NOMINATION

for

Lewis I. Rosenberg Consulting Engineering Geologist Tijeras, New Mexico

On the Occasion of Presentation of the 2012 Distinguished Practice Award Environmental & Engineering Geology Division of the Geological Society of America

In Honor of Superior Field Geologic Mapping and the Broader Implications of His Capacities as a Practical Evaluation & Interpreter of Implications to Public Safety

Lewis I. Rosenberg has carried a true calling toward field geologic mapping and its interpretation for protection of the public and of the environment, for the past twenty-eight years. Geologic mapping is the most difficult of our applied geologic capacities; Lew not only has mastered this art, but has significantly advanced the state of its practice, especially as applied in the Coast Ranges of California.

In becoming a master field geologic mapper and interpreter, Lew has honored and advanced the fine reputations of his two practice-oriented alma maters (New Mexico Institute of Mining and Technology, BS, 1984; and San Jose State University, M.S., 1993).

The Rosenberg career has two phases: 1985-1992, employed staff field geologist, and; 1993-present, Consulting Geologist. During thse twenty-eight years, Lew has focused on generating both *Detailed Geologic Field Mapping* and in compiling the highly useful new (since 1990) genre of "*Seamless*" *Geologic Maps*, whereby regional and intra-regional stratigraphic and structural trends have been brought together in a digital map database suitable for electronic filing and data interrogation. These databases have been integrated by the USGS and the California Geological Survey for their own maps.

Lew's mapping has generated first-time unified areal digital coverage of about 17,000 km² of the central California Coast Ranges (Monterey and San Luis Obispo Counties) as well as detailed Quaternary fault mapping (supported by USGS NEHRP). For those

who have field-mapped in the often tick-ridden, rattlesnake-infested brush-and-thicket terrane of this region; this accomplishment alone shows that Lew has been attentive to the wondrous mantra of the late Tom Dibblee, worldwide master field geologic mapper of all time.

Lew's second major speciality has been *Site Investigation for Seismic Hazards*; in which he is well known for his artful detail of trench face mapping and interpretive reports, both for positional identification of *Capable Faults* and for *Liquefaction Susceptability* of unconsolidated soil units, which have been derived from the aforementioned digital geologic map databases. His fault mapping has been incorporated in the USGS Quaternary Fault Database.

The third Rosenberg specialty has been *Geologic Constraint and Resource Mapping*, by which Lew has been able to bring the results of field geologic observations and mapping to recommendations related to extraction of ground water and construction materials, again in the central Coast Ranges. In this capacity, he served as County Geologist for San Luis Obispo County (Calif.) and City Geologist for Hollister (Calif.) to protect the public health and welfare. He also serves on the California Geological Survey's Map Advisory Committee.

Rounding out the Rosenberg experience is his co-authorship of the landmark 2005 GSA Special Paper 391, Net dextral slip, Neogene San Gregorio-Hosgri fault zone, coastal California: Geologic evidence and tectonic implications. In 2004, the Dibblee Geological Center dedicated the 7.5-minute Geologic Map of the San Luis Obispo Quadrangle to Lew in honor of his work in the California Coast Ranges. In addition to this recognition, Lew has authored or co-authored some 15 formal geological publications.

In keeping with his rural origin growing up on one of the last orange orchards in California's Simi Valley, in 2004 Lew and wife Doreen reverted back to being low-impact country dwellers in the New Mexico highlands of Torrance County, where they raise registered Toggenburg dairy goats.

Nominated by Allen W. Hatheway, FGSA Past Chairman, Engineering Geology Division (1980)

Encls:

Nomination Letter Resume, with Publication Listing Images with captions

Lewis I. Rosenberg, P.G.

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EDUCATION

M.S., Geology, San José State University, 1993

B.S., Geology, New Mexico Institute of Mining and Technology, 1984

B.A., Psychology, University of California, Santa Cruz, 1981

LICENSURE

Professional Geologist: Alaska #621, California #5659, Oregon #G1705, Wyoming #PG-826

Engineering Geologist, California #EG-1777, Oregon #E1705

Certified Professional Geologist, American Institute of Professional Geologists #8051

EMPLOYMENT

Tierra Geoscience, Principal Engineering Geologist, 1992–present (P.O. Box 1693, Tijeras, NM 87059)

San Luis Obispo County Planning and Building Department, County Geologist, 2002–2007 (County Government Center, San Luis Obispo, CA 93408)

Hartnell College, Geology and Geography Instructor, 1992–2000

(156 Homestead Ave., Salinas, CA 93901)

Staal, Gardner & Dunne/Fugro West, Project Geologist, 1992–1995 (201 Hoffman Ave., Monterey, CA 93940)

Earth Systems Consultants, Project Geologist, 1989–1991

(400 Park Center Dr., Hollister, CA)

Nordmo Associates, Staff Geologist, 1985–1989

(1977 O'Toole Ave, San Jose, CA 95123)

PROFESSIONAL AFFILIATIONS

American Geophysical Union, Member

American Institute of Professional Geologists, Member

Association of Engineering and Environmental Geologists, Member

Central Coast Geological Society, President (2000–2001), Member

Geological Society of America, Member

Monterey Bay Geological Society, Treasurer (1997–2008), Member

New Mexico Geological Society, Lifetime Member

REPRESENTATIVE EXPERIENCE/SELECTED PROJECTS

Regional Geologic Mapping

2008–2011—USGS/PG&E CRADA: Create seamless digital map database for major tectonic study of region bounded by Monterey (north), Point Conception (south), coastline (west), and San Andreas Fault (east).

2008–2011—Point Sur 30' × 60' Quadrangle: Compiled a digital geologic map database of this 1:100,000 scale quadrangle in ArcGIS format for the California Geological Survey.

- **2004–2005—Cambria 30'** × **60' Quadrangle:** Compiled geology of this 1:100,000 scale quadrangle in ArcGIS format in a collaborative effort between the County of San Luis Obispo and the U.S. Geological Survey.
- **2003–2009—San Luis Obispo County, California:** Compiling seamless countywide digital geologic map database in ArcGIS format for the San Luis Obispo County Planning and Building Department. Work included developing database design, digitizing, georeferencing, and resolving boundary issues between 80 quadrangles. Work products include paper and digital maps, as well as GIS databases.
- **2003–2004—Rinconada and Reliz Fault Zones, Salinas Valley, California:** Critical evaluation of this major fault zone to determine Quaternary activity. Collaborative effort between the County of San Luis Obispo, the California Geological Survey, and the U.S. Geological Survey.
- **1998–2000—Spreckels 7.5' Quadrangle, California:** Detailed geologic mapping of stratigraphy and structure, with emphasis on active faults. Collaborative effort between the California Geological Survey and the U.S. Geological Survey.
- **1993–1997**—**Monterey and Seaside 7.5' Quadrangles, California:** Detailed geologic mapping of stratigraphy and structure, with emphasis on active faults. Work performed for the U.S. Geological Survey.

Seismic Hazards

- **2004–2009**—Northern California Quaternary Fault Map Database, San Benito, Santa Cruz, and Monterey Counties, California: Prepared database of earthquake faults in the greater Monterey Bay area. Work includes digitizing paper maps, converting AutoCAD files into ESRI shapefile format, linking faults to scanned trench logs, and converting GIS files to Google Earth format. Project funded by the U.S. Geological Survey (USGS) National Earthquake Hazard Reduction Program
- **2004**—**Liquefaction Evaluation, Oceano, California:** Investigated causes of liquefaction resulting from the San Simeon earthquake. Collaborative effort between the County of San Luis Obispo and the U.S. Geological Survey.
- **1999—San Gregorio Fault Study, Monterey County, California:** Evaluated whether the San Gregorio Fault turns inland near Big Sur, or continues along the coast to join the Hosgri Fault near San Simeon. Work funded by the National Earthquake Hazard Reduction Program.
- 1998—Liquefaction Susceptibility Mapping, Hollister, California: Performed research study on liquefaction susceptibility of the Hollister area, San Benito County, California. Products included digital maps of Quaternary geology, geotechnical borings, historic high groundwater levels, and liquefaction susceptibility. Work funded by the National Earthquake Hazard Reduction Program. The City of Hollister and the County of San Benito use the results of this study for planning purposes. Mapping included in the California Geological Survey's "Geologic Map of Monterey 30' × 60' Quadrangle and Adjacent Areas."
- **1994**—Quaternary Faulting of the Greater Monterey Area, California: Documented late Quaternary movement along the Tularcitos, Navy, and associated faults within the Monterey Peninsula and Carmel Valley areas. Work funded by the National Earthquake Hazard Reduction Program. The results of this project were used by the California Geological Survey, in their report on "Probabilistic Seismic Hazard Assessment for the State of California" and their "Geologic Map of Monterey 30' × 60' Quadrangle and Adjacent Areas."
- **1991**—Paleoseismic Study, Calaveras Fault, Hollister, California: Project consisted of excavating and logging approximately 1,200 feet of exploratory trenches in the downtown business district. The City of Hollister funded this work, which enabled property owners to safely rebuild their structures.

Landslide Hazards

2009—Pfeiffer Ridge Road, Big Sur, California: As consultant to a geologic engineer working for the defense, I used aerial photograph analysis to map the location and geometry of landslides, and to postulate a failure mechanism for the landslides.

2006—Skyland Road, Santa Cruz County, California: On a case involving a landslide that was alleged caused in-part by a goat dairy farm, I served as consultant to a geologic engineer working for the prosecution, I provided my unique expertise in the fields of engineering geology and dairy goats.

1999—Summit Hills, Atascadero, California: Working for a defense attorney, evaluated possible causes of a landslide that destroyed one house and severely damaged a County of San Luis Obispo roadway and an Atascadero Mutual Water Company water main.

1998—San Clemente Dam Landslide, Carmel Valley, California: In support of a lawsuit, performed forensic geologic investigation of a landslide that severely damaged the plaintiff's (Monterey Peninsula Water Management District) steelhead rearing facility. Fieldwork included mapping in a helicopter. Provided preliminary design for landslide repair and debris flow mitigation.

1993—**Distressed Water Tank, Carmel Highlands, California:** Evaluated cause of landsliding that damaged a 120,000-gallon water storage tank serving the Carmel Riviera Mutual Water Company.

1990—Ridgetop Spreading, Aromas, California: Investigated landslide that destroyed a single-family residence during the 1989 Loma Prieta earthquake. Trenching revealed at least one prior episode of ridgetop spreading at the site.

Hydrogeology

2005—Adjudication of Water Rights, Seaside Groundwater Basin, Monterey County, California: Served as an expert witness for the Monterey Peninsula Water Management District. I was deposed in the area of regional geology and assisted in preparing maps for court testimony.

2005—Seaside Groundwater Basin, California: Developed onland and offshore hydrogeologic framework for study assessing regional groundwater resources of the Seaside groundwater basin. Monterey Peninsula Water Management District incorporated results into their Groundwater Management Plan.

2003—Deep Aquifer Investigative Study, Marina, California: Developed onland and offshore hydrogeologic framework for first comprehensive study of the "deep" aquifer that supplies the Monterey Peninsula and the northern Salinas Valley. Work funded by the Marina Coast Water District and the California Department of Water Resources.

2002—Laguna Seca Subarea Phase III Hydrogeologic Update, Monterey County, California: Teamed with hydrogeologists Gus Yates and Martin Feeney to compile geologic data, delineate hydrogeologic units, prepare geologic cross-sections, structural contours, and interpret basin structure. Developed GIS database of wells and water levels. Work funded by Monterey Peninsula Water Management District.

2002—**Final report, Paso Robles Groundwater Basin Study, Monterey County, California:** Consultant to Fugro West to develop geologic framework for regional basin study. Prepared GIS map database of regional geology for the basin. Work funded by San Luis Obispo County Public Works Department.

Land-Use Planning

2002–2007—San Luis Obispo County Planning and Building Department, California: As County Geologist, provided geologic expertise to planners, decision-makers, and other county

agencies (Emergency Services, Public Works, Environmental Health, Agricultural Commissioner, and Parks). Conducted peer review of engineering geology and hydrogeology reports. Developed geologic resource and constraint maps. Gave technical support for county's mining reclamation program. Testified on geologic matters at County Planning Commission and Board of Supervisor public televised hearings.

2001—Monterey County Planning and Building Inspection Department, California: Developed and prepared geologic map database and derivative maps of land-use constraints including landslides, erosion, liquefaction, aquifer recharge, and mineral resources as part of the county's 21st Century General Plan Update. Also developed policy guidelines for the Safety Element, including geologic resource management, geologic report content, and environmental impact reports

1996–2002—City of Hollister Community Development Department, California: Served as City Geologist. Reviewed geologic reports and provided technical expertise on geologic issues.

VOLUNTEER SERVICE

California Geological Survey, Volunteer Scientist, 2008–present

U.S. Geological Survey, Volunteer Scientist, 1992–1995, 2008–present

U.S. Forest Service, Volunteer Scientist, 1992–1995

Geological Society of America, Distinguished Mentor, Roy J. Shlemon Mentors in Applied Geoscience Program, 1995

COMMITTEES

2008—**present**—**California Geologic Mapping Advisory Committee:** Appointed by the State Geologist to serve on the committee, which establishes mapping priorities for the California Geological Survey's Regional Geologic Mapping Project and the USGS STATEMAP cooperative mapping program.

2008—**present**—**AEG Digital and Electronic Technology in Geology Working Group:** Appointed as charter member of Association of Engineering and Environmental Geologists group to promote the use of digital, electronic, and computer technologies in the practice of environmental and engineering geology.

2007—New Mexico Department of Homeland Security and Emergency Management: As a member of the New Mexico Natural Hazard Mitigation Planning Group, provided information on geologic hazards for the State of New Mexico Natural Hazard Mitigation Plan.

1996–1997—**Monterey County Hazardous Waste Advisory Committee:** Appointed by the Monterey County Board of Supervisors as the representative for the categories of geology and hydrology.

AWARDS

2004—**Dibblee Geological Center:** The Dibblee Geological Center dedicated their new geologic map of the San Luis Obispo 7.5-minute quadrangle in my name, stating: "This map honors Lew Rosenberg, for his years of dedication in helping others understand the geology of San Luis Obispo County and the central Coast Ranges."

1995—Monterey County Board of Supervisors: The Monterey County Board of Supervisors passed Resolution 95-050 (February 7, 1995) in recognition of my "charitable sharing of geological knowledge of Monterey County to the employees of Monterey County."

1989—Society to Adapt Building to the Environment Reasonably (SABER Society): Awarded scholarship for graduate thesis work at San José State University.

ACADEMIC TEACHING EXPERIENCE

Instructor, Hartnell College, Salinas, California, 1992–2000

Geography 1: Physical Geography—3 years

Geology 1: Physical Geology (with lab)—5 years

Geology 2: Introduction to Geology—8 years

Geology 6: Historical Geology—1 year

Geology 25: Environmental Geology—2 years

Instructor, Vincennes University, Vincennes, Indiana (U.S. Army Fort Ord, Marina, Calif.), 1994

Science 100: Earth Science (with lab)—1 year

Instructor, U.S. Army Fort Hunter Liggett, Jolon, Calif.), 1994

Introduction to Geology—1 semester

PROFESSIONAL SHORT COURSES TAUGHT

New Mexico Department of Transportation Earthquake Bridge Damage Workshop, American Society of Civil Engineers, Technical Council on Lifeline Earthquake Engineering Earthquake Investigation Committee, Santa Fe, New Mexico, June 4, 2008.

PROFESSIONAL SHORT COURSES TAKEN

Title	Sponsor	Date	Continuing Education Units
Preparation and Review of Engineering/Seismic Reports for Hospital and School Sites in California	Association of Engineering Geologists	03/13/93	0.6
Soil Stratigraphy for Trench Logging	Association of Engineering Geologists	05/07/93	1.6

PUBLICATIONS

Rosenberg, L.I., and Clark, J.C., 2009, Map of the Rinconada and Reliz Fault Zones, Salinas River Valley, California: U.S. Geological Survey Scientific Investigations Map 3059, scale 1:250,000, with pamphlet [http://pubs.usgs.gov/sim/3059/].

Rosenberg, L.I., 2009, Cloud computing applications for practicing engineering geologists [abs.]: Association of Engineering Geologists Abstracts with Programs, AEG NEWS, v. 52, p. 101.

Watt, J.T., Johnson, S.Y., Langenheim, V.E., Scheirer, D.S., **Rosenberg, L.I.**, Nishenko, S., and Kvitek, R., 2009, Geologic mapping in the central California coastal zone: Integrating geology, geophysics, and geomorphology [abs.]: Geological Society of America Annual Meeting, Geological Society of America Abstracts with Programs, v. 41, no. 7, p. 283.

R.W. Graymer, Roberts, M.A., and **Rosenberg, L.I.**, 2009, New digital geologic map database and stratigraphic framework; underpinnings for 3D geologic mapping and structural analyses in the central California Coast Ranges [abs.]: Geological Society of America, Annual Meeting, Geological Society of America Abstracts with Programs, v. 41, no. 7, p. 282.

- **Rosenberg, L.I.**, 2009, Finding fault facts—The Monterey Bay area Quaternary fault database [abs.]: Seismological Research Letters, v. 80, no. 2, p. 351.
- **Rosenberg, L.I.**, and Graymer, R.W., 2009, From Monterey To Maricopa: A seamless digital geologic map database for the central California coast [abs.]: Seismological Research Letters, v. 80, no. 2, p. 323.
- **Rosenberg, L.I.,** 2008, Sharing technical information with non-technical users—An example from the Monterey Bay area Quaternary fault atlas, *in* Soller, D.R., ed., Digital Mapping Techniques '08—Workshop Proceedings: U.S. Geological Survey Open-File Report.
- **Rosenberg, L.I.**, 2007, Modeling relative landslide susceptibility with the weight-of evidence model, *in* Schaefer, V.R., Schuster, R.L., and Turner, A.K., eds., Conference presentations from the 1st North American Landslide Conference, Vail, Colorado: Association of Environmental & Engineering Geologists Special Publication No. 23, p. 326–334.
- **Rosenberg, L.I.**, 2007, Post-earthquake reconnaissance: Mapping cracks, boils, and spreads in Oceano, *in* Olson, Brian, ed., Geology and tectonic development of western San Luis Obispo County, southern Coast Ranges, California: South Coast Geological Society Annual Field Trip Guide Book No. 34, p. 453–457.
- **Rosenberg, L.I.**, 2007, Book review, Landslide hazard and risk *by* Thomas Glade, Malcolm Anderson, and Michael J. Crozier (eds.): Engineering & Environmental Geoscience, v. XIII, no. 1, p. 80–81.
- **Rosenberg, L.I.**, 2006, Modeling relative landslide susceptibility with the weight-of-evidence model [abs.]: 2006 AEG Shlemon Specialty Conference—Mass wasting in disturbed watersheds, p. 27.
- Dickinson, W.R., Ducea, Mihai, **Rosenberg, L.I.**, Greene, H.G., Graham, S.A., Clark, J.C., Weber, G.E., Kidder, Steven, Ernst, W.G., and Brabb, E.E., 2005, Net dextral slip, Neogene San Gregorio-Hosgri fault zone, coastal California: Geologic evidence and tectonic implications: Geological Society of America Special Paper 391, 43 p.
- Dickinson, W.R., Ducea, Mihai, **Rosenberg, L.I.,** Greene, H.G., Graham, S.A., Clark, J.C., Brabb, E.E., Ernst, W.G., Kidder, Steven, and Weber, G.E., 2005, Net dextral slip, Neogene San Gregorio-Hosgri fault zone, coastal California: Geologic evidence and tectonic implications [abs.]: Geological Society of America, Cordilleran Section/Pacific Section American Association of Petroleum Geologists Annual Meeting Abstracts with Programs, v. 37, no. 4, p. 106.
- **Rosenberg, L.I.**, 2005, Richard R. Thorup, pioneer California geologist [abs.]: Geological Society of America, Cordilleran Section/Pacific Section American Association of Petroleum Geologists Annual Meeting Abstracts with Programs, v. 37, no. 4, p. 99.
- **Rosenberg, L.I.**, and Clark, J.C., 2005, Neotectonics of the Rinconada and Reliz Fault Zones, Salinas Valley, California [abs.]: Geological Society of America, Cordilleran Section/Pacific Section American Association of Petroleum Geologists Annual Meeting Abstracts with Programs, v. 37, no. 4, p. 106.
- **Rosenberg, L.I.**, and 16 others, 2005, Preliminary observations, San Simeon, California earthquake, December 22, 2003: Earthquake Engineering Research Institute, Learning From Earthquakes Reconnaissance Report 2005-01, 78 p.
- Holzer, T.L., Noce, T.E., Bennett, M.J., Tinsley, J.C., III, and **Rosenberg, L.I.**, 2005, Liquefaction-at Oceano, California, during the 2003 San Simeon earthquake: Bulletin of the Seismological Society of America, v. 95, no. 6, p. 2,396–2,411, doi: 10.1785/0120050078.
- Holzer, T.L., Noce, T.E., Bennett, M.J., Di Alessandro, Carola, Boatwright, John, Tinsley, J.C., III, Sell, R.W., and Rosenberg, L.I., 2004, Liquefaction-induced lateral spreading in Oceano, California, during the 2003 San Simeon earthquake: U.S. Geological Survey Open-File Report 2004–1269, 50 p., 1 appendix [http://pubs.usgs.gov/of/2004/1269/].

- Holzer, T.L., Noce, T.E., Tinsley, J.C., III, Bennett, .M.J, and **Rosenberg, L.I.**, 2004, Subsurface geologic conditions at two lateral spreads, Oceano, California, 2003 San Simeon earthquake [abs.]: Seismological Research Letters, v. 75, no. 2.
- **Rosenberg, L.I.,** 2004, Investigating the San Simeon earthquake using ArcPad and GPS, *in* Soller, D.R., ed., Digital Mapping Techniques '04—Workshop Proceedings: U.S. Geological Survey Open-File Report 2004-1451, p. 15–21 [http://pubs.usgs.gov/of/2004/1451/pdf/rosenberg.pdf].
- Thompson, S.C., Knudsen, K.L., Hitchcock, C.S., Loyd, R., and **Rosenberg, L.I.**, 2004, Lateral spreading in Oceano associated with the 22 December 2003 San Simeon earthquake [abs.]: Seismological Research Letters, v. 75, no. 2.
- Treiman, J.A., Tinsley, J.C. **Rosenberg, L.I.**, Keefer, D. K., Knudsen, K.L., Loyd, R.C., Manson, M.W., McCrink, T.P., Reid, M.E., Schmidt, K., and Wilson, R.I., 2004, Surface effects of the 12/22/03 Mw 6.5 San Simeon earthquake [abs.]: Seismological Research Letters, v. 75, no. 2.
- Edwards, Curtis; Lund, LeVal; Yashinsky, Mark; Eidinger, John; Schiff, Anshel; Elliot, Teresa; Guerrero, Al; **Rosenberg, Lew**; and Cooper, Tom, 2004, The San Simeon earthquake of December 22, 2003, *in* Yashinsky, Mark, ed., San Simeon earthquake of December 22, 2003 and Denali, Alaska, earthquake of November 3, 2002: American Society of Civil Engineers Technical Council on Lifeline Earthquake Engineering Monograph No. 28, p. 1–58.
- Archer, Graham; Baltimore, Craig; Chadwell, Charles; Goel, Rakesh; Lynn, Abe; **Rosenberg, Lew**; Moss, Robb; Turner, Fred; Poland, Chris; Love, Jay; Horwedel, Jason; Marrow, Joshua; Lund, LeVal; Yashinsky, Mark; Eidinger, John; Schiff, Anshel; Elliot, Teresa; Guerrero, Al; and Cooper, Tom, 2004, Learning from Earthquakes—Preliminary Observations on the December 22, 2003,San Simeon: Earthquake Engineering Research Institute Special Earthquake Report—March 2004, 8 p.
- **Rosenberg, L.I.,** and Bryant, W.A., comps., 2003a, Fault number 63a, Rinconada Fault Zone, Espinosa section, *in* U.S. Geological Survey and California Geological Survey, Quaternary fault and fold database of the United States, version 1.0: U.S. Geological Survey Open-File Report 03–417 [http://earthquake.usgs.gov/regional/qfaults/].
- **Rosenberg, L.I.,** and Bryant, W.A., comps., 2003b, Fault number 63b, Rinconada Fault Zone, San Marcos section, *in* U.S. Geological Survey and California Geological Survey, Quaternary fault and fold database of the United States, version 1.0: U.S. Geological Survey Open-File Report 03–417 [http://earthquake.usgs.gov/regional/qfaults/].
- **Rosenberg, L.I.,** and Bryant, W.A., comps., 2003c, Fault number 63c, Rinconada Fault Zone, Rinconada section, *in* U.S. Geological Survey and California Geological Survey, Quaternary fault and fold database of the United States, version 1.0: U.S. Geological Survey Open-File Report 03–417 [http://earthquake.usgs.gov/regional/qfaults/].
- **Rosenberg, L.I.,** and Bryant, W.A., comps., 2003d, Fault number 286a, Reliz Fault Zone, Blanco section, *in* U.S. Geological Survey and California Geological Survey, Quaternary fault and fold database of the United States, version 1.0: U.S. Geological Survey Open-File Report 03–417 [http://earthquake.usgs.gov/regional/qfaults/].
- **Rosenberg, L.I.**, 2002, Geology and GIS for planning: An example from Monterey County, California, *in* Proceedings of 53rd Annual Highway Geology Symposium, San Luis Obispo, Calif., August 2002, p. 171–182.
- Clark, J.C., Brabb, E.E., and **Rosenberg, L.I.**, 2000, Geologic map of the Spreckels 7.5-minute quadrangle, Monterey County, California: A digital database: U.S. Geological Survey Miscellaneous Field Studies Map MF-2349, scale 1:24,000. [http://pubs.usgs.gov/mf/2001/2349/].
- Clark, J.C., Weber, G.E., **Rosenberg, L.I.,** and Burnham, Kathleen, 1999, Neotectonics of the San Gregorio Fault Zone, central coastal California, *in* Garrison, R.E., Aiello, I.W., and Moore, J.C., eds., Late Cenozoic fluid seeps and tectonics along the San Gregorio fault zone in the Monterey Bay

- Lewis I. Rosenberg, P.G.
 - region, California: American Association of Petroleum Geologists, Pacific Section, volume and guidebook GB-76, p. 119–156.
- **Rosenberg, L.I.**, and Clark, J.C., 1999, Southern San Gregorio Fault: stepover segmentation vs. throughgoing tectonics [abs.]: American Association of Petroleum Geologists Bulletin, v. 83, no. 4, p. 700.
- Clark, J.C., and **Rosenberg, L.I.**, 1999, Southern San Gregorio Fault: stepover segmentation vs. throughgoing tectonics: U.S. Geological Survey, National Earthquake Hazards Reduction Program Final Technical Report 1434-HQ-98-GR-0007.
- **Rosenberg, L.I.**, 1998, Liquefaction susceptibility of the Hollister area, San Benito County, California [abs]: Geological Society of America, Cordilleran Section, Abstracts with Programs, v. 30, no. 5, p. 43.
- **Rosenberg, L.I.**, 1998, Liquefaction susceptibility of the Hollister area, San Benito County, California: U.S. Geological Survey, National Earthquake Hazards Reduction Program Final Technical Report 1434-97-HQ–GR-03125, 69 p., 4 sheets, scale 1:24,000.
- Clark, J.C., Dupré, W.R., and **Rosenberg, L.I.**, 1997, Geologic map of the Monterey and Seaside 7.5-minute quadrangles, Monterey County, California: A digital database: U.S. Geological Survey Open-File Report 97–30, 32 p., 2 sheets, scale 1:24,000 [http://pubs.usgs.gov/of/1997/of97-030/].
- **Rosenberg, L.I.**, and Clark, J.C., 1995, Quaternary faulting of the greater Monterey area, California [abs]: Association of Engineering Geologists, Abstracts with Programs, v. 38, p. 81–82.
- **Rosenberg, L.I.**, and Clark, J.C., 1994, Quaternary faulting of the greater Monterey area, California: U.S. Geological Survey, National Earthquake Hazards Reduction Program Final Technical Report 1434-94-G-2443, 45 p., 3 appendices, 4 map sheets, scale 1:24,000.

REPRESENTATIVE PHOTOGRAPHS AND MAPS OF LEW ROSENBERG



Lew Rosenberg logging fault trench on the Calaveras fault, Hollister, California, 1991



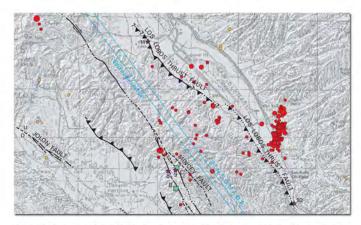
Lew Rosenberg (right) with mentors John Logan (left, USBR hydrogeologist) and Dick Thorup (middle, Salinas Valley oil and water geologist), Carmel, California, 1994



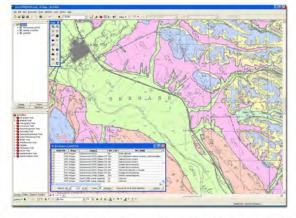
Field investigation of San Simeon, California M6.5 earthquake, 2003. From left to right: John Tinsley (USGS), Lew Rosenberg, Vicki Langenheim (USGS), and Kevin Schmidt (USGS)



Lew Rosenberg doing peer review for the Monterey Peninsula Water Management District's aquifer storage and recovery well project at (the former) Fort Ord, California, 2011



Screen capture from "Map of the Rinconada and Reliz Fault Zones, Salinas River Valley, California" U.S. Geological Survey Scientific Investigations Map 3059, 2009



Screen capture from Geologic map of the Point Sur 30' x 60' quadrangle: Calif. Geological Survey Regional Geologic Map (in prep., 2012)