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**Evidence for Dynamic Weakening  
Mechanisms in the San Andreas Fault:  
Microgeochemistry and  
microthermometry of Fault-related  
Rocks from SAFOD core and Exhumed  
Fault**

*A Data management plan created using the DMPTool*

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# Evidence for Dynamic Weakening Mechanisms in the San Andreas Fault: Microgeochemistry and microthermometry of Fault-related Rocks from SAFOD core and Exhumed Fault

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## Types of data

The data for this project primarily derive from the SAFOD borehole, from which we have ~70 samples, all compiled in TAMU IODP database, 50 samples from the USGS Core research lab in Denver, and field samples collected from 3 sites in California. The data sets consist of:

1. Thin sections, which will be recorded with IODP, USGS, or in our database
2. Thick sections used for Raman and Fluid Inclusion analyses
3. Geochemical datasets - whole rock geochemistry, mineralogical data, spectroscopic data and other related data, including location data.
4. Where possible, we will use USGS whole rock standards for analyses; Many of these analyses do not have standards, but analyses will be performed on calibrated instruments

## Data and metadata standards

Most of the archives are in the form of Excel Spreadsheets, and will have a readme file or explanatory text.

Our goal is to produce research results in journal articles, so we will adhere to standards for data repositories for these journals (AGU, GSA). The data will largely be in the form of tabulated analytical results; raw geochemical data; corrected data; spectra of analyses with Raman analyses; images from microscopy.

## Policies for access and sharing

Where published, the data will be provided as supplementary data files for the appropriate journals. In addition, we house our data in a publically accessed open access repository operated by the USU Libraries system Digital Commons:

<http://digitalcommons.usu.edu/do/search/?q=james%20p.%20evans&start=0&context=656526>

This system is an open, web searchable archive of all files we provide, and all NSF-funded data sets will be loaded to this system. Digital Commons has a primary and two backup archives "in the cloud" at servers in 3 sites.

## Policies and provisions for re-use, re-distribution

The topic area of interest in this work is evolving at an almost daily basis - new papers are coming out very fast, primarily from experimentalists and modelers. To provide these communities with use of our data, we propose to release our data 1 year after we collect, analyze, and collate the data into a usable format.

## **Plans for archiving and preservation of access**

The data will be archived at three sites:

Utah State University Digital Commons

<http://digitalcommons.usu.edu/do/search/?q=james%20p.%20evans&start=0&context=656526>

USGS <http://geology.cr.usgs.gov/crc/>

SAFOD Data site: <http://www.icdp-online.org/projects/world/north-and-central-america/san-andreas-fault/details/>