

Figure 2.5.1-32 Site Topographic Map (0.6-Mile Radius)

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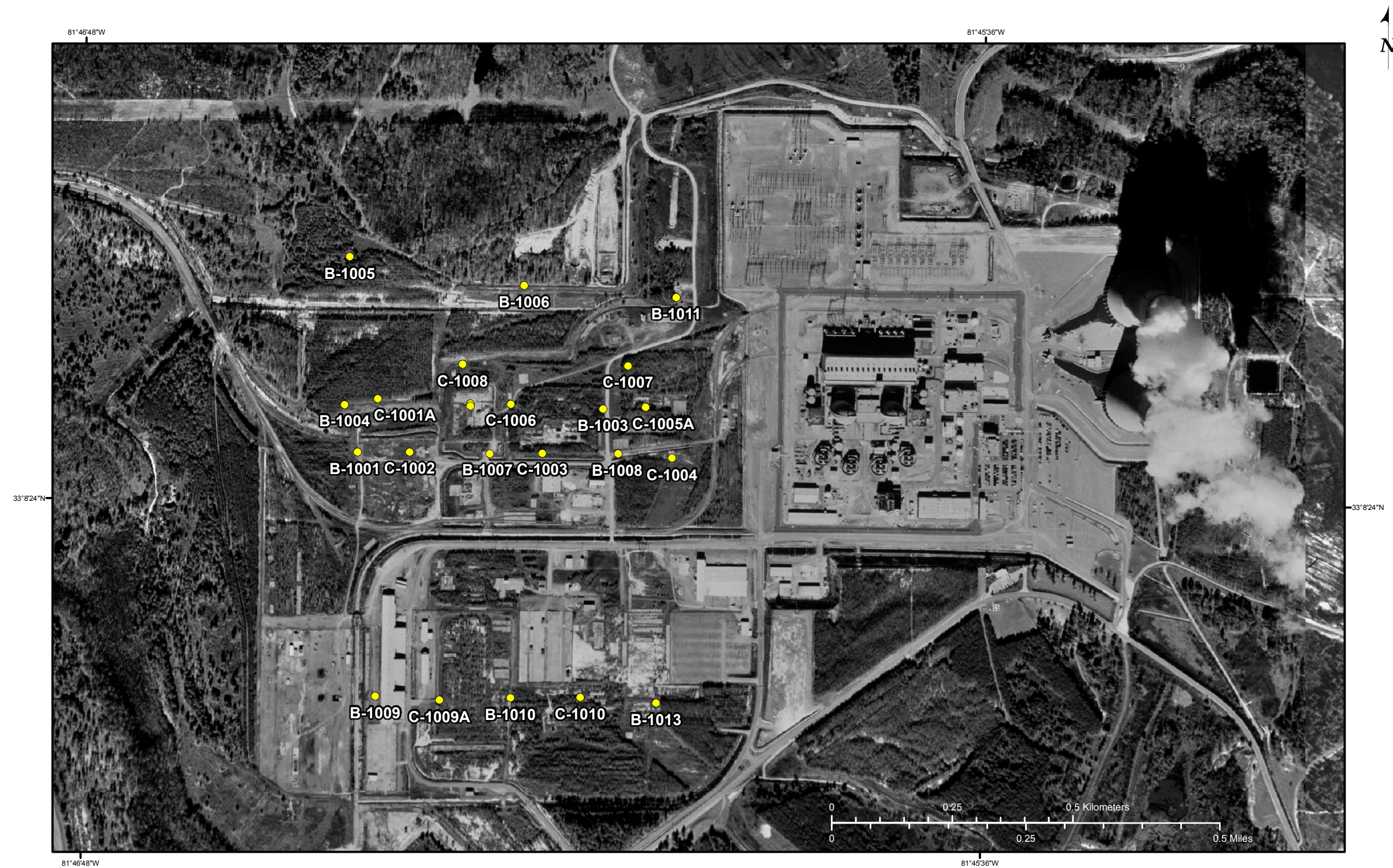


Figure 2.5.1-33 Site Borings Location Map

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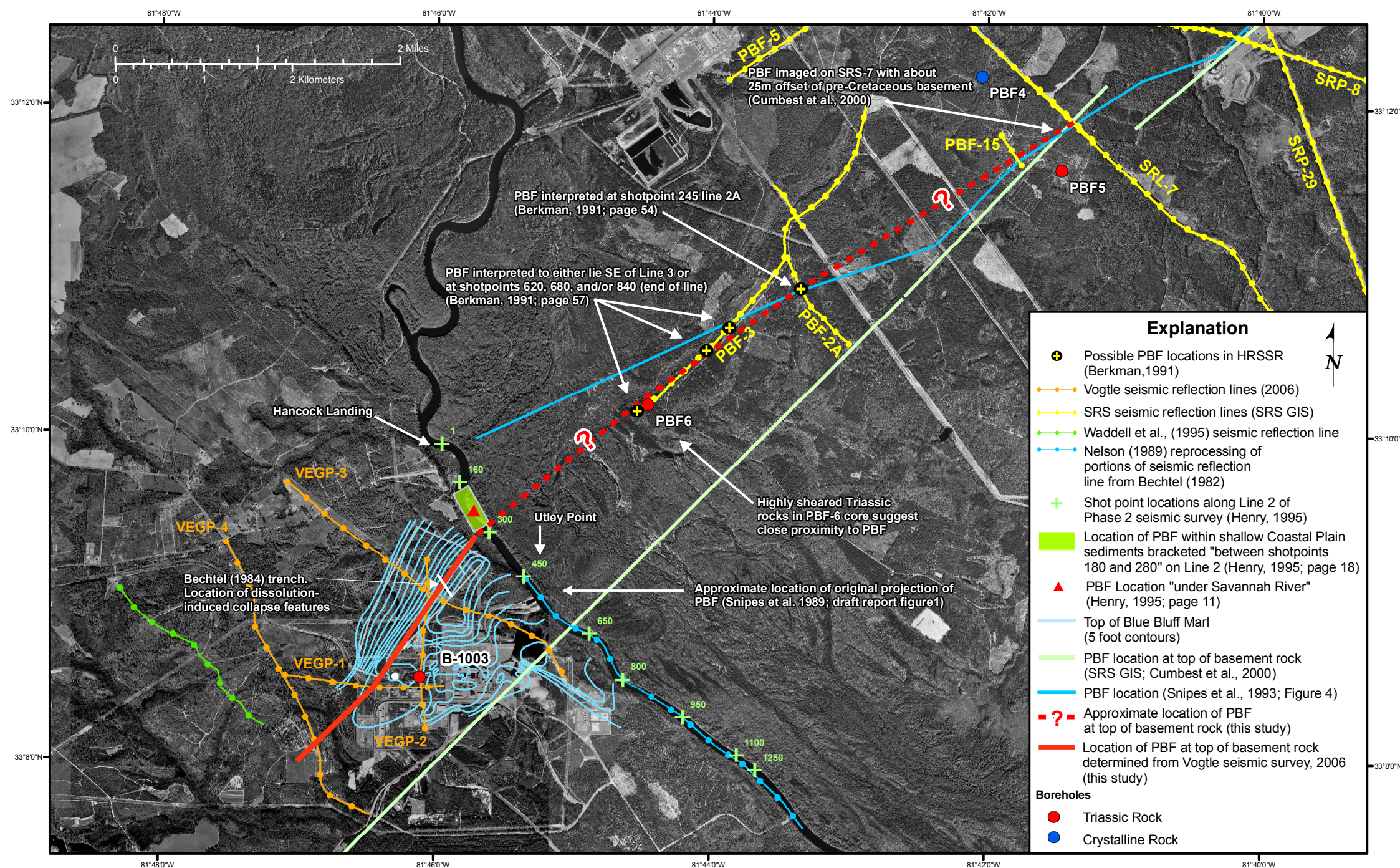


Figure 2.5.1-34 Location of Pen Branch Fault



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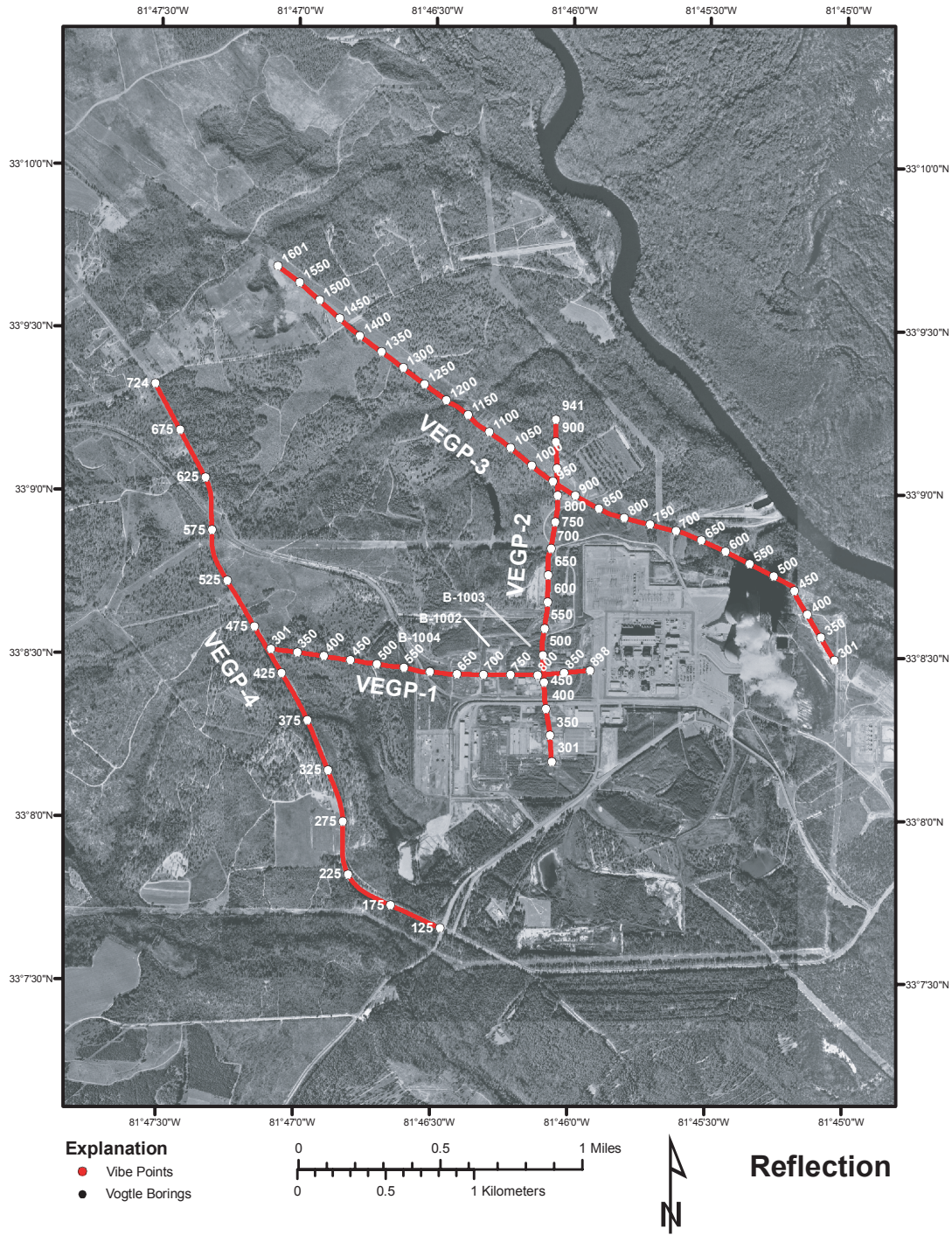


Figure 2.5.1-35 Seismic Reflection Array



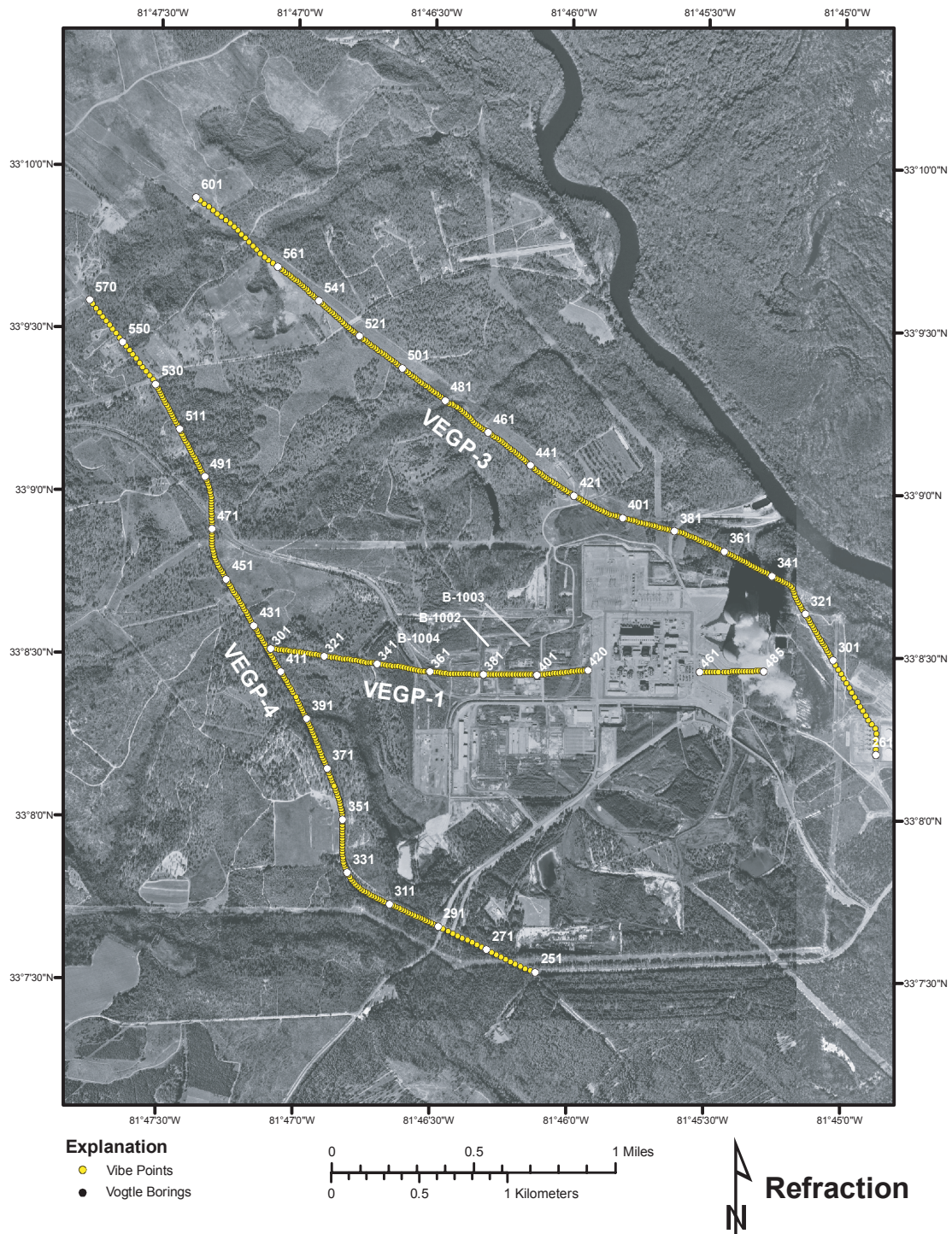


Figure 2.5.1-36 Seismic Refraction Array



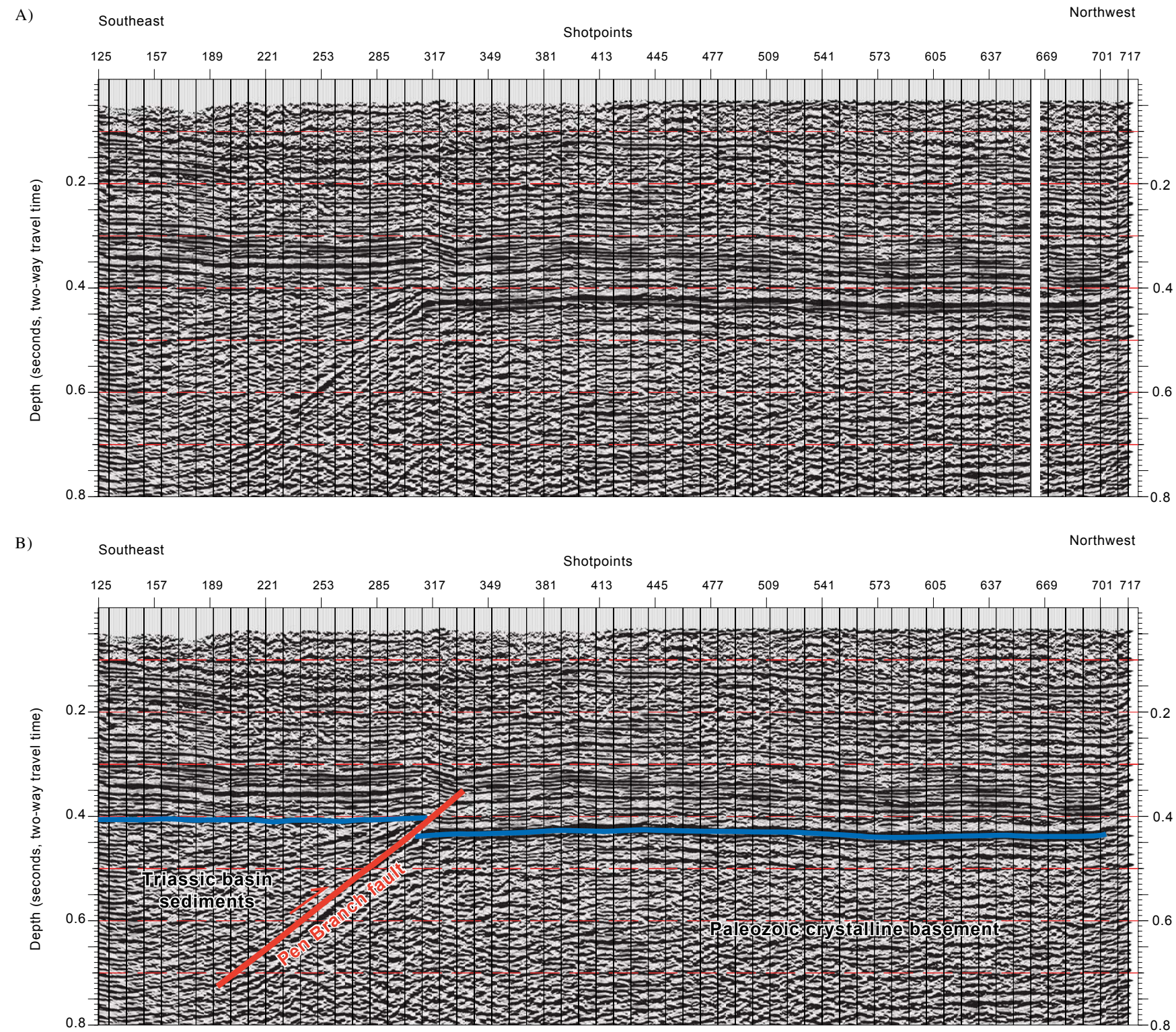


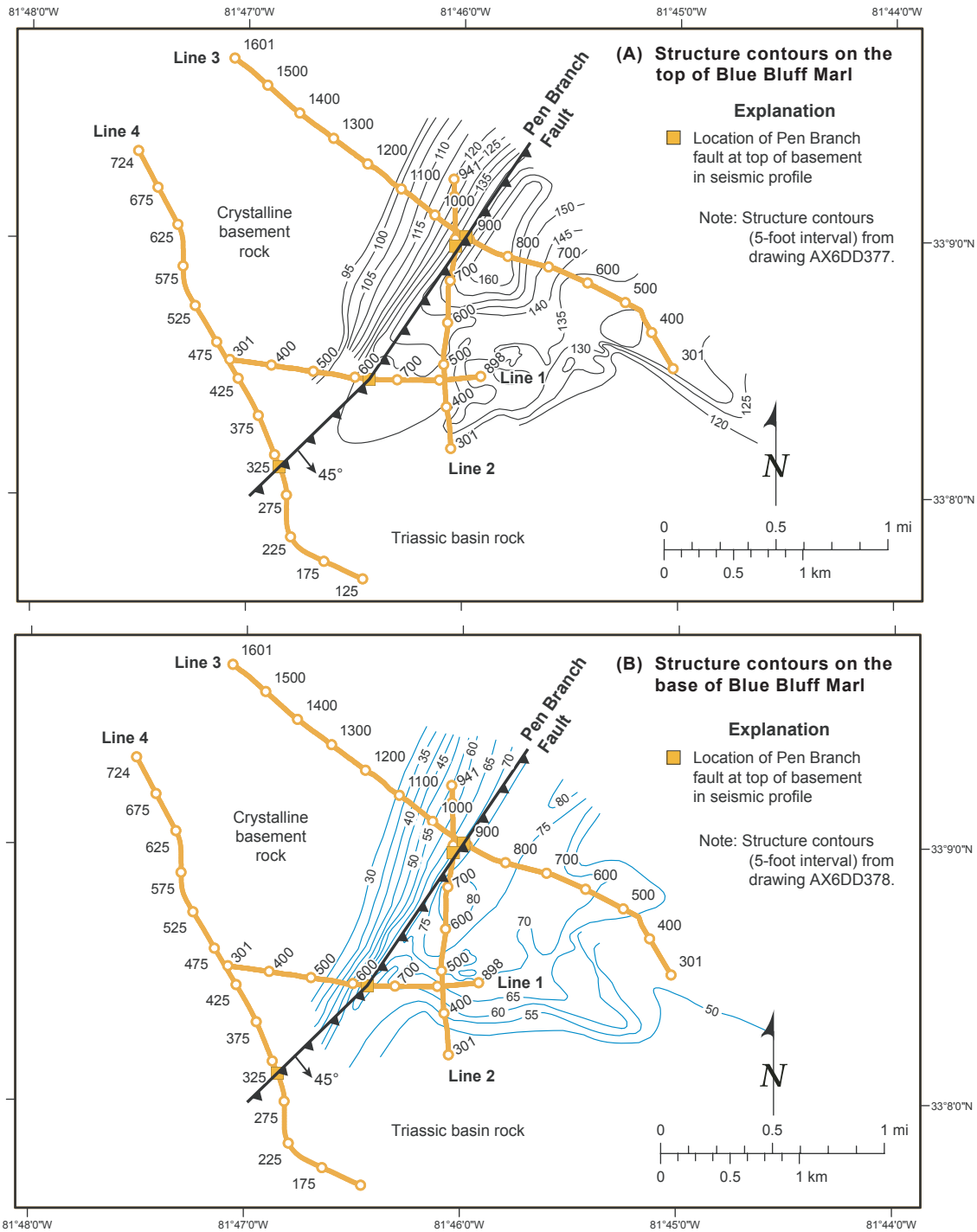
Figure 2.5.1-37 (A) Seismic Reflection Line 4 (Time Section; Display Velocity = 12,000 fps)  
(B) Interpretation (Blue Line Represents Top of Basement)

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AGE				UNIT	DEPTH (FT)	ELEVATION (FT MSL)
Cenozoic	TerTiary	Eocene	Upper	Barnwell Group • Tobacco Road Sand • Dry Branch Formation • Clinchfield Formation o Utley Limestone Member	Ground surface	+223
			Middle	Claiborne Group • Lisbon Formation o Blue Bluff Member / McBean Member • Still Branch Sand • Congaree Formation	48	+175
			Lower		86	+137
		Paleocene	Upper		149	+74
			Lower		216	+7
Mesozoic	Cretaceous	Upper		• Steel Creek Formation	331	-108
				• Black Mingo Formation	438	-215
	Triassic			Triassic (Dunbarton) basin	1049	-826

**Figure 2.5.1-38 Site Stratigraphic Column Based on Boring B-1003**



**Figure 2.5.1-39 Location of the Pen Branch Fault at Top of Basement Beneath the Overlying Monocline in the Blue Bluff Marl**



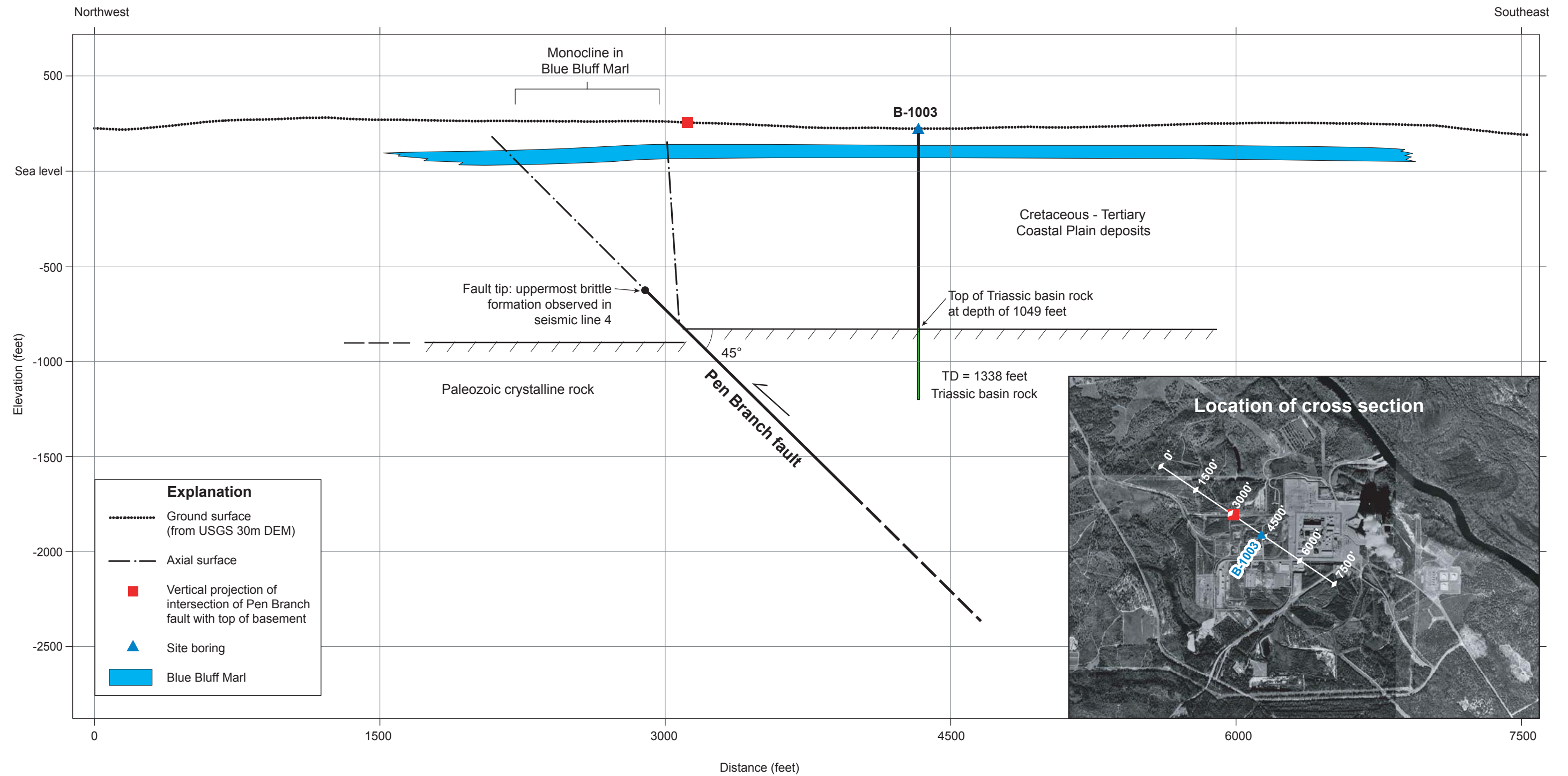
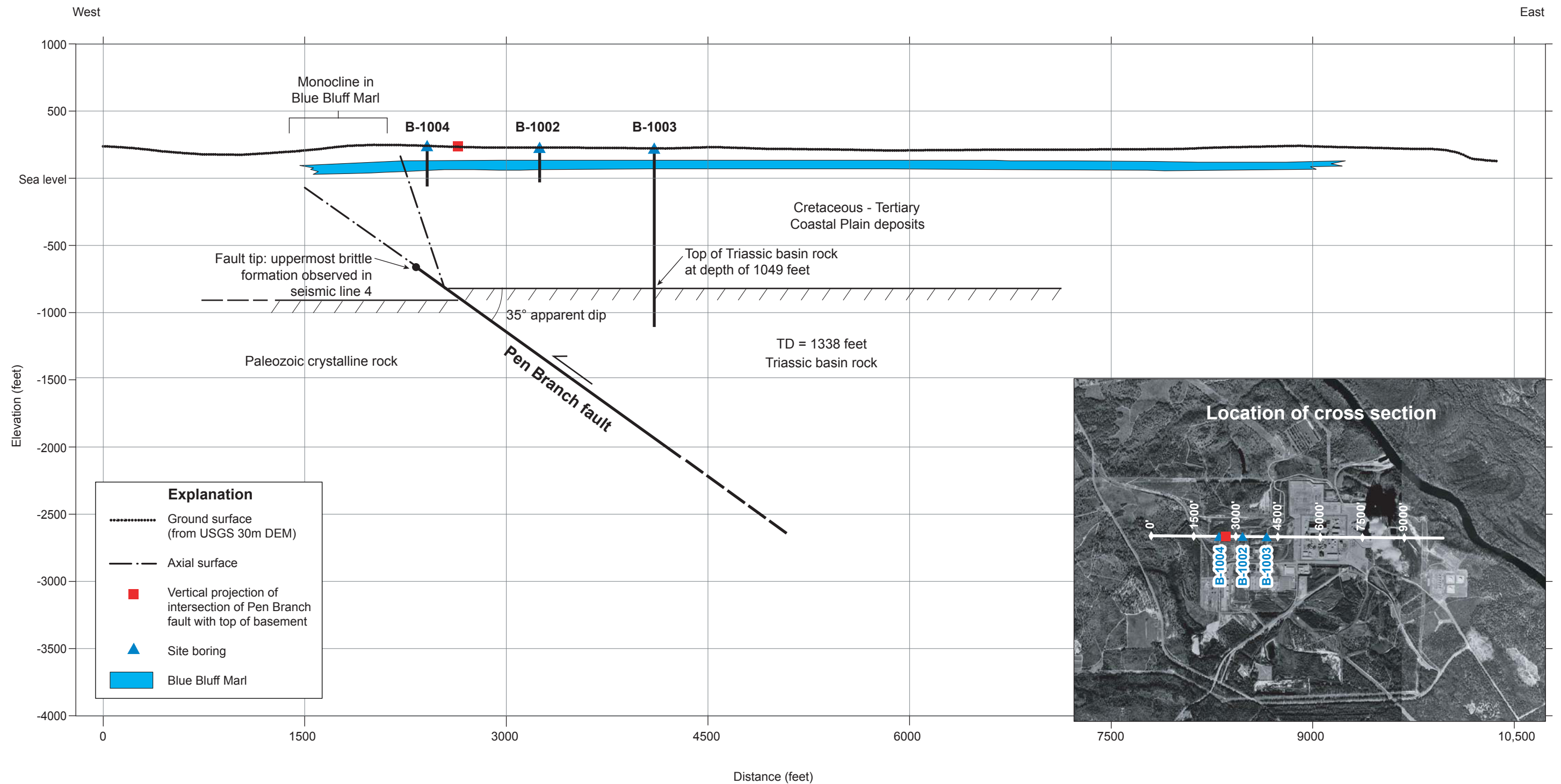


Figure 2.5.1-40 Northwest-Southwest Cross Section Showing Pen Branch Fault Beneath VEGP Site



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**Figure 2.5.1-41 East-West Cross Section Showing Pen Branch Fault Beneath VEGP Site**



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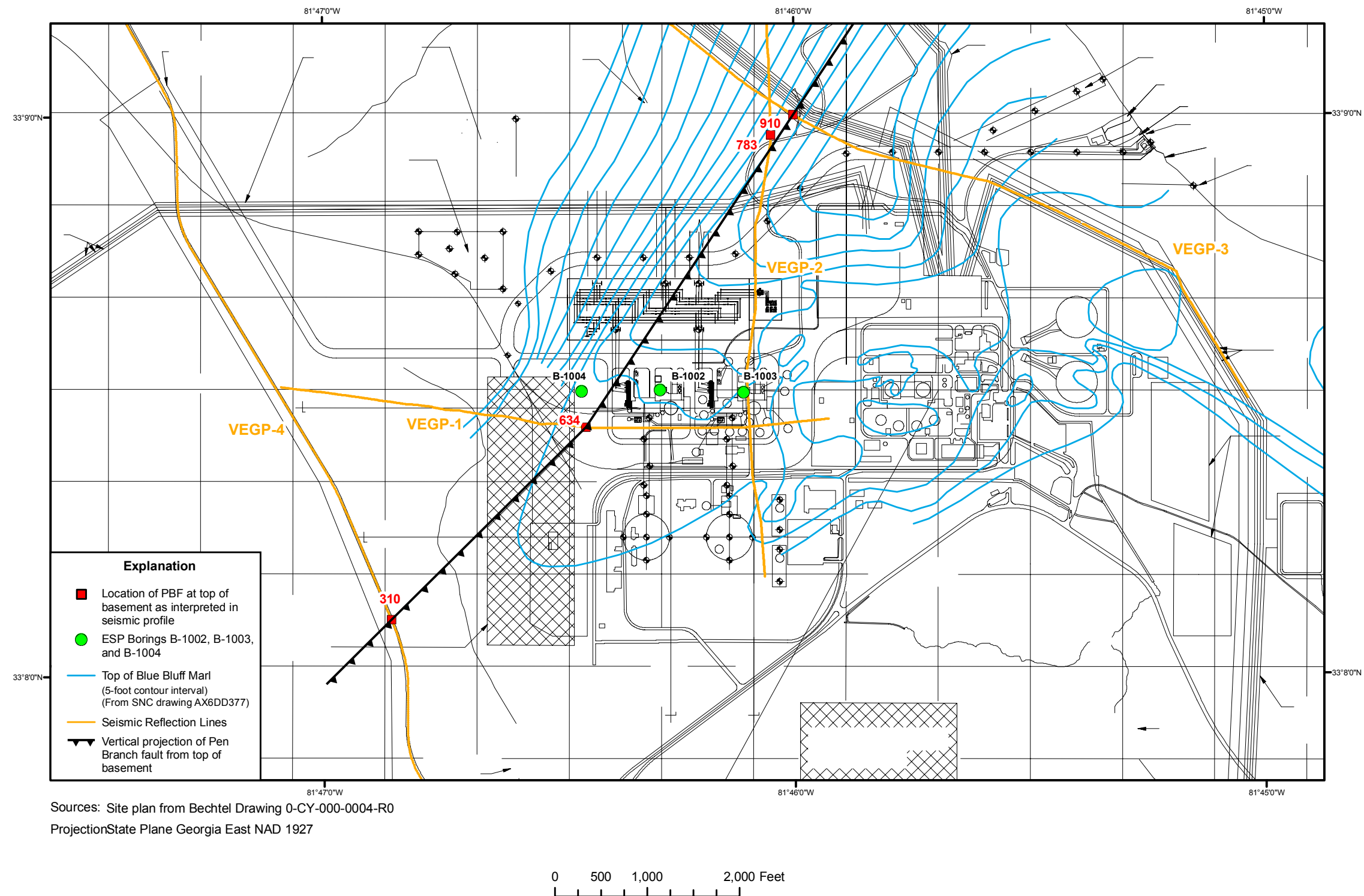
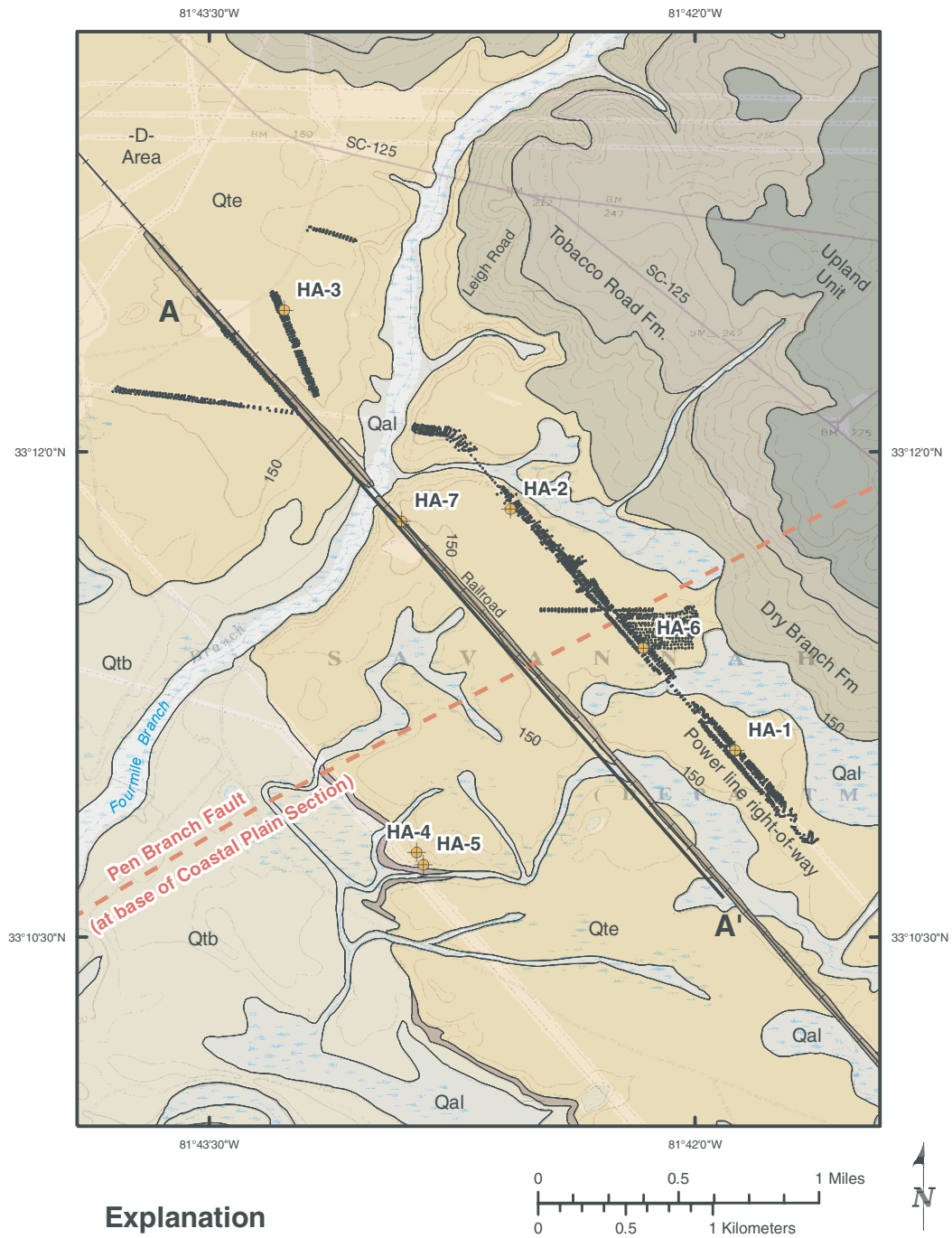


Figure 2.5.1-42 VEGP Site Plant Layout

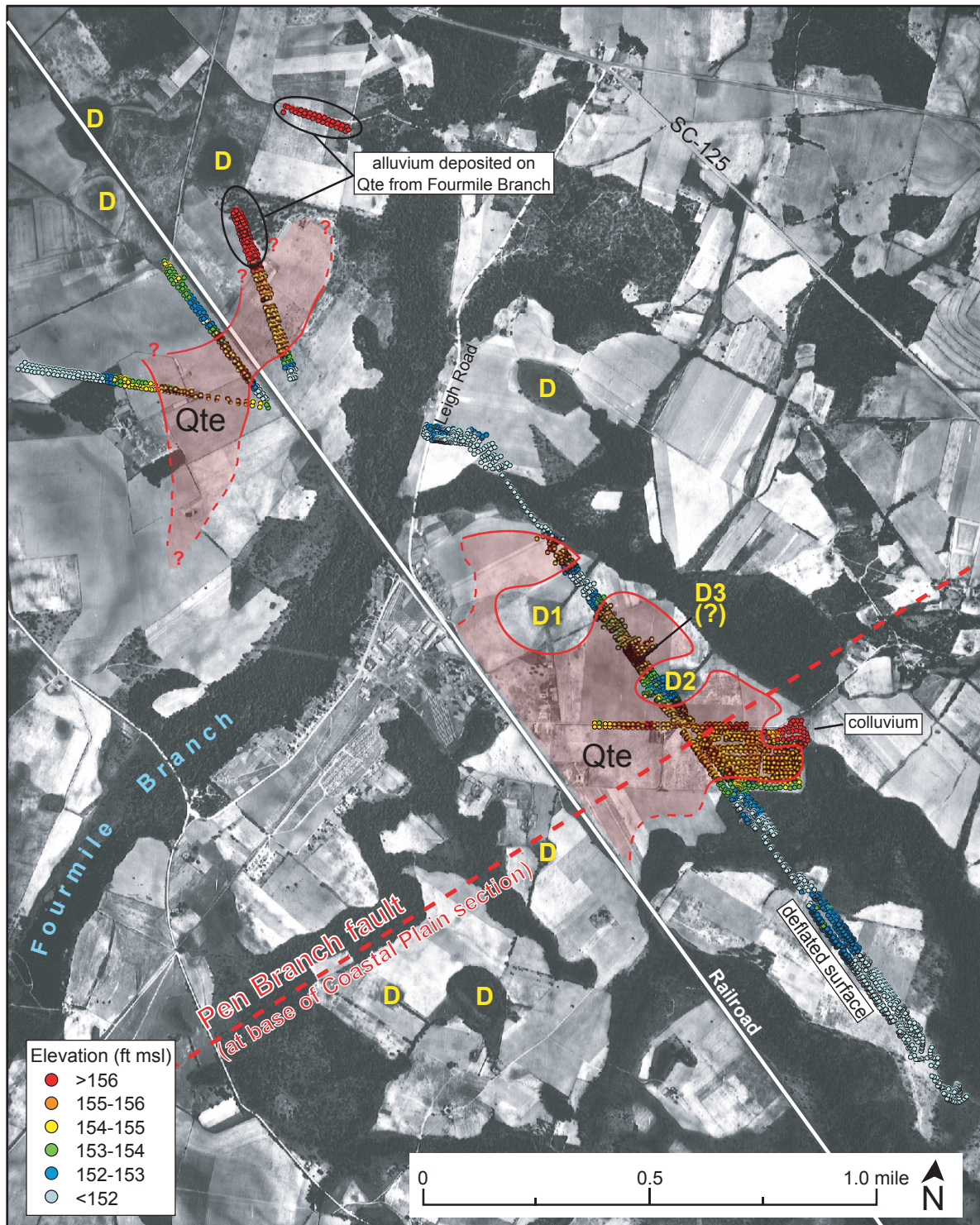


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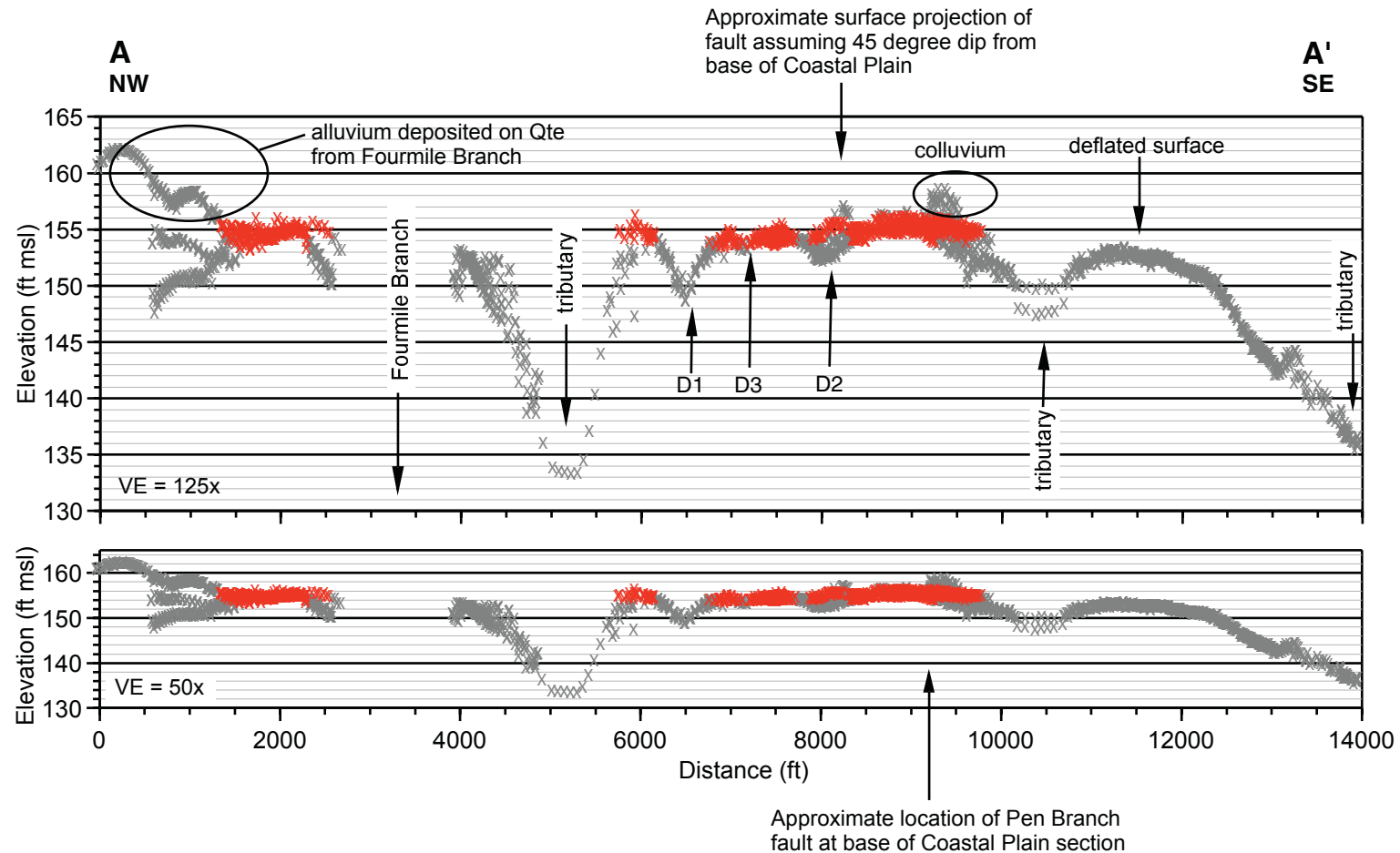


**Figure 2.5.1-43 Geologic Map of Qte Terrace Study Area**





**Figure 2.5.1-44** Geomorphic Map Showing Best Preserved Remnants of QTE Terrace Surface (Red Shading) in Study Area at the SRS. Yellow Ds Indicate Dissolution Collapse-Related Depressions. Base Image is 1943 Aerial Photograph



**Figure 2.5.1-45 Longitudinal Profile A-A' from SRS Qte Terrace Surface. Points Interpreted as Representing the Best-preserved Remnant of the Qte Surface Are Shown in Red, all Other Points that Do Not Represent the Terrace Are Shown in Gray.**



### Section 2.5.1 References

**(Aadland and Bledsoe 1990)** Aadland, R. K., and Bledsoe, H. W., Classification of hydrostratigraphic units at the Savannah River Site, South Carolina: USDOE Report, WSRC-RP-90-987, Westinghouse Savannah River Co., Westinghouse Savannah River Laboratory, Aiken, S.C. 29808, 15 p., 1990.

**(Amick 1990)** Amick, D. C., Paleoliquefaction investigations along the Atlantic Seaboard with emphasis on the prehistoric earthquake chronology of coastal South Carolina, unpub. Ph.D. dissertation, University of South Carolina, 1990.

**(Amick et al. 1990c)** Amick, D., Gelinas, R., Maurath, G., Cannon, R., Moore, D., Billington, E., and Kempainen, H., Paleoliquefaction features along the Atlantic Seaboard: U.S. Nuclear Regulatory Commission Report, NUREG/CR-5613, 1990.

**(Amick et al. 1990b)** Amick, D., Maurath, G., and Gelinas, R., Characteristics of seismically induced liquefaction sites and features located in the vicinity of the 1886 Charleston, South Carolina earthquake: Seismological Research Letters, v. 61, no. 2, p. 117-130, 1990.

**(Anderson 1990)** Anderson, E. E., The Seismotectonics of the Savannah River Site: The Results of a Detailed Gravity Survey, (Master of Science Thesis, University of South Carolina, Columbia, South Carolina, p. 248. 1990.)

**(Austin et al. 1990)** Austin, J. A., Stoffa, P. L., Phillips, J. D., Oh, J., Sawyer, D. S., Purdy, G. M., Reiter, E., and Makris, J., Crustal structure of the southeast Georgia embayment-Carolina trough: preliminary results of a composite seismic image of a continental suture (?) and a volcanic passive margin: Geology, v. 18, p. 1023-1027, 1990

**(Bakun and Hopper 2004)** Bakun, W. H., and Hopper, M. G., Magnitudes and locations of the 1811-1812 New Madrid, Missouri, and the 1886 Charleston, South Carolina, earthquakes: Bulletin of the Seismological Society of America, v. 94, no. 1, p. 64-75, 2004.

**(Bechtel 1982)** Bechtel Power Corporation, Vogtle Electric Generating Plant, Studies of Postulated Millett Fault, October 1982.

**(Bechtel 1989)** Bechtel, Field review of geologic conditions near the Vogtle site relative to possible extension of the postulated "Pen Branch fault" into Georgia, report prepared for Georgia Power Company, 195 p., September 15 1989.

**(Behrendt and Yuan 1987)** Behrendt, J. C., and Yuan, A., The Helena Banks strike-slip (?) fault zone in the Charleston, South Carolina, earthquake area; results from a marine, high-

resolution, multichannel, seismic-reflection survey: Geological Society of America Bulletin, v. 98, no. 5, p. 591-601, 1987.

**(Behrendt et al. 1981)** Behrendt, J. C., Hamilton, R. M., Ackermann, H. D., and Henry, V. J., Cenozoic faulting in the vicinity of the Charleston, South Carolina, 1886 earthquake: Geology, v. 9, no. 3, p. 117-122, 1981.

**(Behrendt et al. 1983)** Behrendt, J. C., Hamilton, R. M., Ackermann, H. D., Henry, V. J., and Bayer, K. C., Marine multichannel seismic-reflection evidence for Cenozoic faulting and deep crustal structure near Charleston, South Carolina: U. S. Geological Survey Professional Paper 1313-J, p. J1-J29, 1983.

**(Berkman 1991)** Berkman, E., High resolution seismic survey - Pen Branch fault – Savannah River Site, South Carolina: Emerald Exploration Consultants, Inc. report, Austin, TX, 89 p., 210 fig., 1991.

**(Bickford et al. 1986)** Bickford, M. E., Van Schmus, W. R., and Zietz, I., Proterozoic history of the mid-continent region of North America: Geology, v. 14, p. 492-496, 1986.

**(Bobyarchick 1981)** Bobyarchick, A.R., The eastern Piedmont fault system and its relationship to Alleghanian tectonics in the southern Appalachians: Journal of Geology, v. 89, p. 335-347, 1981.

**(Bollinger 1992)** Bollinger, G. A., Specification of source zones, recurrence rates, focal depths, and maximum magnitudes for earthquakes affecting the Savannah River Site in South Carolina: U. S. Geological Survey Bulletin, 1992.

**(Bollinger and Sibol 1985)** Bollinger, G. A. and Sibol, M. S., Seismicity, seismic reflection studies, gravity and geology of the Central Virginia seismic zone: part I - Seismicity, Geological Society of America Bulletin, v. 96, p. 49-57, 1985.

**(Bollinger and Wheeler 1988)** Bollinger, G. A. and Wheeler, R. L., The Giles County, Virginia, seismic zone - seismological results and geological interpretations, U. S. Geological Survey Professional Paper 1355, 1988.

**(Bollinger et al. 1991)** Bollinger, G. A., Johnston, A. C., Talwani, P., Long, L. T., Shedlock, K. M., Sibol, M. S., and Chapman, M. C., Seismicity of the Southeastern United States; 1698 to 1986, 1991.

**(Bollinger et al. 1992)** Bollinger, G.A., Sibol, M.S., and Chapman, M.C., Maximum magnitude estimation for an intraplate setting – Example: the Giles County, Virginia, seismic zone: Seismological Research Letters, v. 63, no. 2, p. 139, 1992



**(Bramlett 1989)** Bramlett, K. W., Geology of the Johnston-Edgefield Area, S. C., and Its Regional Implications: unpub. M.S. thesis University of South Carolina, Columbia, SC, 1989.

**(Bramlett et al. 1982)** Bramlett, K. W., Secor, D. T., and Prowell, D. C., “The Belair Fault: A Cenozoic Reactivation Structure in the Eastern Piedmont”, Geological Society of America Bulletin, vol. 93, pp. 1109-1117, 1982.

**(Brooks and Sassaman 1990)** Brooks, M. J. and Sassaman, K. E., Point bar geoarchaeology in the Upper Coastal Plain of the Savannah River Valley, S. C., a case study, in Lasca N. P., and Donahue, J., (eds., Archaeological Geology of North America: Geological Society of America Centennial Special Publications No. 4, p. 183 – 197, 1990.

**(Bryant and McCracken 1964)** Bryant, J. P. and McCracken, R. J., Properties of soils and sediments of the Carolina Bays: Journal of the Elisha Mitchell Scientific Society, v. 80, no. 2, North Carolina Academy of Science, Durham, NC, 1964.

**(Bukry 2001)** Bukry, D., Late Campanian (Zone CC22 coccoliths from the Millhaven Core, Screven county, Georgia: in Edwards, Lucy, E. (editor), Geology and paleontology of five cores from Screven and Burke counties, eastern Georgia: United States Geological Survey Professional Paper, pages D1-D4, 2001.

**(Butler 1979)** Butler, J. R., The Carolina Slate Belt in North Carolina and Northeastern South Carolina: A Review: Geological Society of America Abstracts with Program, v. 11, p. 172, 1979.

**(Bybell 2001)** Bybell, M. L., Calcareous nonnofossil biostratigraphy of Cenozoic sediments from the Millhaven Core, Screven county, Georgia: in Edwards, Lucy, E. (editor, Geology and paleontology of five cores from Screven and Burke counties, eastern Georgia: United States Geological Survey Professional Paper. pages F1-F13, 2001.

**(Chapman and DiStefano 1989)** Chapman, W. L. and DiStefano, M. P., Savannah River Plant Seismic Survey, 1987-88: Conoco Inc., Seismic Acquisition Section, Research Report 1809-005-006-1-89, p. 110, 1989.

**(Chapman and Krimgold 1994)** Chapman, M. C., and Krimgold, F., Seismic hazard assessment for Virginia, Virginia Tech Seismological Laboratory, Department of Geological Sciences, February 1994.

**(Chapman et al. 1997)** Chapman, M. C., Powell, C. A., Vlahovic, G, and Sibol, M. S., A statistical analysis of earthquake focal mechanisms and epicenter locations in the eastern Tennessee seismic zone, Bulletin of the Seismological Society of America, v. 87, no. 6, p. 1522-1536, 1997.

**(Chapman et al. 2002a)** Chapman, M.C., Munsey, J.W., Powell, C.A., Whisner, S.C., and Whisner, J., The Eastern Tennessee seismic zone – summary after 20 years of network monitoring: *Seismological Research Letters*, v. 73, no. 2, p. 245, 2002.

**(Christopher 1982)** Christopher, R. A., Palynostratigraphy of the basal Cretaceous units of the eastern Gulf and southern Atlantic Coastal Plains, in Arden, D.D., Beck, B.F., and Morrow, Eleanore, eds., *Proceedings; Second symposium on the geology of the southeastern coastal plain*: Georgia Geologic Survey Information Circular 53, p. 10–23, pls. 1–3, 1982.

**(Christopher et al. 1979)** Christopher, R. A., Owens, J. P., and Sohl, N. F., Late Cretaceous palynomorphs from the Cape Fear Formation of North Carolina: *Southeastern Geology*, v. 20, no. 3, p. 145–159, 1979.

**(Clarke et al. 1985)** Clarke, J. S., Brooks, R., and Faye, R. E., Hydrogeology of the Dublin and Midville aquifer systems of east central Georgia: *Georgia Geological Survey Information Circular* 74, 62 p., 1985.

**(Clarke et al. 1994)** Clarke, J. S., Falls, W. F., Edwards, L. E., Frederiksen, N. O., Bybell, L. M., Gibson, T. G., and Litwin, R. J., Geologic, hydrologic and water-quality data for a multi-aquifer system in coastal plain sediments near Millers Pond, Burke County, Georgia, 1992–93: *Georgia Geologic Survey Information Circular* 96, 34 p., 1 pl. in pocket, 1994.

**(Colman 1983)** Colman, S. M., Progressive changes in the morphology of fluvial terraces and scarps along the Rappahannock River, Virginia: *Earth Surface Processes and Landforms*, v. 8, p. 201 – 212, 1983.

**(Colquhoun and Johnson 1968)** Colquhoun, D. J., and Johnson, Jr., H. S. Tertiary Sea-Level Fluctuation in South Carolina: *Paleogeography, Paleoclimatology, Paleoecology*, v. 5, pp. 105-126, 1968.

**(Colquhoun and Steel 1985)** Colquhoun, D. J. and Steele, K. B., Chronostratigraphy and Hydrostratigraphy of the Northwestern South Carolina Coastal Plain: Annual Cooperative Grant Agreement No. 13040 R-83-591, Project No. G868-05, Interim Technical Report to Water Resources Research Institute, Clemson University, Clemson, South Carolina, p. 15, 1985.

**(Colquhoun et al. 1983)** Colquhoun, D. J., Woollen, I. D., Van Nieuwenhuise, D. S., Padgett, G. G., Oldham, R. W., Boylan, D. C., Bishop, J. W., and Howell, P. D. Surface and subsurface stratigraphy, structure and aquifers of the South Carolina Coastal Plain: *SCDHEC Report* ISBN 0-9613154-0-7, 78 p., 1983.



**(Committee for Gravity Anomaly Map of North America 1987)** Committee for the Gravity Anomaly Map of North America, Gravity anomaly map of North America, continent-scale map, 1:5,000,000 scale, Geological Society of America, Boulder, CO, 1987.

**(Cook et al. 1979)** Cook, F. A., Albaugh, D. S., Brown, L. D., Kaufman, S., Oliver, J. E., Hatcher, R. D. Jr., Thin-skinned tectonics in the crystalline southern Appalachians: COCORP seismic reflection profiling of the Blue Ridge and Piedmont. *Geology*, vol. 7, p. 563-567, 1979.

**(Cook et al. 1981)** Cook, F.A., L.D. Brown, S. Kaufman, J.E. Oliver, and T.A. Petersen, COCORP seismic profiling of the Appalachian orogen beneath the Coastal Plain of Georgia, *Geological Society of America Bulletin*, v. 92, no. 10, p. 738-748, 1981.

**(Cooke 1936)** Cooke, C. W., *Geology of the Coastal Plain of South Carolina*: U.S. Geological Survey Bulletin 867, 196 p., 1936.

**(Cooke 1954)** Cooke, C. W., *Carolina bays and the shapes of eddies*: U. S. Geological Survey Professional Paper 254-I, p. 195 – 206, 1954.

**(Coruh et al. 1987)** Coruh, C., Costain, J. K., Hatcher, Jr., R.D. Pratt, T.L., Williams, R. T., Phinney R. A., Results from regional vibroseis profiling: Appalachian ultradeep core hole site study: *Geophysical Journal of the Royal Astronomical Society*, v. 89, p. 473-474, 1987.

**(Coruh et al. 1988)** Coruh, C., Bollinger, G. A., and Costain, J. K., Seismogenic structures in the central Virginia seismic zone, *Geology*, v. 16, p. 748-751, 1988.

**(Crone and Wheeler 2000)** Crone, A. J., and Wheeler, R. L., Data for Quaternary faults, liquefaction features, and possible tectonic features in the Central and Eastern United States, east of the Rocky Mountain Front: U. S. Geological Survey Open-File Report 00-260, 2000.

**(Cumbest and Price 1989b)** Cumbest, R. J., and Price, V., Continued extension of the Dunbarton Basin: an explanation for faulting in the coastal plain of South Carolina: Savannah River Company, Report WSRC-RP-89-1263, 1989.

**(Cumbest et al. 1992)** Cumbest, R. J., V. Price, and E. E. Anderson, 1992, Gravity and Magnetic Modeling of the Dunbarton Triassic Basin, South Carolina, *Southeastern Geology*, v. 33, no.1, p. 37-51, 1992.

**(Cumbest et al. 1998)** Cumbest, R. J., Stephenson, D. E., Wyatt, D. E., and Maryak, M., Basement surface faulting and topography for Savannah River site and vicinity: Westinghouse Savannah River Company, Technical Report 98-00346, 1998.

**(Cumbest et al. 2000)** Cumbest, R. J., Wyatt, D. E., Stephenson, D. E., and Maryak, M., Comparison of Cenozoic faulting at the Savannah River site to fault characteristics of the

Atlantic Coast fault province: implications for fault capability: Westinghouse Savannah River Company, Technical Report 2000-00310, 2000.

**(Dahlen 1981)** Dahlen, F. A., Isostasy and the ambient state of stress in the oceanic lithosphere: *Journal of Geophysical Research*, v. 86, no. B9, p. 7801-7807, 1981.

**(Dallmeyer et al. 1986)** Dallmeyer, R. D., Wright, J. E., Secor, D. T., Jr., and Snoke, A. W., Character of the Alleghenian Orogeny in the Southern Appalachians: Part II. geochronological constraints on the tectonothermal evolutions of the Eastern Piedmont in South Carolina: *Geological Society of America Bulletin*. v. 97, pp. 1329-1344, 1986.

**(Daniels 1974)** Daniels, D. L., *Geologic Interpretation of Geophysical Maps, Central Savannah River Area, South Carolina and Georgia*, United States Geological Survey, Geophysical Investigation Map GP-893, 1974.

**(Daniels 2005)** Daniels, D. L., *South Carolina Aeromagnetic and Gravity Maps and Data: A Web Site for Distribution of Data*, U.S. Geological Survey Open-File Report 2005-1022 (<http://pubs.usgs.gov/of/2005/1022/>), 2005.

**(Davis 1980)** Davis, G.J., 1980, The southwestern extension of the Middleton-Lowndesville cataclastic zone in the Greensboro, Georgia, area and its regional implications [M.S. thesis]: Athens, Georgia, University of Georgia, 151p., 1980.

**(Dennehy et al. 1988)** Dennehy, K. F., Prowell, D. C., and McMahon, P. B., Geohydrology of the Defense Waste Processing Facility and vicinity, Savannah River Plant, South Carolina, United States Geological Survey Water Resources Investigation, WRI 88-4221, p. 90, 1988.

**(Dennis 1991)** Dennis, A.J., Is the central Piedmont suture a low-angle normal fault?: *Geology*, v. 19, p. 1081-1084, 1991.

**(Dennis et al. 2004)** Dennis, A. J., Shervais, J. W., Mauldin, J., Maher, H. D., Jr., and Wright, J. E., Petrology and geochemistry of Neoproterozoic volcanic arc Terranes beneath the Atlantic Coastal Plain, Savannah River Site, South Carolina: *Geological Society of America Bulletin*, v. 116, no. 5-6, p. 572-593, 2004.

**(Dillon and Popenoe 1988)** Dillon, W. P., and Popenoe, P., The Blake Plateau Basin and Carolina Trough, in Sheridan, R.E., and J. A. Grow (editors, *The Geology of North America*, v. I-2, *The Atlantic Continental Margin: US.*, DNAG Publication, Vol. I-1, Geological Society of America, Boulder, Colorado. p. 291-328, 1988.

**(Domoracki 1994)** Domoracki, W. J., A geophysical investigation of geologic structure and regional tectonic setting at the Savannah River Site, South Carolina, excerpts from a doctoral

dissertation in preparation at Virginia Polytechnical Institute: Westinghouse Savannah River Company, WSRC-TR-94-0317, 1994.

**(Domoracki 1995)** Domoracki, W., A Geophysical Investigation of Geologic Structure and Regional Tectonic Setting at the Savannah River Site, South Carolina, unpub. Ph.D dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 1995.

**(Domoracki et al. 1999b)** Domoracki, W. J., Stephenson, D. E., Coruh, C., and Costain, J. K., Seismotectonic structures along the Savannah River Corridor, South Carolina, USA: Journal of Geodynamics, v. 27, no. 1, p. 97-118, 1999.

**(Dutton 1889)** Dutton, C. E., The Charleston earthquake of August 31, 1886: U.S. Geological Survey, Ninth annual report 1887-88, 1889.

**(Ebel and Tuttle 2002)** Ebel, J.E. and Tuttle, M. Earthquakes in the eastern Great Lakes basin from a regional perspective: Tectonophysics, v. 353, p. 17-30, 2002.

**(Edwards 2001)** Edwards, L., Dinocyst biostratigraphy of Tertiary sediments from five cores from Screven and Burke counties, Georgia: in Edwards, Lucy, E. (editor, Geology and paleontology of five cores from Screven and Burke counties, eastern Georgia: United States Geological Survey Professional Paper. pages G1-G5, 2001.

**(Edwards et al. 2001)** Edwards, L., Frederiksen, N. O., Bybell, L. M., Gibson, T. G., Gohn, G. S., Self-Trail, J. M., Litwin, R. J., Overview of the biostratigraphy and paleoecology of sediments from five cores from Screven and Burke counties, Georgia: in Edwards, Lucy, E. (editor, Geology and paleontology of five cores from Screven and Burke counties, eastern Georgia: United States Geological Survey Professional Paper. pages B1-B19, 2001.

**(EPRI 1986C)** Electric Power Research Institute (EPRI), Seismic Hazard Methodology for the Central and Eastern United States, Tectonic Interpretations. 1986.

**(Fallaw and Price 1992)** Fallaw, W. C. and Price, Van, eds., Geological Investigations of the Central Savannah River Area, South Carolina, and Georgia: Carolina Geological Society Field Trip Guidebook for 1992, p. 112, 1992.

**(Fallaw and Price 1995)** Fallaw, W. C., and Price, V., Stratigraphy of the Savannah River Site and vicinity: Southeastern Geology, v. 35, no. 1, p. 21-58, 1995.

**(Fallaw et al. 1990a)** Fallaw, W. C., Price, Van., and Thayer, P. A., Stratigraphy of the Savannah River Site, South Carolina: Proceedings of the Second Bald Head Island Conference on Coastal Plains Geology, November 6-11, 1990, Addendum, p. 1-4, 1990a.



**(Fallaw et al. 1990b)** Fallaw, W. C., Price, V., and Thayer, P.A., Effects of varying degrees of marine influence on tertiary sediments in southwestern South Carolina: Geological Society of America Abstracts with Programs v. 22 no. 7 p A45, 1990.

**(Fallaw et al. 1992)** Fallaw, W. C., Price, V., and Thayer, P.A., Stratigraphy of the Savannah river Site, South Carolina in Zullo, V. A., Harris, W. B., and Price, V., (eds., Savannah River region: transition between the Gulf and Atlantic Coastal Plains, Proceedings of the second Bald Head Island Conference on Coastal Plains geology: University of North Carolina at Wilmington and the U.S. Department of Energy, p. 29-32, 1992.

**(Fallaw et al. 1995)** Fallaw, W. C., Snipes, D. S., Hodges, R. A., Price, V., Temples, T. J., Facies changes in middle Eocene sediments, southwestern coastal plain of South Carolina. Geological Society of America, Southeastern Section, 44th annual meeting, Abstracts with Programs - Geological Society of America, v. 27, no. 2, p. 52, 1995.

**(Falls and Prowell 2001)** Falls, W. F., and Prowell, D. C., Stratigraphy and depositional environments from five cores from Screven and Burke counties, Georgia: in Edwards, Lucy, E. (ed.), Geology and paleontology of five cores from Screven and Burke counties, eastern Georgia: United States Geological Survey Professional Paper. pages A1-A20, 2001.

**(Farrar 1985)** Farrar, S. S., Tectonic evolution of the easternmost Piedmont, North Carolina: Geological Society of America Bulletin, v. 96, p.362-380, 1985.

**(Faye and Prowell 1982)** Faye, R. E., and Prowell, D. C., Effects of Late Cretaceous and Cenozoic faulting on the geology and hydrology of the coastal plain near the Savannah River, Georgia and South Carolina: U. S. Geological Survey Open-File Report 82-0156, 1982.

**(Frankel et al. 1996)** Frankel, A., Barnhard, T., Perkins, D., Leyendecker, E. V., Dickman, N., Hanson, S., and Hopper, M., National seismic-hazard maps: documentation, U.S.G.S. Open-File Report 96-532, 1996.

**(Frankel et al. 2002)** Frankel, A. D., Petersen, M. D., Mueller, C. S., Haller, K. M., Wheeler, R. L., Leyendecker, E. V., Wesson, R. L., Harmensen, S. C., Cramer, C. H., Perkins, D. M., and Rukstales, K. S., Documentation for the 2002 update of the national seismic hazard maps: U. S. Geological Survey Open-File Report 02-420, 2002.

**(Frederiksen 2001)** Frederiksen, N. O., Pollen biostratigraphy of lower Tertiary sediments from five cores from Screven and Burke counties, Georgia: in Edwards, Lucy, E. (ed.), Geology and paleontology of five cores from Screven and Burke counties, eastern Georgia: United States Geological Survey Professional Paper. pages H1-H21, 2001.

**(Frederiksen et al. 2001)** Frederiksen, N. O., Edwards, L. E., Litwin, R. J., Palynomorph biostratigraphy and paleoecology of Aupper Cretaceous sediments from four cores from Screven and Burke counties, Georgia: in Edwards, Lucy, E. (ed.), *Geology and paleontology of five cores from Screven and Burke counties, eastern Georgia*: United States Geological Survey Professional Paper. pages C1-C32, 2001.

**(Froelich and Olsen 1984)** Froelich, A. J. and Olsen, P.E., Newark Supergroup, a revision of the Newark Group in eastern North America: U. S. Geological Survey Bulletin 1537A, pp A55-A58, 1984.

**(Fullagar and Bartholomew 1983)** Fullagar, P.D., and Bartholomew, M. J., Rubidium-strontium ages of the Watauga River, Cranberry, and Crossing Knob gneisses, northwestern North Carolina, in Lewis, S. E., ed., *Geological investigations in the Blue Ridge of northwestern North Carolina: 1983 Guidebook for the Carolina Geological Society*, North Carolina Division of Land Resources, Article 11, 29 p., 1983.

**(Fullagar and Butler 1979)** Fullagar, P. D., and Butler, J. R., 325 to 265 m.yr. old granitic plutons in the Piedmont of the Southeastern Appalachians: *American Journal of Science*, v. 279, pp. 161-185, 1979.

**(Fullagar and Odom 1973)** Fullagar, P.D., and Odom, A. L., Geochronolgy of Precambrian gneeisses in the Blue Ridge province of northwestern North Carolina and adjacent parts of Virginia and Tennessee: *Geological Society of America Bulletin*, v.84, p.3065-3080, 1973.

**(Fullagar et al. 1979)** Fullagar, P.D., Hatcher, R. D., Jr., and Merschat, C. E., 1200 m.y.-old gneisses in the Blue ridge province of North and South Carolina: *Southeastern Geology*, v.20, p.69-78, 1979.

**(Gamble et al. 1977b)** Gamble, E. E., Daniels, R. B., and Wheeler, W. H., The Goldsboro Ridge, an enigma: *Southeastern Geology*, v. 12, p. 151 – 158, 1977.

**(Gangopadhyay and Talwani 2005)** Gangopadhyay, A. and Talwani, P., Fault intersections and intra plate seismicity in Charleston South Carolina: insights from a 2\_d numerical model, *Current Science*, v. 88, no. 10, 2005.

**(Geomatrix 1993)** Geomatrix Consultants, "Preliminary Quaternary and Neotectonic Studies": Savannah River Site, South Carolina, Report prepared for Lawrence Livermore National Laboratory and Westinghouse Savannah River Company, February 1993.

**(Glover et al. 1980)** Glover, L., III, Poland, F. B., Tucker, R. D. and Bourland, W. C., Diachronous Paleozoic mylonites and structural heredity of Triassic-Jurassic basins in Virginia: *Geological Society of America Abstracts with Programs*. v. 12, p. 178, 1980.

**(Gohn 2001)** Gohn, G. S., Ostracode biostratigraphy of Upper Campanian (Cretaceous marine sediments from the Millhaven Core, Screven county, Georgia: in Edwards, Lucy, E. (ed.), Geology and paleontology of five cores from Screven and Burke Counties, eastern Georgia: United States Geological Survey Professional Paper. pages E1-E11, 2001.

**(Goldsmith et al. 1988)** Goldsmith, R., Milton, D. J. and Horton, J. W. Jr., Geologic map of the Charlotte 10 X 20 quadrangle, North Carolina and South Carolina: U. S. Geological Survey Miscellaneous Investigations Series Map I-1251-E, 1:250,000 scale, 1988.

**(Gore 1986)** Gore, P. J. W., Depositional framework of a Triassic rift basin: The Durham and Sanford sub-basins of the Deep River basin, North Carolina, in Textoris, D.A., ed., Society of Economic Paleontologists and Mineralogists Field Guidebook, Third annual Midyear Meeting, Raleigh, North Carolina, p. 53-115, 1986.

**(Griffin 1979)** Griffin, V.S., Jr., Geology of the Abbeville East, Abbeville West, Latimer, and Lowndesville quadrangles, South Carolina: South Carolina Geological Survey MS-24, 55p., 1979.

**(Grow et al. 1988)** Grow, J. A., K.D. Klitgord, J. S. Schlee, Structure and evolution of Baltimore Canyon trough: in Sheridan, R.E., and J. A. Grow (ed.), The Atlantic Continental Margin: US., DNAG Publication, Vol. I-1, Geological Society of America, Boulder, Colorado, p. 269-290, 1988.

**(Guccione 2005)** Guccione, M. J., Late Pleistocene and Holocene paleoseismology of an intraplate seismic zone in a large alluvial valley, the New Madrid Seismic Zone, central USA, Tectonophysics, v. 408, p. 236-264, 2005.

**(Hamilton et al. 1983)** Hamilton, R. M., Behrendt, J. C., and Ackermann, H. D., Land multichannel seismic-reflection evidence for tectonic features near Charleston, South Carolina, Studies Related to the Charleston, South Carolina, Earthquake of 1886- Tectonics and Seismicity, U.S. Geologic Survey Professional Paper 1313-I, p. I1-I18, 1983.

**(Hanson et al. 1993)** Hanson, K. L., Bullard, T. F., de Wit, M. W., and Stieve, A. L., Applications of Quarternary stratigraphic, soil-geomorphic, and quantitative geomorphic analyses to the evaluation of tectonic activity and landscape evolution in the upper Coastal Plain, S. C., Proceedings, 4th DOE Natural Phenomena Hazards Mitigation Conference, Atlanta, Georgia, v. 2, p. 672 – 681, 1993.

**(Harris and Zullo 1992)** Harris, W. B., and Zullo, V. A., Sequence stratigraphy of Paleocene and Eocene deposits in the Savannah River region, in Zullo, V. A., Harris, W. B., and Price, V., eds., Savannah River region; transition between the Gulf and Atlantic Coastal Plains:



Proceedings of the Second Bald Head Island Conference on Coastal Plains Geology, Hilton Head Island, November 6–11, 1990, p. 134–142, 1992.

**(Harrison and McDougall 1980)** Harrison, T. M., and McDougall, I., Investigations of an intrusive contact, northwest Nelson, New Zealand-I. Thermal, chronological and isotopic constraints: *Geochimica et Cosmochimica Acta*, v. 44, p. 1985-2003, 1980.

**(Hatcher 1971)** Hatcher, R. D., Jr., Stratigraphic, petrologic, and structural evidence favoring a thrust solution to the Brevard problem: *American Journal of Science*, v. 270, p. 177-202, 1971.

**(Hatcher 1972)** Hatcher, R. D., Jr., Developmental model for the southern Appalachians: *Geological Society of America Bulletin*, v. 83, p. 2735-2760, 1972.

**(Hatcher 1978)** Hatcher, R. D. Jr., Tectonics of the western Piedmont and Blue Ridge, southern Appalachians: review and speculation: *American Journal of Science*, vol. 278, p. 276-304, 1978.

**(Hatcher 1987)** Hatcher, R.D., Jr., Tectonics of the southern and central appalachian internides. *Annual Review of Earth and Planetary Sciences*, 15, pages 337-362, 1987.

**(Hatcher and Butler 1979)** Hatcher, R. D. Jr., and Butler, J. R., Guidebook for southern Appalachian field trip in the Carolinas, Tennessee, and northeastern Georgia: International Geologic Correlation Program Project 27, University of North Carolina, Chapel Hill, 117p., 1979.

**(Hatcher and Edelman 1987)** Hatcher, R.D., Jr., and Edelman, S.H., Macro-scale partitioning in the southern and central Appalachians: Thrusting and strike-slip as products of Alleghanian collision: *Geological Society of America Abstracts with Programs*, v. 19, p.89, 1987.

**(Hatcher and Goldberg 1991)** Hatcher, R. D., Jr., Goldberg, S. A., The Blue Ridge geologic province; in Horton, J. W., Jr., Zullo, V. A. (eds.), *The Geology of the Carolinas: Carolina Geological Society 50th Anniversary Volume*, p.11-35, 1991.

**(Hatcher et al. 1977)** Hatcher, R. D., Jr., Howell, D. E., and Talwani, P., Eastern Piedmont Fault System: speculations on its extent: *Geology*, v. 5, pp. 636-640, 1977.

**(Hatcher et al. 1986a)** Hatcher, R. D., Jr., Costello, J. O., S. H. Edelman, The Smokies Foothills duplex and possible significance of the Guess Creek fault: A corollary to the mapping of King and Neuman: *Geological Society of America Abstracts with Programs*, v., 18, p. 226, 1986.

**(Hatcher et al. 1986b)** Hatcher, R. D., Jr., Hopson, J. L., Edelman, S. H., Liu, A., McClellan, E. A., Stieve, A. L., Detailed Geologic Map of the Appalachian Ultradeep Core Hole (ADCOH) Region: New Constraints on the Structure of the Southern Appalachian Internides: *Geological Society of America Abstracts with Programs*, v. 18, p. 631, 1986.

**(Hatcher et al. 1988)** Hatcher, R. D., Jr., Hooper, R. J., Heyn T., McConnell, K. I., and Costello, J. O., Geometric and time relations of thrusts in the crystalline southern Appalachians: in Mitra, G., and Wojtal, S., eds., Geometry and mechanisms of Aooalachian thrusting, with special reference to the Appalachians: Geological Society of America Special Paper 222, p. 185-196, 1988.

**(Hatcher et al. 1990)** Hatcher, R. D. Jr., Osberg, P. H., Drake, A. A., Jr., Robinson, P., and Thomas, W. A., Tectonic Map of the U. S. Appalachians, Plate 1, in Hatcher, R. D., Jr., Thomas, W. A., and Viele, G. W., (eds.), the Appalachian-Ouachita orogen in the United States: Boulder, Colorado, Geological Society of America, the Geology of North America, v. F-2, scale 1/2,5000,000, 1990.

**(Hatcher et al. 1994)** Hatcher, R. D., Jr., Colquhoun, D. J., Secor, D. T., Cook, F. A., Dillon, W. P., Klitgord, K. D., Popenoe, P., Merschat, C. E., Wiener, L. E., Milici, R. C., Nelson, A. E., Sheridan, R. E., and Snoke, A. W., Continent-ocean transect E5 - Cumberland Plateau (North American Craton) to Blake Plateau Basin: Geological Society of America, scale 1:500,000, 1994.

**(Hatcher et al. 1996)** Hatcher, R. D., Jr., Carter, M. W., Clark, G. M., and Mills, H. H., Large landslides in western Blue Ridge of Tennessee and North Carolina: Normal mass-wasting phenomena, products of late Pleistocene climates, or smoking gun for earthquake(s) in East Tennessee?: Geological Society of America Abstracts with Programs, v. 28, no. 7, p. A-299, 1996.

**(Hatcher et al. 2002)** Hatcher, R.D., Jr., An Inner Piedmont primer, in Hatcher, R.D., Jr., and Bream, B.R., eds., Inner Piedmont geology in the South Mountains-Blue Ridge Foothills and the southwestern Brushy Mountains, central-western North Carolina: North Carolina Geological Survey, Carolina Geological Society annual field trip guidebook, p. 1-18, 2002.

**(Hatcher et al. 2005)** Hatcher, R.D., Jr., and Merschat, A. J., eds., and J. R. Thigpen, Blue Ridge Primer, in Hatcher, R.D., Jr., and Merschat, A.J. (eds.), Blue Ridge Geology Geotraverse East of the Great Smoky Mountains National Park, Western North Carolina: North Carolina Geological Survey, Carolina Geological Society Annual Field Trip Guidebook, p. 1-24, 2005.

**(Hauser 1993)** Hauser, E. C., Grenville foreland thrust belt hidden beneath the eastern U.S. mid-continent: Geology, v. 21, p. 61-64, 1993.

**(Henry 1995)** Henry, V. J., Summary of results of a seismic survey of the Savannah river adjacent to the Savannah River Plant Site, Burke County, Georgia, Georgia Geologic survey project report 24, 22 p., 1995.

**(Heyn 1988)** Heyn, T., Geology of the hinge zone of the Sauratown Mountains anticlinorium, North Carolina, in Hatcher, R.D., Jr., ed., Structure of the Sauratown Mountains window, North Carolina: Carolina Geological Society Guidebook, p. 20-50, 1988.

**(Hooper and Hatcher 1988)** Hooper, R. J., and Hatcher, R. D., Jr., The Pine Mountain Terrane, a complex window in the Georgia and Alabama Piedmont- Evidence from the eastern termination: Geology, v. 16, p. 307-310, 1988.

**(Hopson 1989)** Hopson, J. L., Structure, stratigraphy, and petrogenesis of the Lake Burton mafic-ultramafic complex, in Fritz, W. J., Hatcher, R. D., Jr., and Hopson, J.L. eds., Georgia Geological Society Guidebook, v. 9, p. 93-100, 1989.

**(Hopson et al. 1989)** Hopson, J. L., Hatcher, R. D. Jr., and Stieve, A. L., Geology of the eastern Blue Ridge of northeast Georgia and the adjacent Carolinas, in Fritz, W. J., Hatcher, R. D., Jr., and Hopson, J. L., Georgia Geological Society Guidebook, v. 9, p. 1 – 38, 1989.

**(Horton 1981)** Horton, J. W., Jr., Shear zone between the Inner Piedmont and Kings Mountain belts in the Carolinas: Geology, v. 9, p. 28-33, 1981.

**(Horton and McConnell 1991)** Horton, J. W. Jr., and McConnell, K. I., The Western Piedmont, in Horton, J. W., Jr., Zullo, V. A. (eds, The Geology of the Carolinas: Carolina Geological Society 50th Anniversary Volume, p. 36-48, 1991.

**(Horton et al. 1989)** Horton, J. W., Drake, A. A., and Rankin, D. W., 1989, Tectonstratigraphic Terranes and their Paleozoic boundaries in the central and southern Appalachians, Geological Society of America, Special Paper 230, p. 213-245, 1989.

**(Horton et al. 1991)** Horton, J.W., Drake, A.A., Rankin, D.W., and Dallmyer, R.D., Preliminary Tectonstratigraphic Terrane map of the central and southern Appalachians, U.S. Geological Survey, Misc. Investigations Series, Scale 1:2,000,000, 1991.

**(Hough et al. 2000)** Hough, S. E., Armbruster, J. G., Seeber, L., and Hough, S. E., On the Modified Mercalli intensities and magnitudes of the 1811-1812 New Madrid earthquakes: Journal of Geophysical Research, v. 105, no. B10, p. 23, 839-864, 2000.

**(Huddleston and Hetrick 1978)** Huddleston, P. F. and Hetrick, J. H., "Stratigraphy of the Tobacco Road Sand—A New Formation," Georgia Geologic Survey Bulletin 93, pp. 56-77, 1978.

**(Huddleston and Hetrick 1985)** Huddleston, P. F. and Hetrick, J. H., Upper Eocene stratigraphy of central and eastern Georgia: Georgia Geologic Survey Bulletin 95, 78 p, 1985.



**(Huddleston and Summerour 1996)** Huddleston, P. F., and Summerour, J. H., The lithostratigraphic framework of the uppermost Cretaceous and lower Tertiary of eastern Burke County, Georgia: Georgia Geologic Survey Bulletin 127, 94 p., 1996.

**(Humphreys and Coblentz in review)** Humphreys, E. D. and Coblentz, D. D., North America dynamics and western U.S. tectonics: manuscript submitted to Reviews of Geophysics, in review.

**(Hutchinson and Klitgord 1986)** Hutchinson, D. R. and Klitgord, K. D., Evolution of Rift Basins on the Continental Margin off Southern New England, in Manspeizer, Warren, ed., Triassic-Jurassic Rifting: North America and Africa: American Association of Petroleum Geologists Memoir, 1986.

**(Iverson and Smithson 1983)** Iverson, W. P., and Smithson, S. B., Reprocessing and reinterpretation of COCORP southern Appalachian profiles: Earth and Planetary Science Letters, v. 62, p. 75-90, 1983.

**(Johnson 1942)** Johnson, D. W., The origins of Carolina bays: New York, Columbia University Press, 341p., 1942.

**(Johnston 1996)** Johnston, A. C., Seismic moment assessment of earthquake in stable continental regions - III. New Madrid 1811-1812, Charleston 1886 and Lisbon 1755: Geophysical Journal International, v. 126, p. 314-344, 1996.

**(Johnston and Reinbold 1985)** Johnston, A. C. and Reinbold, D. J., A basement block model for southern Appalachian seismicity: Geological Society of America Abstracts with Programs, v. 17, no. 2, p. 97, 1985.

**(Johnston and Schweig 1996)** Johnston, A. C., and Schweig, E. G., The enigma of the New Madrid earthquakes of 1811-1812: Annual Review of Earth and Planetary Sciences, v. 24, p. 339-384, 1996.

**(Johnston et al. 1985)** Johnston, A. C., Reinbold, D. J., and Brewer, S. I., Seismotectonics of the southern Appalachians: Bulletin of the Seismological Society of America, v. 75, no. 1, p. 291-312, 1985.

**(Johnston et al. 1994)** Johnston, A. C., Coopersmith, K. J., Kanter, L. R., and Cornell, C. A., The earthquakes of stable continental regions, volume I: assessment of large earthquake potential, Final Report TR-102261-V1, prepared for Electric Power Research Institute, 1994.

**(Kaczorowski 1976)** Kaczorowski, R. T., Origin of the Carolina bays, in Hayes, M. O., and Kana, T. W. (eds., Terrigenous clastic depositional environments: Technical report No. 11-CRD,

Coastal Research Division, Department of Geology, University of South Carolina, Columbia, p. II-16 to II-36, 1976.

**(Kanter 1994)** Kanter, L. R., Tectonic interpretation of Stable Continental Crust in : The Earthquakes of Stable Continental Regions, prepared by Johnston, A.C.; Coppersmith, K.J.; Kanter, L.R.; Cornell, C.A., Electric Power Research Institute, pp. 2.1 - 2.98, 1994.

**(Keen and Haworth 1985)** Keen, C.E., and R.T. Haworth, DNAG Transect D-3: Rifted continental margin off Nova Scotia: Offshore eastern Canada: Geological Society of America, Centennial Continent/Ocean Transect #4, Boulder, Colorado, 1985.

**(Kelson et al. 1996)** Kelson, K. I., Simpson, G. D., van Arsdale, R. B., Haraden, C. C., and Lettis, W. R., Multiple late Holocene earthquakes along the Reelfoot fault, central New Madrid seismic zone, Journal of Geophysical Research, v. 101, no. B3, p. 6151-6170, 1996.

**(Kidd 1996)** Kidd, N. B., Determination of the hydraulic properties of coastal plain aquifers at Millers Pond and Millhaven, east-central Georgia: Clemson, S.C., Clemson University, M.S. thesis, 153 p., 1996.

**(King 1955)** King, P. B., A geologic cross section across the southern Appalachians, an outline of the geology in the segment in Tennessee, North Carolina, and South Carolina, in Russell, R.J., ed., Guides to southeastern geology: Geological Society of America Annual Meeting, p. 332-373, 1955.

**(King 1964)** King, P. B., Geology of the central Great Smoky Mountains: Tennessee: U. S. Geological Survey Professional Paper 340-C, 148 p., 1964.

**(King 1971)** King, P. B., Systematic Pattern of Triassic Dikes in the Appalachian Region, Second Report: U.S. Geological Survey Professional Paper 759-D, 1971.

**(King and Beikman 1974)** King, P.B. and Beikman H.M., Geologic Map of the United States (exclusive of Alaska and Hawaii): U.S. Geological Survey, 3 map sheets, 1:250,000 scale, 1974.

**(King and Zietz 1978)** King, E. R. and Zietz, I., The New York-Alabama lineament: geophysical evidence for a major crustal break in the basement beneath the Appalachian basin: Geology, v. 6. p. 312-318, 1978.

**(King et al. 1968)** King, P. B., Neuman, R. B., and Hadley, J. B., Geology of the Great Smoky Mountains National Park, Tennessee and North Carolina: U. S. Geological Survey Professional Paper 587, 23 p., 1968.

**(Klitgord and Schouten 1986)** Klitgord, K. D., Schouten, H., Plate kinematics of the central Atlantic: in Vogt, P.R., and B.E. Tucholke (editors, The Geology of North America, Vol M: The

Western North Atlantic Region, DNAG Publication, Geological Society of America, Boulder, Colorado, pp. 351-378, 1986.

**(Klitgord et al. 1988)** Klitgord, K. D., Hutchinson, D. R., Schouten, H., US Atlantic continental margin: structural and tectonic framework: in Sheridan, R.E., and J. A. Grow (editors, The Geology of North America, v I-2, The Atlantic Continental Margin: US., DNAG Publication, Vol. I-1, Geological Society of America, Boulder, Colorado, pp. 19-25, 1988.

**(Knight 1993)** Knight, J. P., Transmittal of GSB/HGEB Staff Review of Vogtle Fault Investigation Report, "Studies of Postulated Millett Fault, NRC internal memorandum for T. M. Novak, January 26, 1993, 4p., 1993.

**(Lennon 1986)** Lennon, G., Identification of a northwest trending seismogenic graben near Charleston, South Carolina, U. S. Nuclear Regulatory Commission Report, NUREG/CR-4075, 43p., 1986.

**(Lindholm 1978)** Lindholm, R. C., Triassic-Jurassic Faulting in Eastern North America--A Model Based on Pre-Triassic Structures: Geology. v. 6, pp. 365-368, 1978.

**(Logan and Euler 1989)** Logan, W. R., and Euler, G. M., Geology and ground-water resources of Allendale, Bamberg, and Barnwell Counties and part of Aiken County, South Carolina: South Carolina Water Resources Commission Report 155, 113 p., 1989.

**(Long and Chapman 1977)** Long L.T., and J.W. Chapman, Jr., Bouguer gravity map of the Summerville-Charleston, South Carolina epicentral zone and tectonic implications, in Rankin, D.W. (editor), Studies related to the Charleston, South Carolina earthquake of 1886 -- A preliminary report: U. S. Geological Survey Professional Paper 1028, p 151- 166, 1977.

**(Luetgert et al. 1994)** Luetgert, J. H., Benz, H. M., and Madabhushi, S., Crustal structure beneath the Atlantic Coastal Plain of South Carolina: Seismological Research Letters, vol 65, no. 2., p. 180-191, 1994.

**(Madabhushi and Talwani 1990)** Madabhushi, S. and Talwani, P., Composite fault plane solutions of recent Charleston, South Carolina, earthquakes: Seimological Research Letters, v. 61, no. 3-4, p. 156, 1990.

**(Madabhushi and Talwani 1993)** Madabhushi, S., and Talwani, P., Fault plane solutions and relocations of recent earthquakes in Middleton Place-Summerville Seismic Zone near Charleston, South Carolina: Bulletin of the Seismological Society of America, v. 83, no. 5, p. 1442-1466, 1993.



**(Maher 1978)** Maher, H. D. "Stratigraphy and Structure of the Belair and Kiokee Belts near Augusta, Georgia," Geological Investigations of the Eastern Piedmont, Southern Appalachians: Carolina Geological Society Field Trip Guidebook. ed., A. W. Snoke, South Carolina Geological Survey, pp. 47-54, 1978.

**(Maher 1979)** Maher, H.D., Jr., Stratigraphy, metamorphism, and structure of the Kiokee and Belair belts near Augusta, Georgia (MS thesis: Columbia, South Carolina, University of South Carolina, 94 p., 1979.

**(Maher 1987)** Maher, H. D., Kinematic history of mylonitic rocks from the Augusta fault zone, South Carolina and Georgia: American Journal of Science, v. 287, p. 795-816, 1987.

**(Maher et al. 1991)** Maher, H. D., Sacks, P.E., Secor, D. T., Jr. 1991, The eastern Piedmont of South Carolina, in Horton, Jr., J.W. and Zullo, V.A. (editors, The Geology of the Carolinas, University of Tennessee Press, Knoxville, p. 93-108.

**(Maher et al. 1992)** Maher, H. D., Jr., Sacks, P., Secor, D., and Wright, J., Magmatic softening in the orogenic hinterlands southern Appalachian Piedmont, Georgia: Geological Society of America Abstracts with Programs, v.24, no.2, 1992.

**(Maher et al. 1994)** Maher, H. D., Dallmeyer, R. D., Secor Jr., D. T., and Sacks, P. E., 40-Ar/39-Ar constraints on chronology of August fault zone movement and late Alleghanian extension, southern Appalachian piedmont, South Carolina and Georgia: American Journal of Science, v. 294, p. 428-448, 1994.

**(Manspeizer et al. 1978)** Manspeizer, W., Puffer, J. H. and Cousminer, H. L., Separation of Morocco and Eastern North America: A Triassic-Liassic Stratigraphic Record: Geological Society of America Bulletin. v. 89, pp. 901-920, 1978.

**(Marine 1974a)** Marine, I. W., Geohydrology of buried Triassic basin at Savannah River Plant, South Carolina: American Association of Petroleum Geologists Bulletin, v. 58, p. 1825-1837, 1974.

**(Marine 1974b)** Marine, I. W., Geohydrology of the buried Triassic basin at the Savannah River Plant: Groundwater, vol. 2, 96 pp., 1974.

**(Marine and Siple 1974)** Marine, I. W., and Siple, G. E., Buried Triassic basin in the central Savannah River area, South Carolina and Georgia: Geologic Society of America Bulletin, v. 85, p. 311-320, 1974.

**(Markewich 1985)** Markewich, H. W., Geomorphic evidence for Pliocene - Pleistocene uplift in the area of the Cape Fear Arch, North Carolina, in Morisawa, M., and Hock, J. T. (eds.),

Tectonic Geomorphology: Proceedings of the 15th Annual Binghampton Geomorphology Symposium, Allen and Unwin, Boston, Massachusetts, P. 279 – 297, 1985.

**(Markewich and Christopher 1982)** Markewich, H. W., and Christopher, R. A., Pleistocene and Holocene fluvial history of Uphapee Creek, Macon County, Alabama: U. S. Geological Survey Bulletin 1522, 16p., 1982.

**(Marple and Talwani 1993)** Marple, R. T. and Talwani, P., Evidence for possible tectonic upwarping along the South Carolina coastal plain from an examination of river morphology and elevation data: *Geology*, v. 21, p. 651-654, 1993.

**(Marple and Talwani 2000a)** Marple, R. T. and Talwani P., Evidence for a buried fault system in the coastal plain of the Carolinas and Virginia; implications for neotectonics in the Southeastern United States: *Geological Society of America Bulletin*, v. 112, no. 2, p. 200-220, 2000.

**(Marshak and Mitra 1988)** Marshak, S. and Mitra., G., Basic Methods of Structural Geology: Prentice Hall, Englewood Cliffs, New Jersey, 446p., 1988.

**(McBride 1991)** McBride, J. H., Constraints on the Structure and Tectonic Development of the Early Mesozoic South Georgia Rift, Southeastern United States; Seismic Reflection Data Processing and Interpretation: *Tectonics*, vol. 10, No. 5, pp. 1065-1083, 1991.

**(McClelland 1987)** McClelland, S. A., Surface and subsurface stratigraphy of Cretaceous and younger strata along the Savannah River from southern Richmond County through Burke County, Georgia: Columbia, S.C., University of South Carolina, M.S. thesis, 123 p., 1987.

**(McConnell 1988)** McConnell, K. I., Geology of the Sauratown Mountains anticlinorium: Vienna and Pinnacle 7.5 minute quadrangles, in Hatcher, R.D., Jr., ed., *Structure of the Sauratown Mountains window*, North Carolina: Carolina Geological Society Guidebook, p. 51-66, 1988.

**(McConnell 1994)** McConnell, D. A., Fixed-hinge, basement-involved fault-propagation folds, Wyoming: *Geological Society of America Bulletin*, v. 106, p. 1583-1593, 1994.

**(Melton and Schriever 1933)** Melton, I. A., and Schriever, W., the Carolina “bays” - are they meteorite scars?: *Journal of Geology*, v. 41, p. 52 – 66, 1933.

**(Mittwede et al. 1987)** Mittwede, S. K., Odegard, M., and Sharp, W. E., Major chemical characteristics of the Hammett Grove meta-igneous suite, northeastern South Carolina: *Southeastern Geology*, v. 28, no. 1, p. 49 – 63, 1987.

**(Mixon et al. 1989)** Mixon, R. B., Berquist, C. R., Jr., Newell, W. L., and Johnson, G. H., Geologic map of the Coastal Plain and adjacent parts of the Piedmont, Virginia: U. S. Geological Survey Miscellaneous Investigations Map I-2033, 2 pls., scale 1:250,000, 1989.

**(Moos and Zoback 1992)** Moos, D. and Zoback, M. D., In situ stress measurements in the NPR Hole, Volume I – results and interpretations: Final Report submitted to Westinghouse Savannah River Company, WSRC-TR-2001-00499, DOE Contract No. DE-AC09-96SR18500, 41 p., 1992.

**(Nelson and Zietz 1981)** Nelson, A. E. and Zietz, I., The Clingman Lineament: aeromagnetic evidence for a major discontinuity in the North American basement: Geological Society of America Abstracts with Programs, v. 13, no. 1, p. 31, 1981.

**(Nelson et al. 1985)** Nelson, K. D., Arnow, J. A., McBride, J. H., Willemin, J. H., Huang, J., Zheng, L., and Oliver, J. E., New COCORP Profiling in the Southeastern United States. Part I: Late Paleozoic Suture and Mesozoic Rift Basin: Geology, vol. 13, pp. 714-718, 1985.

**(Nelson et al. 1987)** Nelson, A. E., Horton, J. W., Jr., and Clarke, J. W., Generalized Tectonic Map of the Greenville 10 X 20 quadrangle, Georgia, South Carolina, and North Carolina: U. S. Geological Survey Miscellaneous Field Studies Map MF-1898, scale 1:250,000, 1987.

**(Neuman and Nelson 1965)** Neuman, R.B. and Nelson, W. H., Geology of the western Great Smoky Mountains, Tennessee: U. S. Geological Survey Professional Paper 349-D, 81 p., 1965.

**(Noel et al. 1988)** Noel, J. R., Spariosu D., J., and Dallmeyer, R. D., Paleomagnetism and 40 Ar/39Ar ages from the Carolina slate belt, Albemarle, North Carolina: Implications for Terrane amalgamation: Geology, v. 16, p.64-68, 1988.

**(Nystrom et al. 1990)** Nystrom, P. G., Willoughby, R. H., and Dockery, D. T. III, Claibornian Stratigraphy of the Savannah River Site and Surrounding Area: Zullo, V. A., Harris, W. B., and Price, Van, eds., 1990, Savannah River Region: Transition between the Gulf and Atlantic Coastal Plains: Proceedings of the second Bald Head Island Conference on Coastal Plains Geology, Hilton Head Island, November 6-11, pp. 56-61, 1990.

**(O'Connor and Prowell 1976)** O'Connor, B. J., and Prowell, D. C., The geology of the Belair fault zone and basement rocks of the Augusta Georgia area: Georgia Geological Society Guidebook 16, p. 21-32, 1976.

**(Obermeier and McNulty 1998)** Obermeier, S. F., and McNulty, W. E., Paleoliquefaction evidence for seismic quiescence in central Virginia during the late middle Holocene time: Eos Transactions of the American Geophysical Union, v. 79, no. 17, p. S342, 1998.



**(Obermeier and Pond 1999)** Obermeier, S. F., and Pond, E. C., Issues in using liquefaction features for paleoseismic analysis: *Seismological Research Letters*, v. 70, no. 1, p. 34-58, 1999.

**(Obermeier et al. 1985)** Obermeier, S. F., Gohn, G. S., Weems, R. E., Gelinas, R. L., and Rubin, M., Geologic evidence for recurrent moderate to large earthquakes near Charleston, South Carolina: *Science*, v. 227, no. 4685, p. 408-411, 1985.

**(Obermeier et al. 1990)** Obermeier, S. F., Jacobson, R. B., Smoot, J. P., Weems, R. E., Gohn, G. S., Monroe, J. E., and Powars, D. S., Earthquake-induced liquefaction features in the coastal setting of South Carolina and in the fluvial setting of the New Madrid seismic zone: U. S. Geological Survey Professional Paper 1504, p. 44, 1990.

**(Olsen 1978)** Olsen, P.E., On the use of the term Newark for Triassic and early Jurassic rocks of eastern North America: *Newsletters on Stratigraphy*, v. 7, p. 90-95, 1978.

**(Olsen and Schlische 1988)** Olsen, P.E., and Schlische, R. W., Unraveling the rules of rift basins: *Geological Society of America Abstracts with Programs*, v. 20, p. A123, 1988.

**(Olsen et al. 1991)** Olsen, P. E.; Froelich, A. J.; Daniels, D. L.; Smoot, J. P.; Gore, P. J. W., Rift basins of early Mesozoic age: in Horton, Jr., J.W. and Zullo, V.A. (editors, *The Geology of the Carolinas*, University of Tennessee Press, Knoxville, pp.142-170, 1991.

**(Parsons Brinckerhoff 1973)** Parsons, Brinckerhoff, Quade, and Douglass, Inc., Bedrock Waste Storage Project, Triassic Basin Fault Probing Program Report, Du Pont de Nemours and Co., Savannah River Plant, Aiken, South Carolina, 1973.

**(Petersen et al. 1984)** Petersen, T. A., Brown, L. D., Cook, F. A., Kaufman, S., and Oliver, J. E., Structure of the Riddville Basin from COCORP Seismic Data and Implications for Reactivation Tectonics: *Journal of Geology*, vol. 92, pp. 261-271, 1974.

**(Petty et al. 1965)** Petty, A. J., Petrafeso, F. A., and Moore, F. C., Jr., Aeromagnetic map of the Savannah River Plant Area, South Carolina and Georgia: U.S. Geological Survey Geophysical Investigations Map GP-489, scale 1:250,000, 1965.

**(Poag and Valentine 1988)** Poag, C. W. and Valentine, P.C., Mesozoic and Cenozoic stratigraphy of the US Atlantic continental shelf and slope. in Sheridan, R.E., and J. A. Grow (editors, *The Geology of North America*, v I-2, *The Atlantic Continental Margin: US.*, DNAG Publication, Vol. I-1, Geological Society of America, Boulder, Colorado, p. 67- 85, 1988.

**(Powell et al. 1994)** Powell, C. A. Bollinger, G. A., Chapman, M. C., Sibol, M. S. and Johnston, A. R., A seismotectonic model for the 300 km-long eastern Tennessee seismic zone, *Science*, v. 264, p. 686-688, 1994.

**(Preston and Brown 1964)** Preston, C.D., and Brown, C.Q., Geologic section along a Carolina bay, Sumter County, SC. *Southeastern Geology*, v. 6, no. 1, p. 21-29, 1964.

**(Price et al. 1989)** Price, V., Steele, J., Stieve, A., Pen Branch Fault Investigation Program Plan, ESS-SRL-89-395, 1989.

**(Prouty 1952)** Prouty, W. F., Carolina bays and their origins: *Geological Society of America Bulletin*, v. 63, p. 167 – 224, 1952.

**(Prowell 1988)** Prowell, D. C., Cretaceous and Cenozoic tectonism on the Atlantic Coastal Margin, in Sheridan, R. E. and Grow, J. A. (eds., the geology of North America, the Atlantic Continental Margin, U. S. Geological Society of America, v. I-2, p. 557 – 564, 1988.

**(Prowell 1996)** Prowell, D. C., Geologic map of the Savannah River site, Aiken, Allendale, and Barnwell Counties, South Carolina: U. S., Geological Survey, misc. field studies map MF-2300, 1996.

**(Prowell 2005)** Prowell, D.C., Personal Communication, 2005.

**(Prowell and O'Connor 1978)** Prowell, D. C., and O'Connor, B. J., Belair fault zone: evidence of Tertiary fault displacement in eastern Georgia: *Geology*, v. 6, p. 681-684, 1978.

**(Prowell et al. 1975)** Prowell, D. C., O'Connor, B. J., and Rubin, M., Preliminary evidence for Holocene movement along the Belair fault zone near Augusta, Georgia: U. S. Geological Survey Open File Report 75-680, p. 15, 1975.

**(Prowell et al. 1985a)** Prowell, D. C., Christopher, R. A., Edwards, L. E., Bybell, L. M., and Gill, H. E., Geologic section of the updip Coastal Plain from central Georgia to western South Carolina: USGS Miscellaneous Field Studies, Map MF-1737, 1985.

**(Prowell et al. 1985b)** Prowell, D. C., Edwards, L. E., and Frederiksen, N. O., The Ellenton Formation in South Carolina, A Revised Age Designation from Cretaceous to Paleocene: *United States Geological Survey Bulletin* 1605-A, 1985.

**(Rast and Kohles 1986)** Rast, N., and Kohles, K.M., The origin of the Ocoee Supergroup: *American Journal of Science*, v. 286, p593-616, 1986.

**(Ratcliffe 1971)** Ratcliffe, N. M. "The Ramapo Fault System in New York and Adjacent Northern New Jersey: A Case of Tectonic Heredity," *Geological Society of America Bulletin*. v. 82, pp. 125-142, 1971.

**(Richardson and Reding 1991)** Richardson, R. M., and Reding, L. M., North American Plate dynamics: *Journal of Geophysical Research*, v. 96, no. B7, p. 12,201-12,223, 1991.

**(Rozen 1981)** Rozen, R.W., The Middleton-Lowndesville cataclastic zone in the Elberton East quadrangle, Georgia, in Horton, J.W., Jr., Butler, J.R., and Milton, D.M., eds., Geological investigations of the Kings Mountain belt and adjacent areas in the Carolinas: Carolina Geological Society Guidebook, p. 174-180, 1981.

**(Sacks and Dennis 1987)** Sacks, P. E., and Dennis, A. J., The Modoc Zone-D2 (Early Alleghenian in the Eastern Appalachian Piedmont, South Carolina and Georgia: Anatomy of the Alleghenian Orogeny as Seen from the Piedmont of South Carolina and Georgia, Carolina Geological Society Field Trip Guidebook. ed., D T. Secor, Jr., South Carolina Geological Survey, pp. 19-34, 1987.

**(Sacks et al. 1987)** Sacks, P. E., Maher, H.D., Jr., and Secor, D. T., The Burks Mountain belt of ultramafic rocks in the Kiokee belt, southern Appalachian Piedmont: Geological Society of America Abstracts with Programs, v. 19, p.127, 1987.

**(Samson et al. 1990)** Samson, S., Palmer, A.R., Secor, D. T., Jr., Biogeographical significance of Cambrian trilobites from the Carolina Site Belt: Geological Society of America Bulletin, v. 102, p. 1459-1470, 1990.

**(Savage 1982)** Savage, H., Jr., The mysterious Carolina bays: Columbia University Press, 121 p. Schlische, R. W., and Olsen, P.E., 1992, Quantitative filling model for continental extensional basins with application to the early Mesozoic rifts of eastern North America. Journal of Geology, 1982.

**(Schlische and Olsen 1990)** Schlische, R. W. and Olsen, P.E., Quantitative filling model for continental extensional basins with application to the early Mesozoic rifts of eastern North America: Journal of Geology, v. 98, p. 135-155, 1990.

**(Schumaker 2000)** Shumaker, R. C., The New York-Alabama lineament: an early Iapetus wrench fault?: American Association of Petroleum Geologists Bulletin, v. 84, no.4, p. 1393, 2000.

**(Secor 1987)** Secor, D. T., Jr., Regional Overview - Anatomy of the Alleghenian Orogeny as Seen from the Piedmont of South Carolina and Georgia: Carolina Geological Society Field Trip Guidebook. ed., D. T. Secor, Jr., South Carolina Geological Survey, pp. 1-18, 1987.

**(Secor et al. 1983)** Secor, D. T., Jr., Samson, S. L., Snoke, A. W., and Palmer, A. R., Confirmation of Carolina Slate Belt as an Exotic Terrane: Science, v. 221, pp. 649-651, 1983.

**(Secor et al. 1986a)** Secor, D.T. Jr., Snoke, A.W., Bramlett, K.W., Costello, O.P., and Kimbrell, O.P., Character of the Alleghanian orogeny in the southern Appalachians Part I. – Alleghanian

deformation in the eastern Piedmont of South Carolina: Geological Society of America Bulletin, v. 97, p. 1319-1328, 1986.

**(Secor et al. 1986b)** Secor, D.T., Jr., Snoke, A.W., and Dallmeyer, R.D., Character of the Alleghanian orogeny in the southern Appalachians: Part III. Regional tectonic relations: Geological Society of America Bulletin, v.97, p. 1345-1353, 1986.

**(Seeber and Armbruster 1981)** Seeber, L., and Armbruster, J. G., The 1886 Charleston, South Carolina earthquake and the Appalachian detachment: Journal of Geophysical Research, v. 86, no. B9, p. 7874-7894, 1981.

**(Sheridan et al. 1993)** Sheridan, R. E., Musser, D. L., Glover, L., Talwani, P., Ewing, J. I., Holbrook, W. S., Purdy, G. M., Hawman, R., and Smithson, S., Deep seismic reflection data of EDGE U.S. mid-Atlantic continental-margin experiment: implications for Appalachian sutures and Mesozoic rifting and magmatic underplating: Geology, v. 21, p. 563-567, 1993.

**(Siple 1967)** Siple, G. E., "Geology and Ground Water of the Savannah River Plant and Vicinity, South Carolina", United States Geological Survey Water Supply, Paper no. 1841, p. 113, 1967.

**(Sloan 1908)** Sloan, Earle, Catalogue of mineral localities of South Carolina: South Carolina Geological Survey, ser. 4, Bulletin 2, p. 449–453, 1908.

**(Smith 1931)** Smith, L. L., Solution depressions in sandy sediments of the Coastal Plain in South Carolina: Journal of Geology, v. 39, p. 641-652, 1931.

**(Smoot 1985)** Smoot, J. P., The closed-basin hypothesis and its use in facies analysis of the Newark Supergroup, in Robinson, G. R., Jr., and Froelich, A.J., eds., Proceedings of the second US Geological Survey workshop on the early Mesozoic basins of the eastern US: United States Geological Survey Circular 946, p. 4-10, 1985.

**(Snipes et al. 1989)** Snipes, D.S., Fallaw, W.C., and Price Jr., V., The Pen Branch fault: documentation of late Cretaceous and Tertiary faulting in the coastal plain of South Carolina (DRAFT): Westinghouse Savannah River Company draft report, 44 p., January 8, 1989.

**(Snipes et al. 1993a)** Snipes, D. S., W. C. Fallaw, V. Price, Jr., and R. J. Cumbest, 1993, The Pen Branch Fault: Documentation of late Cretaceous-Tertiary faulting in the Coastal Plain of South Carolina: Southeastern Geology, v. 33, no. 4, p. 195-218, 1993.

**(Snipes et al. 1993b)** Snipes, D. S., Hodges, R. A., Warner, R. D., Fallaw, W. C., Price, V. Jr., Cumbest, R. J., and Logan, W. R., The Martin Fault: Southeastern boundary of the early Mesozoic Dunbarton Basin, Abstract with Programs, Geological Society of America Annual Meeting, Boston, MA, 1993.



**(Snoke and Frost 1990)** Snoke, A. W., and Frost, B. R., Exhumation of high pressure pelitic schist, Lake Murray Spillway, South Carolina: Evidence for crustal extension during Alleghanian strike-slip faulting: *American Journal of Science*, v. 290 p.853-881, 1990.

**(Snoke et al. 1980)** Snoke, A. W., S. A. Kish, and D. T. Secor, J, Deformed Hercynian granitic rocks from the Piedmont of South Carolina: *American Journal of Science*. v. 280, pp. 1018-1034, 1980.

**(Sohl and Owens 1991)** Sohl, N. F., and Owens, J. P., Cretaceous stratigraphy of the Carolina Coastal Plain, in Horton, J. W., Jr., and Zullo, V. A., eds., *Geology of the Carolinas*: Knoxville, Tenn., University of Tennessee Press, p. 191–220, 1991.

**(Soller 1988)** Soller, D. R., *Geology and tectonic history of the lower Cape Fear River valley, southeastern North Carolina*: U.S. Geological Survey, Professional Paper 1466-A, 60 p., 1988.

**(Soller and Mills 1991)** Soller, D. R., and Mills, H.H., Surficial geology and geomorphology, in Horton, Jr., J. W., and Zullo, V. A., *The Geology of the Carolinas*, Carolina Geological Society Fiftieth Anniversary Volume, University of Tennessee Press, Knoxville, pp. 290-308, 1991.

**(Steele 1985)** Steele, K.B., Lithostratigraphic correlation of Cretaceous and younger strata of the Atlantic Coastal Plain province within Aiken, Allendale and Barnwell Counties, South Carolina: Columbia, S.C., University of South Carolina, M.S. thesis, 174 p., 1985.

**(Steltenpohl 1988)** Steltenpohl, M.G., Kinematics of the Towaliga, Bartletts Ferry, and Goat Rock fault zones, Alabama: The late Paleozoic dextral shear system in the southernmost Appalachians: *Geology*, v. 16, p. 852-888, 1988.

**(Stephenson and Stieve 1992)** Stephenson, D. E., and Stieve, A., Structural model of the basement in the central Savannah River area, South Carolina and Georgia, Westinghouse Savannah River Company Technical Report 92-120, 1992.

**(Stevenson 1982)** Stevenson, A. C., Geomorphic history of a portion of the Savannah River flood plain, Barnwell County, South Carolina: Master of Science Thesis, University of South Carolina, 108p., 1982.

**(Stieve and Stephenson 1995)** Stieve, A.L. and Stephenson, D. E., Geophysical evidence for post Late Cretaceous reactivation of basement structures in the central Savannah River area, *Southeastern Geology*, v 35., no.1, p. 1-20, 1995.

**(Stieve et al. 1994)** Stieve, A., Coruh, C., and Costain, J., Confirmatory drilling project final report (U): Westinghouse Savannah River Company Report WSRC-RP-94-013, 298p., 1994.

**(Summerour et al. 1998)** Summerour, J. H., Shapiro, E. A., and Huddleston, P. F., An investigation of Tritium in the Gordon and other aquifers in Burke County, Georgia – Phase II: Georgia Department of Natural Resources, Georgia Geologic Survey information circular 102, 12 p., 1998.

**(Suppe and Medwedeff 1990)** Suppe, J., and Medwedeff, D. A., Geometry and kinematics of fault-propagation folding: *Eclogae Geol. Helv.*, v. 83, no. 3, p. 409-454, 1990.

**(Talwani 1982)** Talwani, P., An internally consistent pattern of seismicity near Charleston, South Carolina: *Geology*, v. 10, no. 12, p. 654-658, 1982.

**(Talwani 1999)** Talwani, P., Fault geometry and earthquakes in continental interiors: *Tectonophysics*, v. 305, no. 1-3, p. 371-379, 1999.

**(Talwani 2000a)** Talwani, P., Macroscopic effects of the 1886 Charleston earthquake, A compendium of field trips of South Carolina Geology, South Carolina Geological Survey, 2000.

**(Talwani and Katuna 2004)** Talwani, P. and Katuna M., Macroseismic effects of the 1886 Charleston earthquake: Carolina Geological Society field trip guidebook, p. 18, 2004.

**(Talwani and Schaeffer 2001)** Talwani, P., and Schaeffer, W. T., Recurrence rates of large earthquakes in the South Carolina coastal plain based on paleoliquefaction data: *Journal of Geophysical Research*, v. 106, no. B4, p. 6621-6642, 2001.

**(Tarr and Rhea 1983)** Tarr, A. C., and Rhea, B. S., Seismicity near Charleston, South Carolina, March 1973 to December 1979, in Gohn, G. S., ed., *Studies Related to the Charleston, South Carolina Earthquake of 1886: Tectonics and Seismicity*, U.S. Geological Survey Professional Paper 1313, p. R1-R17, 1983.

**(Tarr et al. 1981)** Tarr, A. C., Talwani, P., Rhea, S., Carver, D., and Amick, D., Results of recent South Carolina seismological studies: *Bulletin of the Seismological Society of America*, v. 71, no. 6, p. 1883-1902, 1981.

**(Thom 1970)** Thom, B. G., Carolina bays in Horry and Marion counties, South Carolina: *Geological society of America Bulletin*, v. 18, p.783-814. Johnson, D. W., 1942, *The origin of Carolina bays*: New York, Columbia University Press, 341 p.. 1970.

**(Turcotte and Schubert 2002)** Turcotte, D. L., and Schubert, G., *Geodynamics*: Cambridge, UK, Cambridge University Press, 2002.

**(Tuttle et al. 2002)** Tuttle, M. P., Schweig, E. S., III, Sims, J. D., Lafferty, R. H., Wolf, L. W., and Haynes, M. L., The earthquake potential of the New Madrid seismic zone: *Bulletin of the Seismological Society of America*, v. 92, no. 6, p. 2080-2089, 2002.

**(Tuttle et al. 2005)** Tuttle, M. P., Schweig, E. S., Campbell, J., Thomas, P. M., Sims, J. D., and Lafferty, R. H., Evidence for New Madrid earthquakes in A. D. 300 and 2350 B. C., Seismological Research Letters, v. 76, no. 4, p. 489-501, 2005.

**(USACE 1952)** U.S. Army Corps of Engineers, Charleston District. Geologic-Engineering Investigations, Savannah River Plant. DPWR-52, E.I. du Pont de Nemours and Company, Savannah River Plant, Aiken, SC, 1952.

**(Van Arsdale 2000)** Van Arsdale, R. B., Displacement history and slip rate on the Reelfoot fault of the New Madrid seismic zone, Engineering Geology, v. 55, p. 219-226, 2000.

**(Van Arsdale et al. 1995)** Van Arsdale, R. B., Kelson, K. I., and Lurnsden, C. H., Northern extension of the Tennessee Reelfoot scarp into Kentucky and Missouri, Seismological Research Letters, v. 66, no. 5, p. 57-62, 1995.

**(Veatch and Stephenson 1911)** Veatch, Otto, and Stephenson, L.W., Preliminary report on the coastal plain of Georgia: Georgia Geologic Survey Bulletin 26, 446 p., 1911.

**(Vick et al. 1987)** Vick, H. K., Channell, J. E. T., and Opdyke, N.D., Ordovician docking of the Carolina slate belt: Paleomagnetic data: Tectonics, v.6, p.573-583, 1987.

**(Waddell et al. 1995)** Waddell, M. G., Keith, J. F., and Domoracki, W. J., High-resolution seismic characterization: GGS-1, Burke County, Georgia, Earth Sciences and Resources Institute, ESRI-USC Technical Report 95-F129-1, University of South Carolina, Columbia, 20 p., 1995.

**(Weems 1998)** Weems, R. E., Newly recognized en echelon fall lines in the Piedmont and Blue Ridge provinces of North Carolina and Virginia, with a discussion of their possible ages and origins: U.S. Geological Survey Open-File Report 98-0374, p. 52, 1998.

**(Weems and Lewis 2002)** Weems, R. E., and Lewis, W. C., Structural and tectonic setting of the Charleston, South Carolina, region; evidence from the Tertiary stratigraphic record: Geological Society of America Bulletin, v. 114, no. 1, p. 24-42, 2002.

**(Weems et al. 1997)** Weems, R. E., Lemon, E. M., Jr., and Nelson, M. S., Geology of the Pringletown, Ridgeville, Summerville, and Summerville Northwest 7.5-minute quadrangles, Berkeley, Charleston, and Dorchester counties, South Carolina: Miscellaneous Investigations Series - U. S. Geological Survey, 1997.

**(Wehr and Glover 1985)** Wehr, F., and Glover, L., III, Stratigraphy and tectonics of the Virginia-North Carolina Blue Ridge: Evolution of a late Proterozoic-Early Paleozoic hinge zone: Geological Society of America Bulletin, v. 96, p. 285-295, 1985.

**(Wentworth and Mergner-Keefer 1983)** Wentworth, C.M., and Mergner-Keefer, M., Regenerate faults of the southeastern United States, in Studies related to the Charleston, South Carolina, earthquake of 1886: Tectonics and seismicity, Gohn, G. S. (ed.), US Geological Survey Professional Paper 1313, pp. S1-S20, 1983.

**(Wheeler 1995)** Wheeler, R. L., Earthquakes and the cratonward limit of Iapetan faulting in eastern North America, *Geology*, v. 23, p. 105-108, 1995.

**(Wheeler 1996)** Wheeler, R. L., Earthquakes and the southeastern boundary of the intact Iapetan margin in eastern North America: *Seismological Research Letters*, v. 67, p. 77-83, 1996.

**(Wheeler 2005)** Wheeler, R. L., Known or suggested Quaternary tectonic faulting, Central and Eastern United States; new and updated assessments for 2005: U. S. Geological Survey Open-File Report 2005-1336, 2005.

**(Wheeler and Crone 2001)** Wheeler, R. L., and Crone, A. C., Known and suggested Quaternary faulting in the mid-continent United States: *Engineering Geology*, v. 62, p. 51-78, 2001.

**(Wheeler and Johnston 1992)** Wheeler, R. L., and Johnston, A. C., Geologic implications of earthquake source parameters in central and eastern North America: *Seismological Research Letters*, v. 63, no. 4, p. 491-505, 1992.

**(White et al. 2000)** White, D. J., Forsyth, D. A., Asudeh, I., Carr, S. D., Wu, H., Easton, R. M., and Mereu, M., A seismic-based cross-section of the Grenville orogen in southern Ontario and western Quebec: *Canadian Journal of Earth Science*, v. 37, p. 183-192, 2000.

**(Wildermuth and Talwani 2001)** Wildermuth, E. and Talwani, P., A detailed gravity survey of a pull-apart basin in northeast South Carolina: *Geological Society of America – Abstracts with Programs*, v. 33, no. 6, p. 240, 2001.

**(Withjack et al. 1998)** Withjack, M. O., Schlische, R. W., and Olsen, P. E., Diachronous rifting, drifting, and inversion on the passive margin of central eastern North America: an analog for other passive margins: *American Association of Petroleum Geologists Bulletin*, v. 82, no. 5A, p. 817-835, 1998.

**(Wyatt 2000)** Wyatt, D. E., Natural phenomena hazards (NPH) design criteria and other characterization information for the mixed oxide (MOX) fuel fabrication facility at Savannah River Site, Westinghouse Savannah River Company Technical Report WSRC-TR-2000-00454, 418p., 2000.



**(Wyatt and Harris 2000)** Wyatt, D. E., and Harris, L. D., Savannah River Site environmental remediations systems in unconsolidated upper coastal plain sediments-straigraphic and structural consideration, Carolina Geological Society field trip guidbook, Westinghouse Savannah River Company Document WSRS-MS-2000-00606, 2000.

**(Zoback 1992)** Zoback, M. L., Stress field constraints on intraplate seismicity in eastern North America: Journal of Geophysical Research, v. 97, no. B8, p. 11,761-11,782, 1992.

**(Zoback and Zoback 1989)** Zoback, M. L., and Zoback, M. D., Tectonic stress field of the coterminous United States, in Pakiser, L.C. and Mooney, W.D., eds., Geophysical Framework of the Continental United States: Geological Society of America Memoir 172, p. 523-539, 1989.

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