TABLE 1
ANALYTICAL RESULTS OF
COMBINED GSC and DUAL SORBENT AIR SAMPLES RETURNED ON SOYUZ 7S

CHEMICAL CONTAMINANT	CONCENTRATION (mg/m3)						
	AA03686 LAB S/N 1001 3/3/04@ 10:15GMT (DST SAMPLE)	AA03687 SM S/N 1008 3/3/04@ 10:30GMT (DST SAMPLE)	AA03658 SM ELEKTRON SN 1036 3/18/2004 (GSC SAMPLE)	AA03688 SM ELEKTRON S/N 1002 3/18/2004 (DST SAMPLE)	AA03689 LAB S/N 1007 3/22/04@ 10:00GMT (DST SAMPLE)	AA03690 LAB S/N 1004 4/19/04@ 09:16GMT (DST SAMPLE)	AA03691 SM S/N 1005 4/19/04@ 09:30GMT (DST SAMPLE)
TARGET COMPOUNDS (TO-14/POLAR)* **							
FREON 12	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
CHLOROMETHANE	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
FREON 114	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
METHANOL*	0.3	0.4	**0.24**	0.3	0.3	0.4	0.4
ACETALDEHYDE	0.22	0.23	**0.20**	0.24	0.19	0.17	0.16
VINYL CHLORIDE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
BROMOMETHANE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
ETHANOL*	3	4	**5.5**	6	5	6	6
CHLOROETHANE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
ACETONITRILE	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
PROPENAL	TRACE	TRACE	**<0.02**	TRACE	TRACE	TRACE	TRACE
ACETONE	0.16	0.19	**0.21**	0.22	0.20	0.17	0.22
PROPANAL	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
2-PROPANOL	0.12	0.13	**0.14**	0.13	0.15	0.13	0.13
FREON 11	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
FURAN	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
ACRYLONITRILE	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
PENTANE	< 0.054	TRACE	**<0.05**	TRACE	TRACE	< 0.045	TRACE
2-METHYL-2-PROPANOL	TRACE	TRACE	**<0.05**	TRACE	TRACE	TRACE	TRACE
METHYL ACETATE	TRACE	TRACE	**<0.05**	TRACE	TRACE	< 0.045	< 0.055
1,1-DICHLOROETHENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
DICHLOROMETHANE	0.07	0.07	**0.08**	0.08	0.09	0.08	0.08
3-CHLOROPROPENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
FREON 113	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
N-PROPANOL	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
1,1-DICHLOROETHANE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
BUTANAL	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
2-BUTANONE	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
CIS-1,2-DICHLOROETHENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
2-METHYLFURAN	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
ETHYL ACETATE	TRACE	0.06	**TRACE**	TRACE	TRACE	TRACE	TRACE
HEXANE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
CHLOROFORM	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
2-BUTENAL	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
1,2-DICHLOROETHANE	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
1,1,1-TRICHLOROETHANE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
N-BUTANOL	0.08	0.10	**0.08**	0.10	0.10	0.10	0.10
BENZENE	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
TETRACHLOROMETHANE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
2-PENTANONE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
PENTANAL	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
1,2-DICHLOROPROPANE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
1,4-DIOXANE	< 0.054	TRACE	**<0.05**	TRACE	TRACE	TRACE	TRACE
TRICHLOROETHENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055

CHEMICAL CONTAMINANT	CONCENTRATION (mg/m3)						
	AA03686 LAB S/N 1001 3/3/04@ 10:15GMT (DST SAMPLE)	AA03687 SM S/N 1008 3/3/04@ 10:30GMT (DST SAMPLE)	AA03658 SM ELEKTRON SN 1036 3/18/2004 (GSC SAMPLE)	AA03688 SM ELEKTRON S/N 1002 3/18/2004 (DST SAMPLE)	AA03689 LAB S/N 1007 3/22/04@ 10:00GMT (DST SAMPLE)	AA03690 LAB S/N 1004 4/19/04@ 09:16GMT (DST SAMPLE)	AA03691 SM S/N 1005 4/19/04@ 09:30GMT (DST SAMPLE)
2,5-DIMETHYLFURAN	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
4-METHYL-2-PENTANONE	< 0.054	TRACE	**TRACE**	TRACE	< 0.054	< 0.045	TRACE
CIS-1,3-DICHLOROPROPENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
2-PENTENAL	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
TRANS-1,3-DICHLOROPROPENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
1,1,2-TRICHLOROETHANE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
TOLUENE	TRACE	TRACE	**0.12**	0.15	0.09	0.05	TRACE
HEXANAL	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
MESITYL OXIDE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
1,2-DIBROMOETHANE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
BUTYL ACETATE	TRACE	TRACE	**0.06**	0.07	TRACE	TRACE	TRACE
TETRACHLOROETHENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
CHLOROBENZENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
ETHYLBENZENE	TRACE	TRACE	**0.14**	0.17	0.07	TRACE	TRACE
META+PARA-XYLENES	TRACE	0.06	**0.16**	0.20	0.14	0.06	0.07
2-HEPTANONE	< 0.054	TRACE	**<0.05**	TRACE	< 0.054	< 0.045	TRACE
CYCLOHEXANONE	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
HEPTANAL	TRACE	TRACE	**TRACE**	TRACE	< 0.054	< 0.045	TRACE
STYRENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
1,1,2,2-TETRACHLOROETHANE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
ORTHO-XYLENE	0.09	0.12	**0.14**	0.16	0.14	0.09	0.10
1,3,5-TRIMETHYLBENZENE	< 0.054	< 0.054	**<0.05**	TRACE	< 0.054	< 0.045	< 0.055
1,2,4-TRIMETHYLBENZENE	< 0.054	< 0.054	**TRACE**	TRACE	TRACE	< 0.045	< 0.055
1,3-DICHLOROBENZENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
1,4-DICHLOROBENZENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
1,2-DICHLOROBENZENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
1,2,4-TRICHLOROBENZENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
HEXACHLORO-1,3-BUTADIENE	< 0.082	< 0.081	**<0.05**	< 0.081	< 0.081	< 0.068	< 0.082
TARGET COMPOUNDS (TOXIC)							
1,3-BUTADIENE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
ETHYLENE OXIDE	< 0.054	< 0.054	**<0.05**	< 0.054	TRACE	< 0.045	< 0.055
CARBON DISULFIDE	TRACE	TRACE	**TRACE**	TRACE	TRACE	TRACE	TRACE
2-METHYL-2-PROPENAL	< 0.054	TRACE	**<0.05**	TRACE	TRACE	TRACE	TRACE
3-BUTEN-2-ONE	TRACE	TRACE	**<0.05**	TRACE	TRACE	TRACE	TRACE
2-ETHOXYETHANOL	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
DIMETHYLDISULFIDE	< 0.054	< 0.054	**<0.05**	< 0.054	< 0.054	< 0.045	< 0.055
OCTAMETHYLCYCLOTETRASILOXANE	0.43	0.50	**1.1**	0.45	0.46	0.41	0.46
NON-TARGET COMPOUNDS**							
CARBONYL SULFIDE	0.12	0.15	**0.004**	0.13	0.16	0.12	0.13
TRIMETHYLSILANOL	0.074	0.077	**0.081**	0.069	0.096	0.092	0.089
2-METHYL HEXANE	0.010	0.014	**0.008**	0.016	0.008	0.006	0.020
2,3-DIMETHYLPENTANE	0.004	0.005	**0.004**	0.004	0.004	0.003	0.003
3-METHYLHEXANE	0.007	0.009	**0.008**	0.008	0.007	0.005	0.006
N-HEPTANE	0.007	0.008	**0.004**	0.006	0.007	0.005	0.006
HEXAMETHYLCYCLOTRISILOXANE	0.66	0.63	**2.0**	0.63	0.60	0.55	0.77
BENZALDEHYDE	0.016	0.025	**0.024**	0.017	0.019	0.013	0.017
LIMONENE	0.049	0.062	**0.039**	0.045	0.046	0.040	0.046

CHEMICAL CONTAMINANT	CONCENTRATION (mg/m3)						
	AA03686 LAB S/N 1001 3/3/04@ 10:15GMT (DST SAMPLE)	**AA03687 SM S/N 1008 3/3/04@ 10:30GMT (DST SAMPLE)**	**AA03658 SM ELEKTRON SN 1036 3/18/2004 (GSC SAMPLE)**	**AA03688 SM ELEKTRON S/N 1002 3/18/2004 (DST SAMPLE)**	**AA03689 LAB S/N 1007 3/22/04@ 10:00GMT (DST SAMPLE)**	**AA03690 LAB S/N 1004 4/19/04@ 09:16GMT (DST SAMPLE)**	**AA03691 SM S/N 1005 4/19/04@ 09:30GMT (DST SAMPLE)**
DECAMETHYLCYCLOPENTASILOXANE	0.14	0.26	**0.27**	0.14	0.17	0.18	0.20
TOTAL ALCOHOLS PLUS ACETONE	4	5	**6.2**	7	6	7	7
TARGET COMPOUNDS (GC)* **							
CARBON MONOXIDE	NR	NR	**<1.3**	NR	NR	NR	NR
METHANE	NR	NR	**9.8**	NR	NR	NR	NR
HYDROGEN	NR	NR	**0.91**	NR	NR	NR	NR
CARBON DIOXIDE	NR	NR	**9000**	NR	NR	NR	NR
TOTAL CONCENTRATION (NON-METHANE HYDROCARBONS)	7	8	**11.1**	10	9	9	10

< : Values are 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.)
NR: The DSTs are not designed to adsorb these compounds
NOTE: High levels (above 1.5 ppm) of methanol ethanol, acetone, isoprpoanol and 2-butanone are routinely reported based on calibrated GC-FID measurements.
*NOTE: In DST samples methanol and ethanol concentrations were adjusted for 25% average recovery from positive DST controls
**NOTE: Non-target compounds are estimated using historical reference ("B Value") response factors.
***Measurements are calibrated by multi-point initial calibration and verified by mid-point continuing calibration