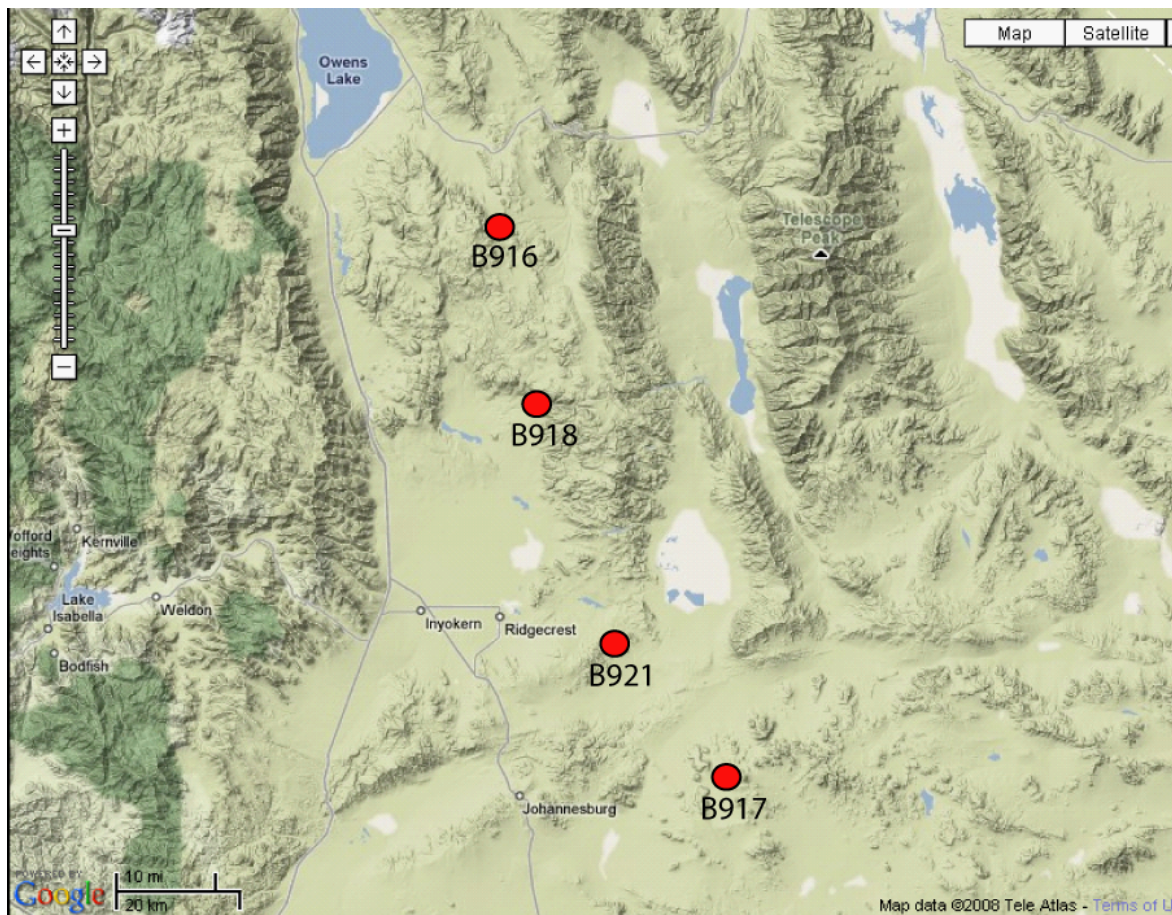


Station Notes for B917, tonyso917bcs2008

Latitude:	35.4053 (WGS 84)
Longitude:	-117.2588 (WGS 84)
Elevation:	1192 m / 3911 ft
Install Depth:	162.5m / 533 ft
Orientations:	CH0=306.1, CH1=246.1, CH2=186.1, CH3=156.1
Install Date:	July 14, 2008
GTSM Technologies #:	US69 (logger U103)
Executive Process	Version 1.14
Software:	
Logger Software:	Version 2.02.2
Home Page:	www.unavco.org/instrumentation/networks/status/nota/overview/B917
Notes Last Updated:	August 14, 2020

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

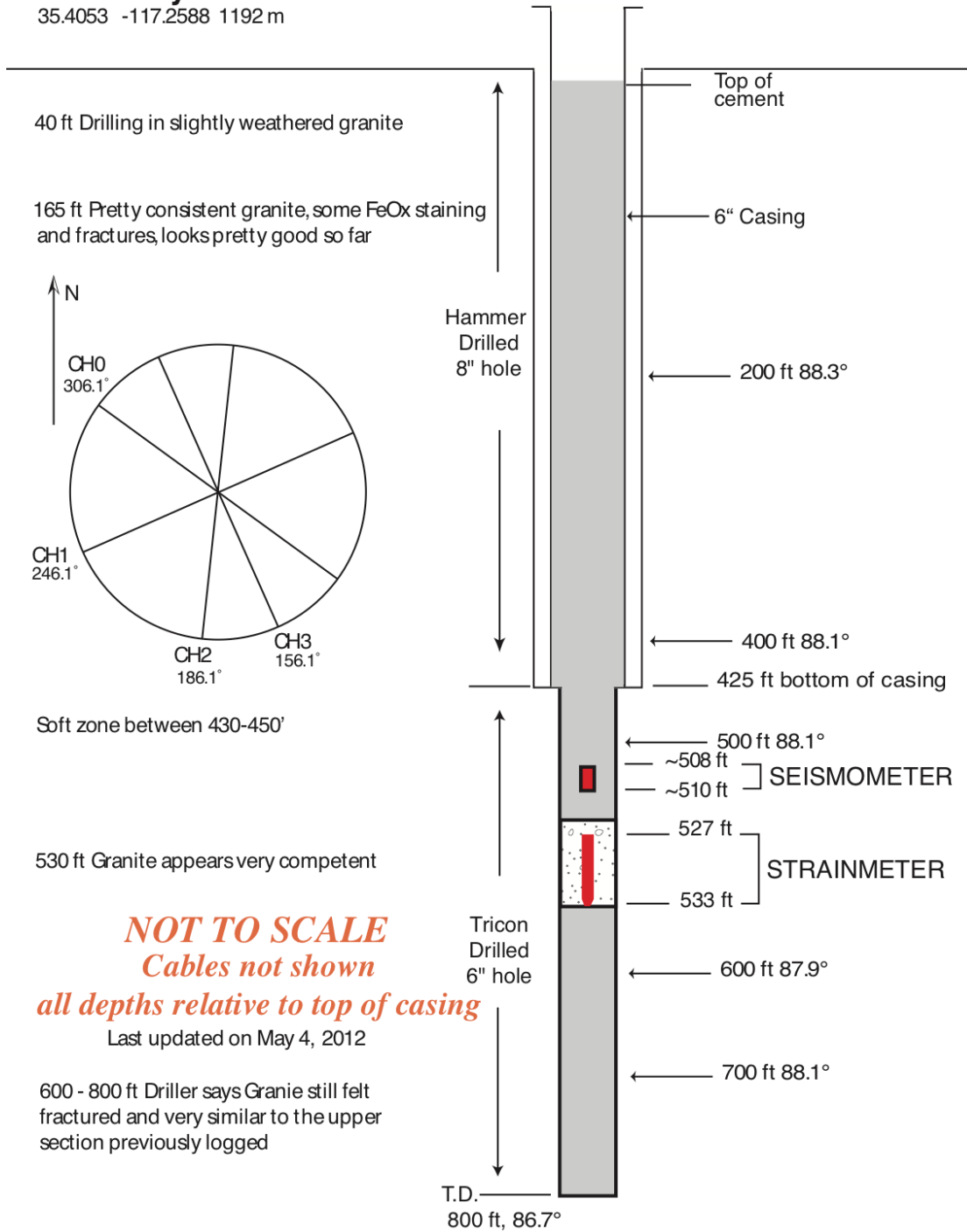
·Orientations are in degrees East of North.



Mojave strainmeter network, July 31, 2008

B917 tonyso917bcs2008

35.4053 -117.2588 1192 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

July 14, 2008 UTC

05:00 - On site, current total depth is 533' and GTSM looks good.

16:45 - Shutdown GTSM.

17:00 - Start mix.

17:03 - Last PennGrout added (7 bags) (batch AM306).

17:05 - Last H2O, 5 qts/sack (water was cooled in truck).

17:13 - Stop mixing (used 5-1-2 minute mix). 3-section bailer trips on bottom and GTSM finally makes it to the bottom of the borehole.

17:42 - GTSM turned on; temp is 3.685V and rising.

17:46 - Compass readings: X=1.883, Xmax= 1.921, Xmin=0.921, Y=1.332, Ymax=1.616, Ymin=0.678.

17:54 - Renamed B917 and secure cable to wellhead.

18:11 - Shutdown GTSM and bury cable.

18:27 - Restart GTSM on temporary solar. Spend evening pouring pad, installing VSAT Post and solar post, and make dump run. Load up for next days cementing.

July 15, 2008

01:30 - Off site.

July 15, 2008 UTC

15:30 - On site.

17:00 - Lower seismometer.

17:10 - Set TP14 to 3.174v (barometer adjustment).

18:30 - 1.5" tremi is tripped in.

21:00 - Finished pumping.

23:00 - Shutdown GTSM, and anchor in hut and equipment racks.

23:50 - Restart GTSM and begin wiring solar mounts.

July 16, 2008

01:00 - Program Q330/marmot.

01:22 - Assign GTSM IP.

01:30 - Adjust downhole temperature (TP7) from 1.444V to 1.025V.

02:30 - Off site.

July 16, 2008

Point VSAT, clean up site, and clean up B Mountain.

2. General Information

B917 is located on the China Lake Naval Base. Permission is required to get on the base. The base is a missile testing range.

Sensitivities of all EH channels corrected on March 4, 2010.

3. Strainmeter Maintenance

- December 4, 2008 - GPS showing invalid, with time last set 6 hrs previous. A new GPS antenna did not fix the problem, so the powerbox was swapped out. US69PB was removed and shipped back to Boulder, and SP307 was installed at 13:40 PST. The new powerbox was tracking satellites within 20 minutes. Failure is attributed to high temperatures, 3 of 4 Mojave powerboxes were replaced on this trip. Adjusted the charge voltage on the powerbox down .1V.
- January 13, 2009 - Setra installed at 08:15 PST.
- January 15, 2009 - Mike moved this site back to the original power system, and replaced a failed powerbox. This has fixed the nightly shut-offs. Currently 9 solar panels are going into the power system, which is then charging the strainmeter. This allows all the batteries to charge the strainmeter, rather than just 4. There may be an increase in noise from the charge controller, but this was preferable to missing data. This was the second failed powerbox at this site in 2 months.
- March 22, 2009 – Logger software upgraded to 2.02.2
- July 29, 2009 – Mike Gottlieb tried to upgrade the firmware on the RT boards, but was unable to get RT0 into programming mode. RTO will have to be replaced
- July 30, 2009 – Mike replaced US69RT0/26333 with SR407/27139, he was then able to successfully upgrade RT firmware to v. 1.20.
- November 9, 2009 – Mike Gottlieb visited the site to build a 5' x 8' roof over the electronics enclosure. He also moved the rain gage and adjusted the quadrature.
- March 18, 2010 – From November 17, 2009 to March 5, 2010 the station started recording random values of 0 and -1 in the CH1 1 sps data. There have been no problems since March 5, 2010, but the board was reset in the backplane during a visit to the site on March 18, 2010.
- July 13, 2010 – Adjusted the coms LVD to stay on at lower voltage. This adjustment involved powering off everything but the GTSM. The LVD is now set to turn off at 12V and turn on at 12.5V(was 12.5 and 12.95).
- January 25, 2011 – Rain gage top had blown off sometime since July 14, 2010. Installed a new one, and taped it into place. Replaced mains battery jumpers with 4 gage wire. Deployed temporary broadband seismometer for 24 hours and ran BirdDog on the borehole seismometer to collect metadata. Adjusted quads and chop.

- September 7, 2011 – Found Cisco to be functional. The IDU however had no lights on, and was not operational upon arrival. A power cycle brought the IDU back online, and communications to the site were restored. The timer that is supposed to power cycle the IDU 1x per day appears to be set correctly and functional, so it is unclear why this problem had not resolved itself. After leaving the site the VSAT went down again. The IDU should be replaced.
- October 3, 2011 – Steve Alm visited the site and replaced the cisco and IDU. He was unable to get the IDU up and running.
- October 11, 2011 – Mike visited the site and went through the registration process on the new IDU and got it running. He also noticed the GTSM was off, and restarted it by using the reset button on the powerbox. Voltages all looked good, so it was unclear why the GTSM had turned off.
- April 4, 2012 – Mike Gottlieb replaced the logger board, we now have ENV and SOH data again. Upgraded charge controller to a Morningstar MPPT. Checked and set quadrature on the GTSM.
- January 30, 2020 – Bad environmental channels. Replaced logger board. New logger has FW2.4 and 16GB CF card.
- March 19, 2020 – 16 GB compact flash card was causing log file to fill up. Reformatted compact flash card to 1GB.
- July 17, 2020 – Downgraded logger from firmware 2.4 to 2.12. Replaced all bin files, removed the extra lines from strain-logger.conf, and edited the /etc files.