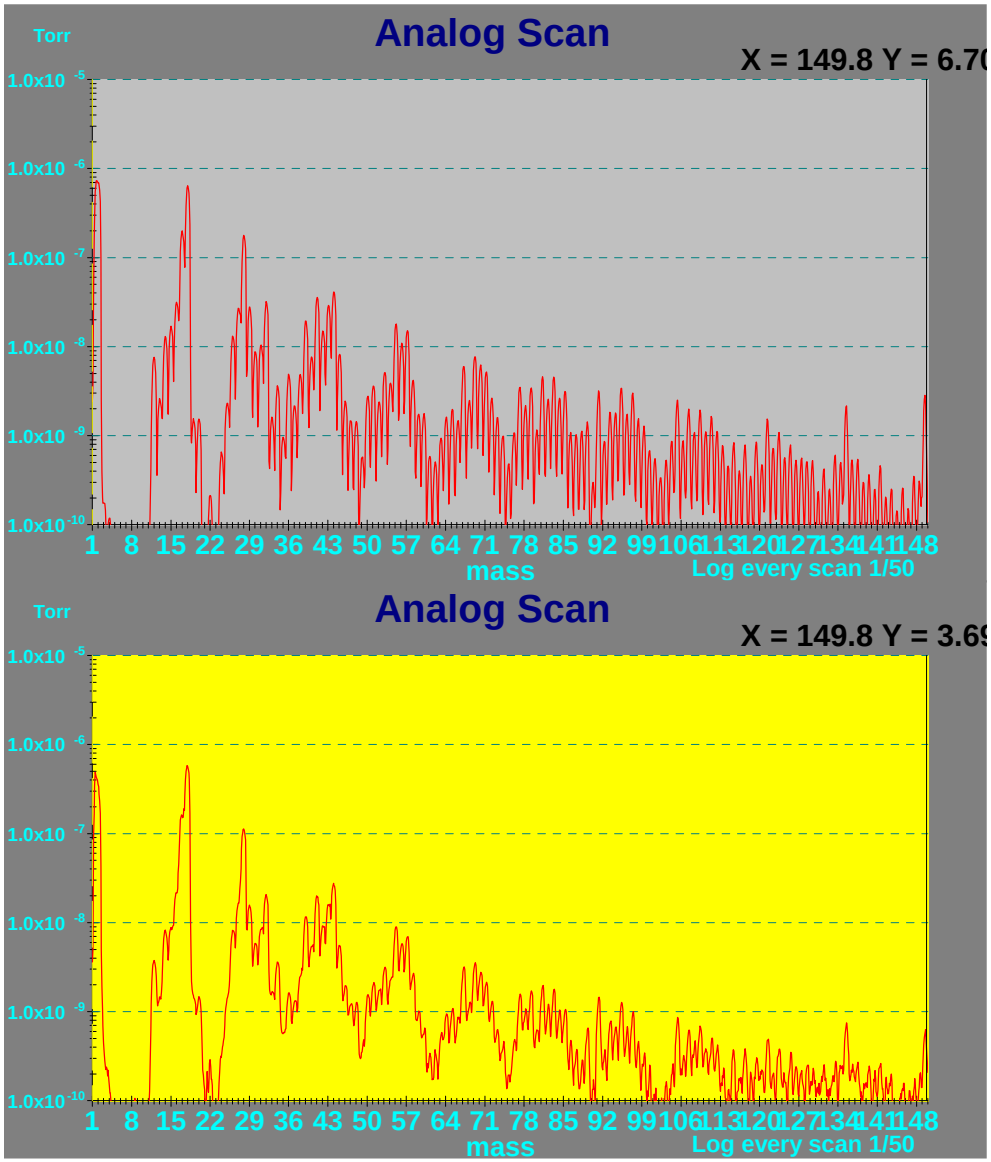


Test dewar pressures (dewar completely empty)

Dec 22 at 09:00 7.7e-7 torr

RGA scans of test dewar

December 23, 2005 (PR and SP)

Before degassing RGA head

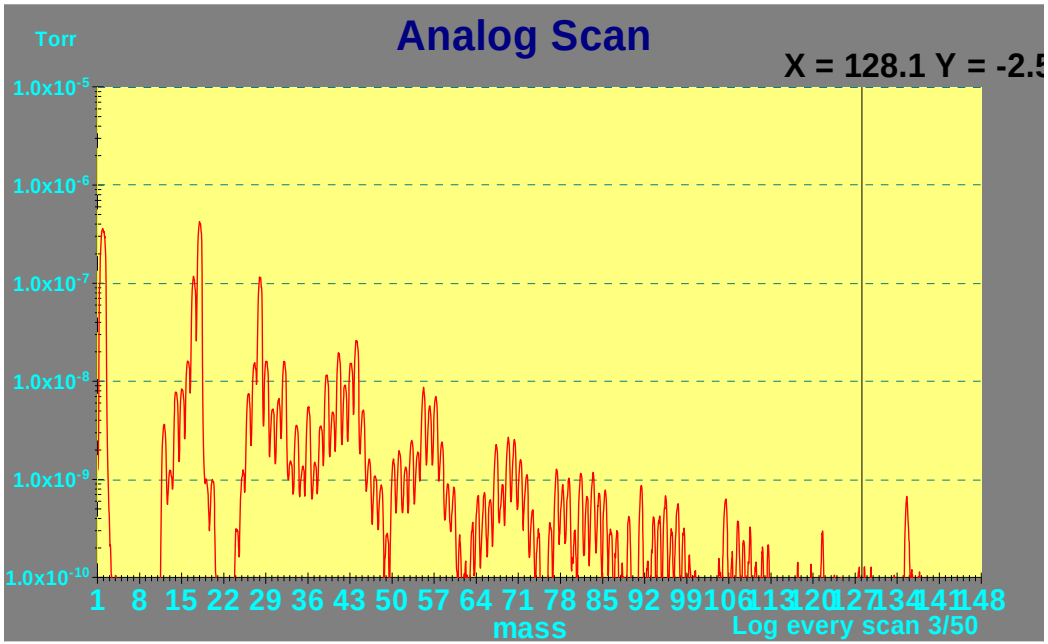
After degassing RGA head

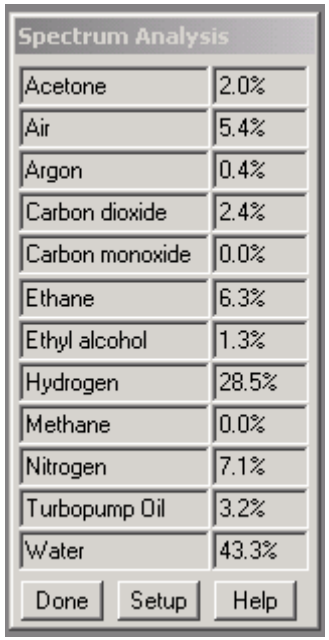
Ion Gauge readings :

Vacuum (with RGA off) before degassing 6.0 E-7 Torr

Vacuum (with RGA on) after degassing 6.9 E-7 Torr

Vacuum (with RGA off) after degassing 6.2 E-7 Torr





Test dewar pressures (dewar completely empty)

Dec 26 at 15:08 4.9e-7 torr

Dec 27, 2005 14:40

Test dewar (P.R.)

Scan parameters are:

1-148 AMU's range

20 points per AMU

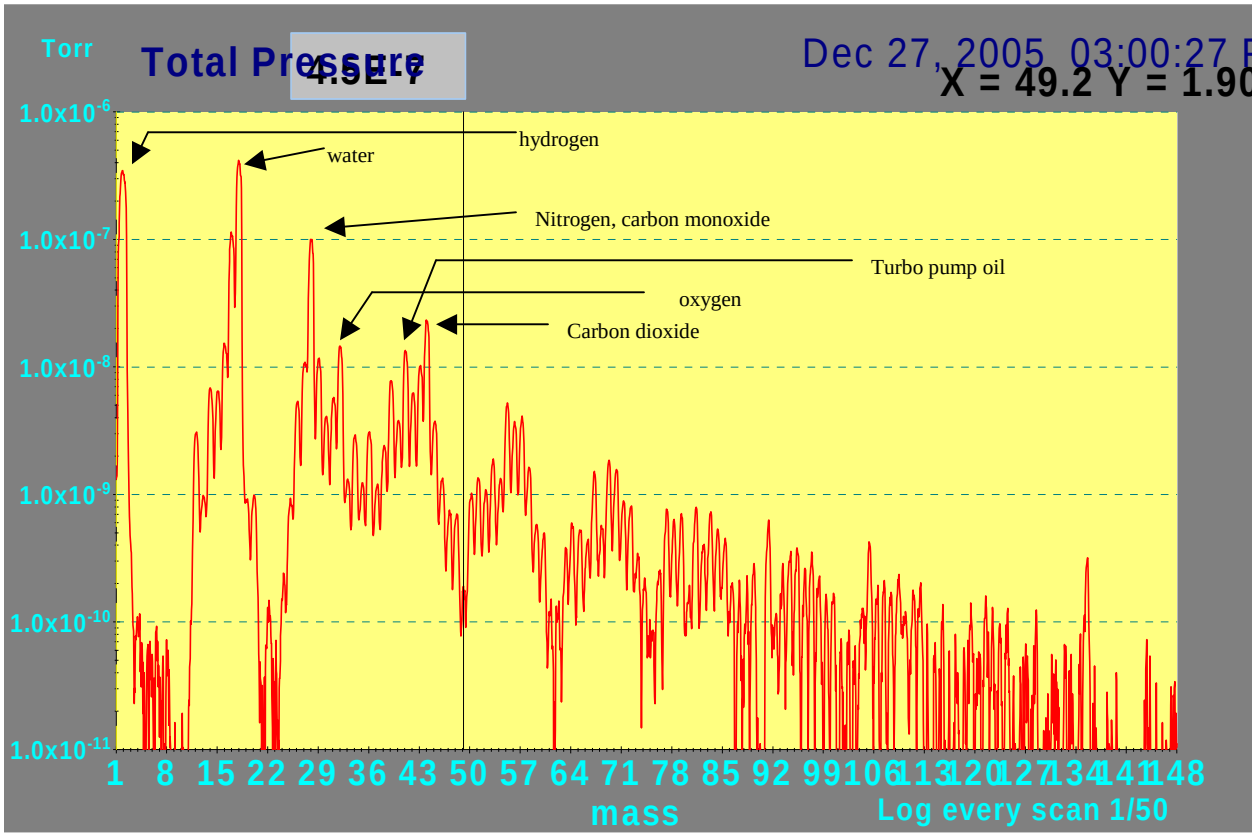
Scale factor and scan speed = 1

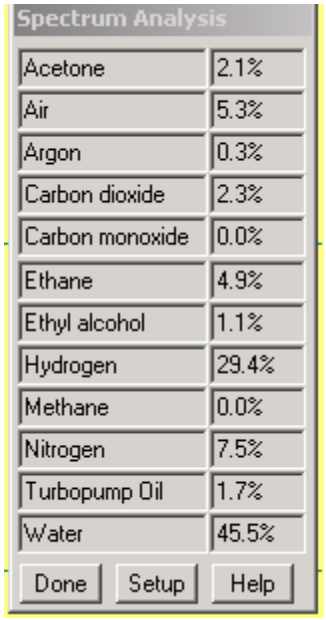
Waited for RGA to stabilize for 20 minutes.

Pressures

Before turning on RGA 5.1 E-7

After turning on RGA 6.0 E-7

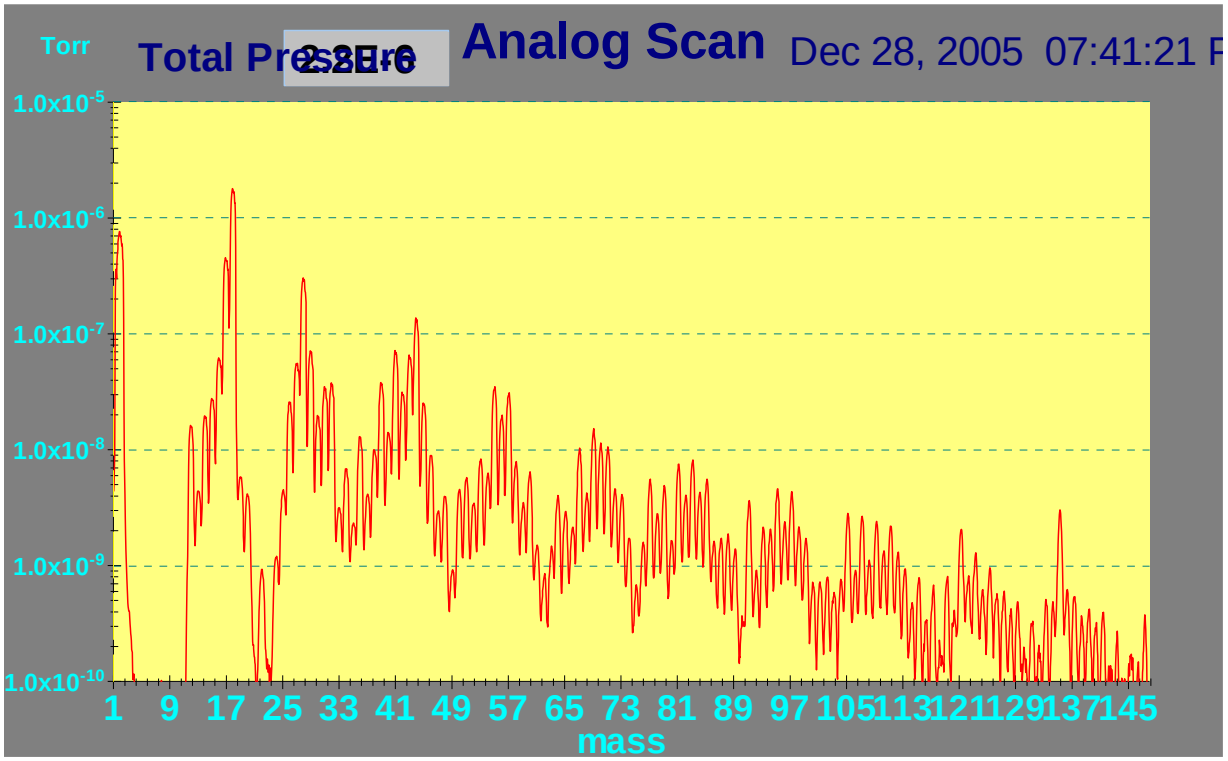


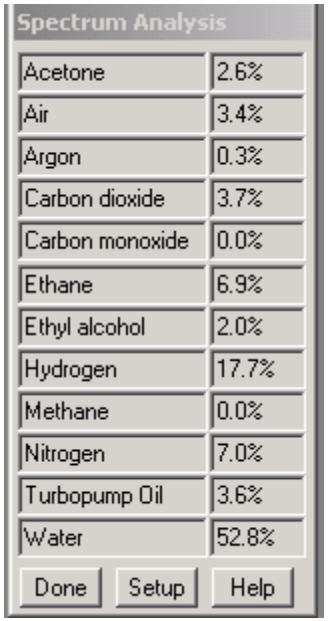


Dec 27, 2005 at 15:00 Pressure on ion gauge is 5.9 E-7

Pressure from RGA program (hard to see above) 4.5 E-7

Note different scale from previous graphs





Test dewar pressures (dewar completely empty, o-ring grove scored)

Dec 28 at 13:20 4.1e-6

Dec 28 at 19:15 1.67 e-6

Dec 28, 2005 19:40

Test dewar (P.R.)

(dewar oppened, o ring groove scored, restarted pumping at 12:00)

Less oxygen now ?

Scan parameters are: 1-148 AMU's range

20 points per AMU Scale factor and scan speed = 1

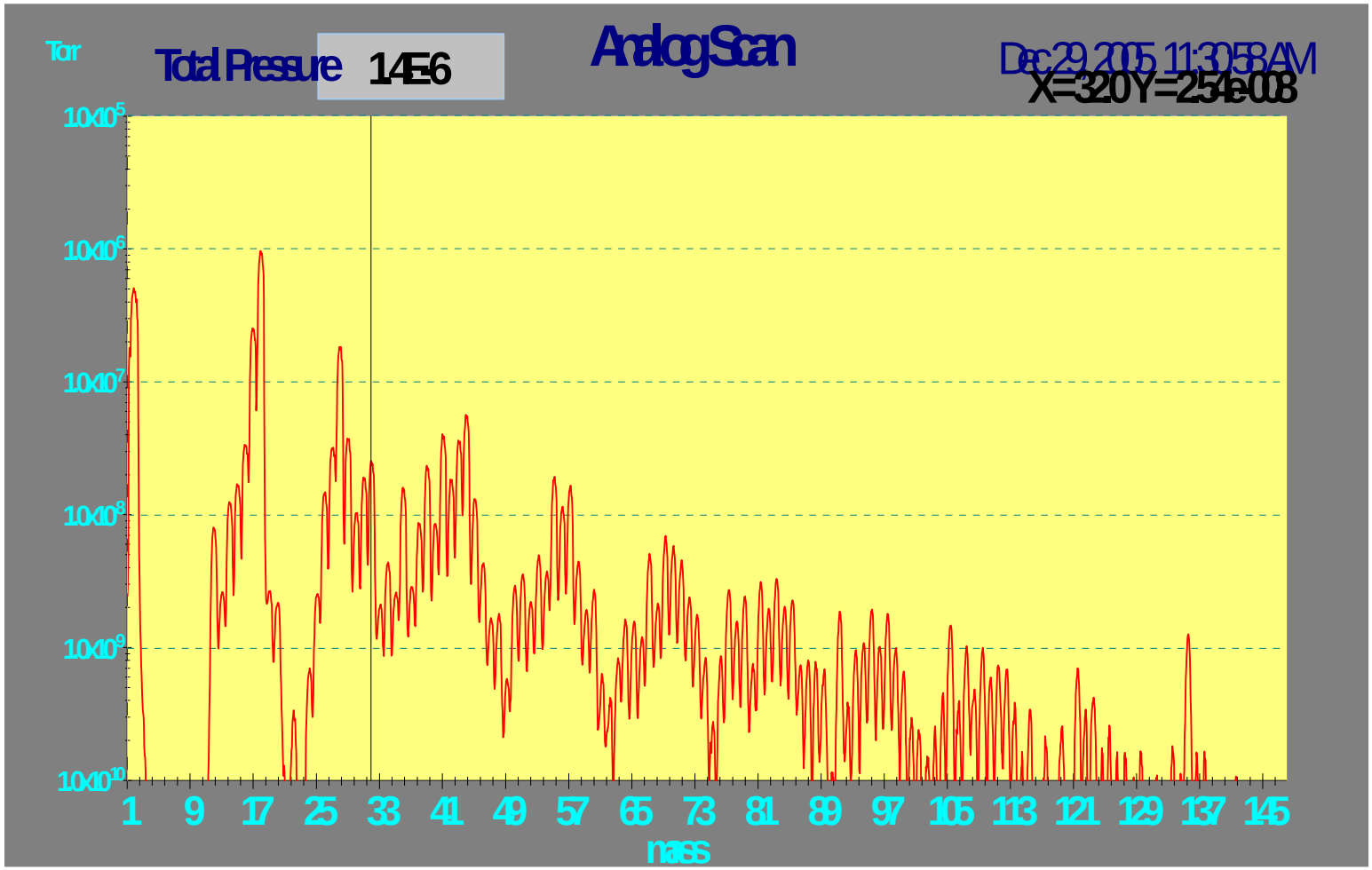
Waited for RGA to stabilize for 20 minutes.

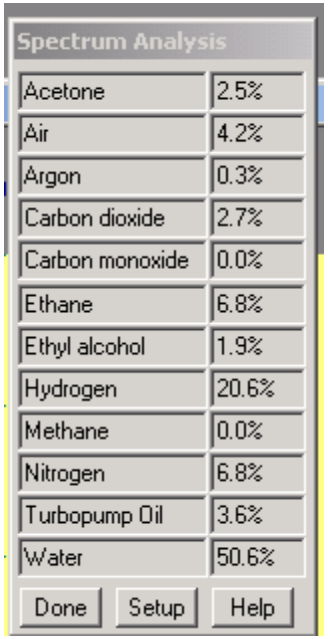
Pressures from ion gauge:

Before turning on RGA 1.67E-6

After turning on RGA 1.95E-6

Pressure from RGA head is : 2.2 E-6

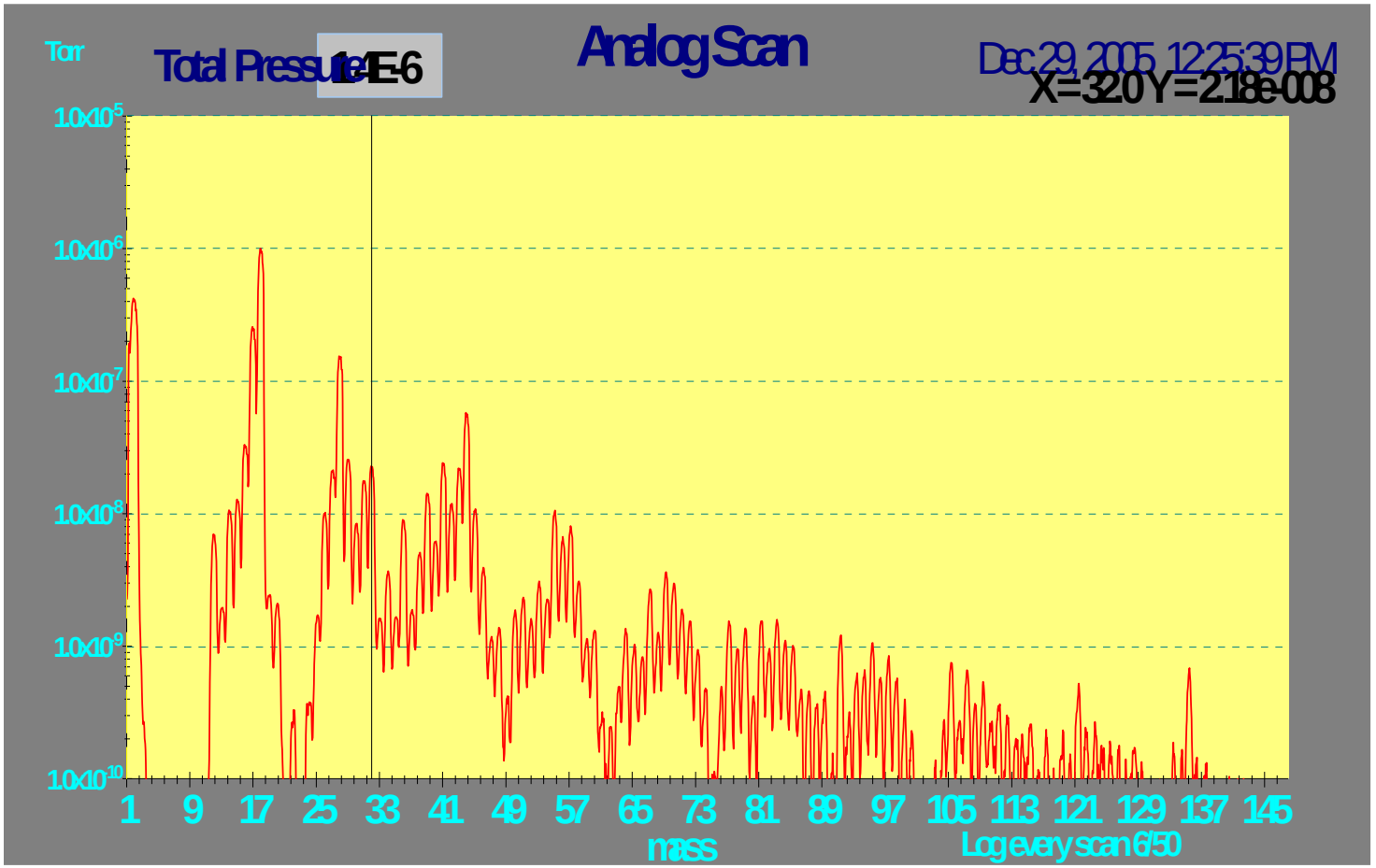


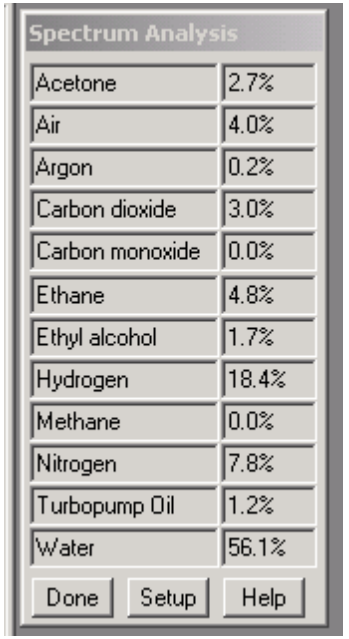


Dec 29, 2005 11:30 (PR,CK)

Ion gauge pressure 9.5E-7 before RGA turn-on; 11.1E-7 after RGA turn on

RGA derived total pressure is 1.4 E-6 - oxygen peak(at 32) is 2.54E-8



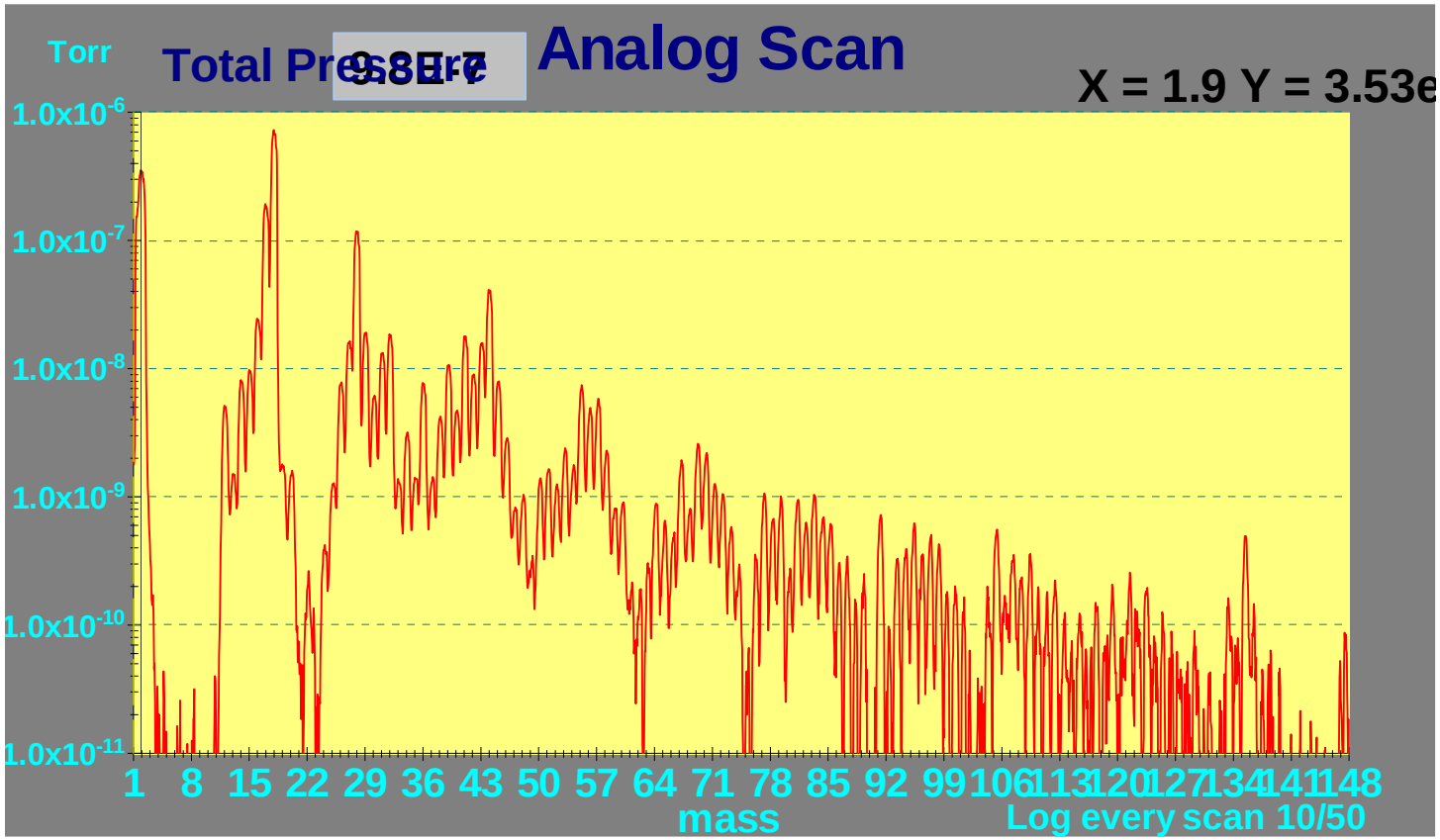


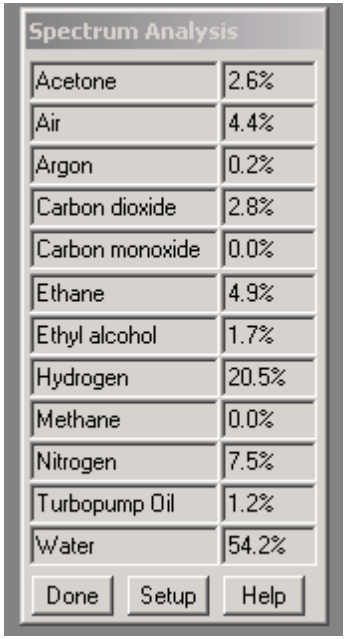
Dec 29 2005 Test Dewar 12:30

Ion gauge readings: RGA off = 9.6 E-7, RGA on=1.07 E-6

RGA derived pressure 1.4 E-6 torr

Partial pressures at (2/hydrogen = 4.00e-7)(18/water=9.89e-7)(32/oxygen=2.18e-8)





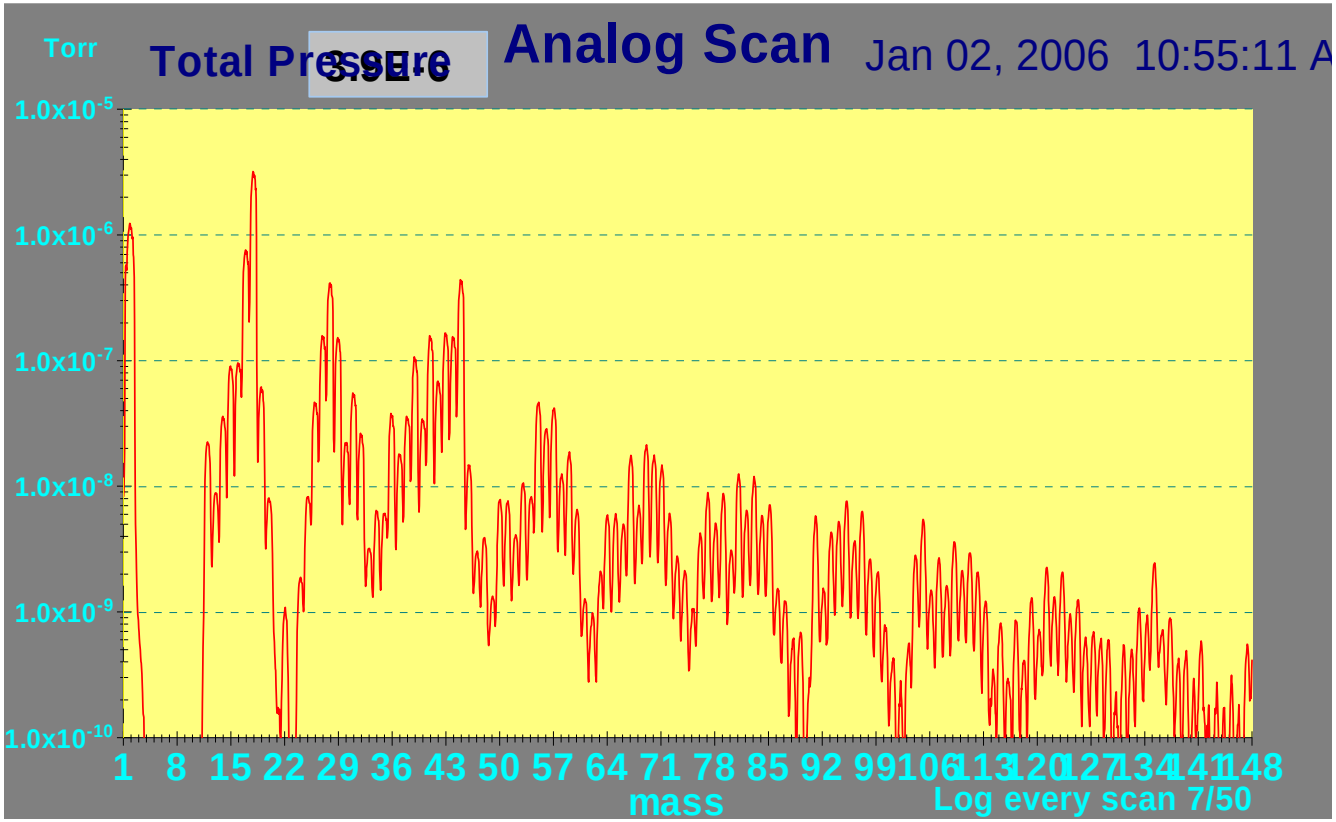
Dec 30 2005 Test Dewar 10:30

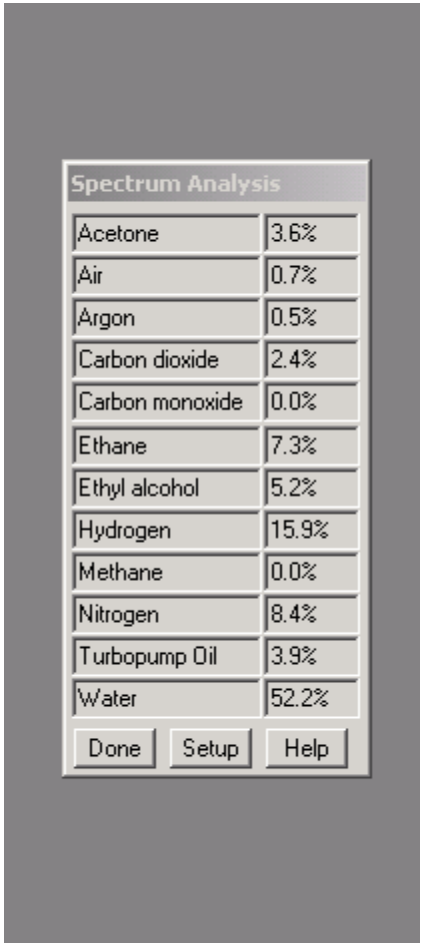
Ion gauge readings: RGA off = 6.7 E-7, RGA on=8.0E-7

RGA derived pressure 9.8 E-7 torr

Partial pressures at:

(2/hydrogen = 3.53e-7)(18/water=7.02e-7)(28/Nitrogen=1.14E-7)(32/oxygen=1.85e-8)





Test dewar was oppened at 11:00 of Dec 30

Italian purity monitor (cleaned, baked for 2 hours at 150F by Walter Jaskierny) was put in.

Pumping started at 12:30 of Dec 30

Dec 30 at 13:30 pressure is 5.3e-5

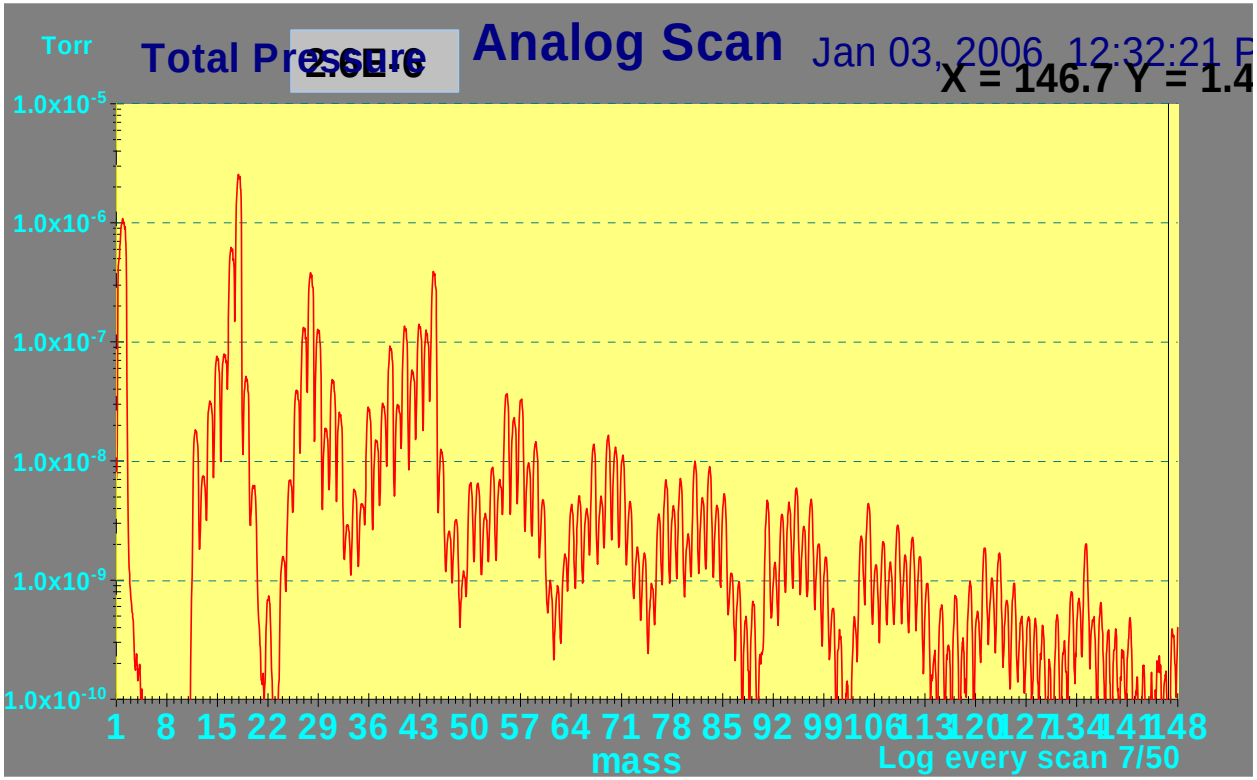
Jan 2 2006 Test Dewar 10:55

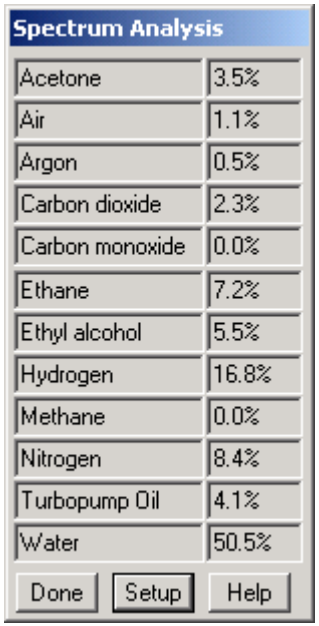
Ion gauge readings: RGA off = 3.58E-6, RGA on=3.9E-6

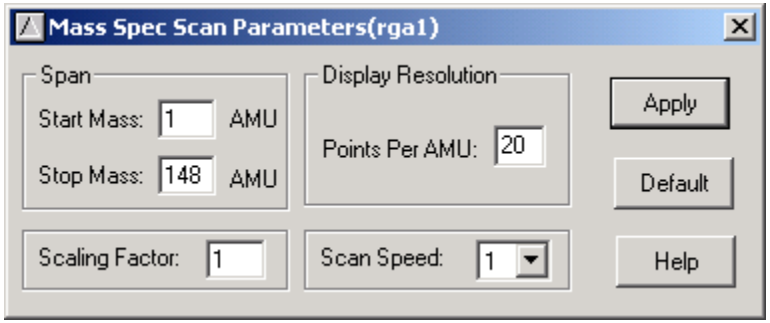
RGA derived pressure 3.9E-6 torr

Partial pressures at

(2/hydrogen = 1.23E-6)(18/water=3.18e-6)(28/Nitrogen=4.0E-7)((32/oxygen=2.54e-8)







With these settings each pass takes 5 minutes

Jan 3 2006 Test Dewar 12:30

Ion gauge readings: RGA off = 3.20E-6, RGA on=3.42E-6

RGA derived pressure 2.6e-6 torr

Partial pressures at

(2/hydrogen = 1.08e-6)(18/water=2.55e-6)(28/Nitrogen=3.80e-7)((32/oxygen=2.47e-8)

Test Dewar pressure history with cleaned Italian purity monitor inside

Dec 30 13:30 5.3 e-5 torr

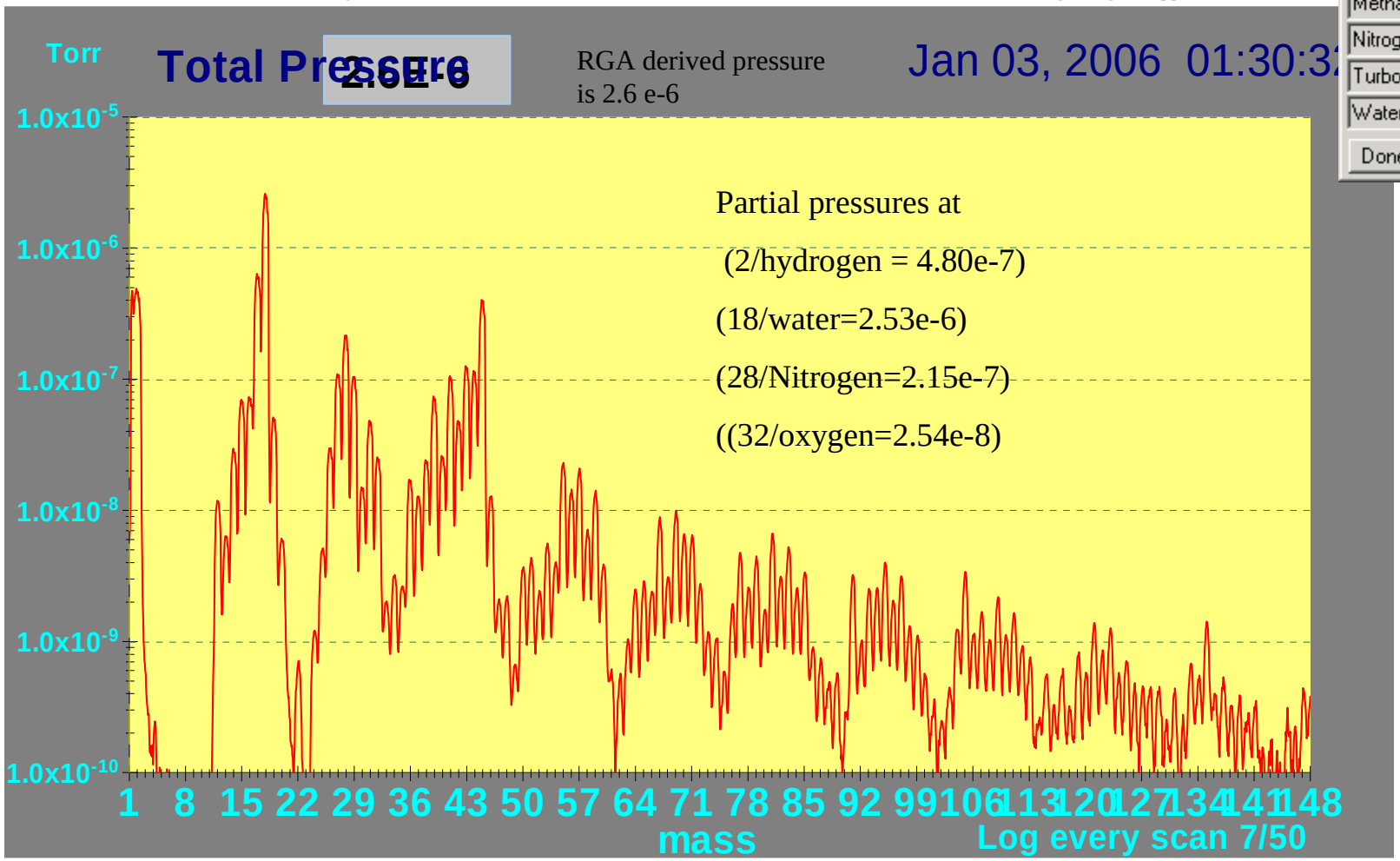
Dec 31 06:30 7.92 e-6

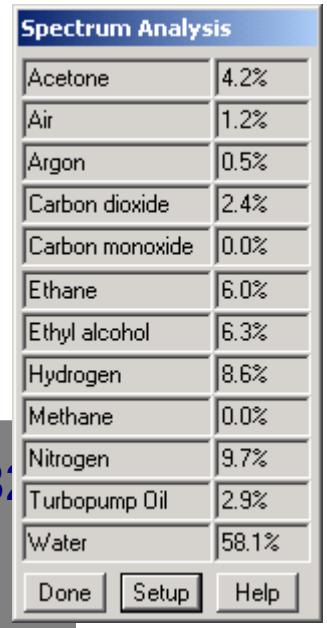
Jan 1 (2006) 11:30 4.37 e-6

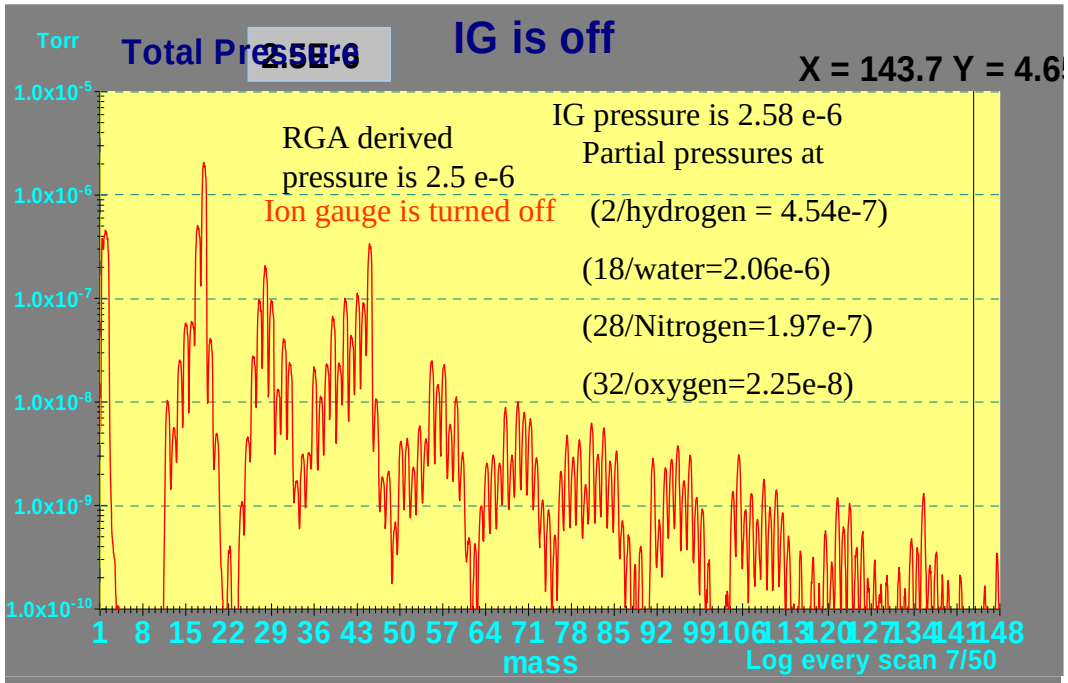
Jan 2 10:00 3.58 e-6 ; Jan 3 07:30 3.09 e-6 ; Jan 3 12:00 3.2 e-6 ; Jan 4 12:00 2.5 e-6

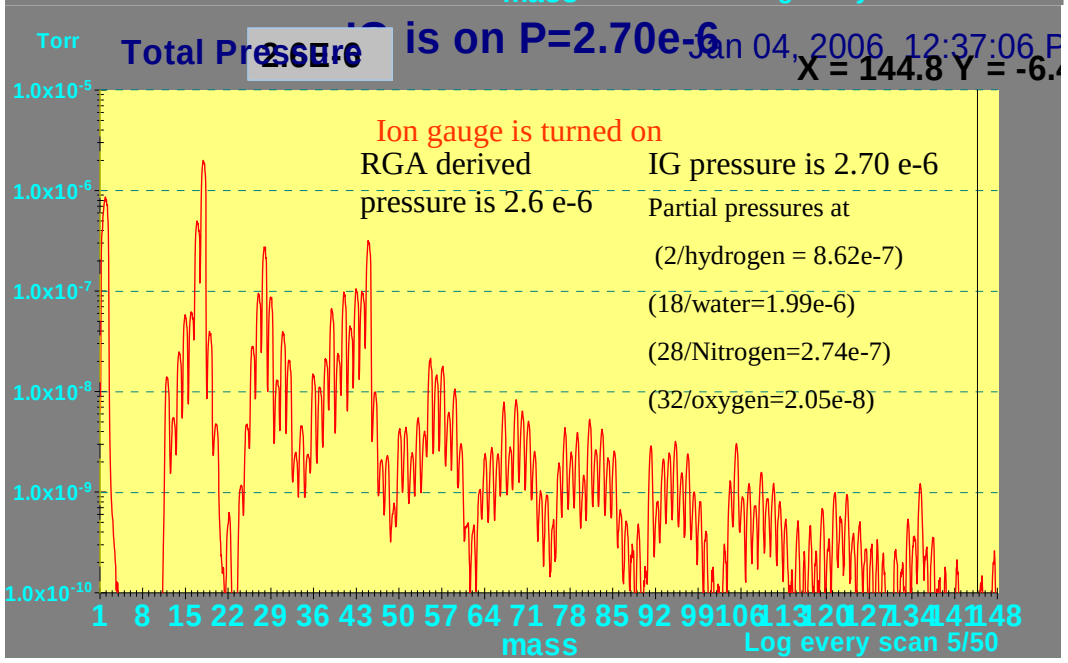
Same as previous page but ion gauge is turned off (for 30 minutes)

NOTE This is the only scan in this document until now taken with the ion gauge off !!!!

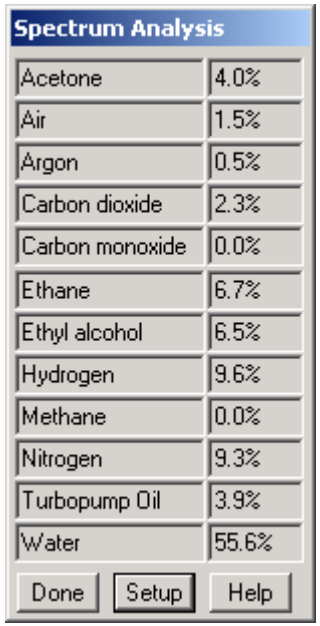








January 4, 2006 11:45

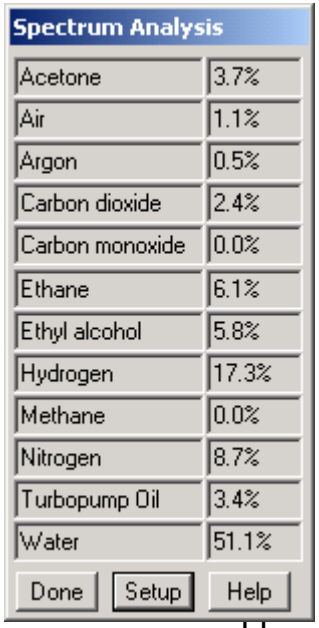


Spectrum Analysis

Acetone	4.0%
Air	1.5%
Argon	0.5%
Carbon dioxide	2.3%
Carbon monoxide	0.0%
Ethane	6.7%
Ethyl alcohol	6.5%
Hydrogen	9.6%
Methane	0.0%
Nitrogen	9.3%
Turbopump Oil	3.9%
Water	55.6%

Done Setup Help

At 16:00 of January 4 theTest dewar pumping stopped. The next step will be removal of the purity monitor and installation of the double o-ring system.



Spectrum Analysis

Acetone	3.7%
Air	1.1%
Argon	0.5%
Carbon dioxide	2.4%
Carbon monoxide	0.0%
Ethane	6.1%
Ethyl alcohol	5.8%
Hydrogen	17.3%
Methane	0.0%
Nitrogen	8.7%
Turbopump Oil	3.4%
Water	51.1%

Done Setup Help