



ADVANCED LIGO FTIR SAMPLE RECORD

LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY

Document: LIGO-E 1800108 -v1 Date: 4-10-2018
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Title: FTIR: Sample taken from LHO'S IP11 isolation Valve
System(s): Vacuum

Assembly(ies):

Bake Load: Pre-Bake Class A URGENT?
JIRA URL: Post Bake Class B

Notes: ~20 in²

PARTS			SAMPLES				
#	Part No.	SN	Description	#	Type	Description (for holes indicate "through" or "blind")	Amount
1			GATE (PUMP SIDE) OF IP11'S GATE VALVE	1	Surface	Serial Number 0002	Area (cm ²): 130
2			CORRESPONDING SAMPLE OF "CLEAN" PART	2	Holes		# of Holes:
				3	Surface	Serial Number 0005	Area (cm ²): 130
				4	Holes		# of Holes:
				5	Surface		Area (cm ²):
				6	Holes		# of Holes:
				7	Surface		Area (cm ²):
				8	Holes		# of Holes:
				9	Surface		Area (cm ²):
				10	Holes		# of Holes:

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6	11	Surface	Area (cm ²):
	12	Holes	# of Holes:
7	13	Surface	Area (cm ²):
	14	Holes	# of Holes:
8	15	Surface	Area (cm ²):
	16	Holes	# of Holes:
9	17	Surface	Area (cm ²):
	18	Holes	# of Holes:
10	19	Surface	Area (cm ²):
	20	Holes	# of Holes:

Instructions:

- 1) All parts must be sampled. The sampling must be at least 5% of the total area and at least 5% of the total number of holes. Surface samples and hole samples are to be separate. Sampling fewer than all parts in a bake load, or sampling less than 5% of the area or holes requires a waiver from the Vacuum Review Board, or a LIGO Vacuum Review Team member (see the Advanced LIGO VRB wiki for member list). (*Sampling requirements are defined in section 5.1 of E0900480-v2.*)
- 2) Read the instructions on how to take FTIR samples, given in document LIGO-E0900479-v1. Make sure that the sample bottles are tightly sealed!
- 3) Reserve a Document Number (E-type) from the LIGO Document Control Center (DCC):
<https://dcc.ligo.org/cgi-bin/private/DocDB/ReserveHome>
- 4) Complete the form above.
- 5) File this completed form in the DCC under the reserved number as revision 1, i.e. -v1.
- 6) Ship a printed copy of this completed form and the FTIR Samples (properly packaged) to:
Attn: Jerami Mennella
Jet Propulsion Laboratory
Bldg 83 room 101
4800 Oak Grove drive
Pasadena, California 91109-8099
- 7) Send an email notification to Jerami.Mennella@jpl.nasa.gov indicating that an FTIR sample package is in route to him and indicate what her testing results are needed urgently or not.
- 8) JPL should put the LIGO document number of this sample form into the header of their FTIR analysis report and email this report to the submitter (email given in form), Bob Taylor, Dennis Coyne (CT), John Worden (LHO) and Brian O'Reilly (LLO). (*These last three individuals are Vacuum Review Team members.*)
- 9) The completed FTIR analysis report from JPL is to be reviewed and approved by the Vacuum Review Team member at the submitter's location. The Vacuum Review Team member makes any desired notations on the report and then files the report (*.pdf) into the DCC as version -v2 of the document number of this completed sample record form. This DCC record should also be associated with the event "FTIR Testing". If approved, the VRT member also indicates electronic approval on the -v2 DCC record. The VRT member also informs the submitter via email whether the FTIR sampled load is approved or rejected.