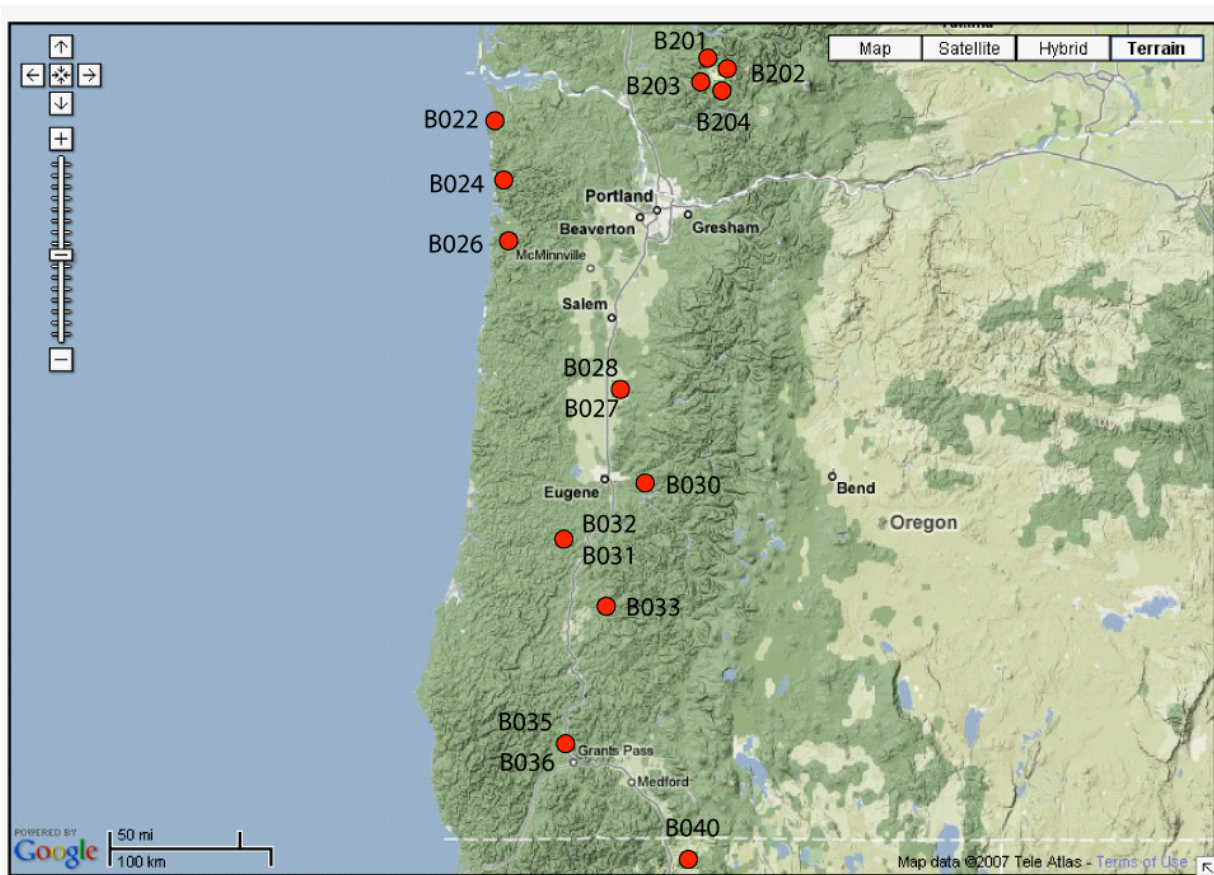


Station Notes for B033, vanvlk033bor2007

Latitude:	43.2917 (WGS 84)
Longitude:	-123.1245 (WGS 84)
Elevation:	312.1 m / 1024 ft
Install Depth:	233.8 m / 767 ft
Orientations:	CH0=277, CH1=217, CH2=157, CH3=127
Install Date:	December 13, 2007
GTSM Technologies #:	US63
Executive Process Software:	Version 1.14
Logger Software:	Version 2.02.2
Home Page:	http://pbo.unavco.org/station/overview/B033
Notes Last Updated:	April 23, 2019

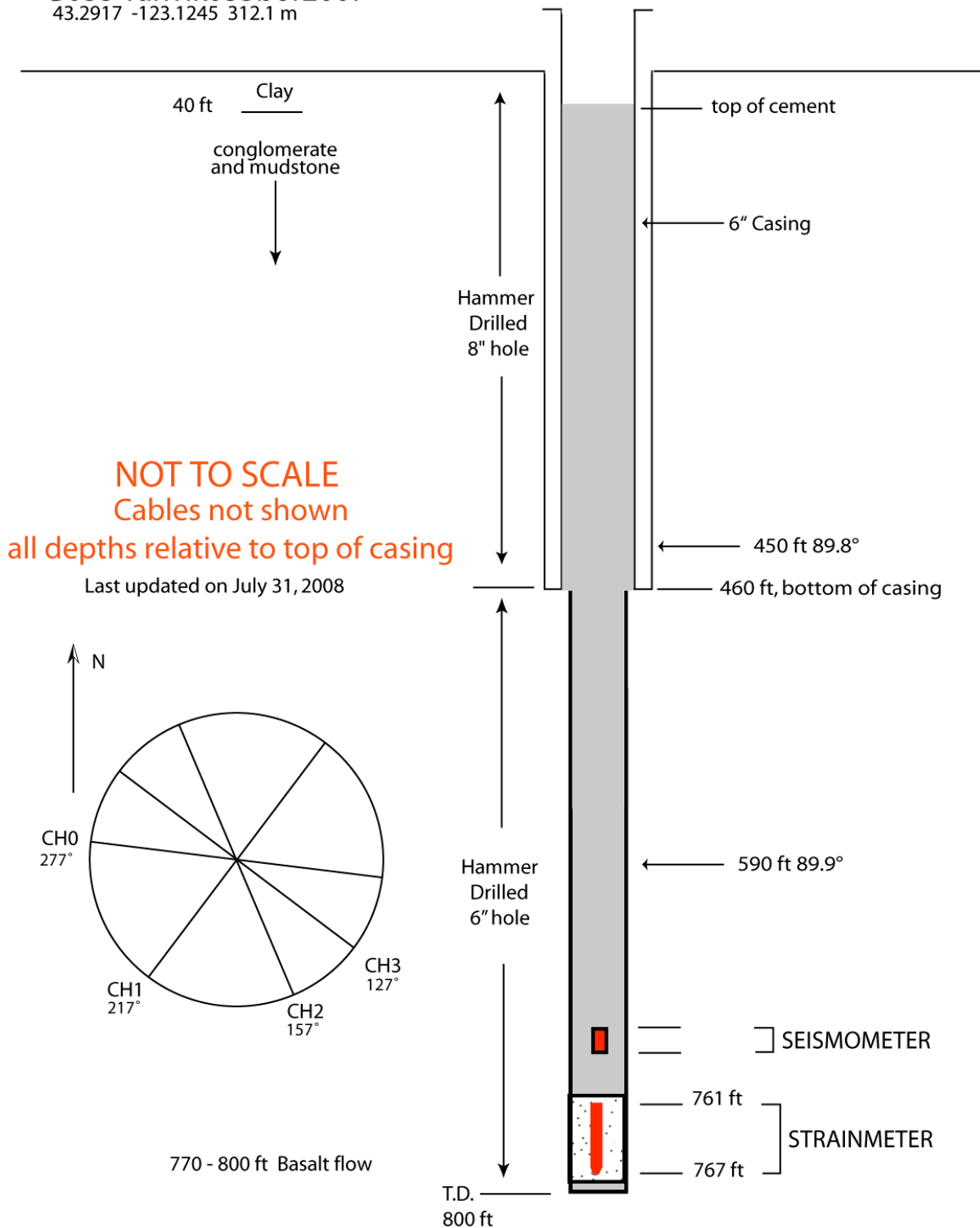
• Install depth is from the top of the casing to the bottom of the strainmeter.

• Orientations are in degrees East of North.



Oregon PBO strainmeters, January 2008

B033 vanvlk033bor2007
43.2917 -123.1245 312.1 m



Instrumentation at Strainmeter

Instrument	Units	Bottle/ASCII Scale Factor	SEED Scale Factor
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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. Installation notes

December 11, 2007 UTC

19:00 - US63 put on test. Ran 4 section dump bailer twice with neat cement to raise hole.

December 12, 2007

Tag bottom, cement raised hole to 780' with 3.5' of "fluff" on top of that.

Use dump bailer to add one 94 lb bag of Portland cement, mixed thick with warm water.

Line up supplies and equipment for install.

December 13, 2007 UTC

18:00 - On site, tag bottom (767' soft 769' hard).

16:20 - Can't get USB to download data, manually download via ethernet cable. Data looks good.

16:50 - Shutdown GTSM

17:47 - Compass test Xmin 2.523 Xmax 3.034 Ymin 2.722 Ymax 3.114.

18:10 - Start mixing Masterflow 1341 Batch# 161613428T7 x 8 55lb sacks.

18:14 - Last water added (14.2 gal distilled).

18:25 - Stop mixing

18:36 - Bailer tripped on bottom.

19:05 - GTSM on bottom.

19:11 - GTSM turned on.

19:12 - Down hole temperature (from front panel) 1.75V and rising; X= 3.062 Y = 2.883

19:23 - US63 renamed B033. Spend the rest of day getting H2O, setting up for cement, setting Vsat post, and acquiring fencing.

2. General Information

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3. Strainmeter Maintenance

- July 23, 2008 - Reason for visit: VSAT not responding.
4:50 Local time - On site. TEG, GTSM, marmot, and Q330 were running. IDU and Cisco were powered down. Comms breaker on the back panel was switched off. Flipped breaker back on, powered up comms. Before Chuck K. can reach the Cisco the voltage drops too low and the Cisco and IDU shuts down again. Tried adjusting TEG pressure and resetting wire in the back panel but have the same result. The TEG tank was 60% full with 42 psi of pressure, and was putting out 12.7 V. The Batteries were at 12.5 V. The TEG doesn't seem to be putting out enough power to sustain the comms, but the strain meter side of things is fine.
6:45 - Off site, left the comms breaker off on the back panel. The site is on its way to having AC power. Bob Greenwald is arranging for the power company to come out.
- December 4 & 5, 2008 – Wade Johnson visited the site to replace the fiber optic modem. B033 had working TEG that had run out of propane causing loss of batteries. Propane had been refilled after TEG died. The TEG was fired up and left on so it can be tested tomorrow and taken up to windy ridge if test ok. Replaced batteries and hooked up AC power.

- August 6, 2009 – The RT boards were upgraded to 1.20, and the quadratures were adjusted. A Setra barometer was also installed.
- March 30, 2012 – Arrived at the site and discovered that a blackberry bush had grown over the site. The blackberry bush is removed along with most of the root system.
- January 9, 2014 – Upgraded logger software from 1.16 to 2.02.2. This upgrade introduced an offset in the pressure due the old logger software not having an offset adjustment. The pressure in the new version is 91.15. The software upgrade did not fix the invalid GPS issue.
- January 12, 2014 – Liz logged on and issued the GPS_ColdStart.sh command.
- February 25, 2014 – Liz visited the site and removed the blackberry bush that had overgrown the site. The site is offline because a mouse had built a nest on the top of the charge controller. There was mouse "mess" throughout the site.
- February 26, 2014 – B033 is back on line. The GTSM was running with the exception of mid-day. Everything else will have data lost. Liz could ping everything and log onto the GTSM. She logged onto the Q330 to double check the strainmeter and Setra data. The site was rewired and the panel (power/wiring) was replaced. The mouse did chew on the GTSM GPS wire. The GTSM was tracking 9 satellites, so the wire was ok. She examined all other wires, and they were ok. She made it through most of her site checklist, but there was no time to re-adjust the VSAT. It took Liz most of the day to clean up after the mouse. She filled in holes where it probably got in, so hopefully the mouse will not be a problem anymore. The landowners stopped by and talked. They might spray the blackberry bush later in the season.
- July 17, 2014 – Chad visited the site to get it back online. He had to force VSAT ranging due to bad transmit. Site is back online.
- October 2, 2014 – Replaced VSAT IDU, repointed dish, modified cisco configuration, and contacted Boulder to update the VPN concentrator.
- April 19, 2016 – Comms upgrade from VSAT to CDMA. Adjust GTSM chops and quads.
- June 14, 2016 – Remove VSAT dish. Left tall pole for possible metpack install. Swapped batteries. GTSM was offline. After battery swap station was back online.
- October 10, 2017 – GTSM was offline. GTDM power box had never been upgraded after site was installed. Installed new power box. Logger board had failed. Solid logger light indicated standby mode. Board was from install, and was replaced.
- May 16, 2018 – Data flow through Marmot had stopped, swapped out Marmot.
- April 8, 2019 – Updated Q330 FW to 1.150.