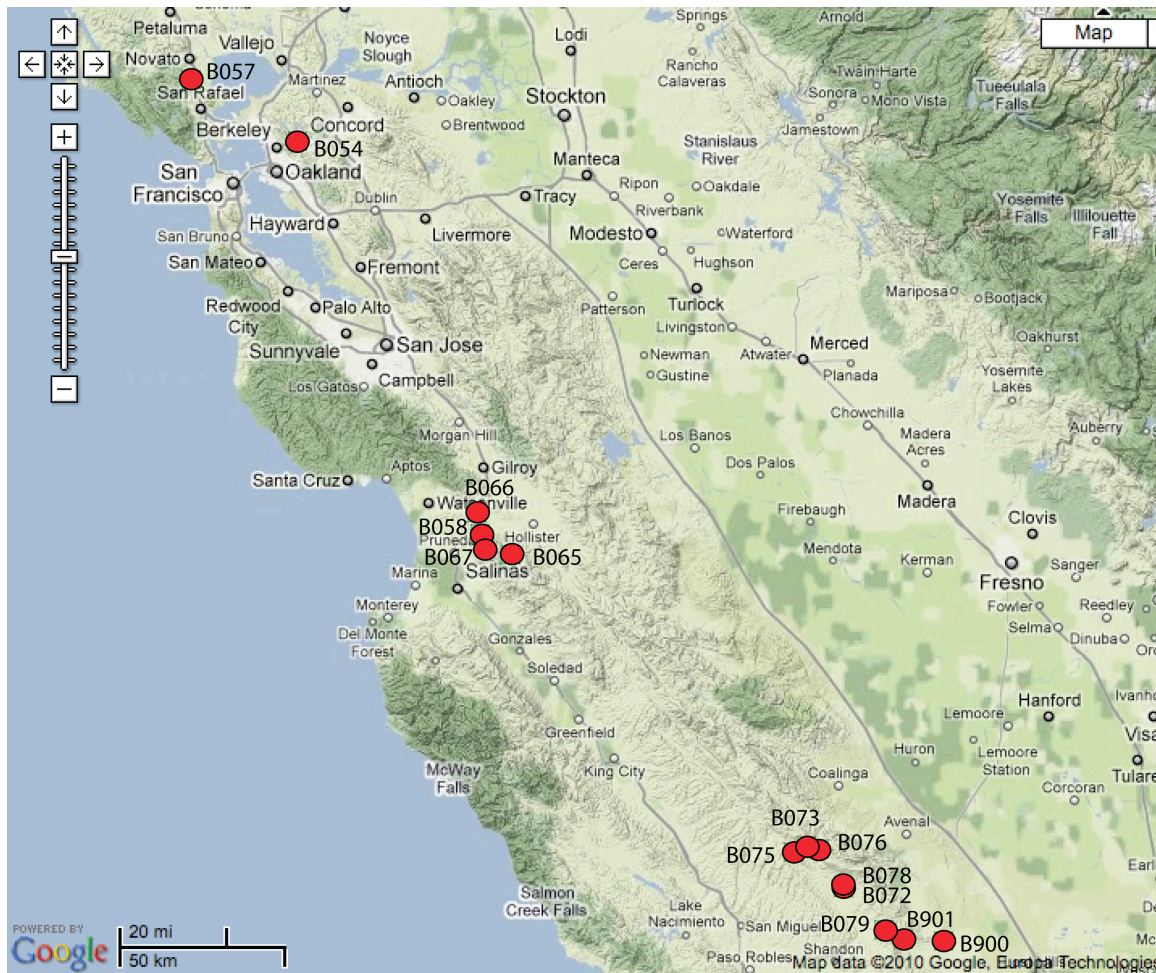


Station Notes for B065, gabiln065bcn2007

Latitude: 36.74366667 (WGS 84)
Longitude: -121.474167 (WGS 84)
Elevation: 643 m / 2110 ft
Install Depth: 191.5 m / 630 ft
Orientations: CH0=231.3, CH1=171.3, CH2=111.3, CH3=81.3
Install Date: June 22, 2007
GTSM Technologies #: US47
Executive Process Software: Version 1.14
Logger Software: Version 2.02.2
Home Page: www.unavco.org/instrumentation/networks/status/pbo/overview/B065
Notes Last Updated: January 21, 2020

• Install depth is from the top of the casing to the bottom of the strainmeter.

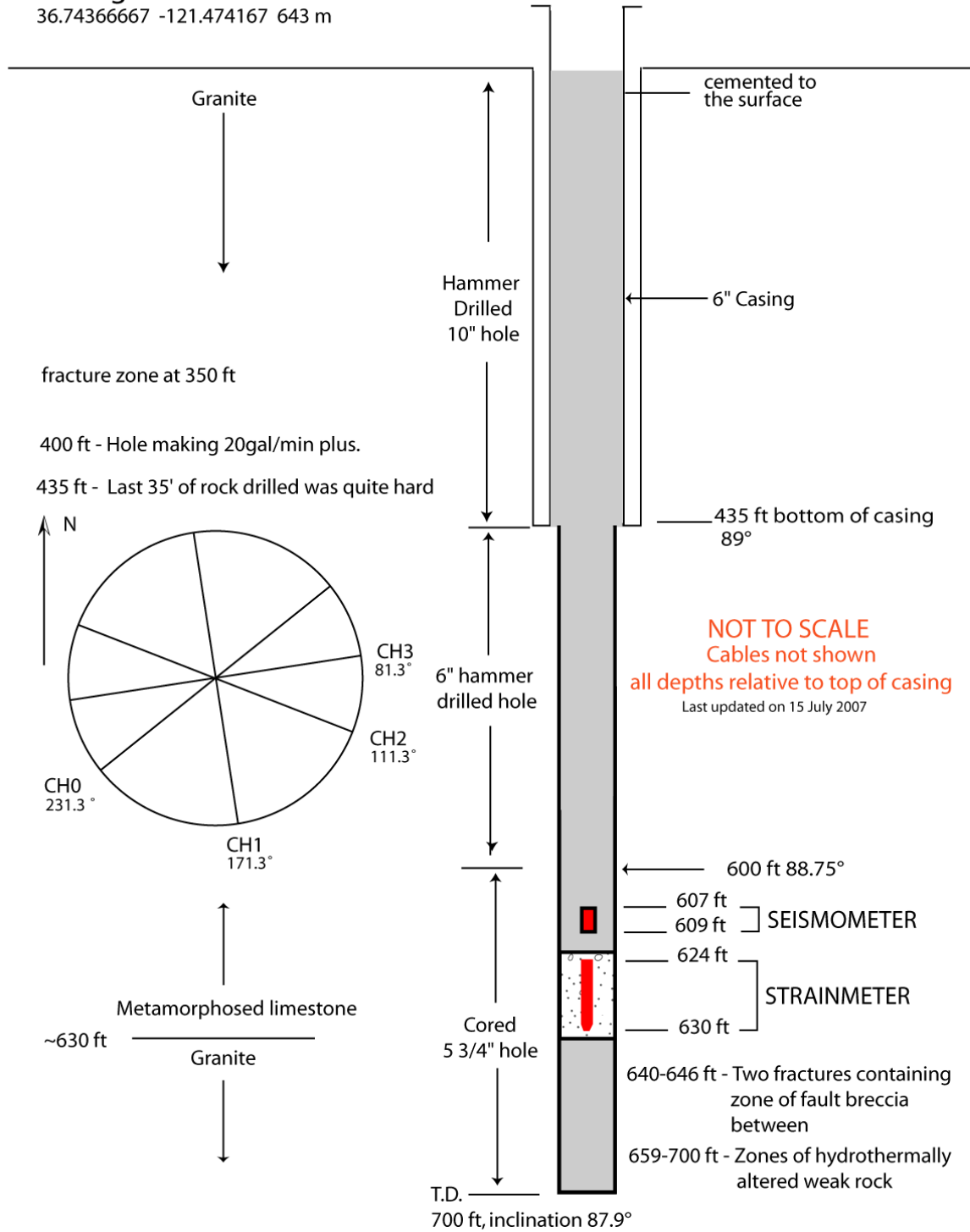
• Orientations are in degrees East of North.



San Francisco, San Juan Bautista, and Parkfield strainmeter network as of September 24, 2010

B065 gabiln065bcn2007

36.74366667 -121.474167 643 m



Instrumentation at Strainmeter

Instrument	Units	Bottle/ASCII Scale Factor	SEED Scale Factor
Pore Pressure	Hecto Pascals	NONE INSTALLED	-
GTSM Barometer	Kilopascals	1.0	0.0001
Rain Gauge	Millimeters/hour	1.0	0.252
Down hole Temperature Sensor	Degrees Celsius	1.0	0.0001
Logger Temperature Sensor	Degrees Celsius	1.0	0.0001
Setra Barometer	Hecto Pascals	1.0	1.42925E-04

1. Installation notes

June 20, 2007 – The bottom 12 feet of hole was cemented up, bringing up the hole from 644 ft to 632 ft. The install zone is located 620-630 ft.

June 21, 2007 – US47 was installed at a depth of 630 ft. The installation went smoothly. The seismometer was lowered in on a steel cable. The hole was cemented to the surface. Strainmeter was installed using Masterflow 1341 cable grout, Batch # 161594414R7 00115, 9 bags at 1.7 gallons of water per sack.

June 22, 2010 – 09:30 - 10:30 PT - Seismometer lowered on steel cable. 10:30 - 11:30 tripped in 1.5" pvc. From roughly 14:00 - 15:00 backfilled borehole.

2. General Information

- The site is located southeast of Fremont Peak. The rock type is marble.
- There is no pore pressure monitor installed at this site.
- GPS station P788 is co-located with this station.
- Sensitivities of all EH channels corrected in the dataless on March 4, 2010.

3. Strainmeter Maintenance

- August 28, 2008 - GPS station P788 was installed at this station.
- September 19, 2008 - Warren Gallaher upgraded the GTSM logger software from version 1.15 to 2.02.2. The site was offline from about 20:30 until about 21:30 UTC.
- March 18, 2009 – Logger software was upgraded from 2.02.2 to the correct version of 2.02.2 that matches the compact flash size.
- May 1, 2009 – A Setra barometer was installed.
- July 31, 2009 – All RT board firmware upgraded to version 1.20. Quadratures were also checked and adjusted.
- August 27, 2009 – Marmot was power cycled.
- December 10, 2010 – The solar power system was reviewed. All solar panels and the GTSM battery bank were good. The GTSM battery bank only had two batteries. Two more batteries were added to the bank, making it the standard four, and the bank was rewired. The main battery bank consisted of a bank of four and a bank of three (seven total). The bank of four was good. It was wired differently, with the last battery (which was separate from the other three) wired to the first and third battery in the bank. These were rewired the new way, with the positive feeding into one end of the bank and the negative feeding into the other. The bank of three had a bad battery and was replaced with four batteries and rewired. The site

was black widow free, so all old spider webs were removed and wires were cleaned up. The rain gauge was clogged from birds. It was cleaned.

- December 15, 2010 – A broadband seismometer, marmot and Q330 were temporarily deployed at the site. The seismometer will be used to orient the borehole seismometer.
- August 16, 2011 – The power system was upgraded. Also replaced 10AWG battery jumpers with 4AWG battery jumpers.
- January 24, 2012 – Upgraded power system and added Tristar MPPT solar controller.
- March 25, 2013 – Replaced 12 batteries. This was done to alleviate issues with the co-located GPS site losing observations at night. One of the batteries was bad (3.9V 24 hours after removal), and some of the others had low voltages as well. Hopefully the battery swap will address the issue.
- March 4, 2014 – The comms system was going offline at night even during periods of good weather and was affecting real-time seismic data. The LVD settings were adjusted to mimic those used in the Mojave BSM sites. LVD2 OFF @ 11.98V, LVD2 ON @ 12.60V.
- July 21, 2015 – Adjusted quadrature and chop. Tested both Verizon and AT&T LS300 with yagi antenna, site is not a good candidate for CDMA at this time.
- October 22, 2015 – Swapped batteries.
- May 31, 2017 – BSM/GPS equipment had been offline for about a week. Expected VSAT failure, but found power failure of all uphole equipment except the NetRS, which was powered by its single dedicated battery. There was no power to the backpanel. The breakers were all in "on" position. Flipping them all "off" and then back "on" restored power. Replaced the cable/connector, but reused the original power brick. All equipment, including the VSAT, came back up online. Wired NetRS to use BSM batteries as primary power source, and the single dedicated battery as a secondary power source. The rain gauge cable was damaged (likely by birds), and was wrapped with electrical tape. The VSAT feed horn showed signs of bird pecking, but had no holes. Tested ATT and Verizon cell comms with an RV50 but could not establish a network connection.
- October 26, 2019 – Found VSAT IP had changed. Updated the external IP on the Cisco router and downloaded 20 Hz data.
- December 19, 2019 – Upgraded CF card on GTSM logger from 256 MB to 4 GB. Confirmed clock speed was correct. Added earthquake straps and set quads.