

Bloodhound Basics And Getting Started

Setting up the Standard Bloodhound on a Well

This article discusses what to do when setting up the Bloodhound on a new well (either for the first time, or on any new well). It covers the steps, in order, that should be completed. Using this method for setting up on a new well will ensure that your Bloodhound's internal data store is intact and not contaminated with prior well data, and will allow you to create a rig-up for the Bloodhound that will have the largest likelihood of preventing damage to the instrument. In addition, the most common options that are used with the Bloodhound are discussed through out the article, along with any settings or special riggings that are required to set up these options.

TOOLS AND MATERIALS:

- 1) **SAMPLE LINE:** For rig-up of your sample line, you need to provide inlet sample line (commonly) 1/4" poly line - enough to make the full run), a bubble jar and dropout jar, a dry-rite column, and adequate connectors/pass-throughs/grommets to assemble the line and run it inside the mud logging trailer.
- 2) **OPTIONAL - TOOLS:** *The following tools are strongly recommended but not required:*
 - a) **BUTANE CIGARETTE LIGHTER:** *Useful with running lighter tests, trap test, and chromat lighter tests.*
 - b) **PHILLIPS-HEAD SCREWDRIVER - MEDIUM:** *This is used if you need to get inside the Bloodhound to replace a pump, etc.*
 - c) **POCKET KNIFE:** *Useful for quick connection changes, rig-up, etc. regarding poly line.*
 - d) **DUCT TAPE:** *Useful in securing leaky connections, etc.*
- 3) **OPTIONAL:** *If you are connecting the Bloodhound to a WITS system, you will need a RS/232 9-pin NULL Modem cable.*
- 4) **OPTIONAL:** *If you are connecting the Bloodhound to the Internet via a Local Area Network (LAN), then you will need a functioning LAN and an extra RJ-45 Ethernet cable (and maybe even a spare).*

HOW-TO:

This section covers unpacking the Bloodhound, making sure all of the materials are present, hooking up the external filters, rigging up WITS (or a geolograph), rigging up the poly line inlet and exhaust, and connecting the Bloodhound to the Internet.

- 1) **UNPACK THE BLOODHOUND:** The Bloodhound will arrive in a custom-padded, soft-sided suitcase. Remove the accessory filters, and lift the Bloodhound straight out of the suitcase to remove it. Inspect the Bloodhound to make sure all of the components are in good condition, and that all of the accessories provided with the Bloodhound are included and in good condition
- 2) **CHOOSE A LOCATION FOR THE BLOODHOUND:** The following suggestions for the kind of environment in which you setup the Bloodhound are recommended:
 - a) Setup the Bloodhound in a relatively dust-free location (such as a mud-logging trailer) where it can be powered by 120VAC power, and where the sample and exhaust lines can be easily plumbed to the outside of the building.
 - b) **OPTIONAL:** *If you will be using the GPRS Radio Antenna option to connect the Bloodhound to the Internet, make provisions to run the GPRS antenna line to the outside of the building - preferably to the roof.*

c) **OPTIONAL:** *If you will be using a computer on which you will be running the iBall Gas Chart software, this will need to be located within six (6) feet of the Bloodhound.*

3) **RIG UP THE SAMPLE INLET LINE:** The sample inlet line is generally constructed of 1/4" Poly line and has a number of items in the line. It is strongly recommended that you rig up your sample line with the following

a) **POLY LINE:** Enough 1/4-inch poly line to make the run from the Bloodhound to the trap (1/4" is strongly recommended, but other diameters can be used). This is generally available at most hardware and home improvement stores.

b) **POLY LINE CONNECTORS:** Sometimes larger poly line works, sometimes actual connectors are used.

c) **BUBBLE JAR:** A bubble jar with anti-freeze or some other non-contaminant compound is recommended near the trap for troubleshooting purpose.

d) **DROPOUT JAR:** A drop-out jar is like a bubble jar, but is installed very close to the Bloodhound.

e) **DRY-RITE COLUMN:** A column of desiccant that is placed near the Bloodhound to avoid moisture entering the Bloodhound.

4) **RIG-UP THE EXHAUST:** This is critical - rig-up the exhaust line (1/2") from your Bloodhound to a point well outside of the mud-logging shack. The type of line is less critical than that used in the inlet, but it must seal, and it must remain obstruction-free.

NOTE: This must be done for basic safety, so do not forget this step.

5) **CONNECT YOUR BLOODHOUND TO WITS:** You can optionally connect your Bloodhound to WITS via two methods. The most common method is via an RS/232 9-pin NULL Modem cable. If you are using Pason, you can connect using the Pason RS/422 "Blue Cable". You need to know which WITS system you are using, and may need to change the values in a few of the Bloodhound's registers to get the Bloodhound and the WITS computer to "sync".

6) **STARTING DEPTH:** There are two ways to setup starting depth. If you are using a geolograph, you manually set the starting depth on the Bloodhound - if you are using a WITS system, you need to make sure that the WITS system is fully setup, and is currently showing the start depth of the well or sidetrack:

a) **GEOLOGRAPH - SETTING STARTING DEPTH:** If you are using a geolograph, you need specify your starting depth by setting it in the "SETUP" menu on the Bloodhound. If you do not know how to do this, consult the "Video Help" icon below.

b) **WITS - STARTING DEPTH:** When using WITS, the WITS system needs to be initialized with a starting depth like any measurement device. If you do not have the correct starting depth before proceeding to the next step below, you will create a database with flawed data from the start. You need to make sure that the WITS system is showing the proper "starting" depth of the hole before starting a new Job Number on the Bloodhound. If you have completed step five (5) above and have a successful connection to WITS, you can see the depth that WITS is sending to the Bloodhound by looking at the LCD screen on the face of the Bloodhound in the top line of information.

7) **SET A NEW JOB NUMBER ON THE BLOODHOUND:** Setting a new Job Number on the Bloodhound has the impact of telling the Bloodhound that it's starting a new hole, and that it should start a new master database.

NOTE: The "database" on the Bloodhound and the "database" in Gas Chart are two completely separate entities. You can start new databases in Gas Chart all you want and it will have no impact on the Bloodhound. Also, starting a new Job Number on the Bloodhound will not erase or tamper with the database in Gas Chart. However, failing to start a new Job Number on the Bloodhound at the beginning of a well or hole will cause the Bloodhound's database to consist of well data from two different holes and immediately creates a situation where recovering data from the well via iBallRemote.com or the Bloodhound's master database is next to an impossibility.

You create a new Job Number on the Bloodhound by accessing the Setup Menu (the up and down arrow keys on the face of the Bloodhound pressed simultaneously for a couple seconds will display Setup Menu. The Mute button acts as the Enter key.

8) **ZERO THE TOTAL GAS:** While the Bloodhound needs no calibration due to the sensor array type (infra-red or IR), you will still need to zero the gas once the Bloodhound has been initially setup. Make sure the temperature in the environment in which the Bloodhound will be running has stabilized. A good rule of thumb is once the temperature has stabilized, let the Bloodhound run for an hour or so prior to zeroing it. If you know how to zero the total gas number on the Bloodhound, go ahead and zero it now.

9) **SETUP THE GAS CHART COMPUTER:** While optional, it is strongly recommended that you connect an on-site computer to the Bloodhound via a USB Printer Cable. This will allow you to locally run Gas Chart software, and gives you access to make changes to critical Bloodhound settings, perform ANSI Standard LAS file exports, configure Lag Depth and much more. There are three parts involved in doing this. First, downloading the latest version of Gas Chart from (<http://iballinst.com/downloads.html>), making the physical connection with the USB Printer cable, and third, installing Gas Chart Software and the USB Driver.

a) **INSTALL THE GAS CHART SOFTWARE & BLOODHOUND USB DRIVERS:** For more information on connecting your Bloodhound to a local computer via the USB Printer Cable, see the Gas Chart user manual. The USB Driver install will download with Gas Chart. One download 2 installations.

c) **START A NEW DATABASE IN GAS CHART:** After you have either set or verified you have the correct depth, started a new Job Number on the Bloodhound, and after installing Gas Chart and USB Driver, you now have to start a new database in Gas Chart. This is done from the "Gas Chart Control Box". Click the "Start New Data Base" button, make sure you are saving to the default data directory (C:\Program Files (x86)\iBall\DB_CUE), give database a unique name, and save it. The chart will go blank indicating you have successfully done this. For more information on how to start a new database in Gas Chart, refer to the Gas Chart manual.

CONFIGURING OPTIONS AND SETTINGS:

This section is completely optional and outlines the most common options that are either the result of special hardware (such as the iBall Instruments DC Cavitator) or which are included with the Bloodhound but not turned on by default (such as measurement of H2S).

1) **IBALL DC CAVITATOR:** The iBall Instruments DC Cavitator is a low-voltage agitator that can be run directly from a power outlet on the Bloodhound. If you already know how to do this, make this connection now.

2) **TURNING ON THE H2S SENSOR:** A common option used on the Bloodhound is its ability to measure H2S; however, by default this option is not turned on when the Bloodhound arrives. To turn this option on, you will need to access Register 41 in the Setup Menu on the Bloodhound, and set it to one (1=On but will reset to Off when rebooted) or (255=Persistent On). Also, you will want to zero the H2S as well.