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CALIFORNIA EARTH SCIENCE CORPORATION

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MONTHLY PROGRESS REPORT NO. 9
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Fault Tectonics and Earthquake Hazards in the Peninsular
Ranges, Southern California, EREP Investigation 463

NASA, Ames Research Center
Mail Code 241-1
Moffett Field, CA 94035

Attention: Mr. Gabriel Fox
Contracting Officer

Gentlemen:

California Earth Science Corporation (CalESCO) is pleased to submit its 9th Monthly Progress Report on the application of Skylab imagery to analysis of fault tectonics and earthquake hazards in the Peninsular Ranges, southern California under NASA Contract No. NAS 2-7698.

Summary Outlook

The principal plans for the immediate future are to continue analysis of images from SL1/SL2 and SL3. The milestone plan provides a time-oriented schedule of the entire effort to be performed.

Significant Progress

1. 70mm 190A and 5" 190B positive transparencies of part of the test site from SL3 were received.
2. Enlargements of selected SL3 frames have been made.
3. Seven days of field work were accomplished in the Peninsular Ranges of southern California to determine the origin of prominent linear features visible in SKYLAB and ERTS imagery. SL3 images show a prominent linear trending southward from the Elsinore fault just east of Julian. Contact with the Geology Department at San Diego State revealed that a graduate student had confirmed the existence of a fault corresponding with the linear

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as a part of a master's thesis project. Results of this study will be presented at the Geological Society America Meeting in Las Vegas in March.

Field work continued on additional linears. Several were determined to be primarily a result of jointing, but three east-west linears are apparently a result of faulting.

Expected Accomplishments, Current Month

1. Special black-and-white enhancements of SL3 images will be accomplished.
2. If tapes are received, work will progress on digital enhancements.
3. Analysis of SL3 frames will be continued.
4. Work on technical reports will be continued.
5. Supporting studies will be continued.

Travel Summary and Plans

Field checks of faults images in SL1/SL2 and SL3 will continue during March.

Very truly yours,

CALIFORNIA EARTH SCIENCE CORPORATION

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