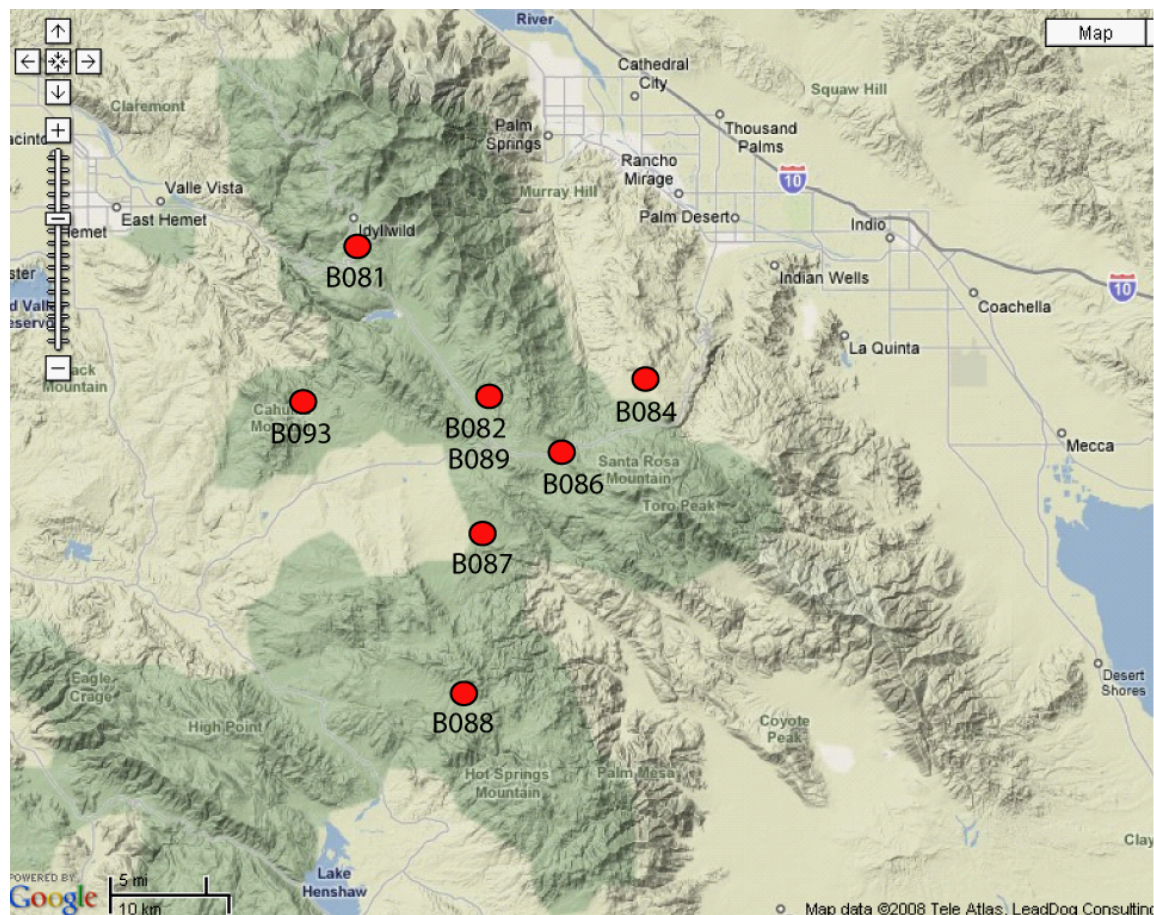


Station Notes for B086, Santa Rosa, santar086bcs2006

Latitude: 33.5575 (WGS 84)
Longitude: 116.531 (WGS 84)
Elevation: 1392 m / 4564 ft
Install Depth: 239.9 m / 787 ft
Orientations: CH0=316.5, CH1=256.5, CH2=196.5, CH3=166.5
Install Date: 17 June 2006
GTSM Technologies #: US16
Executive Process Version 1.14
Software:
Logger Software: Version 2.02.2
Home Page: www.unavco.org/instrumentation/networks/status/pbo/overview/B086
Notes Last Updated: February 14, 2020

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

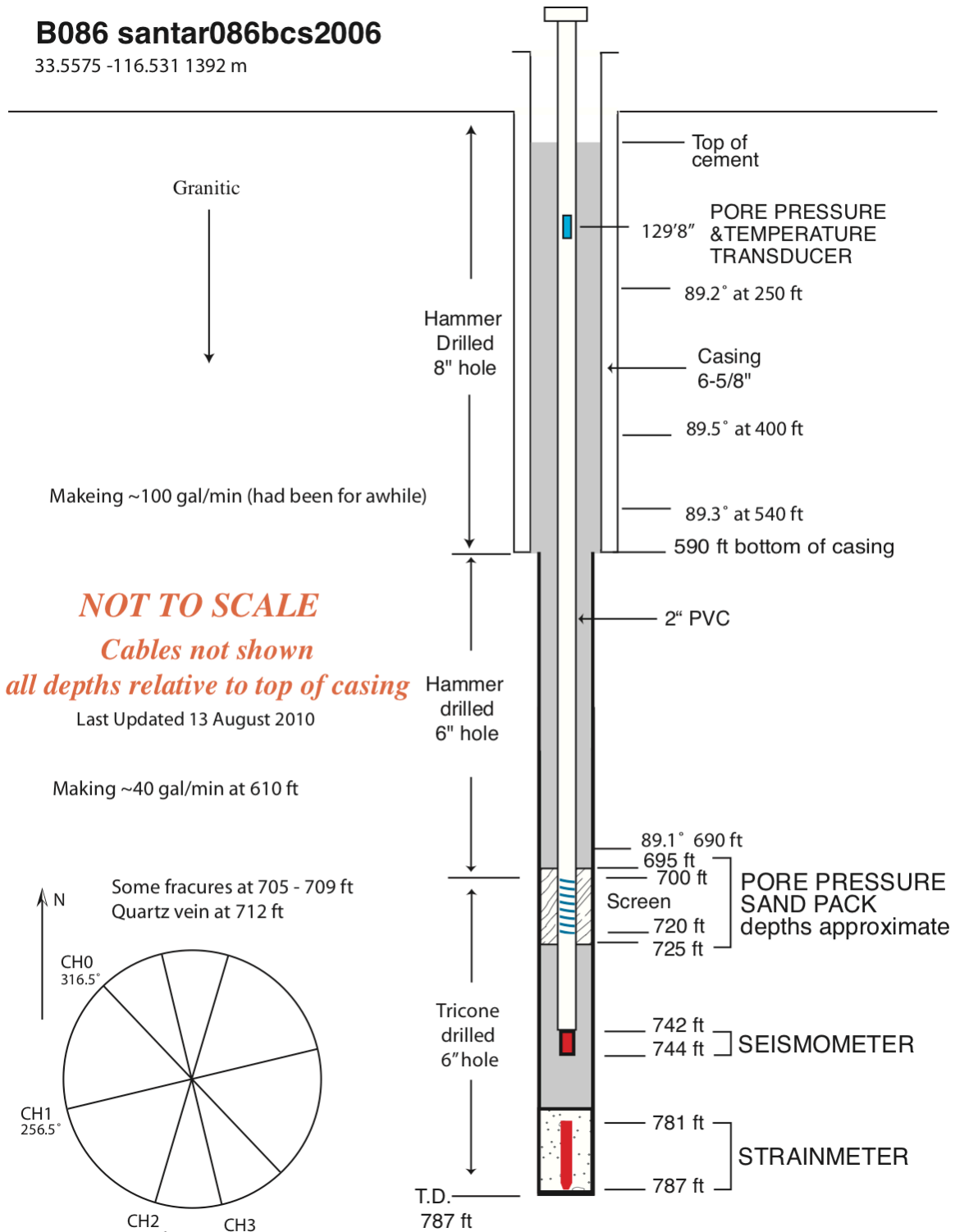
·Orientations are in degrees East of North.



Anza PBO strainmeter network, July 2010.

B086 santar086bcs2006

33.5575 -116.531 1392 m



Instrumentation at Strainmeter

Instrument	Units	Bottle/ASCII Scale Factor	SEED Scale Factor
Pore Pressure	Hecto Pascals	1.0	N/A
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	Not installed at this time	

1. General Information

- Sensitivities of all EH channels corrected in the dataless on March 4, 2010
- Pore pressure sensor installed on March 31, 2010
- April 4, 2010 - Magnitude 7.2 - BAJA CALIFORNIA, MEXICO
- The pore pressure sensor was installed at 129.7 feet, and no packer was installed.

2. Strainmeter Maintenance

- 3 January 2007 - Ryan Bierma visited the site. He turned off power to the strainmeter, completed installation of hybrid mount and NetRS, and turned on power to strainmeter.
- 9 January 2007 – Mike Hasting visited the site. Checked GTSM data logger. All looks good, has current 1.17 firmware. Adjusted downhole temperature by setting RV3 on read 1.25V on TP7. Charging system looks good, everything else is working. An IP conflict with a GPS group, resulting in VPN issues, has also been resolved.

Channel EH1 is dead on the seismometer.

- 10 January 2007 – Mike Hasting adjusted the barometric pressure setting, should now be recording barometric pressures.
- 15 January 2007 – Mike Hasting installed a Marmot and temporarily fixed communication problem with GTSM. There appears to be a loose wire in the environmental box wiring harness.
- 24 April 2007 – Mike Hasting visited the site. He found that the strainmeter's Ethernet was not working. After checking he found that the connector on the back of the "back" panel was only in ½ way. He had to remove the internal rack from the mount to reach it and was able to replace it properly. This fixed the problem and it is now communicating with the world. He also upgraded the RT firmware to 1.18. He noticed that the antenna cable to the NetRS was disconnected, and reconnected it.
- 30 August, 2007
At 21:00 UTC, Under Wades directions Liz Van Boskirk turned the power switches of the

strainmeter off from Right to Left. Then waited roughly 5 minutes before turning them back on in the procession of Left to Right, waiting a minute between turning on the next switch.

- 20 February, 2008 UTC – Tim Dittmann visited the site.
18:20 - On site.
18:30-18:42 - Replace fiber modems with new blue variety.
18:40 - Vacuum hut interior and caulk base.
18:49 - Adjust GTSM quadratures.
18:57 - Successfully ping Pinyon and Santa Rosa.
19:01 - Off site.
- March 17, 2009 - Logger firmware has been updated from version 1.15.1 to 2.02.2.
- June 16, 2009. Mike Gottlieb at site. GTSM is off. Replace power box (US16 out, SP317 / 27132 in). Strainmeter starts immediately. Also solder real rain gage connector on cable, removing the home-made one.
- June 24, 2009. Mike Gottlieb at site. Shut down site 1030 PST, removed everything from hut. Rotated GTSM rack, installed electronics rack and A/C backpanel and triplite. Site is now upgraded to standard layout and equipment. All equipment and coms back up by 1500 pst. Upgraded RTs to 1.20.
- October 13, 2009 - VSAT was hung, would not come back on restart. Tx, Rx, and System lights remained off, and the unit was unresponsive. Replaced UNID 22505 with 23102 / HKA77G0BA 03900144 X. Uploaded a new cisco configuration, and site came back online. This was a comms failure and there was no data loss.
- March 31, 2010 – Mike Gottlieb visited the site to install a pore pressure sensor. It was installed at a depth of 129'8". The static water level was 98'. The sensor was lowered on its cable without a packer. He also installed a metpack. It is hooked up to the Marmot serial port, which still needs to be remotely set up for data collection.
- March 3, 2011 – Checked and tightened wiring of seismometer. Found a shield wire from MEMs Ch3 (Q330 side) incorrectly connected to the yellow signal wire for MEMS Ch2 (instrument side). Rewired the connection correctly. Replaced the Iota A/C charge controller in an attempt to reduce the seismic noise.
- September 8, 2011 – Replaced the metpack cable with a functional one. Marmot is now collecting MET data.
- March 1, 2013 – A Trillium T120PH broadband seismometer was installed at the site.
- April 17, 2013 – Mike visited the site to investigate the MEMS power supply. Confirmed the MEMS was drawing power directly from the Q330, without a DC/DC converter. Added one of these might help with the seismic noise issue. Secured electronics with velcro, zip ties, and double sided tape. Batteries have not been secured yet.
- June 11, 2015 – Replaced the powerbox to fix the GPS time.

- December 27, 2016 – Confirm RT firmware was 1.20. Adjusted quadrature and chop delays. All channels needed minor adjustments. Noticed burst of noise (trace on scope widens) on CH0 Amp O/P. CH3 was difficult to totally remove quadrature, the zero crossing point remained dependent on Ratio Transformer setting (adjusting 5th decade moved the desired chop location). Turned on event mode, set trigger/aftershock to 300/60. Confirmed all other strain-logger.conf settings are correct for this powerbox.
- Aug 4, 2017 – Ran config commands on Metpack it was streaming state of health info and was in hPa.
- January 25, 2018 – Filled in large holes where animals had been burrowing under the pad. Checked chops and quads, they looked good so no changes were made. Removed VSAT dish that was no longer in use, should help reduce multipath on GPS.
- July 25, 2018 – Replaced 8 batteries. 1x6 mains and 1x2 gtsm.
- March 11, 2019 – Swapped out all fiber modems due to site losing connection to GTSM21. Outages seemed to be temperature related. All channels had good chop and quads.
- June 27, 2019 – Logger board had a flaky ethernet port, replaced logger board. Pulled RV50. Looked like power port shorted. Sent new one to wall on July 1.
- July 16, 2019 - Installed RV50 to replace the unit removed in June.
- October 15, 2019 – Found logger /var/tmp directory full, couldn't mount data disk. Deleted 3.8 Mb kernel.0 log file and rebooted. This fixed issue.
- December 21, 2019 – CH3 was dropping to gain 2, set quads.