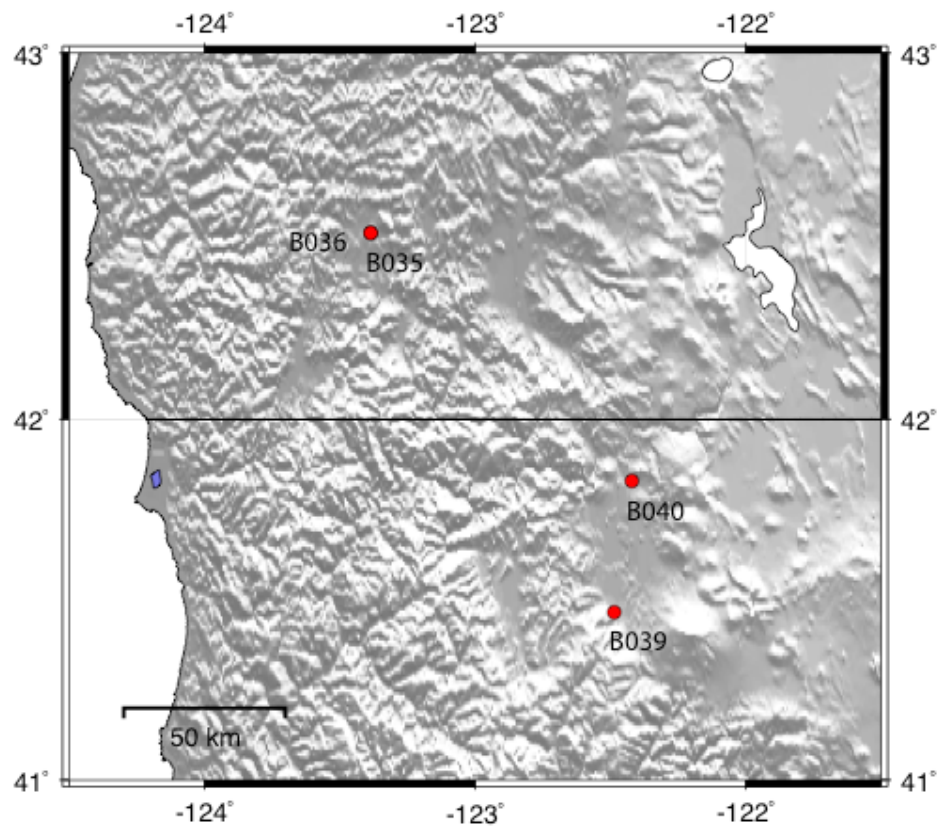


Station Notes for B040, yorkmn040bcn2007

Latitude:	41.8308 (WGS 84)
Longitude:	-122.4205 (WGS 84)
Elevation:	819.5 m / 2689 ft
Install Depth:	240.18 m / 788 ft
Orientations:	CH0= 272.7, CH1= 212.7, CH2= 152.7, CH3= 122.7
Install Date:	2007-10-12
GTSM Technologies #:	US41
Executive Process Software:	1.14
Logger Software:	2.02.2
Home Page:	www.unavco.org/instrumentation/networks/status/pbo/overview/B040
Notes Last Updated:	August 8, 2020

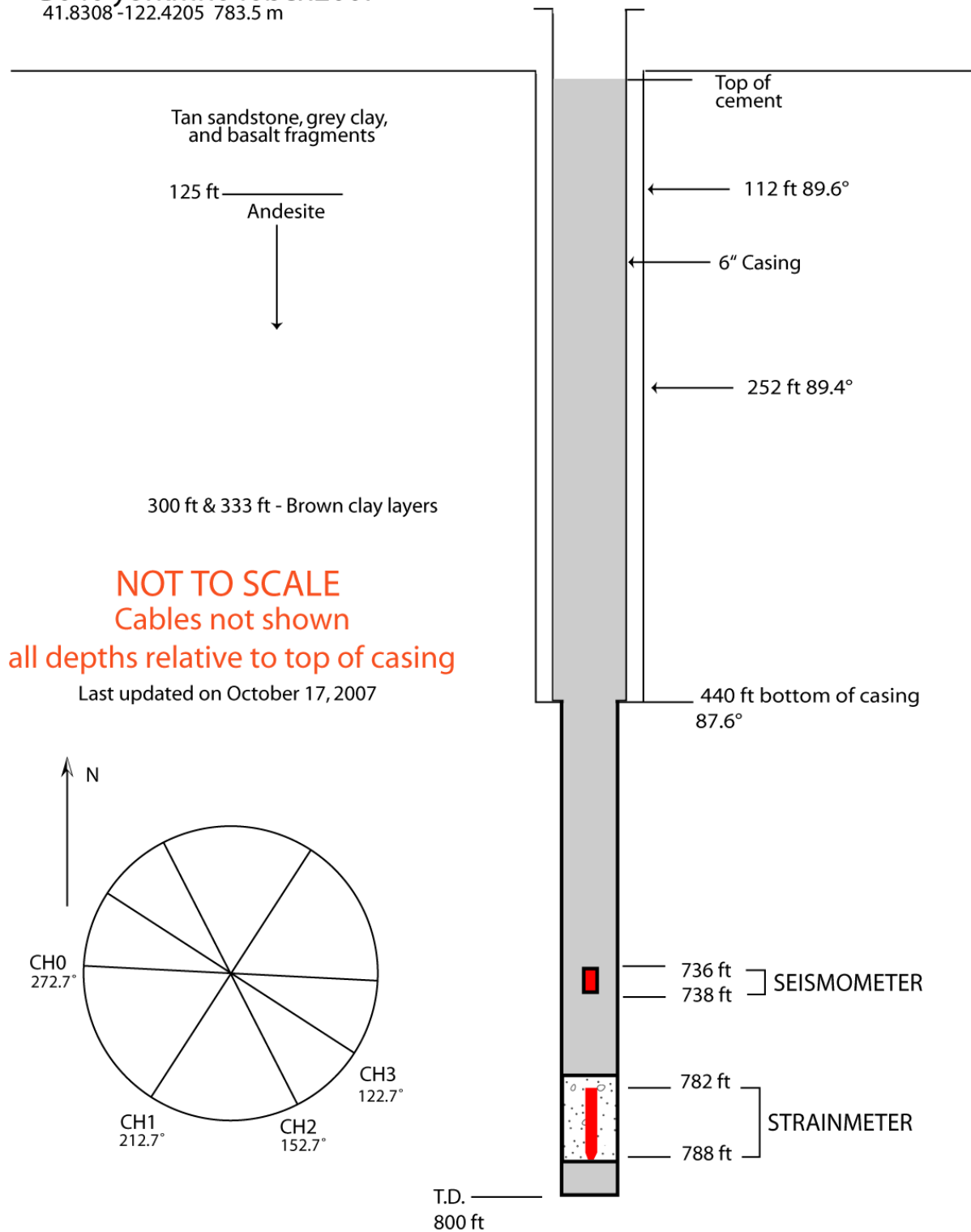
·Install depth is from the top of the casing to the bottom of the strainmeter.

·Orientations are in degrees East of North.



Northern California and Southern Oregon PBO strainmeters, October 2007.

B040 yorkmn040bcn2007
41.8308 -122.4205 783.5 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	NONE INSTALLED	-

1. Install Notes

2007-10-11 UTC

Arrived at York site, put B040 on test at 23:00. Raised bottom (800.5') with 3 section dump bailer of Portland cement.

2007-10-12 UTC

15:30 On site, field tutorial with Mick Gladwin on GTSM field diagnostics.

16:00 Sound hole, TD = 788'.

16:39 Add centralizers and nosecone.

Setup site so that when GTSM is installed, we can evacuate the location and MOB to B039 to give the instrument the desired 48 hours of no activity after install.

19:36 Compass test Xmin 1.669 Xmax 2.174 Ymin 1.705 Ymax 2.180.

20:20 Install meeting, discuss wellhead tie-off, resolve to try new strapping material (something closer to 6-7mm static cord) for future installs.

20:40 Start mixing.

20:44 Last grout added.

20:46 Last H₂O (15.5 gal total).

20:55 Stop mixing.

21:08 Dump bailer on bottom.

21:15 Bailer out of grout.

21:40 GTSM on bottom.

21:49 GTSM started up; diagnostics check out, instrument called good!

21:44 Renamed B040.

21:53 Shut down logger to set DH temp; set to 0.85V.

23:02 Restart logger.

Finish packing up site and squaring away strainmeter to be left for several days.

During the renaming process, the logger had a US41 file open while we rebooted the board to become B040. Consequently the logger board gets caught in a loop looking for a file that no longer exists--after some discussion and assistance from Mick Gladwin the board was changed. This should result in some minor data loss.

2007-10-13 UTC

01:00 Off site.

2007-10-16 UTC

15:00 On site; get H₂O

15:30 Test Seismometer #97 UNAV 22575

Ground test is not positive, put in truck to warm in upright position; discuss with Wade, checks out.

Vert = 2.403kOhm H1 = 2.451 kOhm H2 = 2.424 kOhm

17:45 Start lowering seismometer.

18:25 Lowered to 738'.
 18:30 Trip in 1.5".
 19:50 Tag grout; grout to 770'.
 20:00 Tripped in.
 20:10 Start pumping.
 23:00 Finished pumping (~5 yds).
 23:40 Start digging pit.
 23:43 Shutdown GTSM; bury cable; pour pad; set Vsat post.
 2007-10-17 UTC
 01:53 Restart GTSM.
 02:00 Off site.
 2007-10-17 UTC
 16:00 On site; GTSM is off (batteries @2.45V).
 16:15 Shutdown GTSM to switch batteries; flatbed heads to Medford, OR to pickup materials.
 18:52 Shutdown GTSM to move into enclosure
 19:07 Turned back on; setup uphole wiring and electronics; point VSAT, have issues with Hughes (manufacturer).
 22:07 Program Q330 #2595.
 22:31 Program Marmot.
 22:37 Assign GTSM IP 10.236.184.178.
 2007-10-18 UTC
 00:00 Mobbed off site; left strainmeter running on 6 batteries (2 on GTSM side @13.8V, 4 on comms/seismo @ 12.5V); all other electronics turned off.

1. General Information

- This strainmeter is co-located with the GPS station P784.
- Sensitivities of all EH channels corrected in the dataless on March 4, 2010.

2. Strainmeter Maintenance

- December 15, 2007 UTC– Chuck Kurnik visited the site to convert it to AC.
 23:12 - Onsite. Chuck visited site with an electrician. The inspection was not completed. Meter base was installed, but no meter. Power lines have been run to site. Non-GFI outlet was installed in hut.
 23:35 - Offsite.
- July 16, 2008 - PDT
 12:15 - Kurnik and Williams arrived on site.
 12:50 - Turn off TEG, remove from batteries, and plug in station to AC. Talk with landowner for ~30 minutes. Remove TEG, TEG power conduit, and cut out cemented TEG post.
 14:00 - Offsite.

- August 22, 2008
GPS station P784 yorkmn040gcn2007 was co-located at B040 this week. It uses the 2007 designation to share the existing vsat and cisco router at B040.
- September 19, 2008 - Warren Gallaher upgraded the GTSM logger software from version 1.15 to 2.02.2. The site was offline from about 19:00 until about 19:30 UTC.
- January 10, 2010 – Pulled UNID 26434, US41LG and replaced it with UNID 27122, SL 603.
- January 5, 2010 – Chad Pyatt deployed a temporary broadband sensor at the site to get seismic data to orient the borehole seismometer. He also collected Birddog data from the borehole seismometer.
- March 29, 2012 – After arriving on site and opening the enclosure, all the equipment had power, so there should be no data lost. The IDU only had the power light on. First Liz reset the power to the IDU power supply, with no change. She then replace the power supply, but no change. She replaced the IDU, but there was still an issue with the power. Next she replace the cable to the ODU, but this didn't help. She replaced the wired portion that goes from the IDU power inverter into the panel, which restored power. She tried the old IDU, but no lights come on. In review she replaced the IDU, power inverter, and wires from the inverter into the panel. The system light was off, and when checking the system the transmit/cross-pole needed to be adjusted. Due to the strong wind, which was causing the VSAT dish to constantly vibrate, Liz decide to wait until tomorrow. She took the router to update the file with the new IP information.
- March 30, 2012 – The VSAT dish was adjusted for the cross pole test. The transmit was at 91%. Due to the high winds, it was difficult to point the dish for a cross pole. At one point she had 70%, which was quickly lost. The constant average she could find was 62%. The dish should be adjusted when it not as windy. The router was added. Liz could ping all equipment and the IDU from the router, as well as surf the web.
- August 6-7, 2012 – A temporary broadband seismometer was deployed.
- October 13, 2012 – The station had lost GPS time. Liz used the cold start command to reset the GPS. The station has GPS lock again.
- December 18, 2013 – Liz visited the site. She added diatomaceous earth, secured all site equipment, performed GTSM chop and quad procedures, and power cycled the marmot. She also filled the VSAT mount and all open posts in the fence surrounding the site with expansive foam.
- January 14, 2014 – Marmot was power cycled.
- January 15, 2014 – The marmot was replaced. A MetPack was installed against a leveled metal fence pole near the site and the cable was secured with liquid tight flexible conduit.
- January 14, 2015 – the VSAT has had spotty connectivity and the dish contributes to GPS multipath noise. Removed the VSAT equipment and cisco, and installed a proxicast LC3.

- August 17, 2016 – Swapped cellular modem.
- October 4, 2016 – Swapped cellular modem, the previous one only worked for a few days before failing.
- October 5, 2016 – CDMA USB card was not secured and had lost connection.
- October 11, 2015 – Patched gap on top of enclosure, sealed inside of enclosure. Installed 8 new batteries. GTSM has a bank of two, main back has 2 banks of 3. Took downhole measurements while the station was offline. Adjusted GTSM chops and quads. Swapped out LanCell II with LS300 w/ Verizon.
- March 21, 2017 – Adjusted GTSM chops and quads. Adjusted pressure pot for elevation over 800m. Pressure pot would only adjust down to 3.34V, not the 3.178V. Used ratio to adjust logger setting to 84.79kPa.
- January 5, 2019 – Upgraded LS300 to an RV50.
- February 21, 2019 – Swapped 1-port fiber modem that was connected to the logger board. It had failed after a power loss issue.
- December 17, 2019 – Clock speed updated from 100 to 400. Adjust quads, CH0 was in G2 since October, now in G3. Added earthquake straps to environmental box.
- April 8, 2020 – Visited site after a bunch of Verizon RV50's mysteriously dropped offline. All of the outages were simultaneous and it was determined that a site visit was necessary. Rebooted the modem and upgraded to the latest firmware. 4.13. Verified station was online before leaving.
- June 2, 2020 – Site offline, similar failure to last round of Verizon outages. Network watchdog was set, but the ping test was not enabled. Enabled ping test for cellular connection monitor.