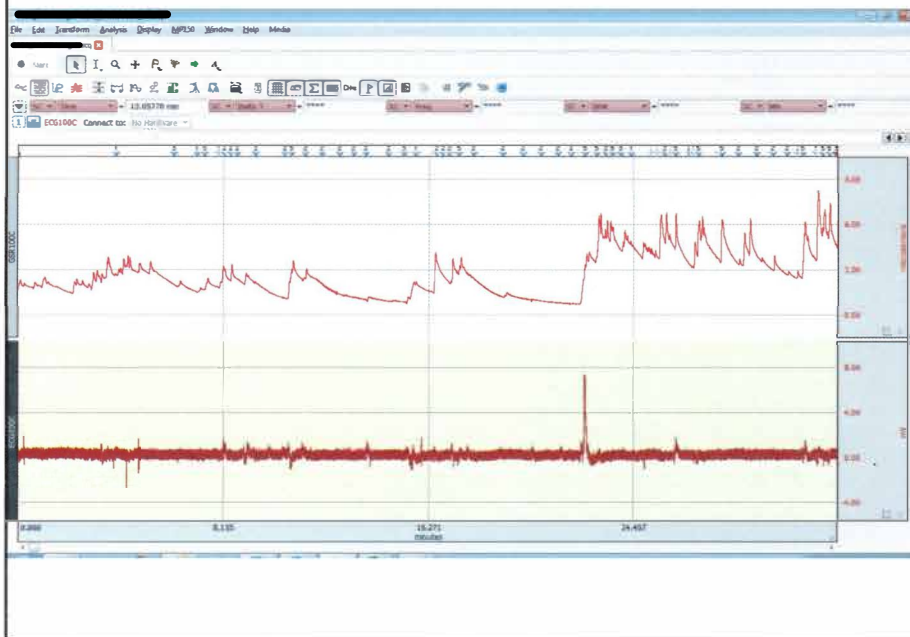
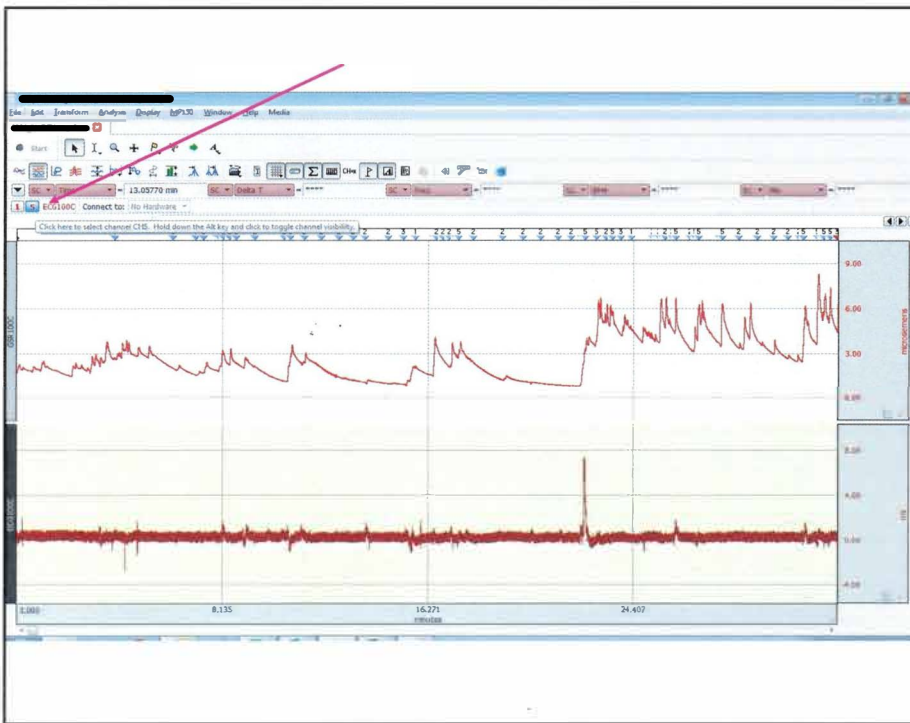


Epoch Analysis



- Select participant/file to open
- Save new file
- Select a channel. Selected channels will be highlighted yellow.
- Hit these buttons to auto scale the channel.



- Hide the Heart Rate channel
 - Hold down the ALT key while clicking on the channel number in the tool bar.
 - The heart rate channel is Channel 5
- Auto scale horizontally and vertically for all channels
 - Press these buttons





• Select GSR100C Channel (Channel 1) so the channel is highlighted yellow

• Then go to analysis → epoch analysis

• This screen will pop up

Epoch Analysis

Epoch width: 10 seconds

Locate epochs at: ☒ events ☐ fixed time intervals

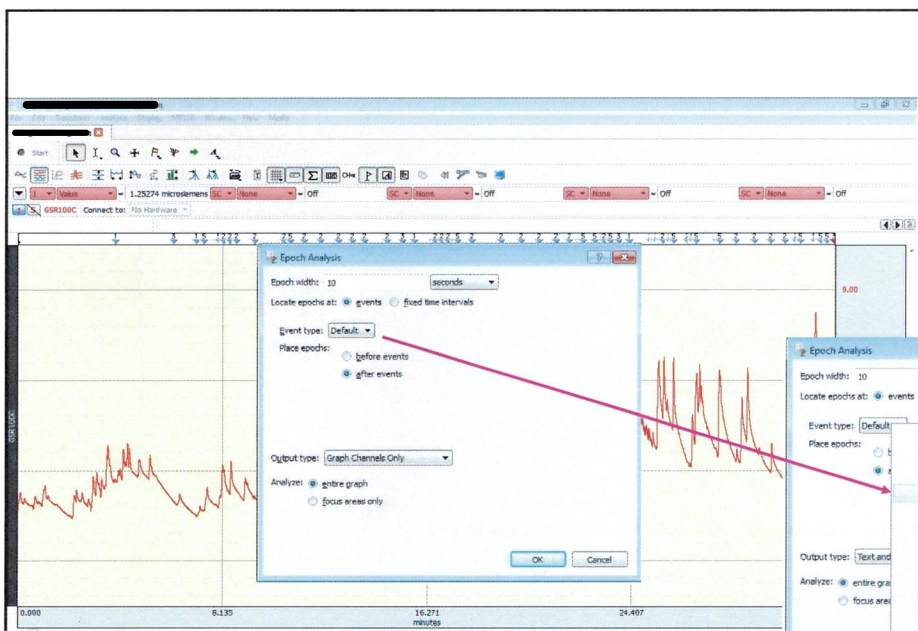
Event type: Default

Place epochs: ☐ before events ☒ after events

Output type: Graph Channels Only

Analyze: ☒ entire graph ☐ focus areas only

OK Cancel



• The first epoch is 10 seconds after the events

• **Settings:**

- Epoch width: 10 secs
- Locate epochs at: events
- Event type: User Defined 2
- Place epochs: after events
- Output type: graph channels only
- Analyze: entire graph

• Hit OK

Epoch Analysis

Epoch width: 10 seconds

Locate epochs at: ☒ events ☐ fixed time intervals

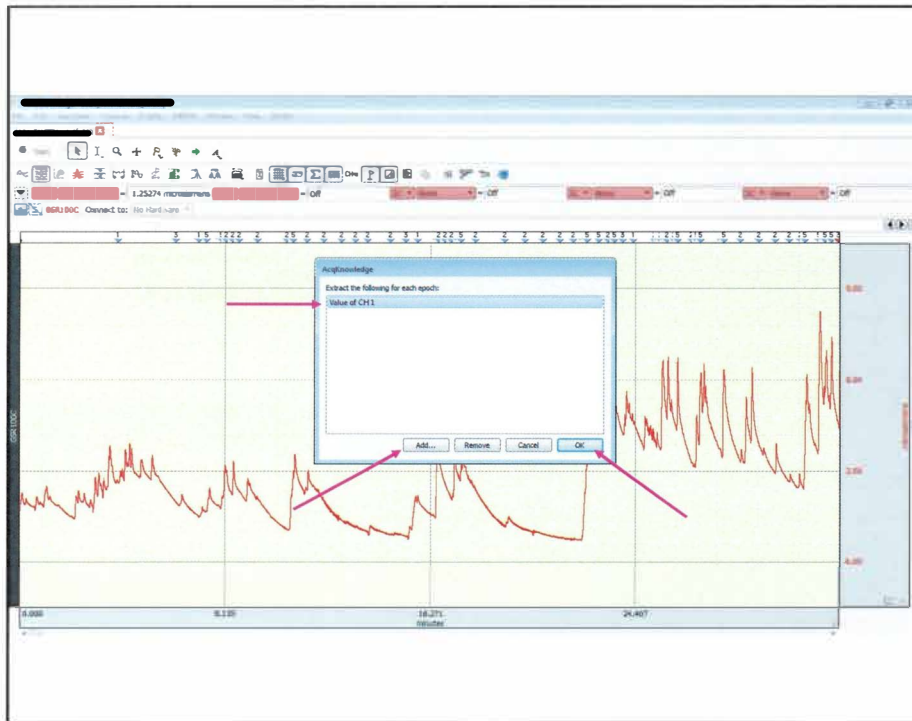
Event type: Default

Place epochs: ☐ before events ☒ after events

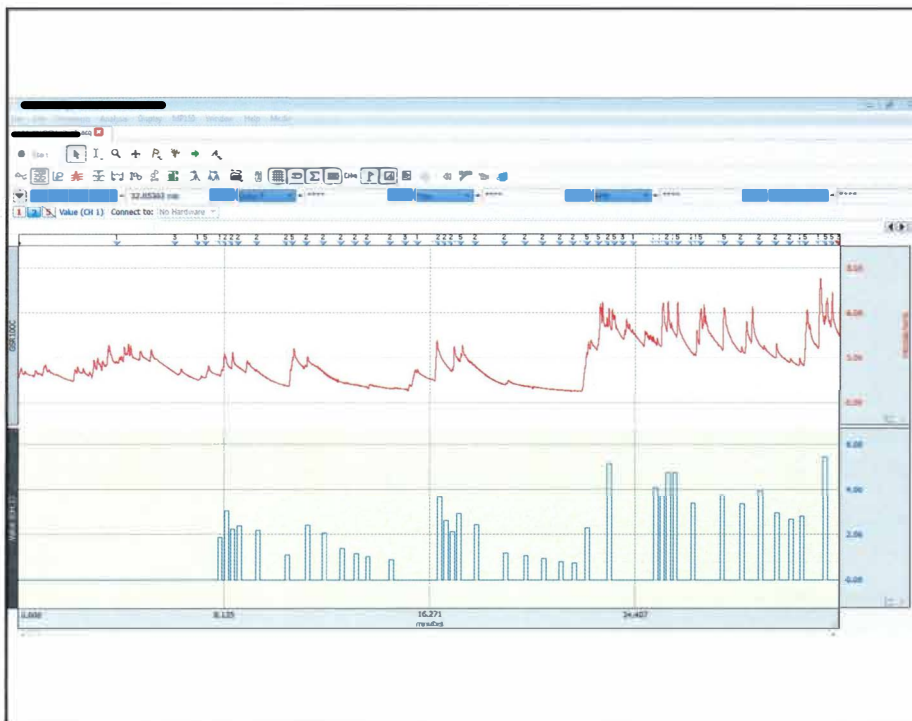
Output type: Text and

Analyze: ☒ entire graph ☐ focus areas only

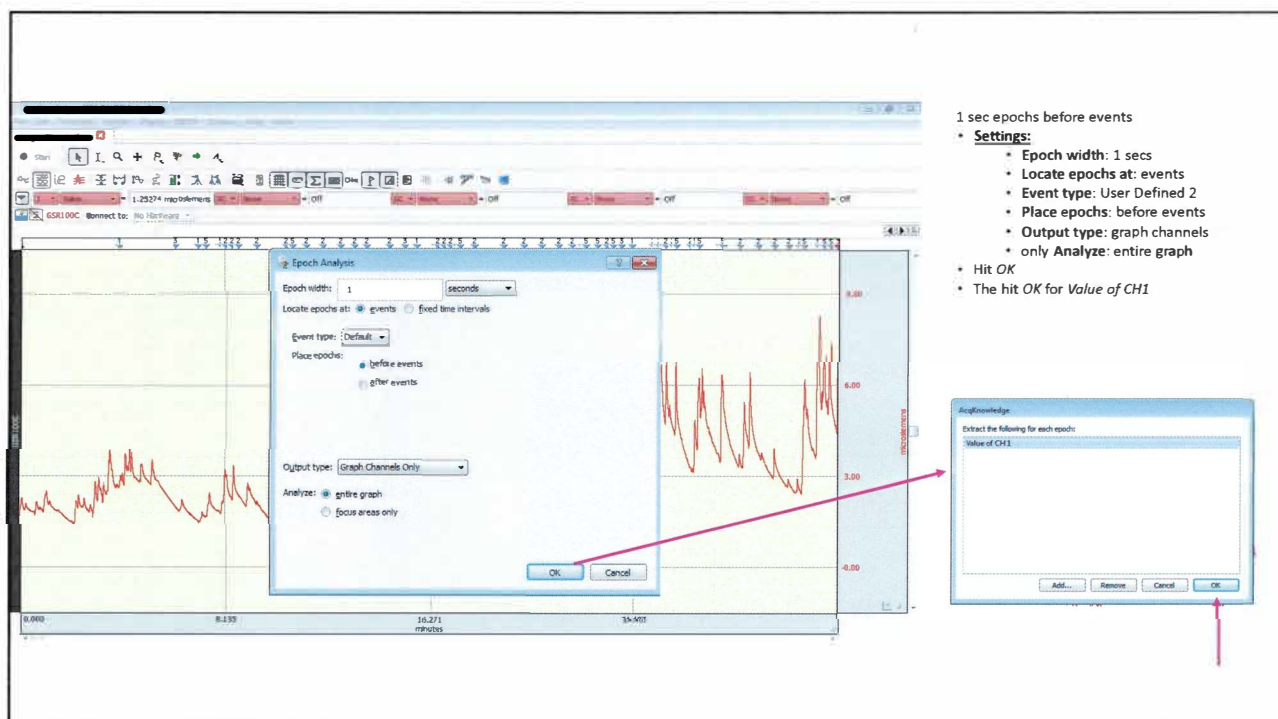
OK Cancel



- After hitting OK, this screen pops up
- Add the value of CH1 and then hit OK
 - If Value of CH1 is not there press Add... and then value. Make sure only one is in queue to be extracted otherwise you will get multiple channels.

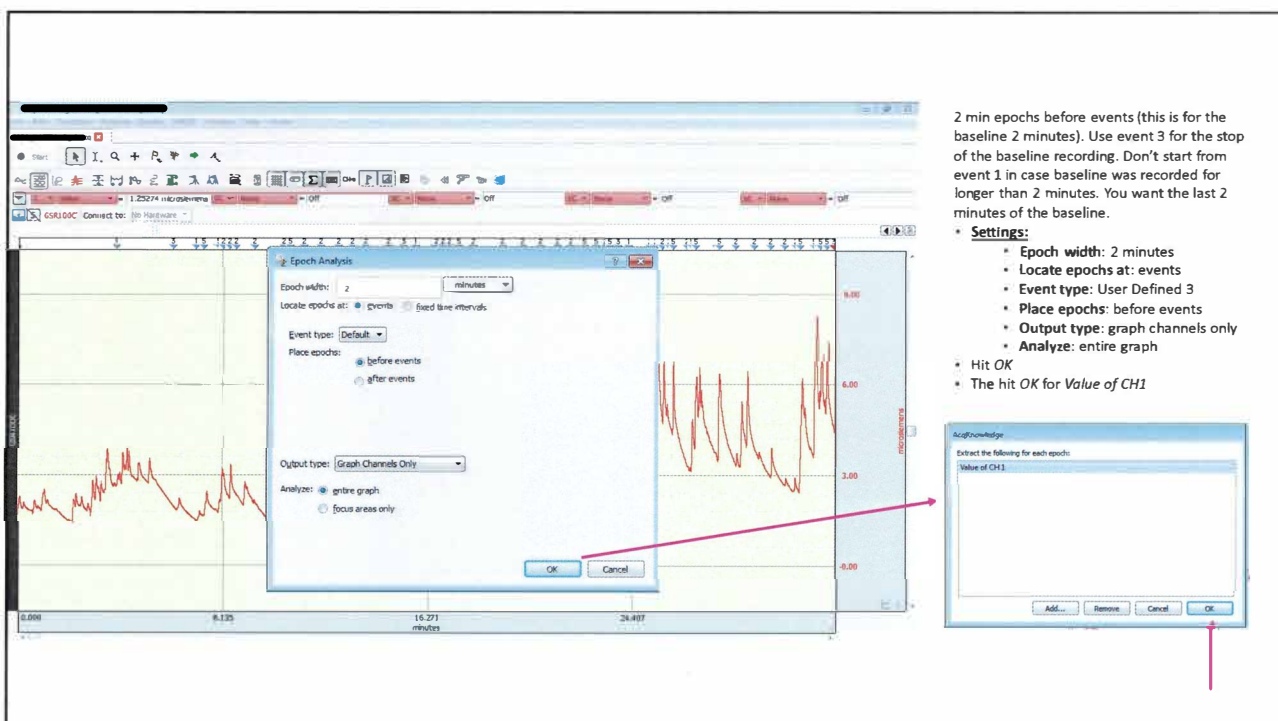


- A new channel will now appear that has the 10 sec epochs
- You will then repeat the previous steps two more times for a total of 3 epoch channels.



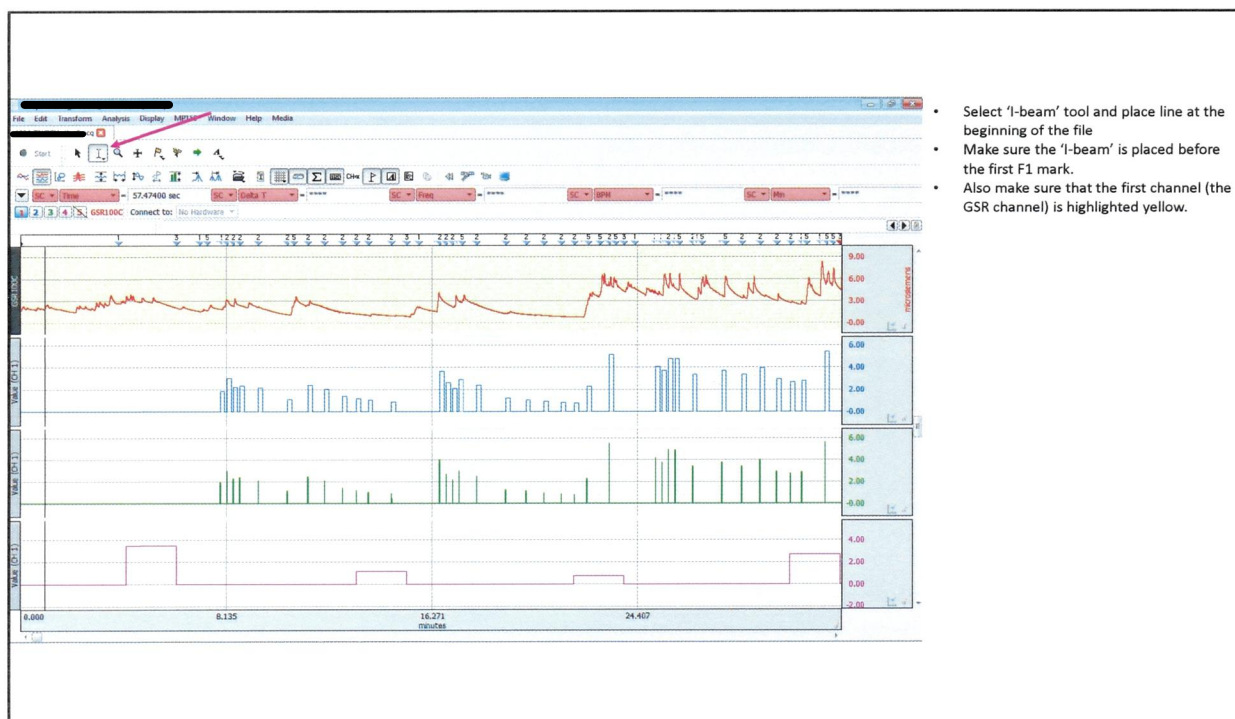
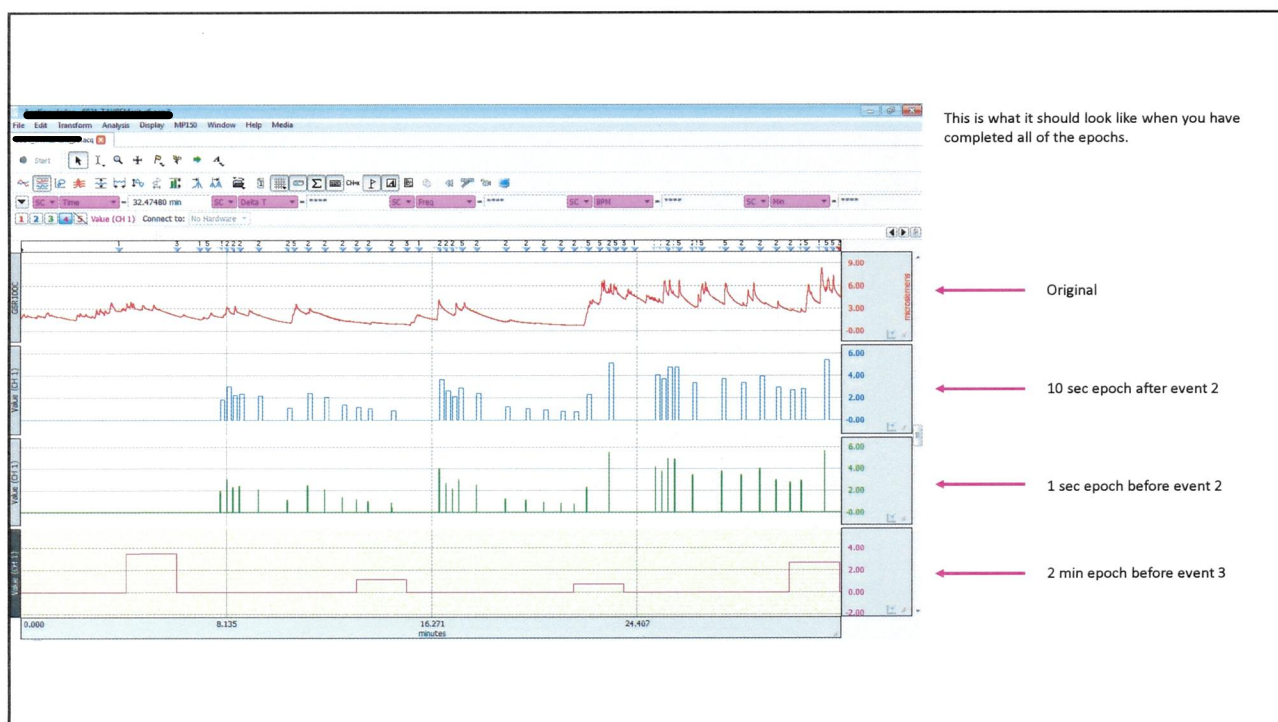
1 sec epochs before events

- **Settings:**
 - Epoch width: 1 sec
 - Locate epochs at: events
 - Event type: User Defined 2
 - Place epochs: before events
 - Output type: graph channels
 - only Analyze: entire graph
- Hit OK
- The hit OK for Value of CH1



2 min epochs before events (this is for the baseline 2 minutes). Use event 3 for the stop of the baseline recording. Don't start from event 1 in case baseline was recorded for longer than 2 minutes. You want the last 2 minutes of the baseline.

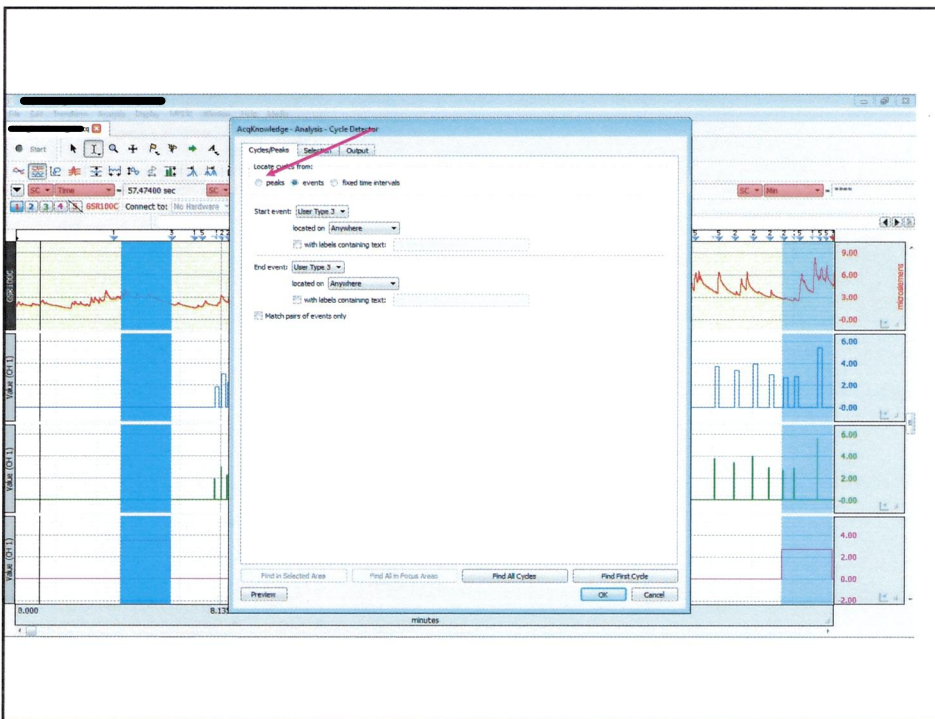
- **Settings:**
 - Epoch width: 2 minutes
 - Locate epochs at: events
 - Event type: User Defined 3
 - Place epochs: before events
 - Output type: graph channels only
 - Analyze: entire graph
- Hit OK
- The hit OK for Value of CH1





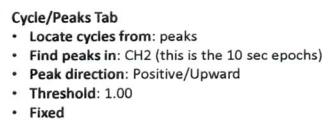
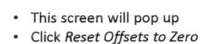
Go to Analysis → Find Cycle

Make sure that I-Beam is at beginning of file and GSR channel is selected.



This screen will pop-up.

Click "Locate cycles from: peaks"

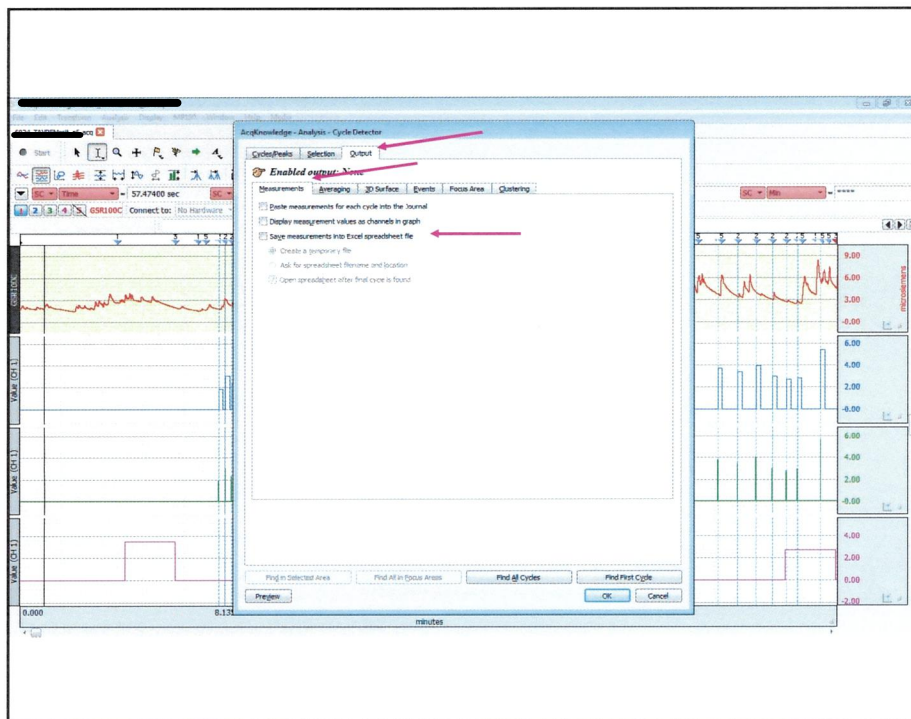


****You might need to change the threshold level.**
The most ideal is to have it about 5, but that isn't always the case. If someone has a low GSR you will need to lower the level. Sometimes to 0.5 or lower.



Selection Tab

- You should not need to change anything on this tab. It should look like this.



Output Tab

- Measurements
 - Nothing should be checked

You do not need to change anything on the Averaging or 3D Surface tab

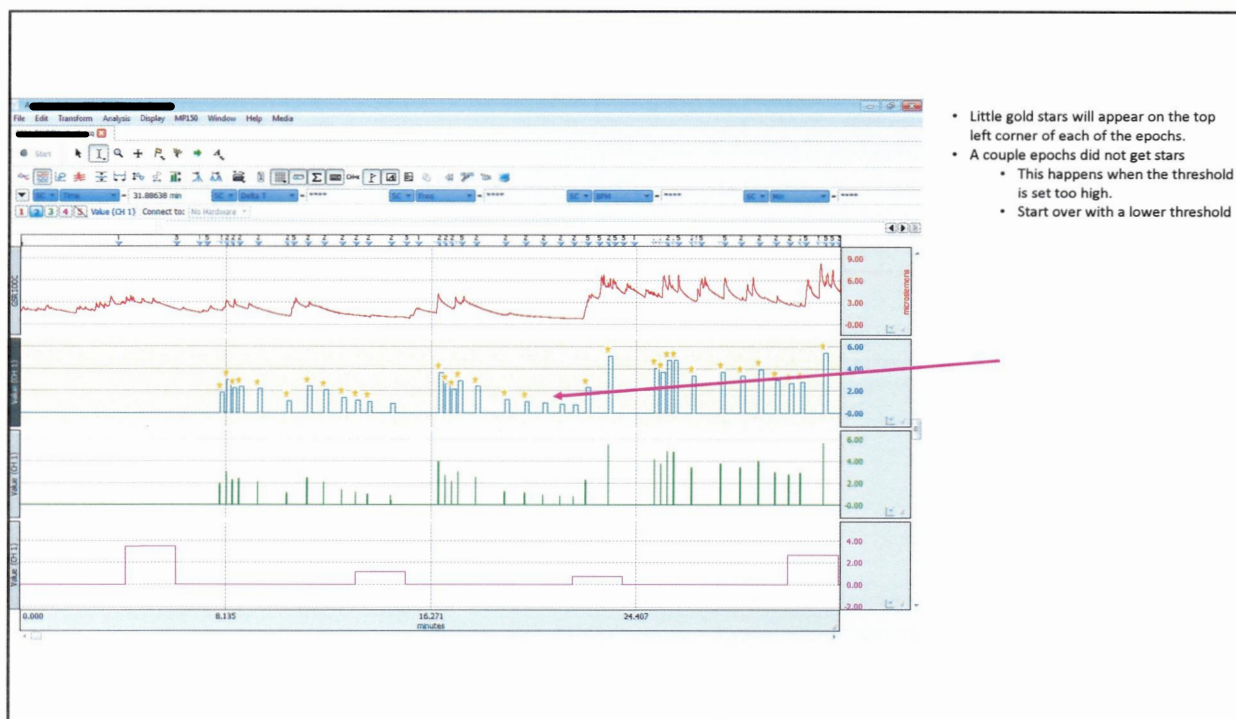
Output tab

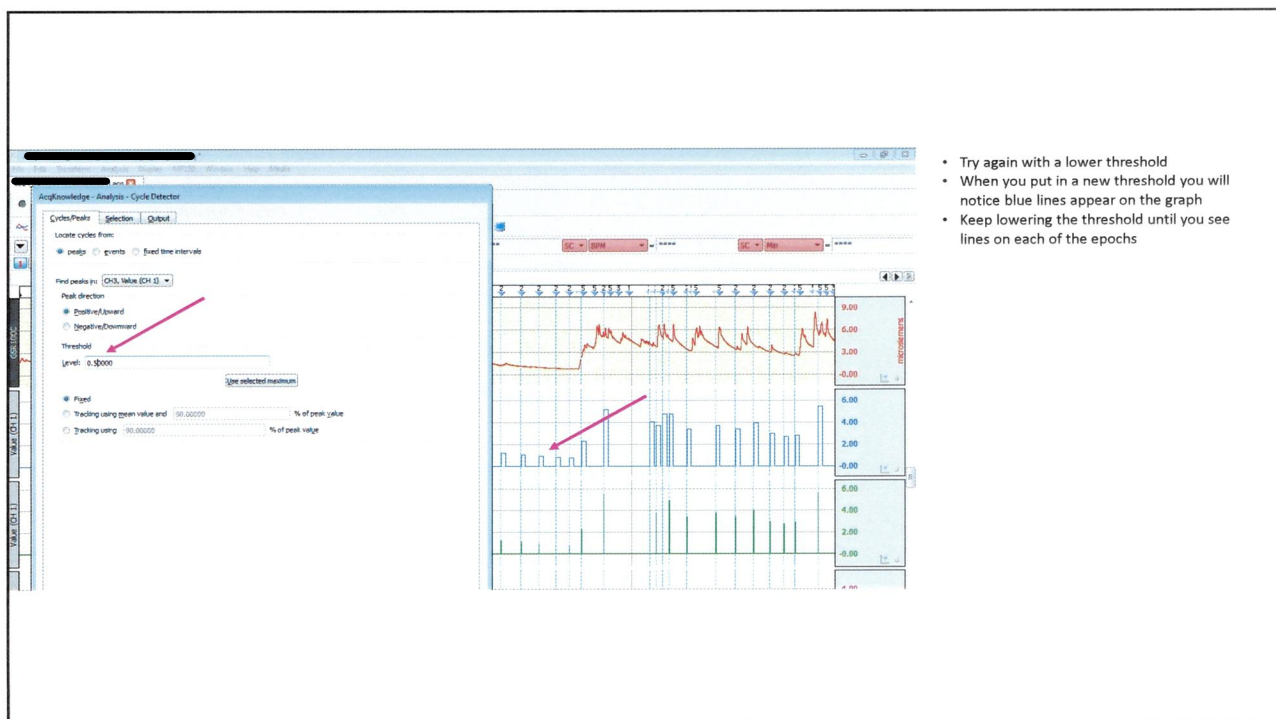
Events

- Check Output events
- **Event 1**
 - Maximum, Ch2
 - **Output type: Star**
 - **Output channel: CH2**
- **Event 2**
 - None

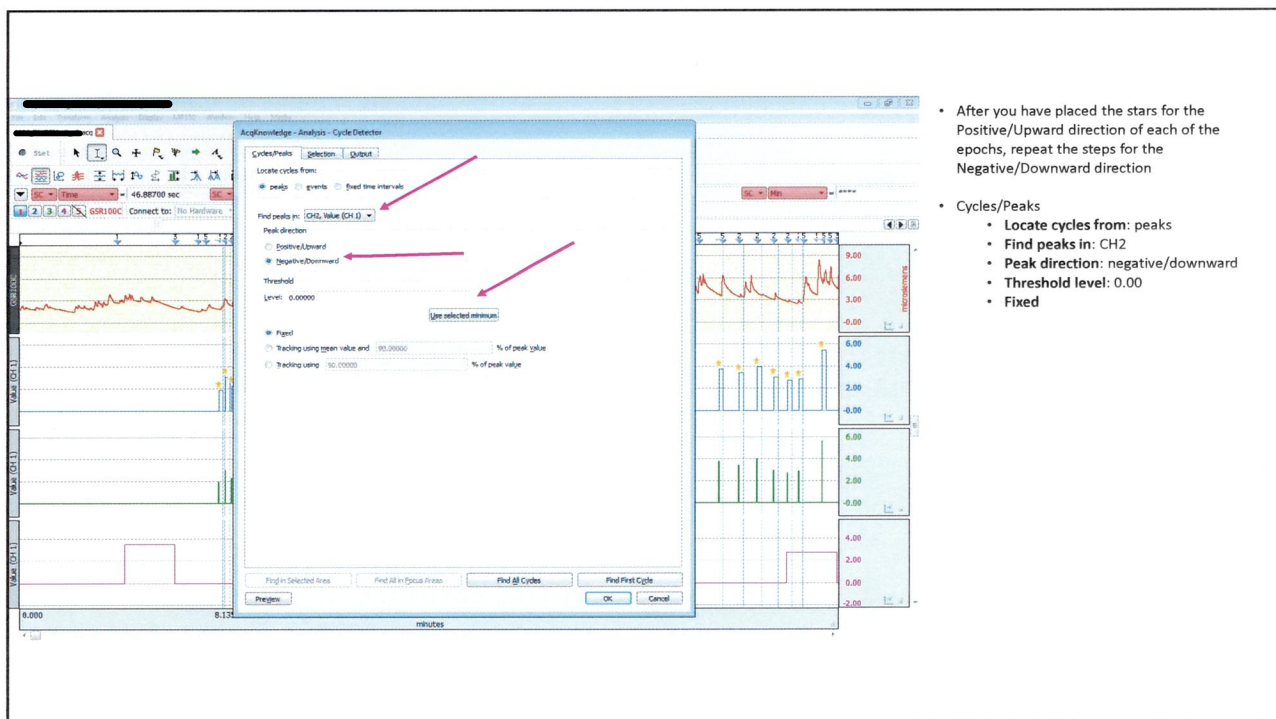
• Focus Area and Clustering tabs should not need to be adjusted

• Then click *Find All Cycles*

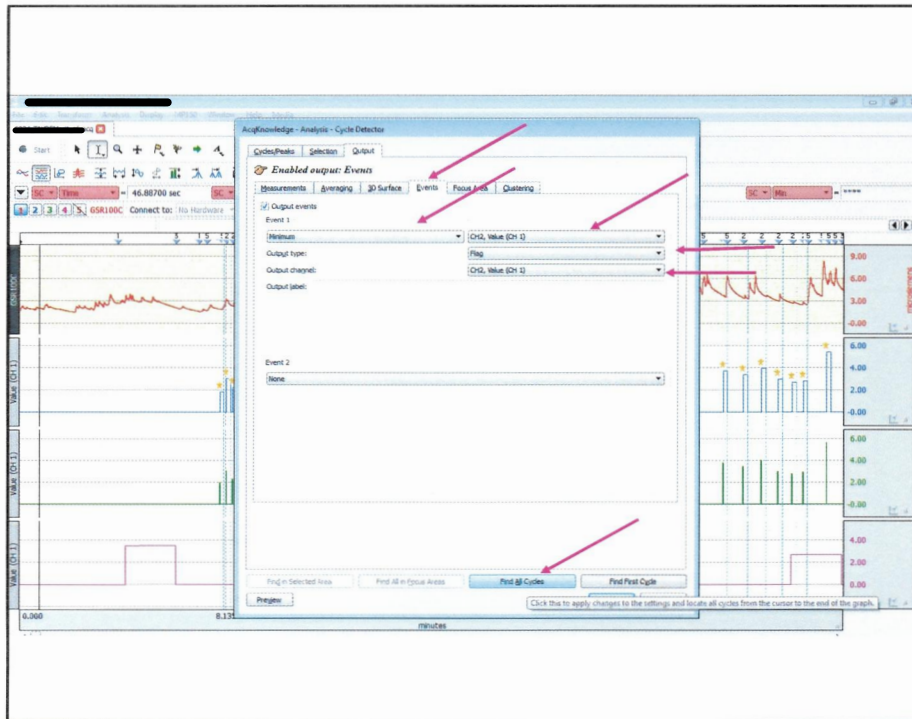




- Try again with a lower threshold
- When you put in a new threshold you will notice blue lines appear on the graph
- Keep lowering the threshold until you see lines on each of the epochs



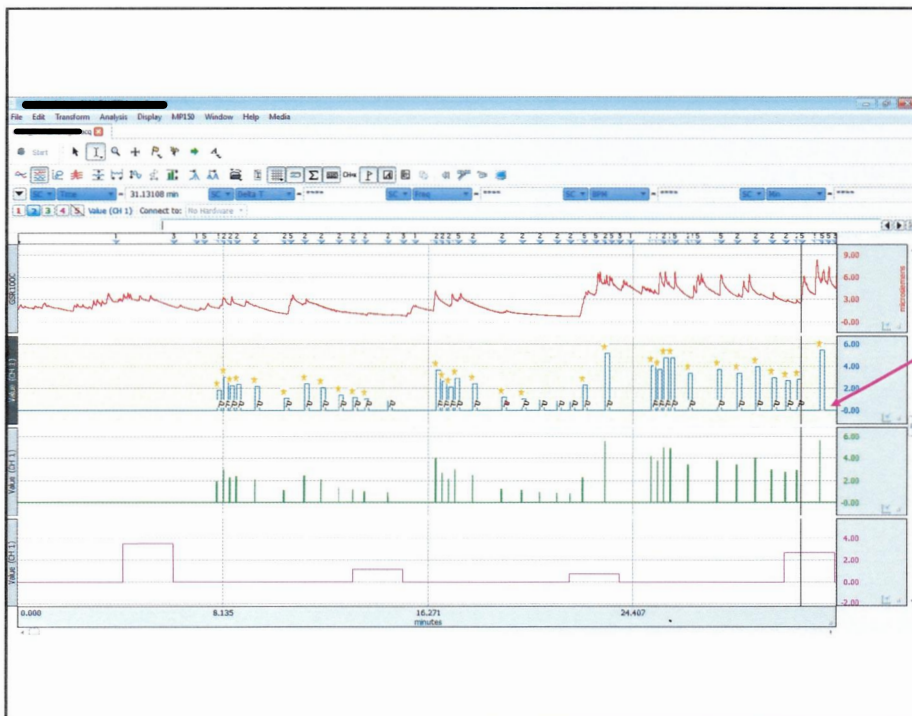
- After you have placed the stars for the Positive/Upward direction of each of the epochs, repeat the steps for the Negative/Downward direction
- Cycles/Peaks
 - Locate cycles from: peaks
 - Find peaks in: CH2
 - Peak direction: negative/downward
 - Threshold level: 0.00
 - Fixed



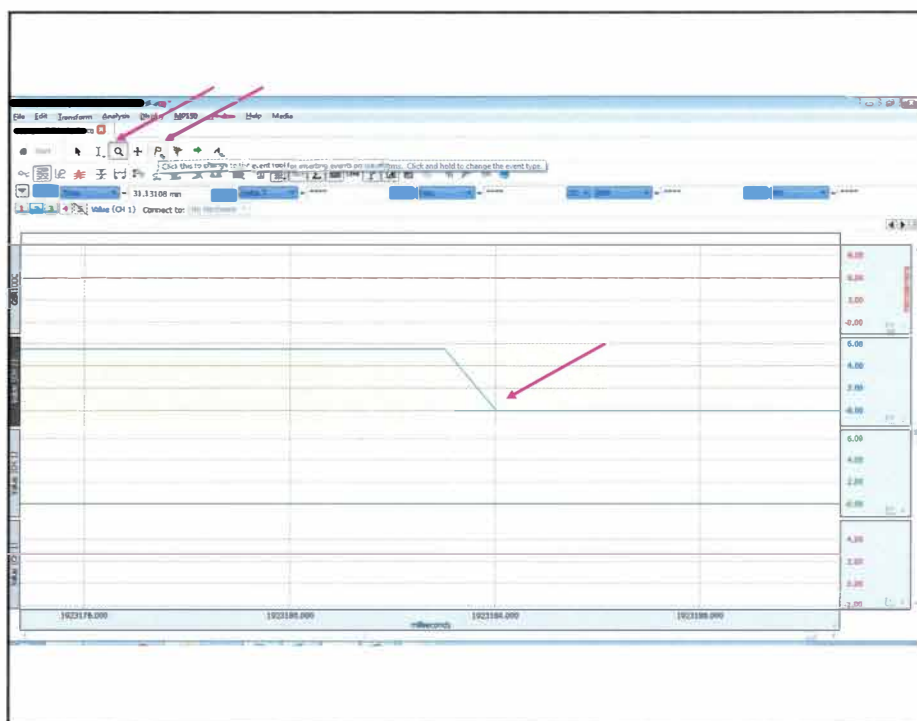
Output tab

Events

- Check Output events
- Event 1
 - Minimum, CH2
 - Output type: Flag
 - Output channel: CH2
- Event 2
 - None
- Averaging, 3d Surface, Focus Area and Clustering tabs should not need to be adjusted
- Measurements – make sure nothing is checked
- Then click *Find All Cycles*



- Flags will be placed on the bottom right corner of the epochs
- The last epoch will not have a flag

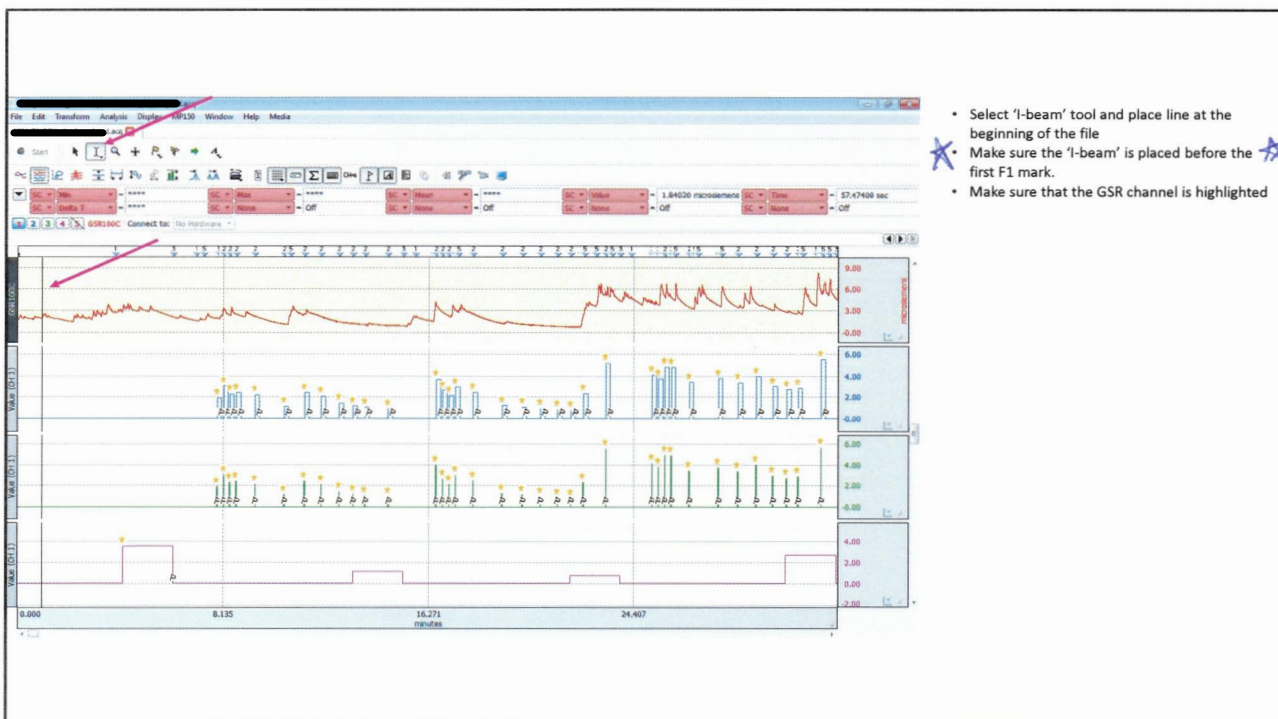
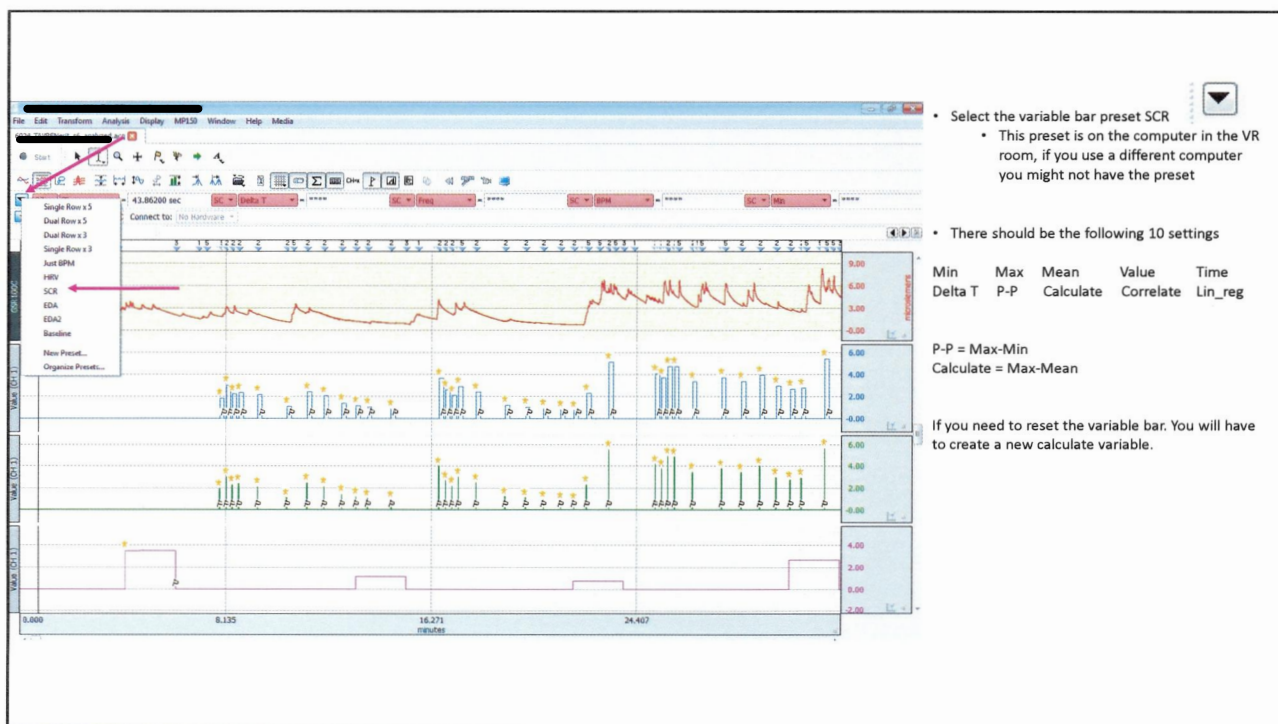


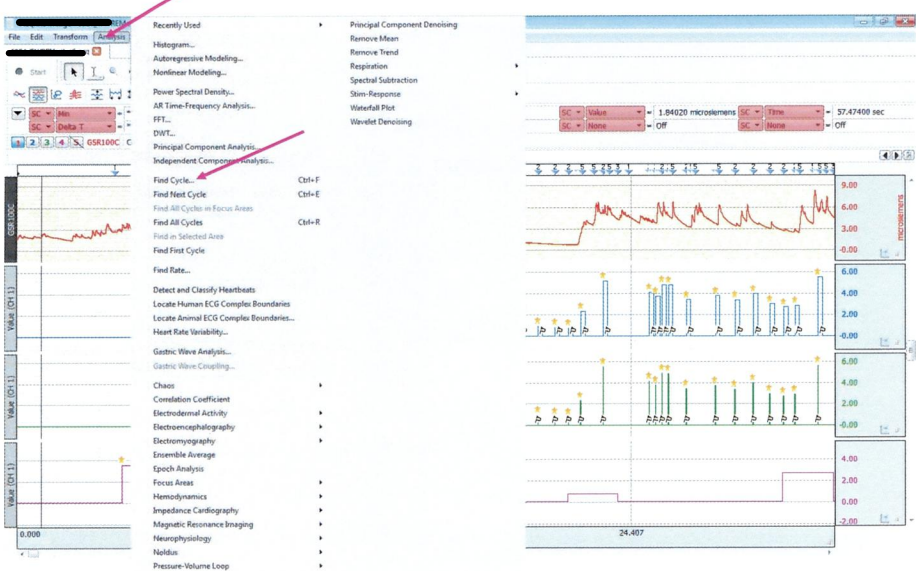
- To place the last flag...
 - Zoom in with the magnifying glass.
 
 - Use the autoscaling tool to make the graph fit the screen
 
 - Click the flag tool
 
 - Click and hold the bottom right corner to change the type of flag (it should automatically be a flag so you probably don't need to change it)
 - Then click at the corner to place the flag. Make sure it is directly on the corner and not off to the side.



- Repeat the steps for the other two channels.
- Make sure that when you place the stars/flags they are going on the correct channel
- On the last channel, you do not need all the stars/flags. Only the ones for the first 2 minutes.
- Use the Flag Zap tool. You can either zap individually or drag and zap.

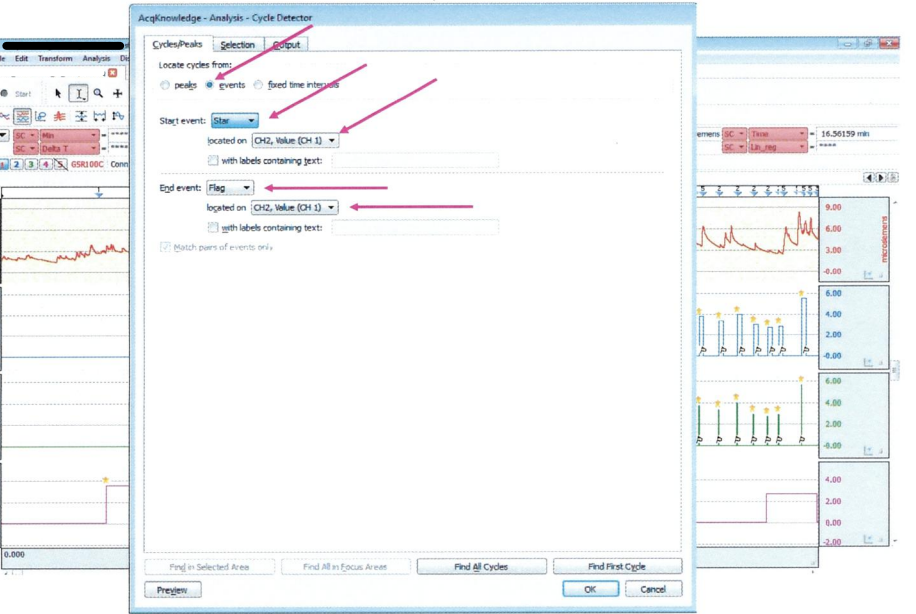






Go to Analysis → Find Cycle

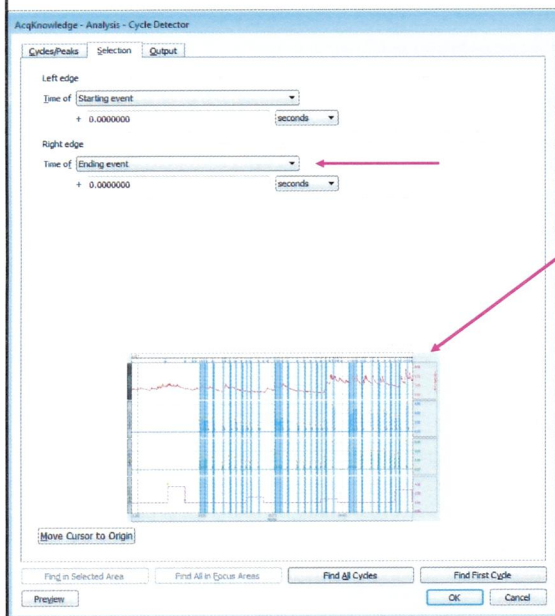
Make sure that I-Beam is at beginning of file and GSR channel is selected.



Now instead of peaks, choose events

Cycles/Peaks

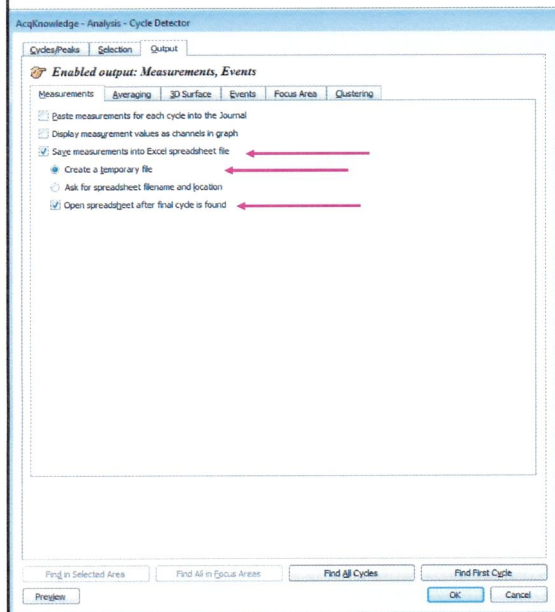
- Start event: Star
- Located on: CH2
- End Event: Flag
- Located on: CH2



Selection

- Left edge – starting event
- Right edge – ending event

You should see the blue bars expand and be 10 secs long



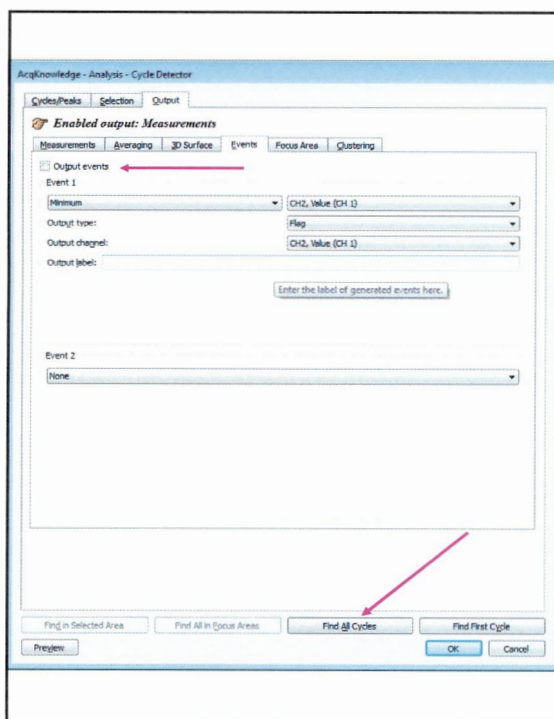
Output

Measurements

Select *Save measurements into Excel spreadsheet file*

Select *Create a temporary file*

Select *Open spreadsheet after final cycle is found*



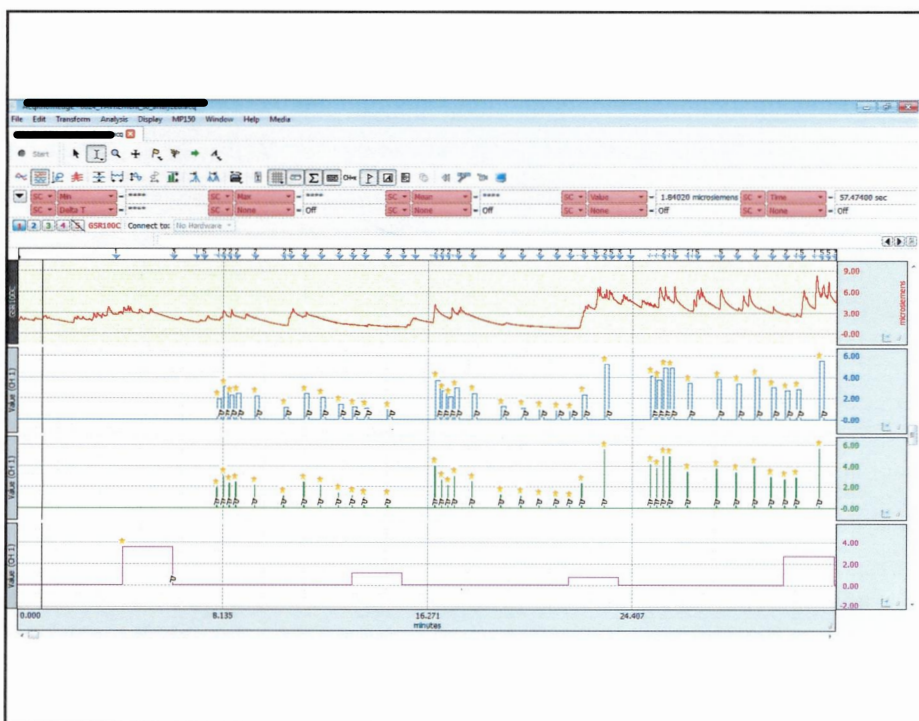
- It is important that *Output events* is unchecked on the *Events* tab.
- If it is checked it will double your flags/stars and you will have to delete them and redo placing the flags/stars
- Then click *Find All Cycles*

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	Min (CH 1)	Max (CH 1)	Mean (CH Value)	CH Time (CH Delta T)	P-P (CH 1)	Calculate	Correlate	Lin	Reg (CH 1)	GSR100C												
2	1.748006	2.150739	1.931702	1.870727	7.891433	-10.001	0.447083	0.264037	0.824802	0.048884												
3	2.346801	3.000311	2.668708	3.045709	8.100117	-10.001	0.70341	0.381472	-0.90807	-0.00216												
4	2.218627	3.334045	2.773485	2.247619	8.39885	-10.001	1.115417	0.618559	0.208854	0.024849												
5	2.177428	2.381896	2.287238	2.378844	8.659483	-10.001	0.204468	0.094658	-0.99341	-0.01193												
6	1.934814	2.194213	2.044751	2.152867	9.3959	-10.001	0.259399	0.149462	-0.97016	-0.02127												
7	1.048071	1.492109	1.309978	1.110221	10.54852	-10.001	0.456208	0.192431	0.457829	0.011769												
8	2.35443	3.000311	2.687125	2.404784	11.35437	-10.001	0.695801	0.383106	0.434579	0.031305												
9	1.834106	2.070617	1.955298	2.067565	12.01657	-10.001	0.236511	0.113319	-0.96177	-0.02045												
10	1.260375	1.400756	1.341623	1.400756	12.72457	-10.001	0.148081	0.059133	-0.97009	-0.01157												
11	1.100138	1.200866	1.147819	1.162719	13.27673	-10.001	0.100708	0.030347	-0.85513	-0.00414												
12	0.878905	1.211547	1.071647	1.208612	13.74548	-10.001	0.312642	0.17759	0.482933	0.024199												
13	0.877379	0.961303	0.909351	0.901794	14.671	-10.001	0.083923	0.051952	0.202772	0.000916												
14	2.888488	3.663634	3.2303	3.663634	16.57682	-10.001	0.775346	0.433334	-0.99342	-0.07357												
15	2.27861	2.642821	2.420325	2.641296	16.83792	-10.001	0.366211	0.192496	-0.99717	-0.01548												
16	2.052308	3.750809	2.895229	2.125548	17.08752	-10.001	1.698303	1.14138	0.871459	0.189863												
17	2.688598	3.246906	2.857676	2.322738	17.19328	-10.001	0.578088	0.369323	0.40587	0.02926												
18	2.157592	2.461242	2.299631	2.427672	18.0452	-10.001	0.30365	0.161611	-0.99183	-0.02625												
19	1.152038	1.475524	1.26667	1.202392	19.19905	-10.001	0.323486	0.208854	0.895894	0.02475												
20	1.028916	1.104735	1.070729	1.063114	19.99642	-10.001	0.07782	0.034006	-0.65808	-0.00352												
21	0.888061	0.939941	0.914463	0.927733	20.71965	-10.001	0.05188	0.025477	-0.89564	-0.00347												
22	0.778471	0.810077	0.800911	0.810241	21.39363	-10.001	0.053406	0.029167	-0.99219	-0.00113												
23	1.718688	0.805663	0.754764	0.750732	21.92872	-10.001	0.086975	0.050899	-0.31953	-0.00108												
24	2.273559	4.023742	3.329283	2.287292	22.4208	-10.001	1.750183	0.694459	0.915442	0.155271												
25	4.85382	6.262206	5.277483	5.154418	23.11272	-10.001	1.408386	0.984724	-0.43955	-0.06582												
26	1.778548	4.794878	1.998832	4.089155	25.15368	-10.001	0.570325	0.260242	0.181411	0.06454												
27	1.697204	6.666564	5.413596	3.738402	25.4048	-10.001	2.94916	1.252968	0.78131	0.28273												
28	4.70581	6.768798	5.51528	4.77526	25.66048	-10.001	2.062988	1.237269	-0.22925	-0.04647												
29	4.851808	6.134032	4.623653	4.774474	25.91488	-10.001	1.782227	1.510379	0.043062	0.004041												

- This is the file that will pop up.
- Copy the data and paste into the large combined file.
- Save this file in the participants folder



Session	Drive	Event	Min	Max	Mean	Value	Time	Delta T (sec)	Max - Min	Max - Mean	Correlate	Lin. reg	% marked close to event
1	5	3	7	6.16455	10.0976	8.375306	1.67802	26.28125	-10.001	3.845214844	1.63458875	0.241521	0.089156
9389	5	3	8	8.012389	8.789062	8.334051	8.547973	26.3854	-10.001	0.776672363	0.455010164	-0.24635	-0.02113
9390	5	3	9	8.085631	9.066772	8.446008	8.728027	27.68116667	-10.001	0.981140137	0.620783604	-0.56388	-0.05104
9391	5	3	10	7.22551	9.50585	8.412081	7.22551	28.2225	-10.001	2.127075195	0.915504968	0.537654	0.09681
9392	5	3	11	2.286071	7.685851	7.476349	7.394408	28.6966667	-10.001	0.399780273	0.209501862	0.593717	0.025426
9393	5	3	12	7.877716	8.492482	8.595659	8.203134	29.60811667	-10.001	1.519775391	0.896812505	-0.14878	-0.02516
9394	6			1.748856	2.195739	1.931702	1.870727	7.891433333	-10.001	0.44708252	0.264037311	0.824402	0.040884
9395	6			2.348801	3.050231	2.668758	3.048705	8.160016667	-10.001	0.703430176	0.381472625	-0.56807	-0.08216
9396	6			2.218827	3.334045	2.717485	2.247819	8.37985	-10.001	1.11541146	0.616559275	0.206854	0.024849
9397	6			2.177428	2.381896	2.287238	2.378844	8.659483333	-10.001	0.204467773	0.094857735	-0.93841	-0.0193
9398	6			1.934814	2.184213	2.044751	2.192887	9.3959	-10.001	0.259399414	0.149462142	-0.97016	-0.02127
9399	6			1.036071	1.492309	1.099878	1.10321	10.54851667	-10.001	0.456237793	0.392430517	0.457829	0.011739
9400	6			2.35443	3.050231	2.687125	2.404784	11.35436667	-10.001	0.695800781	0.363106242	0.434573	-0.051505
9401	6			1.834106	2.070617	1.955298	2.097545	12.01656667	-10.001	0.23851123	0.11313191	-0.95777	-0.02045
9402	6			1.260375	1.400756	1.31623	1.400756	12.72456667	-10.001	0.140380853	0.05327764	-0.97009	-0.01157
9403	6			1.100158	1.200866	1.147819	1.162719	13.27673333	-10.001	0.10070505	0.053046947	-0.65513	-0.00414
9404	6			0.878905	1.211547	1.037647	1.020812	13.74568333	-10.001	0.32541602	0.173899851	0.682933	0.024199
9405	6			0.877379	0.961303	0.909351	0.901794	14.671	-10.001	0.08929234	0.05193189	0.202772	0.000916
9406	6			1.888488	3.669384	3.2301	3.463634	16.57681667	-10.001	0.779346884	0.43133354	-0.39342	-0.07357
9407	6			2.27861	2.642821	2.450325	2.641296	16.83791667	-10.001	0.366210938	0.152495986	-0.99717	-0.03548
9408	6			2.052306	3.750609	2.699229	2.125548	17.08751667	-10.001	1.698303223	1.141380385	0.871489	0.189063
9409	6			2.688598	3.266906	2.897876	2.932738	17.33928333	-10.001	0.578308105	0.369230548	0.48587	0.02926
9410	6			2.157592	2.461242	2.299631	2.427872	18.0452	-10.001	0.303499902	0.161610897	-0.99183	-0.02625
9411	6			1.153918	1.475324	1.36667	1.202182	18.19995	-10.001	0.323486128	0.208853446	0.895984	0.02475
9412	6			1.020916	1.104735	1.070729	1.068134	19.99641667	-10.001	0.077819824	0.03406108	-0.63808	-0.00352
9413	6			0.888961	0.939941	0.914463	0.927733	20.72985	-10.001	0.051879883	0.025407235	-0.89564	-0.00347
9414	6			0.796671	0.830077	0.800911	0.810241	21.39363333	-10.001	0.033405762	0.029166683	-0.39239	-0.00113
9415	6			0.718688	0.805683	0.754764	0.750732	21.52871667	-10.001	0.086975098	0.050893937	-0.31953	-0.00108

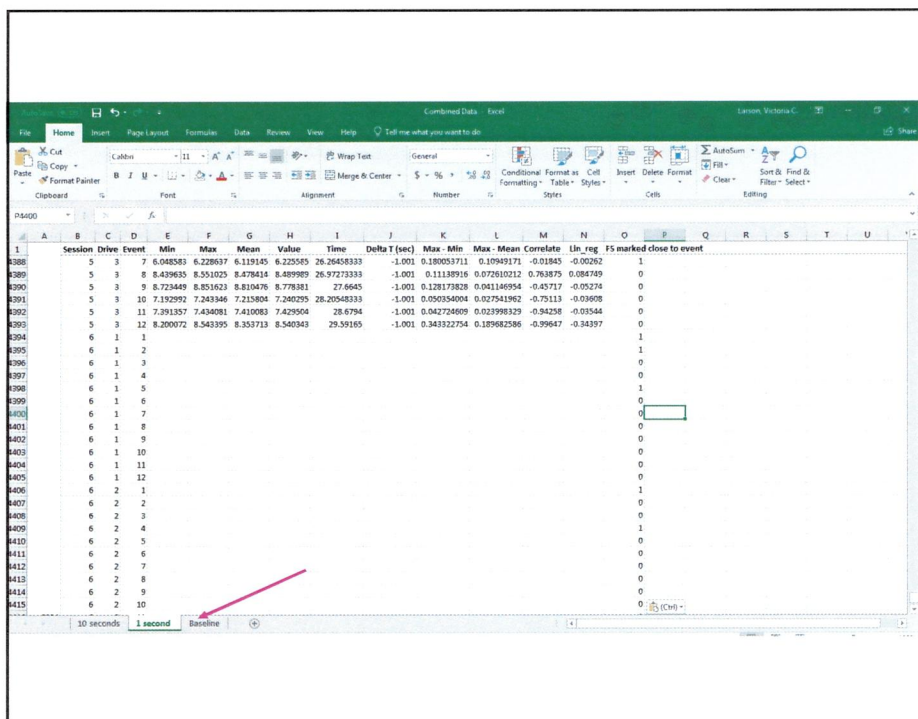


	Session	Drive	Event	Min	Max	Mean	Value	Time	Delta T (sec)	Max - Min	Max - Mean	Correlate	Lin_reg	F5 marked close to event
1														
1388	5	3	7	6.048583	6.228637	6.119145	6.225585	26.26458333	-1.003	0.180053711	0.10949171	-0.02845	-0.00262	1
1389	5	3	8	8.429635	8.551025	8.478414	8.489989	26.97273333	-1.003	0.11189916	0.072610212	0.763875	0.084749	0
1390	5	3	9	8.723449	8.851623	8.810476	8.778381	27.6643	-1.003	0.128173828	0.041146954	-0.45717	-0.05274	0
1391	5	3	10	7.192992	7.243946	7.215804	7.240295	28.20548333	-1.003	0.050534004	0.027541962	-0.75113	-0.03608	0
1392	5	3	11	7.391357	7.434081	7.410083	7.429504	28.6794	-1.003	0.042724609	0.023998329	-0.84258	-0.03544	0
1393	5	3	12	8.200072	8.543395	8.353713	8.540343	29.59185	-1.003	0.343322754	0.189682586	-0.99647	-0.34397	0
1394	6	1	1											0
1395	6	1	2											0
1396	6	1	3											0
1397	6	1	4											0
1398	6	1	5											0
1399	6	1	6											0
1400	6	1	7											0
1401	6	1	8											0
1402	6	1	9											0
1403	6	1	10											0
1404	6	1	11											0
1405	6	1	12											0
1406	6	2	1											0
1407	6	2	2											0
1408	6	2	3											0
1409	6	2	4											0
1410	6	2	5											0
1411	6	2	6											0
1412	6	2	7											0
1413	6	2	8											0
1414	6	2	9											0
1415	6	2	10											0

- Paste the results into the 1 second tab and save the temporary file in the participants folder.



- Repeat the previous steps, but for CH4.
 - Change the preset to say Baseline instead of SCR.
 - Settings should be:
- | Min | Max | Mean | Value | Time |
|---------|------|------|-------|------|
| Delta T | None | None | None | None |



Excel spreadsheet showing a table of data. The table has columns: Session, Drive, Event, Min, Max, Mean, Value, Time, Delta T (sec), Max - Min, Max - Mean, Correlate, Lin. reg, and F5 marked close to event. The data is organized by Session (5, 6, 7, 8, 9, 10, 11, 12) and Drive (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12). A pink arrow points to the 'Baseline' tab at the bottom of the spreadsheet.

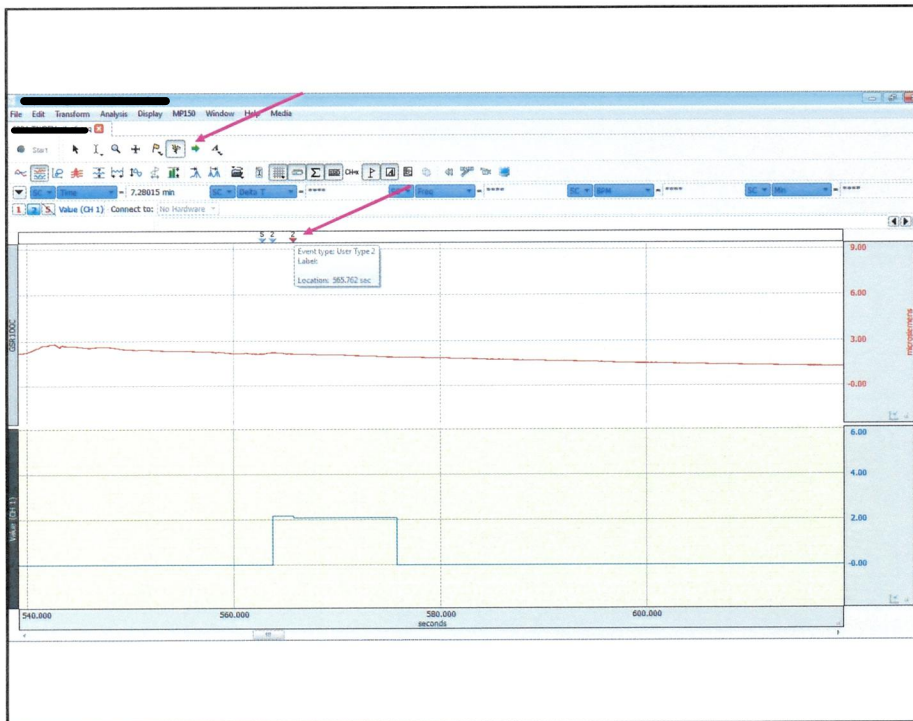
- Paste the results into the baseline tab and save the temporary file in the participants folder.

Weird Stuff Happens

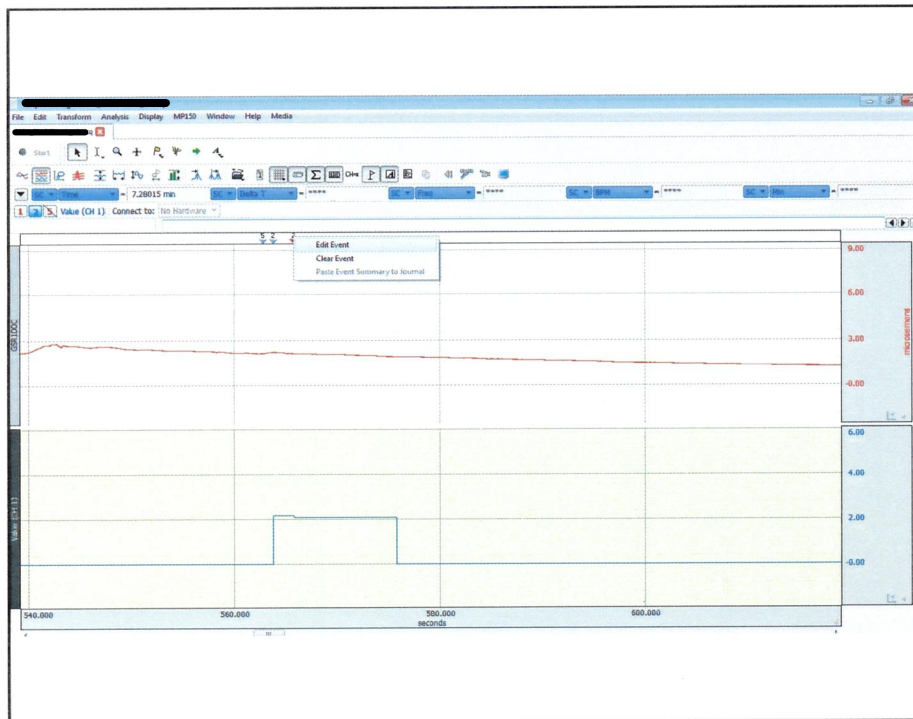


Software interface showing a plot of Value (CH 1) over time. The plot displays a red line representing the signal and a blue line representing the baseline. A pink arrow points to a small blip in the signal at approximately 560,000 seconds.

- If you see a little blip in the epoch, that might mean you have 2 F2s next to each other.



- To fix this, delete the F2 that was a mistype. You can either do this with the zap tool or by editing the event.



- If you don't want to zap the event, either edit the event or clear the event
- You can get these options by right clicking on the event

