

US EPA ARCHIVE DOCUMENT

Appendix J

Indoor Air Analytical Data

**General Motors
902 E. Hamilton
Flint Mich.
48550**

Fax Cover Sheet

DATE: April 23, 2002 **TIME:** 8:04 AM
TO: DEREK KAIDING **PHONE:** 248-377-9162
FAX : 248-377-9413
FROM: Dennis Hopwood **PHONE:** 846-1691
Worldwide Facilities Group **FAX:** 810-236-0994

RE: BASIS SAMPLES YOU REQUESTED FACTORY 36-01 ROD DEPT.

DENNIS HOPWOOD

Number of pages including cover sheet: 2

]

B A S I S S T A N D A R D R E P O R T

UNIT: 19492 GMPT - FLINT ENGINE V-6

SAMPLE RESULTS WITH EXPOSURE LIMITS
 AND LOCATION DESCRIPTION BY DEPARTMENT
 PERSONAL AND GENERAL CONDITION SAMPLES
 WITH SAMPLE DATES FROM: JANUARY 1, 2001 THRU: DECEMBER 31, 2001
 CONTAMINANT(S): BENZENE, TOLUENE, XYLENE
 CONTAMINANT GROUP(S): \$\$\$
 REPORT NAME: AIRRPT04 GENERATED: 04-18-2002 15:28.11

DEPT	SAMPLE DATE	SAMPLE ID	LAST NAME	F	I	EMPLOYEE ID	CONTAMINANT	R	C	RESULT	PEL	DEG	TWA	TLV	TWA	UNITS
3601 G	06/19/01	0388 2001 0078					BENZENE	<		.260	1.000	1.000	1.000			.500 PPM
							ETHYL BENZENE	<		.970	100.000	100.000	100.000			100.000 PPM
							TOLUENE	<		1.120	200.000	100.000	100.000			50.000 PPM
							XYLENE	<		.970	100.000	100.000	100.000			100.000 PPM
							LOC DESC: FACT. 36 DEPT. 01 ROD DEPT. AT MAIN H-S-AISLE SAMPLING REQUESTED BY DEREK KAIDJING									
		0388 2001 0079					BENZENE	<		.250	1.000	1.000	1.000			.500 PPM
							ETHYL BENZENE	<		.920	100.000	100.000	100.000			100.000 PPM
							TOLUENE	<		1.060	200.000	100.000	100.000			50.000 PPM
							XYLENE	<		.920	100.000	100.000	100.000			100.000 PPM
							LOC DESC: FACT. 36 DEPT. 01 ROD DEPT. AT MAIN H-S-AISLE SAMPLING REQUESTED BY DEREK KAIDJING									

Dennis E. Hopwood

10/30/2003 10:50 AM

To: "DEREK KAIDING" <DCK@bbl-inc.com>

cc:

Subject: Re: Air Samples

Hi

Yes we do have all the data back at this point . It was all non-detect. I will put a summary report together for you.

Dennis

"DEREK KAIDING" <DCK@bbl-inc.com>



"DEREK KAIDING"
<DCK@bbl-inc.com>

10/27/2003 11:00 AM

To: <dennis.e.hopwood@gm.com>

cc: <robert.metcalf@gm.com>

Subject: Air Samples

Dennis, do you have the final results of the Factory 36 and Factory 81 air samples collected in September 2003?

Derek

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B A S I S S T A N D A R D R E P O R T

REPORT NAME: AIRRPT04 GENERATED: 10-28-2003 14.18.39 FROM: XZ55DT

ANSWERS YOU PROVIDED TO PROMPTS AND THAT LIMITED THIS REPORT:

PUNIT(S) : 19492 19493

CONTAMINANT(S) : \$\$\$\$

CONTAMINANT GROUP(S) : \$\$

DEPT CODE(S) : \$\$\$

(EXCLUDES BLANK DEPARTMENT SAMPLES)

SAMPLE TYPE : PERSONAL AND GENERAL CONDITION SAMPLES

SAMPLE DATE RANGE: SEPTEMBER 8, 2003 THRU SEPTEMBER 12, 2003

B A S I S S T A N D A R D R E P O R T

UNIT: 19492 GMPT - FLINT ENGINE V-6

SAMPLE RESULTS WITH EXPOSURE LIMITS
 AND LOCATION DESCRIPTION BY DEPARTMENT
 PERSONAL AND GENERAL CONDITION SAMPLES
 WITH SAMELE DATES FROM: SEPTEMBER 8, 2003 THRU: SEPTEMBER 12, 2003
 CONTAMINANT(S): \$\$\$
 CONTAMINANT GROUP(S): \$\$\$
 REPORT NAME: AIRRPT04 GENERATED: 10-28-2003 14.18.39

DEPT	SAMPLE DATE	SAMPLE ID	LAST NAME	F I EMPLOYEE ID	CONTAMINANT	R C RESULT	PEL	OEG TWA	TLV TWA	UNITS
3606 G	09/08/03	0388 2003 0378			ACETONE	<	.910 1000.000	750.000	500.000	PPM
					BENZENE	<	.190 1.000	1.000	.500	PPM
					BUTYL ACETATE	<	.580 150.000	150.000	150.000	PPM
					CYCLOHEXANONE	<	.190 50.000	25.000	20.000	PPM
					CHLOROBENZENE	<	.640 75.000	75.000	10.000	PPM
					1,2-DICHLOROETHANE	<	.320 50.000	1.000	10.000	PPM
					DECANE	<	.320 .000	.000	.000	PPM
					DIOXANE	<	.700 100.000	25.000	20.000	PPM
					ETHYL ACETATE	<	.700 400.000	400.000	400.000	PPM
					ETHYL BENZENE	<	.180 100.000	100.000	100.000	PPM
					HEPTANE	<	.370 500.000	400.000	400.000	PPM
					HEXANE	<	.390 500.000	50.000	50.000	PPM
					ISOCTANE	<	.350 .000	.000	.000	PPM
					METHYL ETHYL KETONE	<	.200 200.000	200.000	200.000	PPM
					METHYLENE CHLORIDE	<	.330 25.000	25.000	50.000	PPM
					METHYL ISOBUTYL KETO	<	.180 100.000	50.000	50.000	PPM
					OCTANE	<	.350 500.000	300.000	300.000	PPM
					PENTANE	<	.420 1000.000	600.000	600.000	PPM
					PERCHLOROETHYLENE	<	.230 100.000	25.000	25.000	PPM
					N-PROPYL ACETATE	<	.350 200.000	200.000	200.000	PPM
					STYRENE	<	1.520 100.000	50.000	20.000	PPM
					TRICHLOROETHYLENE	<	.260 100.000	50.000	50.000	PPM
					1,1,1-TRICHLOROETHAN	<	.260 350.000	350.000	350.000	PPM
					TETRAHYDROFURAN	<	.790 200.000	200.000	200.000	PPM
					TRIMETHYLBENZENE (MI	<	.720 .000	25.000	25.000	PPM
					TOLUENE	<	.180 200.000	100.000	50.000	PPM
					XYLENE	<	.180 100.000	100.000	100.000	PPM

LOC DESC: FACT. 36 DEPT 06 AIR SAMPLING FOR SCAN 1 REQUESTED BY SHERYL COSTELLO FOR CAPPED WELL SEPAGE. BADGE # RS4557 BADGE AT N/W PALLET ELEV. # 1A S/E DOCK AT AISLE.

0388 2003 0379

ACETONE	<	.910 1000.000	750.000	500.000	PPM
BENZENE	<	.190 1.000	1.000	.500	PPM
BUTYL ACETATE	<	.580 150.000	150.000	150.000	PPM
CYCLOHEXANONE	<	.190 50.000	25.000	20.000	PPM
CHLOROBENZENE	<	.640 75.000	75.000	10.000	PPM
1,2-DICHLOROETHANE	<	.320 50.000	1.000	10.000	PPM
DECANE	<	.320 .000	.000	.000	PPM
DIOXANE	<	.700 100.000	25.000	20.000	PPM
ETHYL ACETATE	<	.700 400.000	400.000	400.000	PPM
ETHYL BENZENE	<	.180 100.000	100.000	100.000	PPM

B A S I S S T A N D A R D R E P O R T

UNIT: 19492 GMPT - FLINT ENGINE V-6

SAMPLE RESULTS WITH EXPOSURE LIMITS
 AND LOCATION DESCRIPTION BY DEPARTMENT
 PERSONAL AND GENERAL CONDITION SAMPLES
 WITH SAMPLE DATES FROM: SEPTEMBER 8, 2003 THRU: SEPTEMBER 12, 2003
 CONTAMINANT(S): \$\$\$
 CONTAMINANT GROUP(S): \$\$\$
 REPORT NAME: AIRRPT04 GENERATED: 10-28-2003 14.18.39

S	DEPT	T	SAMPLE	LAST	F	R	PEL	OEG	TIV	UNITS
---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---
3606	G	09/08/03	0388 2003 0379							
				HEPTANE	<	.370	500.000	400.000	400.000	400.000 PPM
				HEXANE	<	.390	500.000	50.000	50.000	50.000 PPM
				ISOCTANE	<	.350	200.000	200.000	200.000	200.000 PPM
				METHYL ETHYL KETONE	<	.330	25.000	25.000	25.000	50.000 PPM
				METHYLENE CHLORIDE	<	.180	100.000	50.000	50.000	50.000 PPM
				METHYL ISOBUTYL KETO	<	.350	500.000	300.000	300.000	300.000 PPM
				OCTANE	<	.420	1000.000	600.000	600.000	600.000 PPM
				PENTANE	<	.230	100.000	25.000	25.000	25.000 PPM
				PERCHLOROETHYLENE	<	.350	200.000	200.000	200.000	200.000 PPM
				N-PROPYL ACETATE	<	1.520	100.000	50.000	50.000	20.000 PPM
				STYRENE	<	.260	100.000	50.000	50.000	50.000 PPM
				TRICHLOROETHYLENE	<	.260	350.000	350.000	350.000	350.000 PPM
				1,1,1-TRICHLOROETHAN	<	.790	200.000	200.000	200.000	200.000 PPM
				TETRAHYDROFURAN	<	.720	200.000	25.000	25.000	25.000 PPM
				TRIMETHYLBENZENE (MI)	<	.180	200.000	100.000	100.000	100.000 PPM
				TOLUENE	<	.180	200.000	100.000	100.000	100.000 PPM
				XYLENE	<	.180	200.000	100.000	100.000	100.000 PPM

LOC DESC: FACT. 36 DEPT 06 AIR SAMPLING FOR SCAN 1 REQUESTED BY SHERYL
 COSTELLO FOR CAPPED WELL SEPAGE. BADGE # RS4546 BADGE AT S-PALLET
 ELEV. # 2B S/E DOCK.

SAMPLE	DEPT	T	LAST	F	R	PEL	OEG	TIV	UNITS	
0388 2003 0380										
				ACETONE	<	.870	1000.000	750.000	500.000	500.000 PPM
				BENZENE	<	.180	1.000	1.000	1.000	500 PPM
				BUTYL ACETATE	<	.550	150.000	150.000	150.000	150.000 PPM
				CYCLOHEXANONE	<	.180	50.000	25.000	25.000	20.000 PPM
				CHLOROBENZENE	<	.620	75.000	75.000	75.000	10.000 PPM
				1,2-DICHLOROETHANE	<	.310	50.000	1.000	1.000	10.000 PPM
				DECANE	<	.310	100.000	1.000	1.000	1.000 PPM
				DIOXANE	<	.670	100.000	25.000	25.000	20.000 PPM
				ETHYL ACETATE	<	.670	400.000	400.000	400.000	400.000 PPM
				ETHYL BENZENE	<	.180	100.000	100.000	100.000	100.000 PPM
				HEPTANE	<	.350	500.000	400.000	400.000	400.000 PPM
				HEXANE	<	.370	500.000	50.000	50.000	50.000 PPM
				ISOCTANE	<	.340	200.000	200.000	200.000	200.000 PPM
				METHYL ETHYL KETONE	<	.190	25.000	25.000	25.000	50.000 PPM
				METHYLENE CHLORIDE	<	.170	100.000	50.000	50.000	50.000 PPM
				METHYL ISOBUTYL KETO	<	.340	500.000	300.000	300.000	300.000 PPM
				OCTANE	<	.400	1000.000	600.000	600.000	600.000 PPM
				PENTANE	<	.220	100.000	25.000	25.000	25.000 PPM
				PERCHLOROETHYLENE	<	.330	200.000	200.000	200.000	200.000 PPM
				N-PROPYL ACETATE	<	1.460	100.000	50.000	50.000	20.000 PPM
				STYRENE	<					

B A S I S S T A N D A R D R E P O R T

UNIT: 19492 GMPT - FLINT ENGINE V-6

SAMPLE RESULTS WITH EXPOSURE LIMITS
 AND LOCATION DESCRIPTION BY DEPARTMENT
 PERSONAL AND GENERAL CONDITION SAMPLES
 WITH SAMPLE DATES FROM: SEPTEMBER 8, 2003 THRU: SEPTEMBER 12, 2003
 CONTAMINANT(S): \$\$\$\$
 CONTAMINANT GROUP(S): \$\$\$
 REPORT NAME: AIRRPT04 GENERATED: 10-28-2003 14.18.39

S	DEPT I	SAMPLE DATE	SAMPLE ID	LAST NAME	F	I	EMPLOYEE ID	CONTAMINANT	R	C	RESULT	PEL	OEG TWA	TLV TWA	UNITS
3606	G	09/08/03	0388	2003	0380			TRICHLOROETHYLENE	<		.250	100.000	50.000	50.000	PPM
								1,1,1-TRICHLOROETHAN	<		.250	350.000	350.000	350.000	PPM
								TETRAHYDROFURAN	<		.760	200.000	200.000	200.000	PPM
								TRIMETHYLBENZENE (MI	<		.700	.000	25.000	25.000	PPM
								TOLUENE	<		.180	200.000	100.000	50.000	PPM
								XYLENE	<		.180	100.000	100.000	100.000	PPM

LOC DESC: FACT. 36 DEPT 06 AIR SAMPLING FOR SCAN 1 REQUESTED BY SHERYL
 COSTELLO FOR CAPPED WELL SEPAGE. BADGE # RS4483 BADGE AT FENCE
 NEAR HOLE N/W SIDE OF AISLE INTERSECTION.

S	DEPT I	SAMPLE DATE	SAMPLE ID	LAST NAME	F	I	EMPLOYEE ID	CONTAMINANT	R	C	RESULT	PEL	OEG TWA	TLV TWA	UNITS
								ACETONE	<		.890	1000.000	750.000	500.000	PPM
								BENZENE	<		.190	1.000	1.000	.500	PPM
								BUTYL ACETATE	<		.560	150.000	150.000	150.000	PPM
								CYCLOHEXANONE	<		.180	50.000	25.000	20.000	PPM
								CHLOROBENZENE	<		.630	75.000	75.000	10.000	PPM
								1,2-DICHLOROETHANE	<		.310	50.000	1.000	10.000	PPM
								DECANE	<		.310	.000	.000	.000	PPM
								DIOXANE	<		.680	100.000	25.000	20.000	PPM
								ETHYL ACETATE	<		.680	400.000	400.000	400.000	PPM
								ETHYL BENZENE	<		.180	100.000	100.000	100.000	PPM
								HEPTANE	<		.360	500.000	400.000	400.000	PPM
								HEXANE	<		.370	500.000	50.000	50.000	PPM
								ISOCTANE	<		.340	.000	.000	.000	PPM
								METHYL ETHYL KETONE	<		.320	200.000	200.000	200.000	PPM
								METHYLENE CHLORIDE	<		.320	25.000	25.000	50.000	PPM
								METHYL ISOBUTYL KETO	<		.170	100.000	50.000	50.000	PPM
								OCTANE	<		.340	500.000	300.000	300.000	PPM
								PENTANE	<		.410	1000.000	600.000	600.000	PPM
								PERCHLOROETHYLENE	<		.770	100.000	25.000	25.000	PPM
								N-PROPYL ACETATE	<		.340	200.000	200.000	200.000	PPM
								STYRENE	<		1.480	100.000	50.000	20.000	PPM
								TRICHLOROETHYLENE	<		.250	100.000	50.000	50.000	PPM
								1,1,1-TRICHLOROETHAN	<		.250	350.000	350.000	350.000	PPM
								TETRAHYDROFURAN	<		.770	200.000	200.000	200.000	PPM
								TRIMETHYLBENZENE (MI	<		.700	.000	25.000	25.000	PPM
								TOLUENE	<		.180	200.000	100.000	50.000	PPM
								XYLENE	<		.180	100.000	100.000	100.000	PPM

0388 2003 0381

B A S I S S T A N D A R D R E P O R T

UNIT: 19492 GMPT - FLINT ENGINE V-6

SAMPLE RESULTS WITH EXPOSURE LIMITS
 AND LOCATION DESCRIPTION BY DEPARTMENT
 PERSONAL AND GENERAL CONDITION SAMPLES
 WITH SAMPLE DATES FROM: SEPTEMBER 8, 2003 THRU: SEPTEMBER 12, 2003
 CONTAMINANT(S): \$\$\$
 CONTAMINANT GROUP(S): \$\$\$
 REPORT NAME: AIRPT04 GENERATED: 10-28-2003 14.18.39

DEPT	SAMPLE DATE	SAMPLE ID	LAST NAME	F I EMPLOYE ID	CONTAMINANT	R C RESULT	PEL	OEG TWA	TIV TWA	UNITS
3606 G	09/08/03	0388	2003	0382						
					LOC DESC:	FACT. 36 DEPT 06 AIR SAMPLING FOR SCAN 1 REQUESTED BY SHERYL COSTELLO FOR CAPPED WELL SEPAGE. BADGE # RS4535 BADGE AT FENCE NEAR HOLE S/W SIDE OF AISLE INTERSECTION.				
					ACETONE	<	.890	1000.000	750.000	500.000 PPM
					BENZENE	<	.190	1.000	1.000	500.000 PPM
					BUTYL ACETATE	<	.560	150.000	150.000	150.000 PPM
					CYCLOHEXANONE	<	.180	50.000	25.000	20.000 PPM
					CHLOROBENZENE	<	.630	75.000	75.000	10.000 PPM
					1,2-DICHLOROETHANE	<	.310	50.000	1.000	10.000 PPM
					DECANE	<	.310	.000	.000	.000 PPM
					DIOXANE	<	.680	100.000	25.000	20.000 PPM
					ETHYL ACETATE	<	.680	400.000	400.000	400.000 PPM
					ETHYL BENZENE	<	.180	100.000	100.000	100.000 PPM
					HEPTANE	<	.360	500.000	400.000	400.000 PPM
					HEXANE	<	.370	500.000	50.000	50.000 PPM
					ISOCTANE	<	.340	.000	.000	.000 PPM
					METHYL ETHYL KETONE	<	.200	200.000	200.000	200.000 PPM
					METHYLENE CHLORIDE	<	.320	25.000	25.000	50.000 PPM
					METHYL ISOBUTYL KETO	<	.170	100.000	50.000	50.000 PPM
					OCTANE	<	.340	500.000	300.000	300.000 PPM
					PENTANE	<	.410	1000.000	600.000	600.000 PPM
					PERCHLOROETHYLENE	<	.220	100.000	25.000	25.000 PPM
					N-PROPYL ACETATE	<	.340	200.000	200.000	200.000 PPM
					STYRENE	<	1.480	100.000	50.000	20.000 PPM
					TRICHLOROETHYLENE	<	.250	100.000	50.000	50.000 PPM
					1,1,1-TRICHLOROETHAN	<	.250	350.000	350.000	350.000 PPM
					TETRAHYDROFURAN	<	.770	200.000	200.000	200.000 PPM
					TRIMETHYLENENE (MI)	<	.700	.000	25.000	25.000 PPM
					TOLUENE	<	.180	200.000	100.000	50.000 PPM
					XYLENE	<	.180	100.000	100.000	100.000 PPM

LOC DESC: FACT. 36 DEPT 06 AIR SAMPLING FOR SCAN 1 REQUESTED BY SHERYL COSTELLO FOR CAPPED WELL SEPAGE. BADGE # RS4627 BADGE AT FENCE NEAR HOLE W SIDE OF AISLE NEAR STAIRS TO BATHROOM.

B A S I S S T A N D A R D R E P O R T
 UNIT: 19493 GMPT - FLINT COMPONENTS

SAMPLE RESULTS WITH EXPOSURE LIMITS
 AND LOCATION DESCRIPTION BY DEPARTMENT
 PERSONAL AND GENERAL CONDITION SAMPLES
 WITH SAMPLE DATES FROM: SEPTEMBER 8, 2003 THRU: SEPTEMBER 12, 2003
 CONTAMINANT(S): \$\$\$\$
 CONTAMINANT GROUP(S): \$\$\$
 REPORT NAME: AIRRPT04 GENERATED: 10-28-2003 14.18.39

DEPT	SAMPLE DATE	SAMPLE ID	LAST NAME	F I EMPLOYE ID	CONTAMINANT	R C RESULT	PEL	OEG TWA	TLV TWA	UNITS
8108 G	09/12/03	0388 2003 0384			ACETONE	<	.890	1000.000	750.000	500.000 PPM
					BENZENE	<	.190	1.000	1.000	.500 PPM
					BUTYL ACETATE	<	.560	150.000	150.000	150.000 PPM
					CYCLOHEXANONE	<	.180	50.000	25.000	20.000 PPM
					CHLOROBENZENE	<	.630	75.000	75.000	10.000 PPM
					1,2-DICHLOROETHANE	<	.310	50.000	1.000	10.000 PPM
					1,1-DICHLOROETHYLENE	<	.280	.000	1.000	5.000 PPM
					DECANE	<	.310	.000	.000	.000 PPM
					DIOXANE	<	.680	100.000	25.000	20.000 PPM
					ETHYL ACETATE	<	.680	400.000	400.000	400.000 PPM
					ETHYL BENZENE	<	.180	100.000	100.000	100.000 PPM
					HEPTANE	<	.360	500.000	400.000	400.000 PPM
					HEXANE	<	.370	500.000	50.000	50.000 PPM
					ISOCTANE	<	.340	.000	.000	.000 PPM
					METHYL ETHYL KETONE	<	.200	200.000	200.000	200.000 PPM
					METHYLENE CHLORIDE	<	.320	25.000	25.000	50.000 PPM
					METHYL ISOBUTYL KETO	<	.170	100.000	50.000	50.000 PPM
					OCTANE	<	.340	500.000	300.000	300.000 PPM
					PENTANE	<	.410	1000.000	600.000	600.000 PPM
					N-PROPYL ACETATE	<	.220	100.000	25.000	25.000 PPM
					PERCHLOROETHYLENE	<	.340	200.000	200.000	200.000 PPM
					STYRENE	<	1.480	100.000	50.000	20.000 PPM
					TRICHLOROETHYLENE	<	.250	100.000	50.000	50.000 PPM
					1,1,1-TRICHLOROETHAN	<	.250	350.000	350.000	350.000 PPM
					1,1,2-TRICHLORO-1,2,	<	.350	1000.000	1000.000	1000.000 PPM
					TETRAHYDROFURAN	<	.770	200.000	200.000	200.000 PPM
					TRIMETHYLBENZENE (MI	<	.700	.000	25.000	25.000 PPM
					TOLUENE	<	.180	200.000	100.000	50.000 PPM
					XYLENE	<	.180	100.000	100.000	100.000 PPM

LOC DESC: GMPT FLINT NORTH , DEPT. 81-08 , BAY I-30 GENERAL SAMPLE LOCATED
 AT SOUTH END OF PART INSP TABLE , 10 FEET EAST OF WELL LOCATION
 N/SIDE OF E/W AISLE,

0388 2003 0386

1,1-DICHLOROETHANE < .630 100.000 100.000 100.000 PPM

