitt	0	HWC	10	Large joints.
Greenup	1	38° 32′ 46″	82° 46′ 39″	PA	Breathitt	0	HWC	23	
Greenup	2	38° 43′ 24″	82° 52′ 51″	MS	Borden	0	HWC	25	Very large new outcrop.
Harlan	2	36° 53′ 45″	83° 18′ 35″	MS	Pennington	25SE	HWC	17	
Harlan	3	36° 58′ 28″	82° 58′ 16″	PA	Breathitt	0	HWC	29	
Johnson	1	37° 50′ 34″	82° 49′ 38″	PA	Breathitt	0	HWC	25	
Laurel	1	37° 10′ 21″	84° 17′ 02″	PA	Breathitt	0	HWC	3	
Lawrence	1	38° 16′ 15″	82° 41′ 35″	PA	Conemaugh	0	HWC	9	Joint pattern well defined.
Lawrence	2	38° 07′ 10″	82° 41′ 35″	PA	Breathitt	0	HWC	7	
Lawrence	3	37° 59′ 04″	82° 40′ 20″	PA	Breathitt	0	HWC	13	Primary joints parallel valley; few cross-joints.
Lee	2	37° 34′ 03″	83° 42′ 10″	PA	Breathitt	0	HWC	12	Very irregular joints.
Leslie	1	36° 57′ 54″	83° 23′ 38″	PA	Breathitt	0	STG	16	NW joint set inclined toward valley.
Letcher	1	37° 09′ 27″	82° 38′ 25″	MS	Price	22SE	HWC	18	Many unusual plumose markings.
Letcher	2	37° 09′ 18″	82° 38′ 02″	PA	Lee	15SE	HWC	11	
Lewis	2	38° 34′ 22″	83° 19′ 48″	MS	Borden	0	HWC	7	Joints poorly developed.
Magoffin	1	37° 44′ 00″	83° 06′ 20″	PA	Breathitt	0	HWC	2	
Magoffin	3	37° 41′ 38″	83° 01′ 52″	PA	Breathitt	0	HWC	17	Exposure only fair.
Perry	1	37° 01′ 29″	83° 11′ 00″	PA	Breathitt	0	HWC	14	
Perry	3	37° 19′ 51″	83° 23′ 52″	PA	Breathitt	0	HWC	14	
Perry	4	37° 19′ 48″	83° 23′ 19″	PA	Breathitt	0	HWC	17	
Pike	2	37° 21′ 59″	82° 18′ 30″	PA	Breathitt	0	HWC	5	
Pike	5	37° 18′ 22″	82° 36′ 18″	PA	Breathitt	0	HWC	41	Very complex pattern.
Pike	8	37° 30′ 58″	82° 09′ 02″	PA	Breathitt	0	HWC	10	
Powell	1	37° 48′ 45″	83° 42′ 55″	MS	Borden	?	HWC	18	
Powell	3	37° 48′ 00″	83° 41′ 50″	MS	Borden	0	HWC	22	
Powell	5	37° 47′ 46″	83° 40′ 00″	PA	Breathitt	0	HWC	15	
Powell	12	37° 47′ 41″	83° 41′ 32″	MS	Borden	0	HWC	10	
Pulaski	2	37° 08′ 38″	84° 21′ 55″	PA	Breathitt	0	HWC	13	
Rockcastle	1	37° 31′ 41″	84° 18′ 45″	MS	Borden	0	HWC	31	Joints strongly controlled by lithology.
Rockcastle	2	37° 18′ 10″	84° 13′ 37″	PA	Breathitt	0	HWC	12	NNE joint set primary.
Rockcastle	3	37° 18′ 00″	84° 13′ 58″	PA	Breathitt	0	HWC	11	ENE set is primary.
Rockcastle	5	37° 27′ 28″	84° 19′ 53″	MS	Berea	?	HWC	20	Well developed joint pattern.
Rowan	1	38° 02′ 44″	83° 23′ 58″	MS	Borden	0	HWC	14	
Rowan	3	38° 14′ 49″	83° 31′ 00″	MS	Borden	0	HWC	31	
Rowan	4	38° 16′ 34″	83° 22′ 35″	MS	Borden	0	HWC	14	
Rowan	5	38° 10′ 56″	83° 33′ 51″	MS	Sunbury/Borden	0	HWC	48	
MARYLAND									
Allegheny	1	39° 42′ 09″	78° 21′ 56″	DV	Hampshire	10NW	HWC	29	
Allegheny	2	39° 40′ 09″	78° 25′ 50″	DV	Hampshire	44SE	HWC	30	
Allegheny	3	39° 38′ 15″	78° 50′ 33″	DV	Hampshire	60NW	HWC	28	
Garrett	1	39° 41′ 54″	79° 27′ 06″	PA	Conemaugh	28NE	HWC	12	
Garrett	2	39° 41′ 05″	79° 03′ 25″	DV	Hampshire	20NW	HWC	12	
Garrett	3	39° 35′ 20″	79° 21′ 25″	DV	Hampshire	0	HWC	11	
Garrett	5	39° 26′ 51″	79° 22′ 36″	DV	Hampshire	26NW	HWC	6	
Garrett	6	39° 41′ 30″	79° 15′ 00″	MS	Pocono	0	HWC	30	
Garrett	7	39° 17′ 50″	79° 25′ 20″	PA	Pottsville	0	HWC	30	
Garrett	8	39° 30′ 20″	79° 09′ 00″	MS	Mauch Chunk	0	HWC	25	
Garrett	9	39° 28′ 40″	79° 05′ 12″	PA	Conemaugh	0	HWC	25	
Washington	1	39° 42′ 48″	78° 11′ 36″	SI	Wills Creek	53SE	HWC	3	
NEW YORK									
Cattaraugus	1	42° 06′ 09″	78° 33′ 41″	DV	Chemung	0	RRC	37	Joints poorly developed.
Chautauqua	1	42° 19′ 57″	79° 36′ 43″	DV	Perrysburg	0	LAK/STG	17	Thin beds, quartzose siltstone interbedded in shale.
Chemung	1	42° 11′ 14″	76° 50′ 11″	DV	Chemung	0	QRR	17	Pattern same in interbedded shale.
Chemung	2	42° 00′ 51″	76° 42′ 51″	DV	Chemung	0	HWC	33	Pattern same ininterbedded shale.
Schuyler	1	42° 22′ 53″	76° 51′ 06″	DV	Genesee (Sherburne or Ithaca Member)	0	HWC/VAL	30	Joints strongly developed; dominant set parallels valley.
Schuyler	2	42° 22′ 31″	76° 52′ 30″	DV	Genessee (Sherburne or Ithaca Member)	0	STG	36	2 major joint sets parallel to valleys.
Steuben	2	42° 24′ 16″	77° 12′ 15″	DV	West Falls	0	HWC	14	Pattern same ininterbedded shale.
Tompkins	1	42° 32′ 23″	76° 36′ 17″	DV	Genesee	0	STG	36	2 kimberlike dikes along NNW joints.
Yates	1	42° 36′ 41″	77° 04′ 03″	DV	Genesee	0	STG	13	All 3 sets can be cross-cutting.
OHIO									
Adams	2	38° 39′ 40″	83° 21′ 20″	SI	Niagara	0	HWC	7	Pattern same as limestone above.
Ashland	1	40° 54′ 29″	82° 08′ 33″	MS	Waverly	0	HWC	33	Erratic joint pattern.
Ashland	3	40° 36′ 44″	82° 17′ 10″	MS	Waverly	0	VAL	15	Complex joint pattern.
Athens	1	39° 23′ 02″	82° 08′ 17″	PA	Pottsville	0	HWC	26	Fresh outcrop; joints widely spaced.
Athens	2	39° 27′ 24″	81° 53′ 30″	PA	Conemaugh/Monongahela	0	HWC	7	
Belmont	2	39° 54′ 24″	81° 09′ 36″	PA	Monongahela	0	HWC	8	
Belmont	3	39° 52′ 12″	81° 08′ 00″	PA	Monongahela	0	HWC	2	
Belmont	4	39° 53′ 18″	80° 48′ 12″	PE	Dunkard	0	HWC	3	
Coshocton	3	40° 20′ 16″	82° 05′ 25″	MS	Waverly	?	HWC	19	Poor outcrop; sample adequate.
Cuyahoga	1	41° 24′ 54″	81° 37′ 58″	MS	Berea	0	HWC	30	Well-developed joint pattern.
Cuyahoga	2	41° 29′ 14″	81° 54′ 29″	DV	Chagrin	0	LAK	16	
Cuyahoga	3	41° 29′ 18″	81° 55′ 47″	DV	Chagrin	0	LAK	29	Interbedded gray shale unjointed.
Cuyahoga	4	41° 25′ 11″	81° 25′ 28″	MS	Waverly	0	STG	33	Very complex joint pattern.
Fairfield	1	39° 45′ 39″	82° 26′ 11″	MS	Waverly	0	HWC	23	
Fairfield	2	39° 43′ 50″	82° 35′ 46″	MS	Waverly	0	HWC	17	Small outcrop.
Gallia	1	38° 41′ 10″	82° 15′ 35″	PA	Conemaugh	0	HWC	30	
Gallia	2	38° 58′ 40″	82° 19′ 15″	PA	Conemaugh	0	HWC	7	
Gallia	3	38° 50′ 24″	82° 10′ 57″	PA	Monongahela	0	HWC	9	
Geauga	1	41° 32′ 07″	81° 00′ 57″	MS	Waverly	0	STG	27	
Geauga	2	41° 22′ 01″	81° 03′ 46″	MS	Sharon	0	STG	16	Well-developed joint pattern.
Geauga	3	41° 31′ 04″	81° 16′ 44″	PA	Sharon	0	HWC	32	Complex joint pattern; cross-bedding.
Guernsey	1	40° 06′ 02″	81° 33′ 28″	PA	Allegheny	0	HWC	20	
Guernsey	2	40° 02′ 30″	80° 17′ 42″	PA	Conemaugh or Monongahela	0	QRR	4	
Guernsey	3	39° 57′ 09″	81° 31′ 40″	PA	Conemaugh	0	HWC	37	Joints erratic; bedding irregular.
Harrison	1	40° 16′ 40″	81° 17′ 03″	PA	Allegheny	0	HWC	24	
Harrison	2	40° 16′ 00″	81° 01′ 54″	PA	Conemaugh or Monongahela	0	QRR	11	
Harrison	3	40° 24′ 00″	80° 56′ 48″	PA	Conemaugh or Monongahela	0	QRR/HWC	5	
Hocking	1	39° 29′ 08″	82° 19′ 22″	PA	Pottsville	0	HWC	4	Inadequate sample? joint pattern erratic.
Hocking	2	39° 31′ 36″	82° 34′ 40″	MS/PA	Logan	0	HWC/STG	25	Complex cross-cutting relations.
Hocking	3	39° 35′ 09″	82° 34′ 52″	PA	Logan	0	HWC	29	Could not distinguish cross-cutting joint set.
Holmes	1	40° 35′ 00″	81° 54′ 53″	PA	Pottsville	0	CON	32	Joints poorly developed; complex.
Holmes	2	40° 27′ 33″	82° 10′ 40″	MS	Waverly	0	HWC	26	Joints poorly developed.
Holmes	3	40° 29′ 16″	81° 59′ 24″	MS	Waverly	0	CON	18	Joints not extensive vertically
Jefferson	1	40° 31′ 48″	80° 53′ 00″	PA	Conemaugh or Allegheny	0	HWC	7	
Jefferson	2	40° 22′ 00″	80° 44′ 63″	PA	Conemaugh	0	HWC	10	
Knox	1	40° 22′ 22″	82° 23′ 51″	MS	Waverly	10NW	?	22	Throughgoing joints clearly distinguishable.
Knox	2	40° 31′ 03″	82° 11′ 48″	MS	Waverly/Maxville	0	STG	13	No visible joints in surrounding shale.
Lawrence	1	38° 37′ 55″	82° 27′ 55″	PA	Conemaugh	0	HWC	30	
Lawrence	2	38° 50′ 30″	82° 38′ 25″	PA	Pottsville/Allegheny	0	RRC	16	
Lawrence	3	38° 33′ 35″	82° 42′ 10″	PA	Pottsville	0	HWC	9	
Lawrence	5	38° 40′ 21″	82° 40′ 24″	PA	Allegheny?	0	HWC	23	
Licking	1	40° 03′ 57″	82° 16′ 19″	MS?	Berea?	0	QRR	29	Joints unusually widely spaced.
Licking	2	40° 01′ 47″	82° 24′ 11″	MS	Waverly/Maxville	0	HWC	28	
Lorain	1	41° 29′ 44″	82° 05′ 29″	DV	Chagrin	0	LAK	10	
Lorain	2	41° 25′ 46″	82° 19′ 10″	DV	Chagrin	0	LAK	8	Measurements in quartzose siltstone bed.
Meigs	2	38° 58′ 24″	81° 52′ 36″	PE	Dunkard	0	HWC	11	
Meigs	3	39° 09′ 19″	81° 48′ 27″	PE	Dunkard	0	HWC	4	
Meigs	4	39° 08′ 39″	81° 51′ 16″	PE	Dunkard	0	HWC	8	
Meigs	6	38° 58′ 24″	81° 51′ 54″	PE	Dunkard	0	HWC	7	
Meigs	7	39° 07′ 27″	82° 01′ 08″	PA	Monongahela	0	HWC	3	
Monroe	1	39° 44′ 06″	81° 07′ 06″	PE	Dunkard	0	HWC	12	
Monroe	3	39° 47′ 12″	80° 52′ 54″	PE	Dunkard	0	STG/HWC	4	
Monroe	4	39° 36′ 18″	81° 02′ 36″	PE	Dunkard	0	HWC	5	
Monroe	5	39° 35′ 48″	81° 02′ 24″	PE	Dunkard	0	HWC	7	
Morgan	1	39° 39′ 24″	81° 47′ 12″	PA	Monongahela	0	HWC	10	
Muskingum	2	39° 52′ 49″	82° 05′ 17″	PA	Pottsville/Allegheny	0	HWC	30	
Muskingum	4	40° 06′ 46″	82° 00′ 59″	PA	Pottsville/Allegheny	0	HWC	6	
Perry	1	39° 37′ 49″	82° 05′ 30″	PA	Conemaugh	0	HWC	24	
Perry	2	39° 48′ 26″	82° 04′ 59″	PA	Pottsville/Allegheny	0	HWC	12	
Pike	2	39° 06′ 27″	82° 50′ 02″	MS	Waverly	0	HWC	12	
Pike	3	39° 03′ 35″	82° 49′ 20″	MS	Waverly	0	HWC	17	
Pike	4	39° 01′ 09″	83° 16′ 17″	MS	Berea	0	?	81	
Richland	1	40° 37′ 18″	82° 31′ 39″	MS	Berea	0	QRR	28	Complex joint pattern.
Ross	3	39° 13′ 00″	82° 52′ 59″	MS	Waverly	0	STG/HWC	9	
Scioto	1	38° 44′ 30″	83° 13′ 05″	MS	Waverly	0	HWC	19	
Scioto	2	38° 50′ 58″	82° 59′ 00″	MS	Cuyahoga	0	RRC	17	
Trumbull	1	41° 19′ 41″	80° 43′ 37″	MS	Waverly	0	STG	19	Joints poorly developed.
Trumbull	2	41° 28′ 03″	80° 33′ 58″	MS	Waverly	0	STG	31	Joints poorly developed.
Tuscarawas	1	41° 17′ 04″	81° 37′ 12″	PA	Allegheny	0	HWC	30	Joints poorly developed.
Tuscarawas	3	40° 28′ 29″	81° 20′ 32″	PA	Allegheny	0	HWC	19	Joint pattern well developed.
Tuscarawas	7	40° 29′ 18″	81° 28′ 41″	PA	?	0	HWC	20	
Vinton	1	39° 16′ 32″	82° 28′ 25″	PA	Allegheny/Pottsville	0	HWC	19	
Washington	1	39° 21′ 54″	81° 45′ 24″	PE	Dunkard	0	HWC	10	
Washington	4	39° 28′ 30″	81° 26′ 15″	PA	Monongahela	0	HWC	28	
Washington	5	39° 21′ 54″	81° 39′ 54″	PE	Dunkard	0	HWC	15	
Washington	6	39° 24′ 24″	81° 28′ 42″	PE	Dunkard	0	HWC	4	
Wayne	1	40° 47′ 46″	81° 55′ 05″	MS	Waverly	0	HWC	8	
PENNSYLVANIA									
Allegheny	3	40° 19′ 24″	79° 56′ 30″	PA	Conemaugh	0	QRR	4	
Allegheny	5	40° 36′ 30″	79° 53′ 30″	PA	Conemaugh	0	HWC	7	
Allegheny	6	40° 25′ 36″	80° 02′ 00″	PA	Conemaugh	0	HWC	9	Very thin bedded siltstone.
Allegheny	7	40° 30′ 24″	80° 14′ 54″	PA	Conemaugh	0	HWC	11	Siltstone with interbedded shale.
Armstrong	2	40° 59′ 45″	79° 20′ 30″	PA	Allegheny	0	HWC	11	Small, poor, outcrop.
Armstrong	3	40° 48′ 30″	79° 31′ 30″	PA	Allegheny	0	HWC	6	
Beaver	1	40° 40′ 42″	80° 21′ 12″	PA	Allegheny	0	HWC	11	
Bedford	1	40° 12′ 35″	78° 32′ 00″	DV	Bralller	10-14NW	HWC	4	
Bedford	2	40° 10′ 48″	78° 28′ 36″	OR	Juniata	85SE	HWC	8	Beds overturned.
Bedford	6	40° 00′ 36″	78° 12′ 30″	MS	Purslane	50SE	HWC	6	
Bedford	7	40° 00′ 18″	78° 17′ 48″	DV	Hampshire	0	HWC	7	
Bedford	9	40° 11′ 55″	78° 40′ 35″	MS	Mauch Chunk	0	HWC	7	
Bedford	11	39° 57′ 36″	78° 44′ 42″	DV	Foreknobs	25SE	HWC	10	
Bedford	12	39° 52′ 30″	78° 34′ 40″	OR	Juniata	70SE	HWC	19	
Bedford	13	39° 45′ 42″	78° 23′ 54″	DV	Bralller	68SE	HWC	15	
Bedford	16	39° 46′ 06″	78° 41′ 42″	SI	Wills Creek	30SE	HWC	5	
Blair	2	40° 15′ 55″	78° 28′ 35″	DV	Oriskany	0	QRR	7	
Blair	3	40° 25′ 00″	78° 20′ 50″	DV	Oriskany/Marcellus	25SW	QRR	4	
Blair	4	40° 48′ 10″	78° 23′ 05″	MS	Pocono	24SW	HWC	6	
Blair	9	40° 40′ 12″	78° 13′ 54″	OR	Juniata	75SE	HWC	14	Beds overturned.
Blair	10	40° 27′ 06″	78° 32′ 30″	PA	Pottsville	0	HWC	7	
Bradford	1	41° 41′ 58″	76° 32′ 04″	DV	Chemung	16S	STG/HWC	22	Pattern same in interbedded shale.
Bradford	2	41° 48′ 41″	76° 30′ 20″	DV	Susquehanna	0	HWC	37	
Butler	1	40° 52′ 36″	79° 53′ 24″	PA	Allegheny	0	HWC	3	
Butler	2	40° 59′ 36″	80° 07′ 18″	PA	Allegheny	0	HWC	9	
Cambria	1	40° 36′ 12″	78° 29′ 24″	PA	Conemaugh	0	HWC	5	
Cambria	3	40° 22′ 00″	78° 46′ 35″	PA	Conemaugh	0	HWC	2	Insufficient sample.
Cambria	5	40° 29′ 20″	78° 44′ 25″	PA	Conemaugh	0	CON	16	
Cambria	6	40° 22′ 48″	78° 42′ 00″	MS/DV	Pocono/Catskill	0	HWC	5	
Cameron	1	41° 24′ 35″	78° 01′ 33″	DV	Catskill	0	HWC	17	Pattern same as interbedded shale.
Clarion	1	41° 00′ 53″	79° 27′ 55″	PA	Allegheny	0	HWC	7	
Clarion	2	41° 13′ 18″	79° 24′ 22″	PA/MS	Pottsville/Pocono	0	HWC	33	Joints poorly developed; pattern complex.
Clearfield	1	40° 48′ 05″	78° 29′ 25″	PA	Allegheny	0	HWC	10	
Clearfield	2	41° 04′ 12″	78° 22′ 14″	PA	Pottsville/Allegheny	0	STG	32	Joints poorly developed; pattern complex.
Clearfield	3	41° 03′ 39″	78° 41′ 03″	PA	Allegheny	0	QRR	11	
Clinton	1	41° 19′ 39″	77° 47′ 17″	DV	Oswayo	0	HWC	31	Joint pattern same as interbedded shale.
Crawford	1	41° 39′ 07″	79° 43′ 13″	MS	Pocono	0	HWC	29	
Crawford	2	41° 44′ 40″	80° 19′ 47″	MS	Pocono	0	STG	31	
Crawford	3	41° 37′ 33″	80° 10′ 54″	DV	Oswayo	0	HWC	19	Poorly exposed heterogeneous sequence.
Elk	1	41° 21′ 34″	79° 01′ 41″	MS	Pocono	0	HWC/STG	10	2 sets inclined toward valley.
Elk	2	41° 26′ 12″	78° 43′ 06″	MS	Pocono	0	HWC	29	Throughgoing set dips toward valley.
Erie	1	41° 59′ 37″	79° 39′ 56″	DV	Cattaraugus	0	HWC	37	
Erie	2	41° 59′ 51″	80° 19′ 56″	DV	Conneaut	0	STG	17	
Fayette	1	39° 51′ 48″	79° 29′ 48″	PA	Pottsville	0	HWC/STG	6	
Fayette	2	39° 52′ 05″	79° 41′ 05″	PA	Allegheny	25NW	HWC	20	
Fayette	3	39° 59′ 12″	79° 37′ 45″	PA	Monongahela	0	HWC	6	
Forest	1	41° 19′ 42″	79° 12′ 04″	MS	Pocono	0	HWC	30	Very complex patt.
Forest	3	41° 36′ 48″	79° 03′ 04″	DV	Oswayo	0	HWC	19	Joints weakly expressed.
Forest	4	41° 33′ 37″	79° 24′ 38″	DV	Chemung	0	HWC	41	Pattern similar in interbedded shale.
Fulton	1	39° 52′ 54″	78° 14′ 48″	MS	Rockwell/Purslane	80NW	HWC	8	
Fulton	2	39° 47′ 54″	78° 15′ 18″	DV	Hampshire	70SE	HWC	12	
Fulton	3	39° 53′ 12″	78° 14′ 36″	MS	Purslane	28NW	HWC	8	
Fulton	4	39° 46′ 18″	78° 12′ 12″	DV	Mahantango	88NW	HWC	7	Siltstone.
Greene	1	39° 44′ 18″	80° 13′ 15″	PE	Washington	0	HWC	5	
Greene	4	39° 55′ 36″	80° 24′ 12″	PE	Dunkard	0	HWC	11	
Greene	5	39° 55′ 24″	80° 12′ 00″	PE	Greene/Dunkard	0	HWC	10	
Huntington	1	40° 27′ 48″	77° 58′ 42″	DV	Hampshire/Catskill	30SE	HWC	23	
Huntington	2	40° 28′ 42″	78° 00′ 12″	DV	Bralller	15SE	HWC	2	Insufficient sample.
Huntington	3	40° 34′ 30″	78° 08′ 24″	OR	Bald Eagle	?	HWC	21	bedding attitude changes rapidly.
Indiana	3	40° 34′ 18″	78° 57′ 12″	PA	Conemaugh	0	HWC	8	
Indiana	4	40° 31′ 30″	79° 16′ 06″	PA	Conemaugh	0	HWC	6	
Indiana	5	40° 24′ 36″	78° 58′ 55″	MS	Mauch Chunk	? W	HWC	8	
Jefferson	1	41° 08′ 57″	79° 08′ 27″	PA	Allegheny	20SW	HWC	6	Joints poorly developed.
Lawrence	1	41° 07′ 48″	80° 15′ 31″	PA	Pottsville	0	QRR	15	Joints exceptionally well developed.
Lawrence	2	41° 01′ 21″	80° 10′ 17″	PA	Allegheny	0	HWC	45	
Lawrence	3	41° 07′ 05″	80° 26′ 46″	MS	Pocono	0	HWC	31	Joints poorly developed; complex pattern.
Lycoming	1	41° 31′ 47″	77° 26′ 52″	DV	Catskill	0	STG	27	Pattern same in interbedded shale.
Lycoming	2	41° 20′ 43″	77° 05′ 50″	DV	Catskill	08NW	HWC	18	Pattern same in interbedded red mudrock.
Lycoming	3	41° 12′ 04″	77° 17′ 36″	DV	Brallier	26SE	RRC	30	
McKean	1	41° 47′ 29″	78° 53′ 4?″	DV	Cattaraugus	0	HWC	6	
McKean	2	41° 43′ 32″	78° 32′ 42″	DV	Catskill	0	HWC	27	Joints very erratic pattern uncertain.
Mercer	1	41° 22′ 05″	80° 04′ 31″	PA	Pottsville	0	HWC	27	Joints poorly developed.
Mercer	2	41° 28′ 55″	80° 24′ 38″	MS	Pocono	0	STG	24	Excellent display of 3 generations of joints.
Potter	1	41° 46′ 15″	78° 07′ 31″	DV	Chemung	0	HWC	22	Pattern same as interbedded shale.
Potter	2	41° 30′ 04″	77° 46′ 20″	DV	Chemung	12NE	HWC	33	
Somerset	1	40° 08′ 30″	79° 01′ 12″	PA	Allegheny	?	QRR	5	
Somerset	2	40° 01′ 06″	78° 55′ 30″	PA	Allegheny	0	RRC	4	
Somerset	3	40° 10′ 21″	79° 07′ 00″	PA	Allegheny	?	HWC	11	
Somerset	6	40° 14′ 25″	78° 51′ 05″	PA	Allegheny	0	HWC	10	
Somerset	7	39° 48′ 24″	79° 20′ 42″	PA	Conemaugh	0	HWC	5	
Somerset	8	39° 49′ 24″	78° 54′ 24″	DV	Foreknobs	10NW	RRC	22	
Somerset	8	39° 49′ 24″	78° 54′ 24″	MS	Pocono	20NW	RRC	5	
Somerset	11	39° 50′ 35″	79° 02′ 20″	PA	Allegheny	0	HWC	8	
Somerset	14	39° 44′ 06″	79° 06′ 18″	PA	Conemaugh	0	?	9	
Somerset	15	30° 56′ 18″	79° 16′ 30″	PA	Allegheny	0	HWC	9	
Somerset	17	39° 59′ 42″	79° 00′ 12″	PA	Allegheny	0	QRR	2	
Somerset	18	39° 46′ 12″	79° 18′ 36″	PA	Conemaugh	0	HWC	6	
Venango	1	41° 36′ 34″	79° 39′ 29″	MS	Pocono	0	RRC	11	
Venango	2	41° 18′ 46″	79° 53′ 28″	PA	Pottsville	0	HWC	26	
Venango	4	41° 10′ 31″	79° 43′ 03″	PA	Pottsville	?	HWC	22	Joints very poorly developed.
Venango	5	41° 26′ 06″	79° 43′ 16″	MS	Pocono	0	RRC/HWC	57	Joint pattern changes along outcrop face.
Warren	2	41° 51′ 13″	78° 56′ 59″	DV	Cattaraugus	0	HWC	21	Joints poorly developed.
Warren	4	41° 50′ 19″	79° 00′ 33″	DV	Chemung	0	HWC	11	NW cross-cutting joints inclined toward valley.
Warren	4	41° 50′ 38″	78° 59′ 16″	DV	Conneaut	0	HWC	12	NE cross-cutting joints inclined toward valley.
Warren	5	41° 51′ 10″	79° 28′ 47″	DV	Cattaraugus	0	HWC	28	
Warren	6	41° 42′ 35″	79° 20′ 38″	DV	Cattaraugus	0	HWC	21	Exposure barely adequate for study.
Warren	7	41° 49′24″	79° 27′ 00″	DV	Cattaraugus	0	HWC	22	
Westmoreland	1	40° 27′ 24″	79° 35′ 24″	PA	Conemaugh	0	HWC	5	
VIRGINIA									
Augusta	1	38° 16′ 48″	79° 12′ 29″	DV	Jennings	48SE	HWC	39	Few joints perpendicular to bedding.
Augusta	2	38° 18′ 18″	79° 21′ 58″	DV	Hampshire	18E	HWC	30	
Bath	1	38° 00′ 19″	79° 32′ 23″	DV	Catskill	33SE	HWC	27	Joints inclined toward valley.
Bath	2