NASA JSC
TOXICOLOGY GROUP
Mail Code SF23
Houston, TX 77058
Web site:
www.jsc.nasa.gov/toxicology

John T. James, Ph.D.
Chief Toxicologist
Phone: 281-483-7122
Email: john.t.james@nasa.gov

Subject: STS 116 Return Samples: Assessment of Air Quality aboard the Shuttle (STS-116) and International Space Station (12A.1)
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The toxicological assessments of 2 grab sample canisters (GSCs) from the Shuttle are reported in Table 1. Analytical methods have not changed from earlier reports. The recoveries of the 3 surrogates (^{13}C-acetone, fluorobenzene, and chlorobenzene) from the 2 GSCs averaged 105, 102, and 106 %, respectively. The Shuttle atmosphere was acceptable for human respiration.

Table 1. Analytical Summary of Shuttle Samples

Sample Location	Date of Sample	NMVOCs [1] (mg/m^3)	T Value[2] (units)	Alcohols (mg/m^3)	Formaldehyde (ug/m^3)
Middeck (preflight)	12/09/06	1.3	0.47	0.2	--
Middeck (end mission)	12/22/06	18	0.55	0.7	--

[1] Non-methane volatile organic hydrocarbons.
[2] Calculated excluding CO_2, formaldehyde, and siloxanes. High value for preflight sample due to a trace of propenal.

The toxicological assessment of 10 GSCs and 24 formaldehyde badges from the ISS is shown in Table 2. The recoveries of the 3 standards (as listed above) from the GSCs averaged 91, 97 and 101%. Four formaldehyde control badges averaged 88% recovery.

Table 2. Analytical Summary of ISS Results

Module/Sample	Approx. Date	NMVOCs[1] (mg/m^3)	T Value[2] (units)	Alcohols (mg/m^3)	Formaldehyde (ug/m^3)
LabFormal.	7/28/06	--	--	--	37
SM/Formal.	7/28/06	--	--	--	29
Lab/Formal.	8/14/06	--	--	--	39
SM/Formal.	8/14/06	--	--	--	33
Lab/GSC/Formal.	9/18-25/06	16	0.77	3.4	18
FGB/GSC	9/18/06	12	0.69	3.1	--
SM/GSC/Formal.	9/18-25/06	8	0.69	3.2	18
SM/GSC-Conting.	9/18/06	16	3.23[3]	3.4	--
Lab/Formal.	10/25/06	--	--	--	32
SM/Formal	10/25/06	--	--	--	24
Lab/GSC/Formal.	11/14/06	11	1.60[4]	3.7	37
FGB/GSC	11/14/06	8	0.69	3.5	--
SM/GSC/Formal.	11/14/06	11	0.70	3.5	29
Lab/GSC/Formal.	12/07/06	8	0.68	3.8	39
FGB/GSC	12/07/06	9	0.71	3.8	--
SM/GSC/Formal.	12/07/06	10	0.92	4.3	32
Guideline		*<25*	*<1.0*	*<5*	*<120*

[1] Non-methane volatile organic hydrocarbons.
[2] Calculated excluding CO_2, formaldehyde, and siloxanes.
[3] Primary component that increased the T value was benzene (T=2.50).
[4] Primary component that increased the T value was propenal (T=0.80).

The ISS atmosphere was found to be acceptable for human respiration. The alcohols were below the threshold established for protection of the water recovery system. Formaldehyde badges continue to show that the SM has a slightly lower concentration of formaldehyde than the Lab, but both modules are well below the guideline level.

There was a report of an air quality issue during the attempted repair of the Elektron oxygen generator. At 2006/261:11:01 (9/18/06) the secondary purification unit became extremely hot and generated smoke. Sometime later when a valve was opened the crew detected a "gasoline-like" synthetic odor. Crew symptoms were not reported from this incident; however, a GSC taken in the SM approximately 2 ½ hours later showed a T value of 3.23 units, mostly due to benzene. Other aromatic compounds (toluene, ethylbenzene, and xylenes) were increased in this sample. At this time the odor seemed to be reduced from earlier levels. A sample taken in the SM 5 minutes before the Elektron accident showed nominal levels of air pollution (T=0.69).

Enclosures
Table 1A: Analytical concentrations of compounds found in the STS-116 GSCs
Table 1B: Analytical concentrations of compounds found in 12A.1 GSCs
Table 2A: T-values of the compounds in table 1A
Table 2B: T-values of the compounds in table 1B

TABLE 1A
ANALYTICAL RESULTS OF
STS-116 GRAB SAMPLE CONTAINER AIR SAMPLES

CHEMICAL CONTAMINANT	CONCENTRATION (mg/m3)		
	AA04199 MIDDECK SN 1094 12/22/06 @ 14:45 GMT	AA04221 PREFLIGHT SN 1092 12/07/06 @ 15:00 EST	AA04222 PREFLIGHT SN 1093 12/09/06 @ 16:00 EST
TARGET COMPOUNDS (TO-14/POLAR)* **			
FREON12	TRACE	<0.05	<0.05
CHLOROMETHANE	TRACE	<0.05	<0.05
FREON114	<0.05	<0.05	<0.05
METHANOL	0.12	TRACE	TRACE
ACETALDEHYDE	0.17	0.19	0.16
VINYLCHLORIDE	<0.05	<0.05	<0.05
BROMOMETHANE	<0.05	<0.05	<0.05
ETHANOL	0.31	TRACE	TRACE
CHLOROETHANE	<0.05	<0.05	<0.05
ACETONITRILE	TRACE	<0.05	TRACE
PROPENAL	TRACE_	TRACE_	TRACE_
ACETONE	0.21	0.12	0.089
PROPANAL	0.051	0.076	0.056
ISOPROPANOL	TRACE	TRACE	TRACE
FREON11	<0.05	<0.05	<0.05
FURAN	<0.05	<0.05	<0.05
ACRYLONITRILE	<0.05	<0.05	<0.05
PENTANE	<0.05	<0.05	<0.05
2-METHYL-2-PROPANOL	TRACE	<0.05	<0.05
METHYLACETATE	<0.05	<0.05	<0.05
1,1-DICHLOROETHENE	<0.05	<0.05	<0.05
DICHLOROMETHANE	TRACE	<0.05	<0.05
3-CHLOROPROPENE	<0.05	<0.05	<0.05
FREON113	<0.05	<0.05	<0.05
N-PROPANOL	TRACE	TRACE	<0.05
1,1-DICHLOROETHANE	<0.05	<0.05	<0.05
BUTANAL	TRACE	TRACE	TRACE
2-BUTANONE	TRACE	TRACE	TRACE
CIS-1,2-DICHLOROETHENE	<0.05	<0.05	<0.05
2-METHYLFURAN	<0.05	<0.05	<0.05
ETHYLACETATE	TRACE	<0.05	<0.05
HEXANE	<0.05	<0.05	<0.05
CHLOROFORM	<0.05	<0.05	<0.05
2-BUTENAL	TRACE	<0.05	<0.05
1,2-DICHLOROETHANE	<0.05	<0.05	<0.05
1,1,1-TRICHLOROETHANE	<0.05	<0.05	<0.05
N-BUTANOL	TRACE	TRACE	<0.05
BENZENE	<0.05	<0.05	<0.05
CARBONTETRACHLORIDE	<0.05	<0.05	<0.05
2-PENTANONE	TRACE	TRACE	TRACE
2-METHYLHEXANE	<0.05	<0.05	<0.05
2,3-DIMETHYLPENTANE	<0.05	<0.05	<0.05
PENTANAL	TRACE	TRACE	TRACE
3-METHYLHEXANE	<0.05	<0.05	<0.05
1,2-DICHLOROPROPANE	<0.05	<0.05	<0.05
1,4-DIOXANE	<0.05	<0.05	<0.05
TRICHLOROETHENE	<0.05	<0.05	<0.05
2,5-DIMETHYLFURAN	<0.05	<0.05	<0.05
N-HEPTANE	<0.05	<0.05	<0.05
4-METHYL2-PENTANONE	<0.05	<0.05	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05	<0.05	<0.05
2-PENTENAL	<0.05	<0.05	<0.05

TRANS-1,3-DICHLOROPROPENE	<0.05	<0.05	<0.05
1,1,2-TRICHLOROETHANE	<0.05	<0.05	<0.05
TOLUENE	<0.05	<0.05	<0.05
HEXANAL	TRACE	TRACE	TRACE
MESITYLOXIDE	TRACE	TRACE	TRACE
1,2-DIBROMOETHANE	<0.05	<0.05	<0.05
BUTYLACETATE	<0.05	<0.05	<0.05
TETRACHLOROETHENE	<0.05	<0.05	<0.05
CHLOROBENZENE	<0.05	<0.05	<0.05
ETHYLBENZENE	<0.05	<0.05	<0.05
M/P-XYLENES	<0.05	<0.05	<0.05
2-HEPTANONE	<0.05	TRACE	<0.05
CYCLOHEXANONE	<0.05	<0.05	<0.05
HEPTANAL	TRACE	TRACE	TRACE
STYRENE	<0.05	<0.05	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05	<0.05	<0.05
O-XYLENE	<0.05	<0.05	<0.05
1,3,5-TRIMETHYLBENZENE	<0.05	<0.05	<0.05
1,2,4-TRIMETHYLBENZENE	<0.05	<0.05	<0.05
1,3-DICHLOROBENZENE	<0.05	<0.05	<0.05
1,4-DICHLOROBENZENE	<0.05	<0.05	<0.05
1,2-DICHLOROBENZENE	<0.05	<0.05	<0.05
1,2,4-TRICHLOROBENZENE	<0.05	<0.05	<0.05
HEXACHLORO-1,3-BUTADIENE	<0.05	<0.05	<0.05

TARGET COMPOUNDS (TOXIC)			
1,3-BUTADIENE	<0.05	<0.05	<0.05
ETHYLENE OXIDE	<0.05	<0.05	<0.05
CARBON DISULFIDE	TRACE	TRACE	TRACE
2-METHYL-2-PROPENAL	TRACE	TRACE	TRACE
3-BUTEN-2-ONE	TRACE	TRACE	TRACE
2-ETHOXYETHANOL	<0.05	<0.05	<0.05
DIMETHYLDISULFIDE	<0.05	<0.05	<0.05
OCTAMETHYLCYCLOTETRASILOXANE	1.2	0.069	0.069

NON-TARGET COMPOUNDS			
OCTAFLUOROPROPANE	#	#	#
SULFURHEXALFLUORIDE	0.068	<0.05	<0.05
BROMOTRIFLUOROMETHANE	2.1	TRACE	TRACE
HEXAMETHYLCYCLOTRISILOXANE	2.8	0.41	0.49
DECAMETHYLCYCLOPENTASILOXANE	11	TRACE	TRACE

TOTAL ALCOHOLS PLUS ACETONE	**0.71**	**0.24**	**0.16**

TARGET COMPOUNDS (GC)* **			
CARBON MONOXIDE	<0.57	<0.57	<0.57
METHANE	48	<1.4	<1.4
HYDROGEN	10	<0.74	<0.74
CARBON DIOXIDE	4500	TRACE	940

TOTAL CONCENTRATION (NON-METHANE HYDROCARBONS)	**18**	**1.3**	**1.3**

Present, but not quantitated
Not Analyzed
< : Value is less than the laboratory report detection limit.
TRACE: Amount detected is sufficient for compound identification only.
*** Measurements are calibrated by multi-point initial calibration and verified by mid-point continuing calibration.

TABLE 1B
ANALYTICAL RESULTS OF
12A.1 RETURN GRAB SAMPLE CONTAINER AIR SAMPLES

CHEMICAL CONTAMINANT	CONCENTRATION (mg/m3)									
	AA04189 ++ LAB S/N 1082 9/18/06 @ 10:45 GMT	AA04186 FGB S/N 1034 9/18/06 @ 10:50 GMT	AA04188 SM S/N 1075 9/18/06 @ 10:55 GMT	AA04187 + SM S/N 1063 9/18/06 @ 13:25 GMT	AA04193 LAB S/N 1083 11/14/06 @ 19:45 GMT	AA04195 FGB S/N 1035 11/14/06 @ 19:55 GMT	AA04194 SM S/N 1042 11/14/06 @ 19:58 GMT	AA04198 SM S/N 1087 12/07/06 @ 18:40 GMT	AA04196 FGB S/N 1005 12/07/06 @ 18:44 GMT	AA04197 LAB S/N 1041 12/07/06 @ 18:50 GMT
TARGET COMPOUNDS (TO-14/POLAR)* **										
FREON12	TRACE	TRACE	TRACE	TRACE	0.082	0.092	0.079	0.069	0.068	0.076
CHLOROMETHANE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
FREON114	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
METHANOL **	***0.66***	0.27	0.27	***1.2***	0.35	0.28	0.31	0.33	0.27	0.29
ACETALDEHYDE	0.16	0.12	0.11	0.084	0.53	0.096	0.12	0.42	0.10	0.094
VINYLCHLORIDE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BROMOMETHANE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
ETHANOL *	**2.2**	**2.4**	**2.5**	**1.8**	**2.6**	**2.6**	**2.7**	**3.2**	**3.0**	**2.9**
CHLOROETHANE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
ACETONITRILE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
PROPENAL	TRACE_	TRACE_	TRACE_	TRACE_	0.02	TRACE_	TRACE_	TRACE_	TRACE_	TRACE_
ACETONE	0.31	0.27	0.26	0.23	0.42	0.31	0.29	0.42	0.24	0.26
PROPANAL	TRACE	TRACE	TRACE	TRACE	0.17	TRACE	TRACE	0.16	TRACE	TRACE
ISOPROPANOL	0.10	0.10	0.096	0.075	0.15	0.14	0.13	0.14	0.12	0.13
FREON11	<0.05	<0.05	<0.05	<0.05	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
FURAN	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
ACRYLONITRILE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
PENTANE	<0.05	<0.05	<0.05	<0.05	TRACE	<0.05	TRACE	TRACE	TRACE	TRACE
2-METHYL-2-PROPANOL	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
METHYLACETATE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
1,1-DICHLOROETHENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DICHLOROMETHANE	TRACE	TRACE	TRACE	TRACE	TRACE	0.054	TRACE	TRACE	TRACE	TRACE
3-CHLOROPROPENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
FREON113	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-PROPANOL	TRACE	TRACE	TRACE	TRACE	0.05	0.050	TRACE	0.080	0.053	0.061
1,1-DICHLOROETHANE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BUTANAL	TRACE	TRACE	TRACE	TRACE	0.11	TRACE	TRACE	0.11	TRACE	TRACE
2-BUTANONE	TRACE	TRACE	TRACE	TRACE	0.075	TRACE	TRACE	0.10	TRACE	TRACE
CIS-1,2-DICHLOROETHENE	<0.05	<0.05	<0.05	TRACE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-METHYLFURAN	<0.05	<0.05	<0.05	<0.05	TRACE	<0.05	<0.05	<0.05	<0.05	<0.05
ETHYLACETATE	TRACE	TRACE	TRACE	TRACE	0.066	0.054	0.053	TRACE	TRACE	TRACE
HEXANE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
CHLOROFORM	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-BUTENAL	TRACE	<0.05	<0.05	<0.05	TRACE	<0.05	<0.05	TRACE	<0.05	<0.05
1,2-DICHLOROETHANE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
1,1,1-TRICHLOROETHANE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-BUTANOL	0.066	0.069	0.074	0.060	0.12	0.13	0.13	0.13	0.10	0.12
BENZENE	TRACE	TRACE	TRACE	0.50	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
CARBONTETRACHLORIDE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-PENTANONE	TRACE	TRACE	<0.05	<0.05	TRACE	<0.05	TRACE	0.052	TRACE	<0.05
2-METHYLHEXANE	<0.05	<0.05	<0.05	<0.05	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
2,3-DIMETHYLPENTANE	<0.05	<0.05	<0.05	<0.05	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
PENTANAL	TRACE	TRACE	TRACE	<0.05	0.077	<0.05	TRACE	0.095	TRACE	<0.05
3-METHYLHEXANE	<0.05	<0.05	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
1,2-DICHLOROPROPANE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,4-DIOXANE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TRICHLOROETHENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2,5-DIMETHYLFURAN	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
N-HEPTANE	<0.05	<0.05	<0.05	<0.05	TRACE	TRACE	TRACE	TRACE	<0.05	<0.05
4-METHYL2-PENTANONE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	TRACE	<0.05	<0.05
CIS-1,3-DICHLOROPROPENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
2-PENTENAL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TRANS-1,3-DICHLOROPROPENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,2-TRICHLOROETHANE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TOLUENE	TRACE	TRACE	TRACE	0.74	0.053	0.053	0.050	TRACE	TRACE	TRACE
HEXANAL	TRACE	TRACE	TRACE	TRACE	0.062	TRACE	TRACE	0.10	TRACE	TRACE
MESITYLOXIDE	<0.05	<0.05	<0.05	<0.05	TRACE	<0.05	<0.05	TRACE	<0.05	<0.05
1,2-DIBROMOETHANE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
BUTYLACETATE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
TETRACHLOROETHENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
CHLOROBENZENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
ETHYLBENZENE	<0.05	<0.05	<0.05	1.3	TRACE	TRACE	TRACE	TRACE	<0.05	<0.05
M/P-XYLENES	TRACE	TRACE	TRACE	0.13	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
2-HEPTANONE	<0.05	<0.05	<0.05	<0.05	TRACE	<0.05	<0.05	TRACE	<0.05	<0.05
CYCLOHEXANONE	TRACE	TRACE	TRACE	TRACE	TRACE	0.052	TRACE	0.054	TRACE	TRACE
HEPTANAL	TRACE	TRACE	TRACE	TRACE	TRACE	<0.05	TRACE	0.083	TRACE	TRACE
STYRENE	<0.05	<0.05	<0.05	0.059	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,2,2-TETRACHLOROETHANE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
O-XYLENE	TRACE	TRACE	TRACE	TRACE	0.16	0.12	0.12	0.073	0.067	0.064
1,3,5-TRIMETHYLBENZENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2,4-TRIMETHYLBENZENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-DICHLOROBENZENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,4-DICHLOROBENZENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-DICHLOROBENZENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2,4-TRICHLOROBENZENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
HEXACHLORO-1,3-BUTADIENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TARGET COMPOUNDS (TOXIC)										
1,3-BUTADIENE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

ETHYLENE OXIDE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
CARBON DISULFIDE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
2-METHYL-2-PROPENAL	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
3-BUTEN-2-ONE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
2-ETHOXYETHANOL	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
DIMETHYLDISULFIDE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCTAMETHYLCYCLOTETRASILOXANE	6.2	2.1	0.65	1.7	1.4	0.65	1.7	0.67	1.5	0.55

NON-TARGET COMPOUNDS										
OCTAFLUOROPROPANE	#	#	#	#	#	#	#	#	#	#
SULFURHEXAFLUORIDE	TRACE	TRACE	0.069	TRACE	0.11	TRACE	0.17	0.15	0.10	0.13
ETHANE	TRACE	TRACE	TRACE	0.12	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
BROMOTRIFLUOROMETHANE	0.18	0.16	0.17	0.14	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
DIFLUOROCHLOROMETHANE	TRACE	TRACE	TRACE	TRACE	0.059	0.064	0.063	TRACE	TRACE	TRACE
PROPENE	TRACE	TRACE	TRACE	0.078	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
2-METHYLBUTANE	<0.05	<0.05	<0.05	<0.05	TRACE	<0.05	<0.05	<0.05	<0.05	<0.05
TRIMETHYLSILANOL	0.13	0.12	0.10	0.079	0.22	0.18	0.17	0.16	0.16	0.19
1,3-DIOXOLANE	0.064	0.058	0.074	0.052	0.10	0.11	0.095	0.086	0.093	0.11
HEXAMETHYLCYCLOTRISILOXANE	3.1	2.9	1.3	4.5	2.3	0.90	2.7	1.0	1.9	1.2
C8-KETONE	TRACE	TRACE	TRACE	TRACE	0.066	TRACE	TRACE	0.18	TRACE	TRACE
BENZALDEHYDE	0.10	0.094	TRACE	TRACE	0.17	TRACE	0.053	0.10	TRACE	TRACE
PINENE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
METHYLETHYLBENZENE	TRACE	TRACE	TRACE	0.11	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
METHYLETHYLBENZENE	TRACE	TRACE	TRACE	0.22	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
METHYLETHYLBENZENE	TRACE	TRACE	TRACE	0.11	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
LIMONENE	0.19	0.18	0.20	0.18	0.066	0.086	0.10	0.10	0.083	0.093
C4-SUBSTITUTED BENZENE	<0.05	<0.05	<0.05	0.11	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
C4-SUBSTITUTED BENZENE	<0.05	<0.05	<0.05	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE	TRACE
DECAMETHYLCYCLOPENTASILOXANE	1.3	2.0	1.8	2.1	0.60	1.2	0.68	0.97	0.42	0.94

TOTAL ALCOHOLS PLUS ACETONE	**3.4**	**3.1**	**3.2**	**3.4**	**3.7**	**3.5**	**3.5**	**4.3**	**3.8**	**3.8**

TARGET COMPOUNDS (GC)* **										
CARBON MONOXIDE	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57	<0.57
METHANE	12	12	12	13	7.9	8.2	8.5	9.2	8.4	8.5
HYDROGEN	7.7	TRACE	TRACE	TRACE	7.0	TRACE	TRACE	7.2	7.3	TRACE
CARBON DIOXIDE	9600	8700	8700	9900	8800	9300	9200	12000	12000	12000

TOTAL CONCENTRATION (NON-METHANE HYDROCARBONS)	**16**	**12**	**8.4**	**16**	**11**	**8.1**	**11**	**9.9**	**9.2**	**8.2**

*** FROM GC RESULTS**

*****FROM GC RESULTS; MeOH Conc.=GC MeOH Conc.-(2* GC/MS ACETALDEHYDE Conc.)***

+ After Elektron Fire

++ Received with valve open, but dust cap on.

 # Present, but not quantitated

< : Value is less than the laboratory report detection limit.

TRACE: Amount detected is sufficient for compound identification only. Calculations are based on one-half of the laboratory report detection limit (0.05 mg/m3 for VOCs; and 0.02 mg/m3 for propenal.)

*** Measurements are calibrated by multi-point initial calibration and verified by mid-point continuing calibration.

TABLE 2A
ANALYTICAL RESULTS OF
STS-116 GRAB SAMPLE CONTAINER AIR SAMPLES

CHEMICAL CONTAMINANT	T-VALUE (7-d SMAC)		
	AA04199 MIDDECK SN 1094 12/22/06 @ 14:45 GMT	AA04221 PREFLIGHT SN 1092 12/07/06 @ 15:00 EST	AA04222 PREFLIGHT SN 1093 12/09/06 @ 16:00 EST
TARGET COMPOUNDS (TO-14/POLAR)			
FREON12	0.00005	ND	ND
CHLOROMETHANE	0.00061	ND	ND
FREON114	ND	ND	ND
METHANOL	0.01347	0.00278	0.00278
ACETALDEHYDE	0.04352	0.04777	0.04120
VINYLCHLORIDE	ND	ND	ND
BROMOMETHANE	ND	ND	ND
ETHANOL	0.00016	0.00001	0.00001
CHLOROETHANE	ND	ND	ND
ACETONITRILE	0.00373	ND	0.00373
PROPENAL	0.33333	0.33333	0.33333
ACETONE	0.00399	0.00227	0.00170
PROPANAL	0.00359	0.00535	0.00390
ISOPROPANOL	0.00017	0.00017	0.00017
FREON11	ND	ND	ND
FURAN	ND	ND	ND
ACRYLONITRILE	ND	ND	ND
PENTANE	ND	ND	ND
2-METHYL-2-PROPANOL	0.00017	ND	ND
METHYLACETATE	ND	ND	ND
1,1-DICHLOROETHENE	ND	ND	ND
DICHLOROMETHANE	0.00050	ND	ND
3-CHLOROPROPENE	ND	ND	ND
FREON113	ND	ND	ND
N-PROPANOL	0.00026	0.00026	ND
1,1-DICHLOROETHANE	ND	ND	ND
BUTANAL	0.00141	0.00141	0.00141
2-BUTANONE	0.00083	0.00083	0.00083
CIS-1,2-DICHLOROETHENE	ND	ND	ND
2-METHYLFURAN	ND	ND	ND
ETHYLACETATE	0.00014	ND	ND
HEXANE	ND	ND	ND
CHLOROFORM	ND	ND	ND
2-BUTENAL	0.01471	ND	ND
1,2-DICHLOROETHANE	ND	ND	ND
1,1,1-TRICHLOROETHANE	ND	ND	ND
N-BUTANOL	0.00031	0.00031	ND
BENZENE	ND	ND	ND
CARBONTETRACHLORIDE	ND	ND	ND
2-PENTANONE	0.00036	0.00036	0.00036
2-METHYLHEXANE	ND	ND	ND
2,3-DIMETHYLPENTANE	ND	ND	ND
PENTANAL	0.00118	0.00118	0.00118
3-METHYLHEXANE	ND	ND	ND
1,2-DICHLOROPROPANE	ND	ND	ND
1,4-DIOXANE	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND
2,5-DIMETHYLFURAN	ND	ND	ND
N-HEPTANE	ND	ND	ND
4-METHYL2-PENTANONE	ND	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND	ND
2-PENTENAL	ND	ND	ND
TRANS-1,3-DICHLOROPROPENE	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND
TOLUENE	ND	ND	ND
HEXANAL	0.00102	0.00102	0.00102

MESITYLOXIDE	0.00063	0.00063	0.00063
1,2-DIBROMOETHANE	ND	ND	ND
BUTYLACETATE	ND	ND	ND
TETRACHLOROETHENE	ND	ND	ND
CHLOROBENZENE	ND	ND	ND
ETHYLBENZENE	ND	ND	ND
M/P-XYLENES	ND	ND	ND
2-HEPTANONE	ND	0.00109	ND
CYCLOHEXANONE	ND	ND	ND
HEPTANAL	0.00089	0.00089	0.00089
STYRENE	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND
O-XYLENE	ND	ND	ND
1,3,5-TRIMETHYLBENZENE	ND	ND	ND
1,2,4-TRIMETHYLBENZENE	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND
1,2,4-TRICHLOROBENZENE	ND	ND	ND
HEXACHLORO-1,3-BUTADIENE	ND	ND	ND

TARGET COMPOUNDS (TOXIC)			
1,3-BUTADIENE	ND	ND	ND
ETHYLENE OXIDE	ND	ND	ND
CARBON DISULFIDE	0.00156	0.00156	0.00156
2-METHYL-2-PROPENAL	0.01471	0.01471	0.01471
3-BUTEN-2-ONE	0.05814	0.05814	0.05814
2-ETHOXYETHANOL	ND	ND	ND
DIMETHYLDISULFIDE	ND	ND	ND
OCTAMETHYLCYCLOTETRASILOXANE	0.00438	0.00025	0.00025

NON-TARGET COMPOUNDS			
OCTAFLUOROPROPANE	#	#	#
SULFURHEXALFLUORIDE	0.00006	ND	ND
BROMOTRIFLUOROMETHANE	0.00019	0.00000	0.00000
HEXAMETHYLCYCLOTRISILOXANE	0.03151	0.00460	0.00540
DECAMETHYLCYCLOPENTASILOXANE	0.07076	0.00017	0.00017

TARGET COMPOUNDS (GC)			
CARBON MONOXIDE	0.00000	0.00000	0.00000
METHANE	0.01254	0.00000	0.00000
HYDROGEN	0.02979	0.00000	0.00000
CARBON DIOXIDE	0.34904	0.01538	0.07228

TOTAL T-VALUE	**0.99770**	**0.49445**	**0.54565**

Present, but not calculated
Not Analyzed
ND : Value is less than the laboratory report detection limit.
Note: Number of decimal places in T-Values do not represent significant figures of measurements.

TABLE 2B
ANALYTICAL RESULTS OF
12A.1 RETURN GRAB SAMPLE CONTAINER AIR SAMPLES

CHEMICAL CONTAMINANT	T-VALUE (180-d SMAC)									
	AA04189 ++ LAB S/N 1082 9/18/06 @ 10:45 GMT	AA04186 FGB S/N 1034 9/18/06 @ 10:50 GMT	AA04188 SM S/N 1075 9/18/06 @ 10:55 GMT	AA04187 + SM S/N 1063 9/18/06 @ 13:25 GMT	AA04193 LAB S/N 1083 11/14/06 @ 19:45 GMT	AA04195 FGB S/N 1035 11/14/06 @ 19:55 GMT	AA04194 SM S/N 1042 11/14/06 @ 19:58 GMT	AA04198 SM S/N 1087 12/07/06 @ 18:40 GMT	AA04196 FGB S/N 1005 12/07/06 @ 18:44 GMT	AA04197 LAB S/N 1041 12/07/06 @ 18:50 GMT
TARGET COMPOUNDS (TO-14/POLAR)										
FREON12	0.00005	0.00005	0.00005	0.00005	0.00018	0.00020	0.00017	0.00015	0.00014	0.00016
CHLOROMETHANE	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061
FREON114	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
METHANOL **	***0.07307***	0.03046	0.03048	***0.13232***	0.03884	0.03065	0.03492	0.03631	0.03031	0.03185
ACETALDEHYDE	0.04003	0.03102	0.02639	0.02109	0.13302	0.02405	0.02990	0.10462	0.02613	0.02360
VINYLCHLORIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BROMOMETHANE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ETHANOL *	**0.00111**	**0.00118**	**0.00123**	**0.00090**	**0.00132**	**0.00129**	**0.00133**	**0.00159**	**0.00148**	**0.00147**
CHLOROETHANE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ACETONITRILE	0.00373	0.00373	0.00373	0.00373	0.00373	0.00373	0.00373	0.00373	0.00373	0.00373
PROPENAL	0.33333	0.33333	0.33333	0.33333	0.79999	0.33333	0.33333	0.33333	0.33333	0.33333
ACETONE	0.00602	0.00517	0.00497	0.00442	0.00813	0.00601	0.00556	0.00813	0.00464	0.00494
PROPANAL	0.00694	0.00694	0.00694	0.00694	0.04677	0.00694	0.00694	0.04349	0.00694	0.00694
ISOPROPANOL	0.00068	0.00068	0.00064	0.00050	0.00097	0.00094	0.00084	0.00095	0.00079	0.00087
FREON11	ND	ND	ND	ND	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
FURAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ACRYLONITRILE	0.00893	0.00893	0.00893	0.00893	0.00893	0.00893	0.00893	0.00893	0.00893	0.00893
PENTANE	ND	ND	ND	ND	0.00004	ND	0.00004	0.00004	0.00004	0.00004
2-METHYL-2-PROPANOL	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021
METHYLACETATE	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021
1,1-DICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DICHLOROMETHANE	0.00250	0.00250	0.00250	0.00250	0.00250	0.00539	0.00250	0.00250	0.00250	0.00250
3-CHLOROPROPENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FREON113	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-PROPANOL	0.00026	0.00026	0.00026	0.00026	0.00056	0.00051	0.00026	0.00081	0.00054	0.00062
1,1-DICHLOROETHANE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BUTANAL	0.00568	0.00568	0.00568	0.00568	0.02538	0.00568	0.00568	0.02499	0.00568	0.00568
2-BUTANONE	0.00083	0.00083	0.00083	0.00083	0.00250	0.00083	0.00083	0.00342	0.00083	0.00083
CIS-1,2-DICHLOROETHENE	ND	ND	ND	0.00063	ND	ND	ND	ND	ND	ND
2-METHYLFURAN	ND	ND	ND	ND	0.19231	ND	ND	ND	ND	ND
ETHYLACETATE	0.00014	0.00014	0.00014	0.00014	0.00037	0.00030	0.00029	0.00014	0.00014	0.00014
HEXANE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROFORM	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-BUTENAL	0.01471	ND	ND	ND	0.01471	ND	ND	0.01471	ND	ND
1,2-DICHLOROETHANE	0.02500	0.02500	0.02500	0.02500	0.02500	0.02500	0.02500	0.02500	0.02500	0.02500
1,1,1-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-BUTANOL	0.00166	0.00172	0.00184	0.00151	0.00295	0.00337	0.00315	0.00334	0.00262	0.00291
BENZENE	0.12500	0.12500	0.12500	2.49216	0.12500	0.12500	0.12500	0.12500	0.12500	0.12500
CARBONTETRACHLORIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-PENTANONE	0.00036	0.00036	ND	ND	0.00036	ND	0.00036	0.00075	0.00036	ND
2-METHYLHEXANE	ND	ND	ND	ND	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086
2,3-DIMETHYLPENTANE	ND	ND	ND	ND	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012
PENTANAL	0.00472	0.00472	0.00472	ND	0.01455	ND	0.00472	0.01799	0.00472	ND
3-METHYLHEXANE	ND	ND	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086	0.00086
1,2-DICHLOROPROPANE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DIOXANE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRICHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,5-DIMETHYLFURAN	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-HEPTANE	ND	ND	ND	ND	0.00013	0.00013	0.00013	0.00013	ND	ND
4-METHYL2-PENTANONE	ND	ND	ND	ND	ND	ND	ND	0.00018	ND	ND
CIS-1,3-DICHLOROPROPENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-PENTENAL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TRANS-1,3-DICHLOROPROPENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-TRICHLOROETHANE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TOLUENE	0.00042	0.00042	0.00042	0.01233	0.00088	0.00088	0.00084	0.00042	0.00042	0.00042
HEXANAL	0.00410	0.00410	0.00410	0.00410	0.01019	0.00410	0.00410	0.01690	0.00410	0.00410
MESITYLOXIDE	ND	ND	ND	ND	0.00063	ND	ND	0.00063	ND	ND
1,2-DIBROMOETHANE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BUTYLACETATE	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013
TETRACHLOROETHENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHLOROBENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLBENZENE	ND	ND	ND	0.02605	0.00050	0.00050	0.00050	0.00050	ND	ND
M/P-XYLENES	0.00011	0.00011	0.00011	0.00060	0.00011	0.00011	0.00011	0.00011	0.00011	0.00011
2-HEPTANONE	ND	ND	ND	ND	0.00109	ND	ND	0.00109	ND	ND
CYCLOHEXANONE	0.00042	0.00042	0.00042	0.00042	0.00042	0.00086	0.00042	0.00090	0.00042	0.00042
HEPTANAL	0.00357	0.00357	0.00357	0.00357	0.00357	ND	0.00357	0.01192	0.00357	0.00357
STYRENE	ND	ND	ND	0.00137	ND	ND	ND	ND	ND	ND
1,1,2,2-TETRACHLOROETHANE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
O-XYLENE	0.00011	0.00011	0.00011	0.00011	0.00071	0.00054	0.00053	0.00033	0.00030	0.00029
1,3,5-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRIMETHYLBENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-DICHLOROBENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-TRICHLOROBENZENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HEXACHLORO-1,3-BUTADIENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TARGET COMPOUNDS (TOXIC)										
1,3-BUTADIENE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ETHYLENE OXIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
CARBON DISULFIDE	0.00156	0.00156	0.00156	0.00156	0.00156	0.00156	0.00156	0.00156	0.00156	0.00156
2-METHYL-2-PROPENAL	0.01471	0.01471	0.01471	0.01471	0.01471	0.01471	0.01471	0.01471	0.01471	0.01471
3-BUTEN-2-ONE	0.05814	0.05814	0.05814	0.05814	0.05814	0.05814	0.05814	0.05814	0.05814	0.05814
2-ETHOXYETHANOL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
DIMETHYLDISULFIDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OCTAMETHYLCYCLOTETRASILOXANE	0.51867	0.17893	0.05400	0.14342	0.11834	0.05452	0.13827	0.05603	0.12657	0.04597

NON-TARGET COMPOUNDS										
OCTAFLUOROPROPANE	#	#	#	#	#	#	#	#	#	#
SULFURHEXAFLUORIDE	0.00002	0.00002	0.00006	0.00002	0.00010	0.00002	0.00015	0.00012	0.00009	0.00011
ETHANE	0.00002	0.00002	0.00002	0.00010	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
BROMOTRIFLUOROMETHANE	0.00002	0.00001	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
DIFLUOROCHLOROMETHANE	0.00001	0.00001	0.00001	0.00001	0.00002	0.00002	0.00002	0.00001	0.00001	0.00001
PROPENE	0.00003	0.00003	0.00003	0.00009	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
2-METHYLBUTANE	ND	ND	ND	ND	0.00008	ND	ND	ND	ND	ND
TRIMETHYLSILANOL	0.00348	0.00323	0.00274	0.00214	0.00587	0.00491	0.00471	0.00432	0.00431	0.00500
1,3-DIOXOLANE	0.00177	0.00162	0.00204	0.00144	0.00285	0.00306	0.00264	0.00239	0.00259	0.00313
HEXAMETHYLCYCLOTRISILOXANE	0.34696	0.31834	0.14118	0.50153	0.25433	0.10003	0.29749	0.11667	0.21381	0.13762
C8-KETONE	0.00096	0.00096	0.00096	0.00096	0.00254	0.00096	0.00096	0.00689	0.00096	0.00096
BENZALDEHYDE	0.00059	0.00054	0.00014	0.00014	0.00101	0.00014	0.00030	0.00060	0.00014	0.00014
PINENE	0.00018	0.00018	0.00018	0.00018	0.00018	0.00018	0.00018	0.00018	0.00018	0.00018
METHYLETHYLBENZENE	0.00208	0.00208	0.00208	0.00942	0.00208	0.00208	0.00208	0.00208	0.00208	0.00208
METHYLETHYLBENZENE	0.00208	0.00208	0.00208	0.01849	0.00208	0.00208	0.00208	0.00208	0.00208	0.00208
METHYLETHYLBENZENE	0.00208	0.00208	0.00208	0.00923	0.00208	0.00208	0.00208	0.00208	0.00208	0.00208
LIMONENE	0.00033	0.00033	0.00036	0.00033	0.00012	0.00015	0.00018	0.00018	0.00015	0.00017
C4-SUBSTITUTED BENZENE	ND	ND	ND	0.00811	0.00179	0.00179	0.00179	0.00179	0.00179	0.00179
C4-SUBSTITUTED BENZENE	ND	ND	ND	0.00179	0.00179	0.00179	0.00179	0.00179	0.00179	0.00179
DECAMETHYLCYCLOPENTASILOXANE	0.08930	0.13308	0.11878	0.14184	0.03979	0.08333	0.04529	0.06436	0.02808	0.06243

TARGET COMPOUNDS (GC)										
CARBON MONOXIDE	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
METHANE	0.00306	0.00308	0.00305	0.00351	0.00209	0.00217	0.00224	0.00243	0.00221	0.00224
HYDROGEN	0.02261	0.00109	0.00109	0.00109	0.02069	0.00109	0.00109	0.02118	0.02146	0.00109
CARBON DIOXIDE	0.73713	0.66921	0.67220	0.76245	0.67593	0.71588	0.70818	0.95369	0.91075	0.96062

TOTAL T-VALUE	**2.47044**	**1.98893**	**1.67093**	**4.77219**	**2.67757**	**1.64307**	**1.89272**	**2.10938**	**1.99142**	**1.89445**

Present, but not calculated
*** FROM GC RESULTS**
*****FROM GC RESULTS; MeOH Conc.=GC MeOH Conc.-(2* GC/MS ACETALDEHYDE Conc.)***
+ After Elektron Fire
++ Received with valve open, but dust cap on.
ND : Value is less than the laboratory report detection limit.
Note: Number of decimal places in T-Values do not represent significant figures of measurements.