

SNAP Quick Guide

Signal-to-Noise Automated Process

This document is intended to provide instructions for installing 5975C TAD GCMS Systems and testing EI specifications. The process is intended to provide consistency and automation to the Signal-to-Noise testing done for new systems.

G3170-90211

11/28/2011

Steps specific to the new process

Step #	Description	Detailed Instructions Page (If needed)
1	Check the helium gas delivery system for leaks as you normally would depending on the customer's setup	
2	Install and Purge the RSMH-2 Trap	3
3	Check the installation of the column in the Split/Splitless or Multi-Mode Inlet	4
4	Set the GC conditions for purging of the inlet and column	5
5	Install the column in the 5975 MSD and pump the system down Note: Purge the system for at least 30 minutes prior to starting the MS ChemStation session.	5
6	Install the G1701EA software, configure the Instrument session, update the MS firmware and reboot. Note: Do not start the MS ChemStation session yet	
7	Install the SNAP Software	6
8	Start the MS ChemStation instrument session	
9	Resolve the SNAP_OFN_SN.m and SNAP_Short_Bake.m methods.	9
10	Put the OFN EI Checkout Standard (PN 5188-5348) Sample in vial position 1 of the ALS	
12	Run SNAP	10
13	When the sequence is complete copy the zipped results file (SNAP_USXXXXXXXXX.zip) to be sent for review.	11
14	Attach SNAP results file to Siebel Remote GCMS Service Activity	12

Step 2 – Install and Purge RMSH-2 Helium Purifier

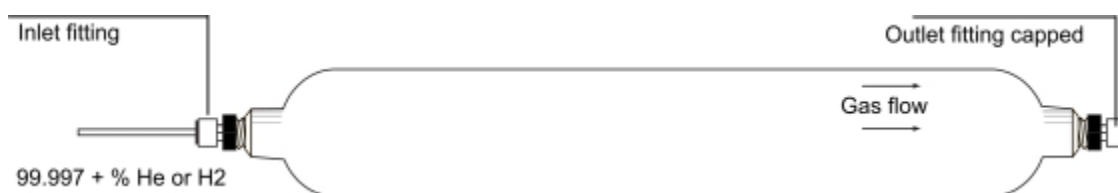
Maximum operating pressure is 250 PSIG. Maximum operating temperature is 100 °C. Maximum flow rate is 8 liters per minute.

Before installing the trap, make sure the gas delivery system is free of leaks, the GC inlet and MSD vacuum chambers are clean (if using mass spectrometry detection), and the system is generally in good working order.

- Set the gas source supply pressure to 10–15 psi and maintain flow in the gas source line before disconnecting it from the inlet of the old trap.
- Remove the protective nut and plug from the INLET end of the new trap. DO NOT open the plug on the OUTLET end.
- Immediately attach the new trap to the gas source tubing using one of the included ferrule sets.

Note: Failure to immediately connect the trap may cause contamination of the adsorbents inside, which will reduce its adsorption capacity and contribute to elevated levels of contaminants observed by the detector. This may result in the need for additional purge time.

- Insert the tubing through the nut and ferrule set until the tubing rests firmly against the shoulder in the fitting.
- Finger-tighten the nut and then use a wrench to tighten the nut 3/4 turn for 1/8-inch tubing and 1-1/4 turn for 1/4-inch tubing.

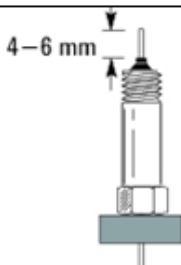
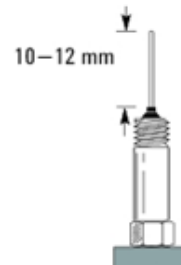
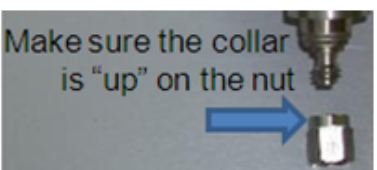
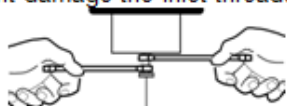


- Wait for 3 minutes to stabilize the gas pressure inside the new trap. Increase the gas source pressure to 60 psi.
- Open the outlet fitting and purge the trap for 3 minutes.



- h) Adjust the gas source pressure to a normal working level. Connect the outlet fitting of the trap to the instrument tubing as described in steps e and f. Wait for at least 3 minutes to purge out any air that may have entered the instrument tubing line. The trap is now ready for use.

Step 3 Check installation of column in the inlet

Inlet	Diagram	Procedure
Split/Splitless		Place a septum over the column, then the column nut and ferrule. Trim the end of the column with a column cutter. Pull the column back so that 4-6 mm of column is extending past the end of the ferrule. Thread the column nut and column into the inlet and tighten slightly past where the column grabs – retighten after heating.
Multimode		NOTE: Make sure the column adapter nut on the inlet base is fully threaded on and spinning freely – Collar Up!  Tighten with two wrenches - 1/4" and 5/16" To prevent damage the inlet threads. 

Step 4 - Cold purge settings for the 7890 GC with Helium

Enter these settings on the front panel of the 7890 GC

Oven:	120 C
Inlet Temperature:	120 C
Inlet Pressure:	~24psi
Split Ratio:	400:1
Column:	30m x 250u x 25um
Column Flow:	2mL/min
Mode:	Constant Flow
Septum Purge:	3mL/min

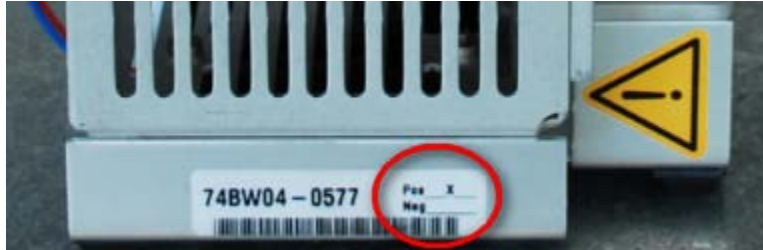
Step 5 - Install the column in the 5975 MSD



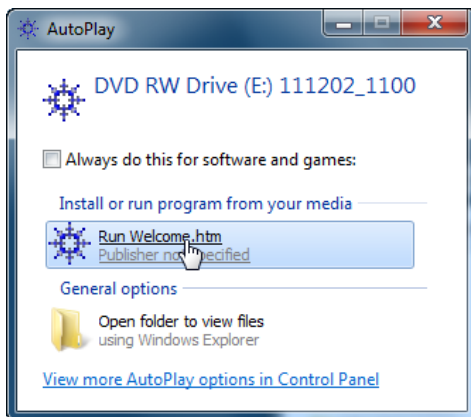
Correct installation is 1 to 2 mm past the tip of the interface.

Step 7 – Install the SNAP Software

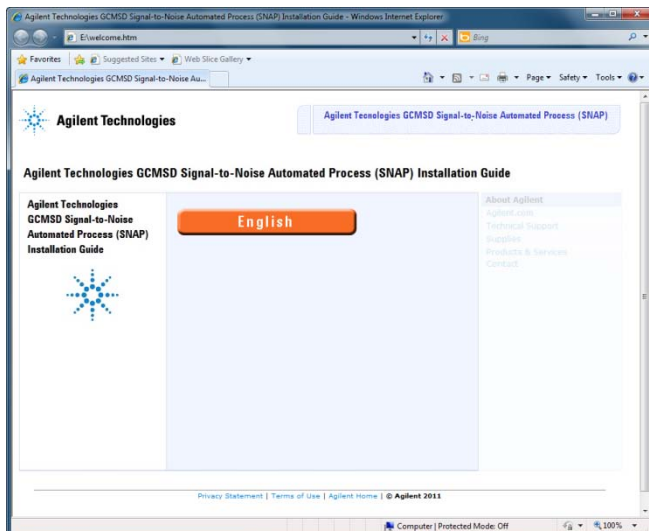
Before installing check the DC polarity of the quadrupole.



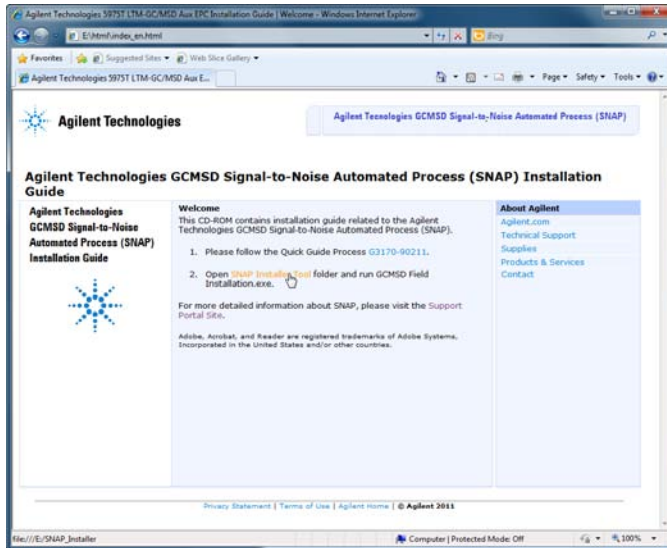
Insert the G3170-90210 S/N Automated Process (SNAP) Install CD included with the MS and the following window should appear. Click on **Run Welcome.htm**.



Click the **English** button.



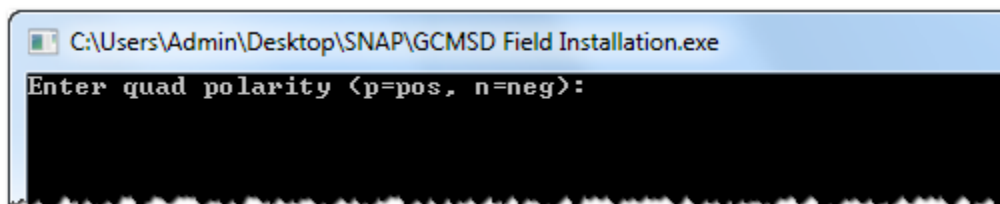
From this screen you can open this **Quick Guide** or Select the **SNAP Installer Tool**. Click on the **SNAP Installer Tool**.



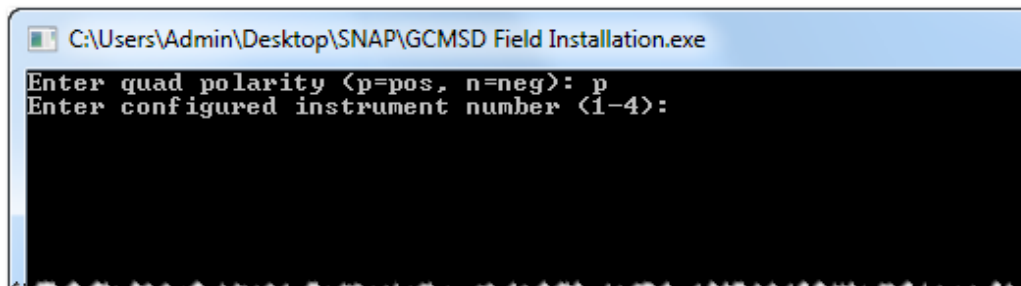
Double click the **GCMSD Field Installation.exe** to begin the installation of the SNAP software.

	Files	11/28/2011 2:15 PM	File folder	
	Config.xml	11/28/2011 8:49 AM	XML Document	2 KB
	GCMSD Field Installation.exe	11/14/2011 9:13 AM	Application	13 KB

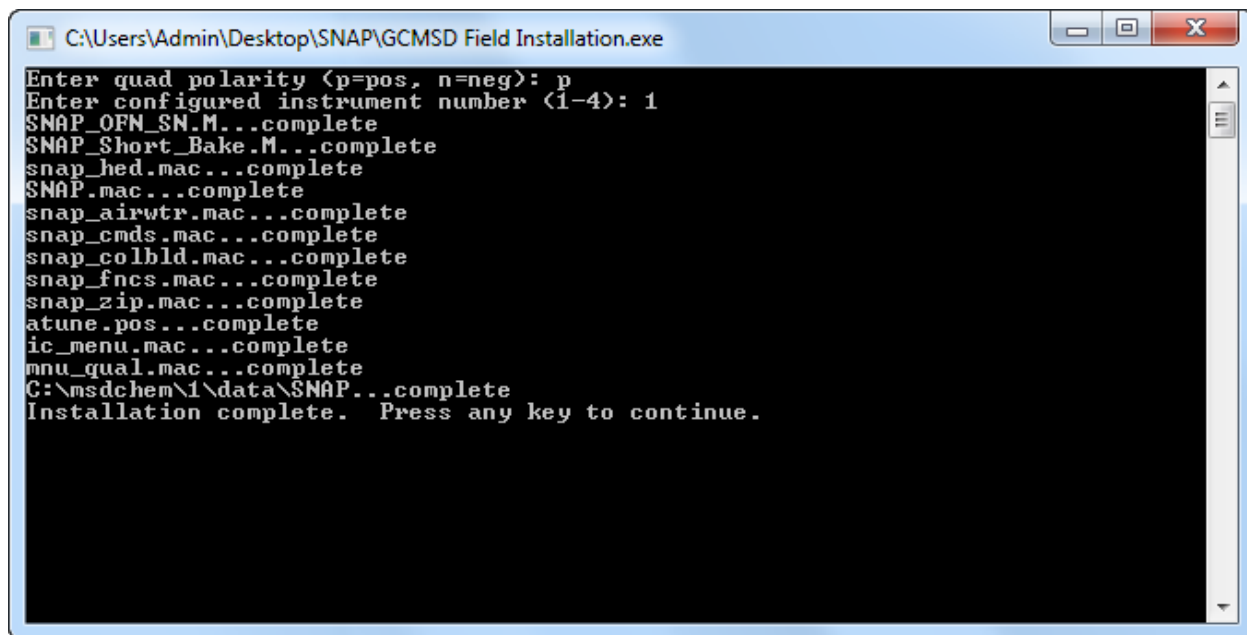
Input the correct polarity and press enter.



Select the instrument session where the methods are to be installed.



The following files are installed.



```
C:\Users\Admin\Desktop\SNAP\GCMSD Field Installation.exe
Enter quad polarity (p=pos, n=neg): p
Enter configured instrument number (1-4): 1
SNAP_OFN_SN.M...complete
SNAP_Short_Bake.M...complete
snap_hed.mac...complete
SNAP.mac...complete
snap_airwtr.mac...complete
snap_cmds.mac...complete
snap_colbld.mac...complete
snap_fncs.mac...complete
snap_zip.mac...complete
atune.pos...complete
ic_menu.mac...complete
mnu_qual.mac...complete
C:\msdchem\1\data\SNAP...complete
Installation complete. Press any key to continue.
```

Press any key to complete the installation.

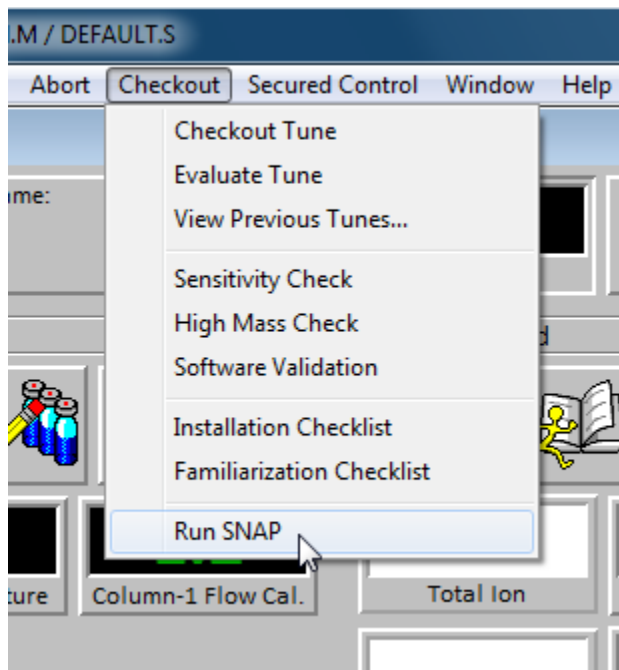
Step 9 – Load and resolve both methods

Check the following parameters and save the methods.

	SNAP_OFN_SN.m	SNAP_SHORT BAKE.m
Oven		
Equilibration Time	0.25 min	3 min
Max Temperature	350 degrees C	340 degrees C
Slow Fan	Disabled	Disabled
Oven Program	On 45 °C for 2.25 min then 40 °C/min to 300 °C for 3 min	On 45 °C for 3 min
Run Time	11.625 min	3 min
Front SS Inlet He		
Mode	Pulsed Splitless	Split
Heater	On 300 °C	On 300 °C
Pressure	On 9.4667 psi	On 28.984 psi
Total Flow	On 104.2 mL/min	On 306 mL/min
Septum Purge Flow	On 3 mL/min	On 3 mL/min
Gas Saver	Off	Off
Injection Pulse Pressure	25 psi Until 0.5 min	
Purge Flow to Split Vent	100 mL/min at 1 min	
Split Ratio		100 :1
Split Flow		300 mL/min
Thermal Aux 2 (MSD Transfer Line)		
Heater	On	On
Temperature Program	On 280 °C for 0 min	On 280 °C for 0 min
Run Time	11.625 min	3 min
Injection Volume	1 µL	2 µL
Sample pumps	6	6
Column Flow	1.2 mL/min	3 mL/min
Column Configuration	Agilent 19091S-433: 93.92873 HP-5MS 5% Phenyl Methyl Silox 325 °C: 30 m x 250 µm x 0.25 µm In: Front SS Inlet He Out: Vacuum	Agilent 19091S-433: 93.92873 HP-5MS 5% Phenyl Methyl Silox 325 °C: 30 m x 250 µm x 0.25 µm In: Front SS Inlet He Out: Vacuum

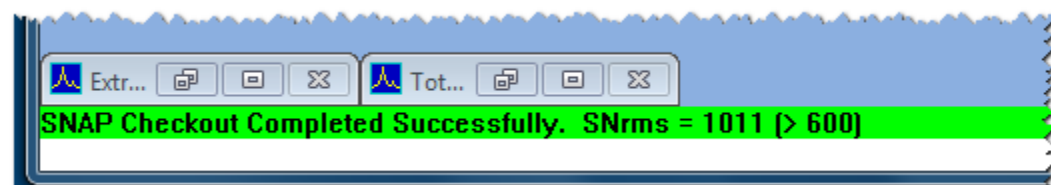
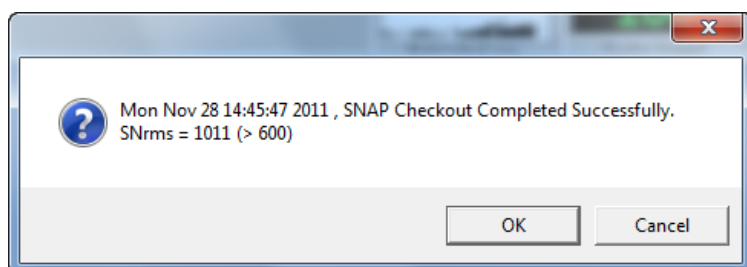
Step 12 – Run SNAP

From the **Checkout** menu select **Run SNAP**. Follow the instructions when prompted.



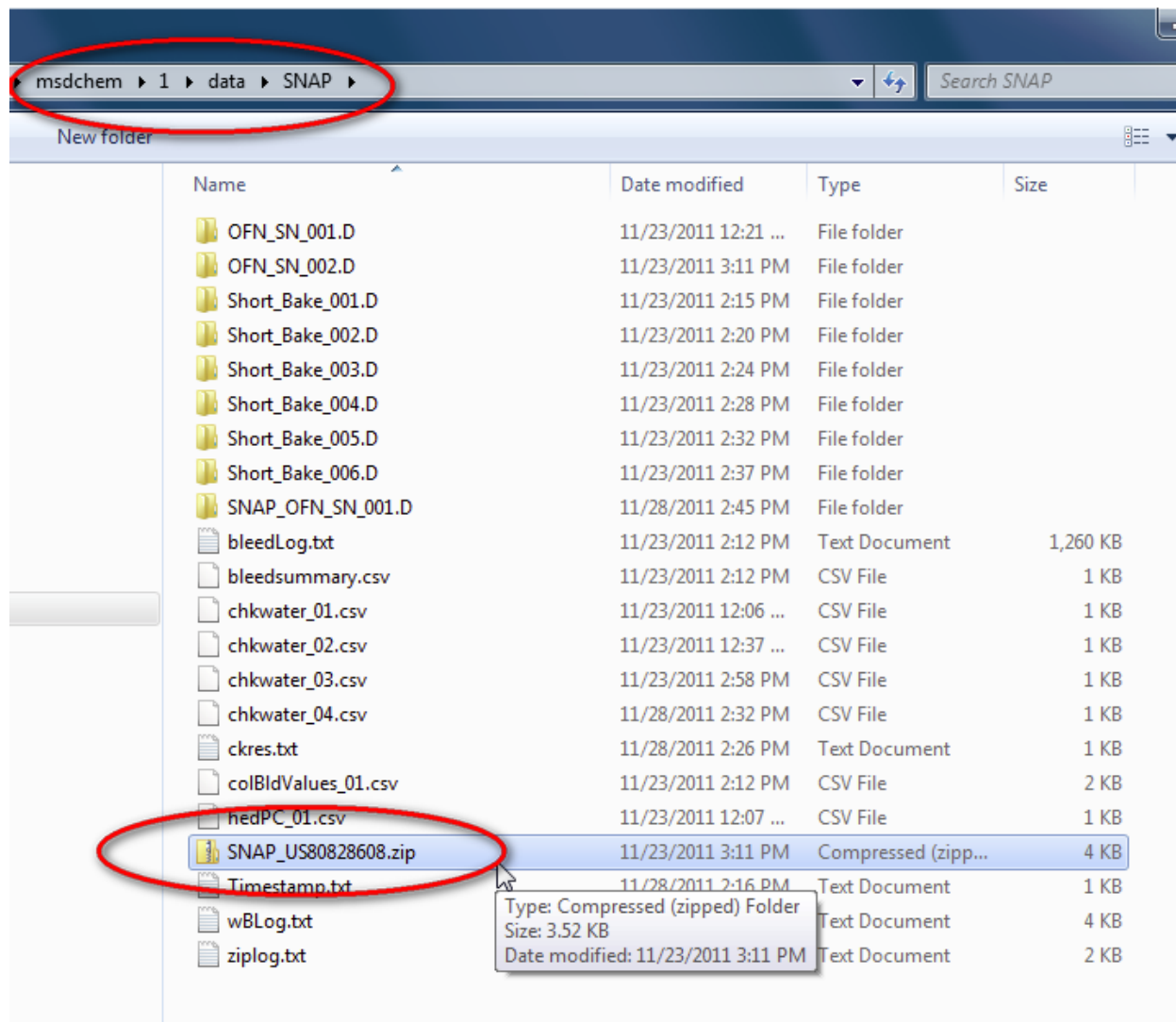
Note: After being prompted to “Tighten ferrules” the software will continue without intervention unless an error occurs.

When an OFN Signal-to-Noise run passes the EI specification the software will prompt you and the testing is complete.



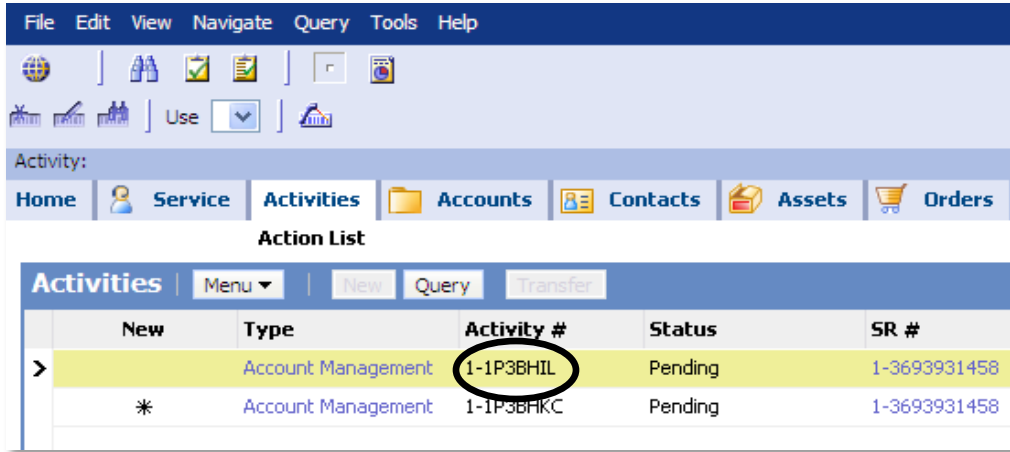
Step 13 – Copy SNAP Results Zip file

Copy the zipped results file (**SNAP_USXXXXXXXXX.zip**) to be sent for review. The results are in the **SNAP** directory located in the data directory of the instrument session tested.



Step 14 – Attach SNAP results file to Siebel Remote GCMS Service Activity

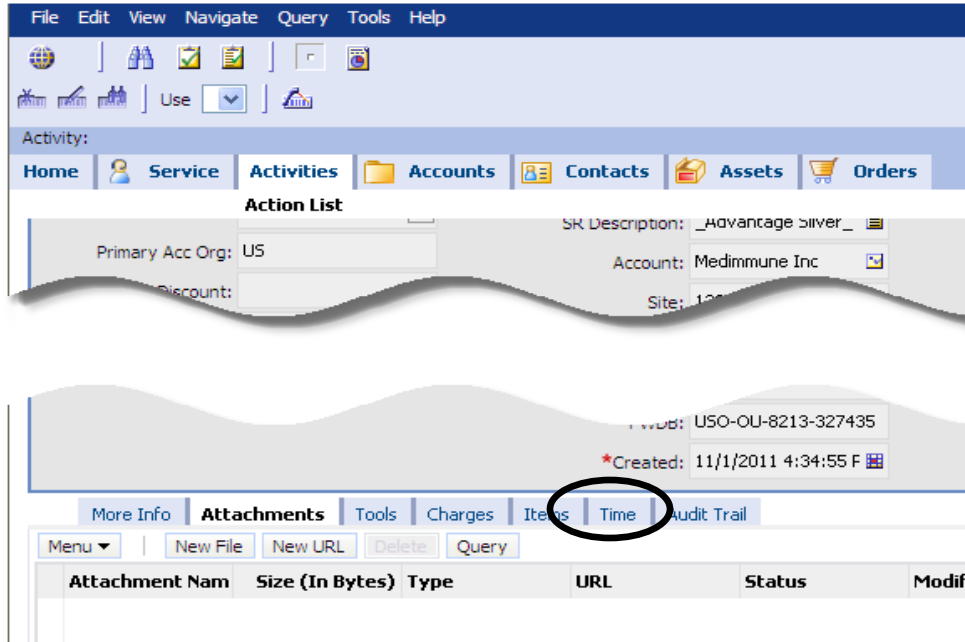
- Log into **Siebel Remote**
- Click on the **Installation Activity** and drill down to see all fields.
- Scroll down to the **Sub View Tabs**.
- In the time tab, add your labor and travel hours



Activity: Home Service Activities Accounts Contacts Assets Orders

Action List

New	Type	Activity #	Status	SR #
>	Account Management	1-1P3BHIL	Pending	1-3693931458
*	Account Management	1-1P3BHKC	Pending	1-3693931458



File Edit View Navigate Query Tools Help

Activity: Home Service Activities Accounts Contacts Assets Orders

Action List

Primary Acc Org: US SR Description: _Advantage Silver_
 Account: Medimmune Inc
 Site: 123

WDB: USO-OU-8213-327435
 *Created: 11/1/2011 4:34:55 F

More Info Attachments Tools Charges Items Time Audit Trail

Menu New File New URL Delete Query

Attachment Nam	Size (In Bytes)	Type	URL	Status	Modifi
----------------	-----------------	------	-----	--------	--------

- e. Click on **Attachments Tab**.
- f. Click on **New File**.
- g. Browse to the **SNAP** file on your PC or drive. (**SNAP_USXXXXXXXXX.zip**)
- h. Double click on the file to select it.

