



**Process Traveler OMC & Tip/Tilt
Birmingham OSEMs**

DCC Number: E070353-00-X

Date Prepared: 18 Dec 2007

Originator	Cognizant Engineer	Ext./Phone#	Project	Account Number
Name Janeen Romie	Name: Stuart Aston, Univ. of Birmingham Janeen Romie	225-686-3109 (Janeen)	Enhanced/Advanced LIGO	LIGO.ALOMC, 5.10.3.2, NSFLIGO.FY02CA

Dwg/Part Number	Rev	Part Description / Material	Serial Number	Qty
D060218	B	Birmingham OSEMs	001 - 016	16

Used In (next higher assembly): 8 for D060306 OMC Top Assembly and 8 for tip/tilt suspension

Vendor Name	PO/Contract Number
Assorted.	

Data Package, Receiving/Inspection Remarks:

Inspection Required Y/N	Visual Damage Y/N	Comments	Name/ Initials	Date Comp.
Y				

Process Flow:

#	Operation	Start Date	Work Area	Instructions	Name/ Initials	Date Comp.
1	Clean		CIT	See E960022 for initial LIGO osem		
2	Vacuum Bake		CIT	125 deg C for 48 hours		
3	Control Point			Review/Approve RGA scan		
4	Wrap & Tag vacuum clean parts			Please wrap in packages of 8		

N.B.: A copy of this traveller must be submitted to the DCC each time the original is shipped with the associated part(s) and when the traveller has been completed.



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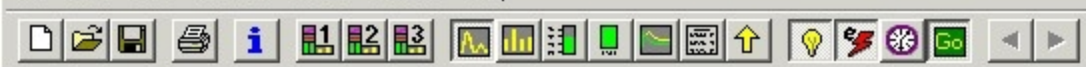
#	Operation	Start Date	Work Area	Instructions	Name/ Initials	Date Comp.
5	Ship and Deliver/File paperwork			Please send to: Chris Echols, CIT for 8 OMC osem 8 tip/tilt osem to go to Rana at CIT File one copy of traveler with the DCC. Note: Ship original traveler with these parts.		

END: Go to Traveler or procedure associated with next higher assembly processing

Special Instructions (Handling/Packaging Constraints, Remarks, etc.) or Notes:

Please keep the sizes separate as they are difficult to differentiate by sight.
Thank you.

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Quad: Analog

Amps

1.0E-12

1.0E-13

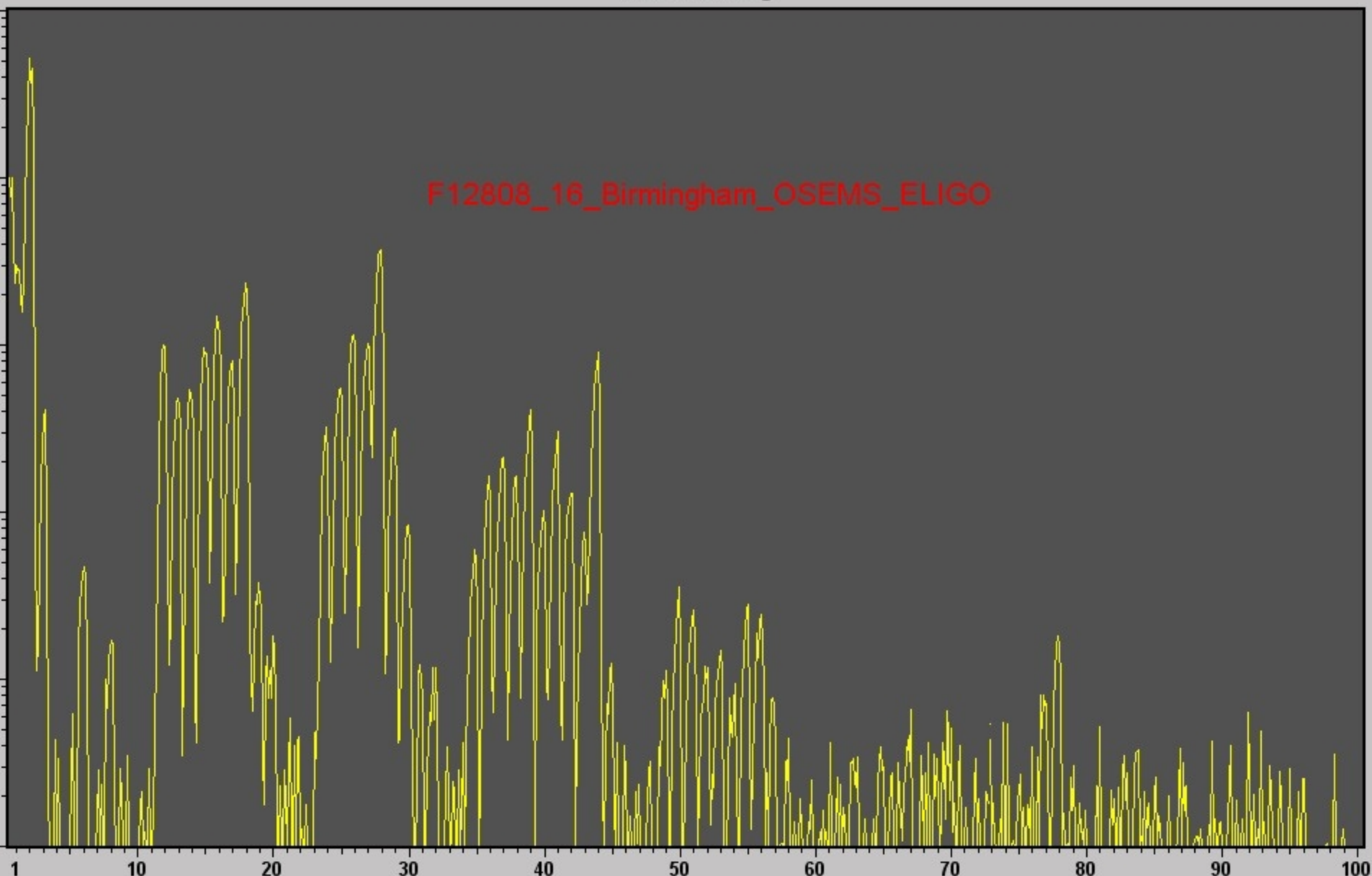
1.0E-14

1.0E-15

1.0E-16

1.0E-17

F12808_16_Birmingham_OSEMS_ELIGO



1

10

20

30

40

50

60

70

80

90

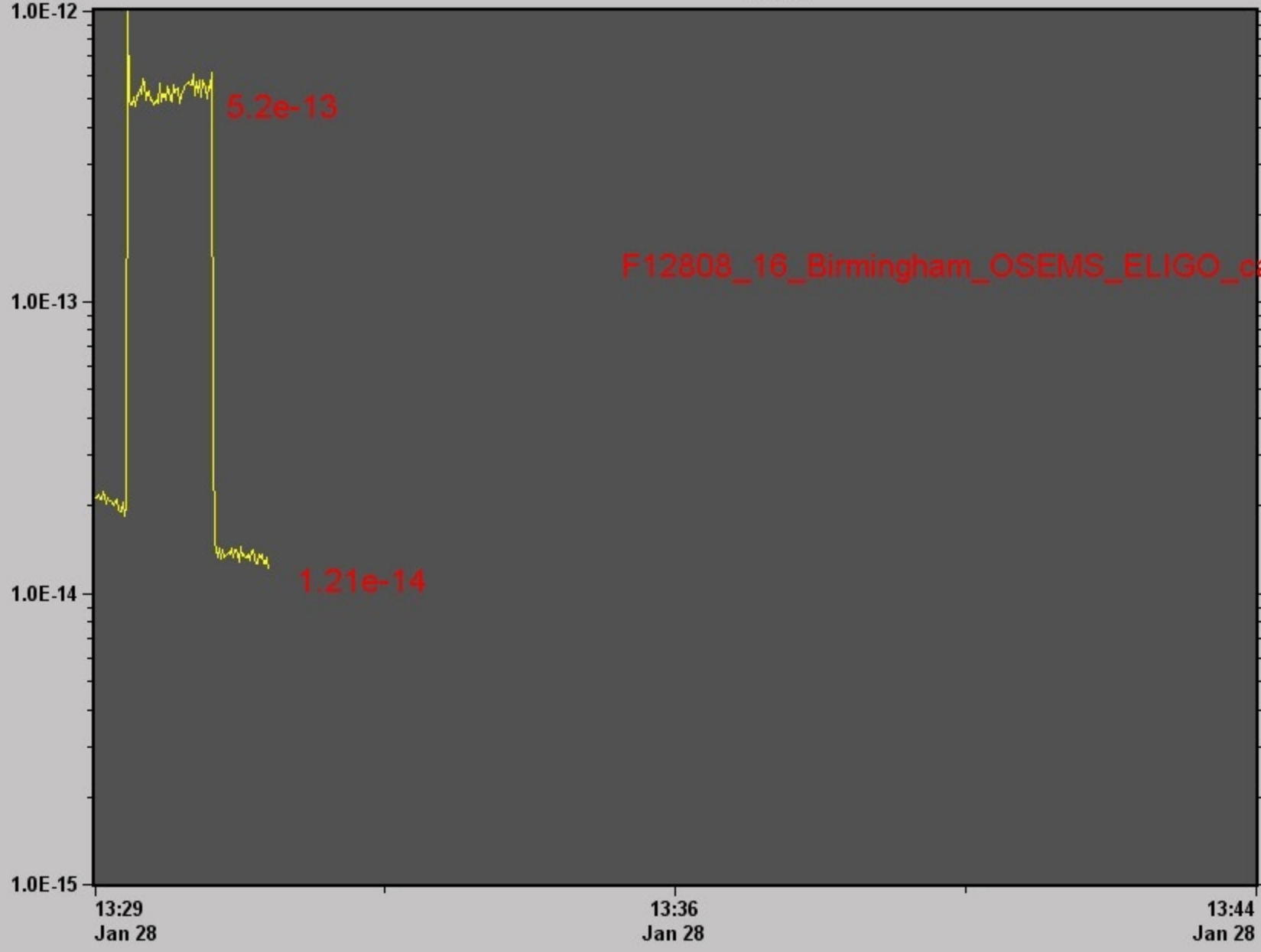
100

Mass / Charge



Amps

Trend



Quad 40 1.21E-14

F12808_16_Birmingham_OSEMS_ELIGO_cal

Pressure Contribution from Flag Hydrocarbons 40M Lab RGA Scan Results

Job# F12808

Description: Birmingham OSEMs
Oven Used: F

Date: 1/28/2008

AMU 41	3.20E-15 amps	from RGA scan listing
AMU 43	1.02E-15 amps	from RGA scan listing
AMU 53	2.20E-16 amps	from RGA scan listing
AMU 55	3.50E-16 amps	from RGA scan listing
AMU 57	1.03E-16 amps	from RGA scan listing

Sum Flag H/C AMUs 4.89E-15 amps

Calib leak rate 2.36E-10 torr l/s (Argon)

AMU 40 (w/leak open) 5.20E-13 amps

AMU 40 (background) 1.20E-14 amps

Calib leak contributes 5.08E-13 amps = (w/leak open) - (background)

Flag H/C Outgassing 2.273E-12 torr l/s = (Sum Flag H/C AMUs) x (Calib leak rate)/(Calib leak contrib.)

Test item surf area 1.60E+01 B-OSEMs

Normalized outgassing 1.421E-13 torr l/s/unit = Flag H/C Outgassing/Test item

Full description: 16 Fully Assembled Birmingham OSEMs

Pre-scan bake: 125C for 48Hrs.