Houston, Texas
August 5, 1983

COPY

FILE SAF INDUSTRIAL HYGIENE
Texaco USA
Puget Sound Plant
WISHA Inspection

PLAINTIFF'S EXHIBIT
TEX-54

Mr. C. R. Ferguson (JDD)
Anacortes, Washington

In conjunction with your WISHA inspection, please find attached a computer printout (2 copies) of industrial hygiene exposure data for the Puget Sound Plant. The data represent employe exposures to benzene, total hydrocarbons, hydrogen sulfide and asbestos during the period 1981 to the present. However, please be advised that the attached does not represent all of the PSP data base. For example, welding fumes and metals are not included.

Should the WISHA representatives request to see some exposure data, this attached printout, rather than individual reports from your files, can be provided. However, as per Mr. F. J. Beall's office instructions, please consult Mr. W. D. Evans in the LA office for legal counsel on any requests from WISHA.

If we can be of any further assistance, please advise this office.

Signed: O. W. RIGDON/gow

O. W. RIGDON

JDW
blh:B/x

Attachments

FJB
UVHjr

WA-TEX 006769

TABLE I

LISTING OF TIME WEIGHTED AVERAGES (PPM) BY API UNIT

CONTAM=BENZENE API_UNIT=RP&S TYPE

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000278	09/28/82	OPERATOR TYPE	410	<	0.01	PPM	8 HR-SAME
6203000280	09/29/82	OP HELP TYPE	411	<	0.01	PPM	8 HR-SAME
6203000282	09/30/82	OPERATOR TYPE	391	<	0.01	PPM	8 HR-SAME
6203000284	10/01/82	OP HELP TYPE	420	<	0.01	PPM	8 HR-SAME
6203XN0328	05/28/81	OP HELP TYPE	447	<	0.04	PPM	8 HR-SAME
6203XN0315	05/27/81	OPERATOR TYPE	455	<	0.04	PPM	8 HR-SAME
6203XN0316	05/27/81	OPERATOR TYPE	399	<	0.04	PPM	8 HR-SAME
6203XN0327	05/28/81	OPERATOR TYPE	449	<	0.05	PPM	8 HR-SAME
6203000288	10/07/82	OP HELP TYPE	308		0.06	PPM	8 HR-SAME
6203000127	10/06/81	OPERATOR TYPE	415	<	0.06	PPM	8 HR-SAME
6203000126	10/05/81	PUMPER-PROD	361	<	0.07	PPM	8 HR-SAME
6203000289	10/08/82	OP HELP TYPE	304		1.40	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=LOADING RACK

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203XN0329	05/28/81	OPERATOR TYPE	440		0.07	PPM	8 HR-SAME
6203XN0318	05/27/81	OPERATOR TYPE	380		0.17	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=CRUDE UNIT

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000305	12/08/82	OP HELP TYPE	432	<	0.02	PPM	8 HR-SAME
6203000307	12/09/82	OPERATOR TYPE	434	<	0.02	PPM	8 HR-SAME
6203000306	12/08/82	OPERATOR TYPE	412	<	0.03	PPM	8 HR-SAME
6203000308	12/09/82	OP HELP TYPE	437	<	0.03	PPM	8 HR-SAME
6203000175	12/02/81	OP HELP TYPE	404	<	0.04	PPM	8 HR-ZERO
6203000176	12/02/81	OPERATOR TYPE	409	<	0.04	PPM	8 HR-ZERO
6203000186	12/04/81	OPERATOR TYPE	419	<	0.04	PPM	8 HR-ZERO
6203000182	12/03/81	OP HELP TYPE	424	<	0.04	PPM	8 HR-ZERO
6203000189	12/07/81	OP HELP TYPE	413	<	0.05	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=FCCU-GENERAL

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203XD1427	11/10/81	OP HELP TYPE	458	<	0.01	PPM	8 HR-SAME
6203XD1429	11/10/81	OPERATOR TYPE	451	<	0.01	PPM	8 HR-SAME
6203XD1438	11/11/81	HDOP, TYPE	425	<	0.01	PPM	8 HR-SAME
6203XD1439	11/11/81	OP HELP TYPE	427	<	0.01	PPM	8 HR-SAME
6203XN0311	05/27/81	OP HELP TYPE	426	<	0.01	PPM	8 HR-SAME
6203XN0313	05/27/81	OP HELP TYPE	403	<	0.01	PPM	8 HR-SAME
6203000299	11/10/82	OPERATOR TYPE	415	<	0.01	PPM	8 HR-SAME
6203XD1410	11/09/81	HDOP, TYPE	416		0.02	PPM	8 HR-SAME
6203000298	11/10/82	OP HELP TYPE	417	B	0.02	PPM	8 HR-SAME

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TABLE I

LISTING OF TIME WEIGHTED AVERAGES (PPM) BY API UNIT

CONTAM=BENZENE API_UNIT=FCCU-GENERAL

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000301	11/11/82	OP HELP TYPE	434	B	0.02	PPM	8 HR-SAME
6203XD1415	11/09/81	OP HELP TYPE	427		0.03	PPM	8 HR-SAME
6203XN0312	05/27/81	OPERATOR TYPE	425	<	0.04	PPM	8 HR-SAME
6203XN0323	05/28/81	OP HELP TYPE	441	<	0.04	PPM	8 HR-SAME
6203XN0324	05/28/81	OP HELP TYPE	441	<	0.04	PPM	8 HR-SAME
6203XN0326	05/28/81	OPERATOR TYPE	440	<	0.04	PPM	8 HR-SAME
6203000300	11/11/82	OPERATOR TYPE	416	B	0.05	PPM	8 HR-SAME
6203XN0314	05/27/81	OPERATOR TYPE	420	<	0.06	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=FCCU-COMPRESSOR

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203XD1412	11/09/81	OPERATOR TYPE	425	<	0.01	PPM	8 HR-SAME
6203XD1413	11/09/81	OP HELP TYPE	423		0.01	PPM	8 HR-SAME
6203XD1423	11/11/81	OPERATOR TYPE	435	<	0.01	PPM	8 HR-SAME
6203XD1424	11/11/81	OP HELP TYPE	426	<	0.01	PPM	8 HR-SAME
6203XD1428	11/10/81	OP HELP TYPE	458	<	0.01	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=FCCU-CATALYST

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203XD1426	11/10/81	OPERATOR TYPE	456	<	0.01	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=CRU,PLATFORMER

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000325	02/02/83	OPERATOR TYPE	444	<	0.02	PPM	8 HR-SAME
6203000328	02/03/83	OPERATOR TYPE	407	<	0.03	PPM	8 HR-ZERO
6203000329	02/03/83	OP HELP TYPE	411	<	0.03	PPM	8 HR-SAME
6203000330	02/04/83	OP HELP TYPE	410	<	0.03	PPM	8 HR-SAME
6203000151	10/23/81	OP HELP TYPE	413	<	0.04	PPM	8 HR-SAME
6203000149	10/22/81	OP HELP TYPE	394	<	0.04	PPM	8 HR-SAME
6203000148	10/21/81	HDOP, TYPE	372	<	0.06	PPM	8 HR-SAME
6203000145	10/20/81	HDOP, TYPE	396	<	0.07	PPM	8 HR-SAME

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TABLE I

LISTING OF TIME WEIGHTED AVERAGES (PPM) BY API UNIT

CONTAM=BENZENE API_UNIT=ALKYLATION

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000297	11/03/82	OPERATOR TYPE	417	<	0.01	PPM	8 HR-ZERO
6203000294	11/02/82	OPERATOR TYPE	419		0.01	PPM	8 HR-ZERO
6203000295	11/02/82	OP HELP TYPE	411	B	0.02	PPM	8 HR-ZERO
6203000296	11/03/82	OP HELP TYPE	435		0.04	PPM	8 HR-ZERO
6203000199	12/09/81	OPERATOR TYPE	414	<	0.04	PPM	8 HR-ZERO
6203000203	12/10/81	OPERATOR TYPE	430	<	0.04	PPM	8 HR-ZERO
6203000130	10/07/81	HDOP, TYPE	385	<	0.07	PPM	8 HR-SAME
6203000134	10/08/81	HDOP, TYPE	373	<	0.07	PPM	8 HR-SAME
6203000138	10/09/81	OP HELP TYPE	385	<	0.07	PPM	8 HR-SAME
6203000135	10/08/81	OPERATOR TYPE	366	<	0.08	PPM	8 HR-SAME
6203000137	10/09/81	OP HELP TYPE	387	<	0.08	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=HYDRO-TREAT UNIT

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000193	12/08/81	OPERATOR TYPE	403	<	0.05	PPM	8 HR-ZERO
6203000198	12/09/81	OPERATOR TYPE	408	<	0.05	PPM	8 HR-ZERO

CONTAM=BENZENE API_UNIT=H2O WSTE TRT

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000125	10/05/81	OP HELP TYPE	382	<	0.07	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=MAINTENANCE

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000227	02/05/82	MACHINIST	411	<	0.01	PPM	8 HR-ZERO
6203000234	02/18/82	ELEC-INST	421	<	0.01	PPM	8 HR-ZERO
6203000232	02/09/82	PIPEFITTER	428	<	0.01	PPM	8 HR-ZERO
6203000153	10/26/81	BOILERMAKER	365	<	0.05	PPM	8 HR-SAME
6203000154	10/26/81	BOILERMAKER	355	<	0.05	PPM	8 HR-SAME
6203000155	10/27/81	MACHINIST	391	<	0.05	PPM	8 HR-SAME
6203000156	10/27/81	MACHINIST	393	<	0.05	PPM	8 HR-SAME
6203000141	10/16/81	PIPEFITTER	394	<	0.05	PPM	8 HR-SAME
6203000152	10/23/81	PIPEFITTER	369	<	0.05	PPM	8 HR-SAME
6203000163	10/30/81	YARD	409	<	0.05	PPM	8 HR-SAME
6203000233	02/17/82	ELEC-INST	419		0.14	PPM	8 HR-ZERO
6203000160	10/29/81	ELEC-INST	385		0.69	PPM	8 HR-SAME

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TABLE I

LISTING OF TIME WEIGHTED AVERAGES (PPM) BY API UNIT

CONTAM=BENZENE API_UNIT=LAB-QUAL CONT

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000121	10/01/81	PRO LAB STAFF	412	<	0.06	PPM	8 HR-SAME
6203000191	12/07/81	NONTECH LAB	385		0.39	PPM	8 HR-ZERO
6203000122	10/01/81	TECH LAB STAFF	315		0.51	PPM	8 HR-SAME
6203000124	10/02/81	PRO LAB STAFF	415		0.52	PPM	8 HR-SAME
6203000171	11/25/81	NONTECH LAB	465		0.61	PPM	8 HR-ZERO
6203000123	10/02/81	TECH LAB STAFF	341		1.51	PPM	8 HR-SAME

CONTAM=HYDROGEN SULFIDE API_UNIT=RP&S TYPE

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000279	09/28/82	OP HELP TYPE	407	<	0.14	PPM	8 HR-SAME
6203000281	09/29/82	OPERATOR TYPE	419	<	0.14	PPM	8 HR-SAME
6203000283	09/30/82	OP HELP TYPE	382	<	0.15	PPM	8 HR-SAME
6203000285	10/01/82	OPERATOR TYPE	416		0.28	PPM	8 HR-SAME

CONTAM=HYDROGEN SULFIDE API_UNIT=CRUDE UNIT

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000249	05/18/82	OPERATOR TYPE	432	<	0.12	PPM	8 HR-ZERO
6203000250	05/19/82	OPERATOR TYPE	433	<	0.12	PPM	8 HR-ZERO
6203000247	05/13/82	OP HELP TYPE	436		0.12	PPM	8 HR-ZERO
6203000246	05/12/82	OP HELP TYPE	437		0.12	PPM	8 HR-ZERO
6203000251	05/20/82	OPERATOR TYPE	439	<	0.12	PPM	8 HR-ZERO
6203000248	05/14/82	OP HELP TYPE	443		0.34	PPM	8 HR-ZERO

CONTAM=HYDROGEN SULFIDE API_UNIT=FCCU-GENERAL

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000263	07/02/82	OP HELP TYPE	422		0.11	PPM	8 HR-ZERO
6203000262	07/01/82	OP HELP TYPE	423	<	0.11	PPM	8 HR-ZERO
6203000266	07/09/82	OPERATOR TYPE	423	<	0.11	PPM	8 HR-ZERO
6203000261	06/30/82	OP HELP TYPE	424	<	0.11	PPM	8 HR-ZERO
6203000264	07/07/82	OPERATOR TYPE	426	<	0.12	PPM	8 HR-ZERO
6203000260	06/29/82	OP HELP TYPE	429	<	0.12	PPM	8 HR-ZERO
6203000265	07/08/82	OPERATOR TYPE	416	<	0.12	PPM	8 HR-ZERO

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TABLE I

LISTING OF TIME WEIGHTED AVERAGES (PPM) BY API UNIT

CONTAM=HYDROGEN SULFIDE API_UNIT=CRU,PLATFORMER

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT		CALC
6203000254	05/26/82	OP HELP TYPE	415	<	0.11	PPM	8	HR-ZERO
6203000256	05/27/82	OPERATOR TYPE	455	<	0.11	PPM	8	HR-ZERO
6203000252	05/21/82	OP HELP TYPE	425	<	0.12	PPM	8	HR-ZERO
6203000258	06/02/82	OPERATOR TYPE	442	<	0.12	PPM	8	HR-ZERO
6203000253	05/25/82	OP HELP TYPE	450	<	0.12	PPM	8	HR-ZERO
6203000257	05/28/82	OPERATOR TYPE	450	<	0.12	PPM	8	HR-ZERO

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=RP&S TYPE

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT		CALC
6203XN0315	05/27/81	OPERATOR TYPE	455		0.21	PPM	8	HR-SAME
6203XN0316	05/27/81	OPERATOR TYPE	399		0.67	PPM	8	HR-SAME
6203000278	09/28/82	OPERATOR TYPE	410	<	1.00	PPM	8	HR-SAME
6203000280	09/29/82	OP HELP TYPE	411	<	1.00	PPM	8	HR-SAME
6203000284	10/01/82	OP HELP TYPE	420	<	1.00	PPM	8	HR-SAME
6203XN0328	05/28/81	OP HELP TYPE	447		1.38	PPM	8	HR-SAME
6203XN0327	05/28/81	OPERATOR TYPE	449		1.51	PPM	8	HR-SAME
6203000282	09/30/82	OPERATOR TYPE	391		1.80	PPM	8	HR-SAME
6203000127	10/06/81	OPERATOR TYPE	415		2.75	PPM	8	HR-SAME
6203000126	10/05/81	PUMPER-PROD	361		5.28	PPM	8	HR-SAME
6203000288	10/07/82	OP HELP TYPE	308		6.60	PPM	8	HR-SAME
6203000289	10/08/82	OP HELP TYPE	304	B	190.00	PPM	8	HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=LOADING RACK

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT		CALC
6203XN0329	05/28/81	OPERATOR TYPE	440		10.80	PPM	8	HR-SAME
6203XN0318	05/27/81	OPERATOR TYPE	380		24.01	PPM	8	HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=CRUDE UNIT

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT		CALC
6203000176	12/02/81	OPERATOR TYPE	409	<	0.04	PPM	8	HR-ZERO
6203000182	12/03/81	OP HELP TYPE	424	<	0.04	PPM	8	HR-ZERO
6203000186	12/04/81	OPERATOR TYPE	419	<	0.05	PPM	8	HR-ZERO
6203000175	12/02/81	OP HELP TYPE	404		0.17	PPM	8	HR-ZERO
6203000306	12/08/82	OPERATOR TYPE	412	B	0.65	PPM	8	HR-SAME
6203000189	12/07/81	OP HELP TYPE	413		0.90	PPM	8	HR-SAME
6203000305	12/08/82	OP HELP TYPE	432		1.46	PPM	8	HR-SAME
6203000308	12/09/82	OP HELP TYPE	437		3.19	PPM	8	HR-SAME
6203000307	12/09/82	OPERATOR TYPE	434		13.58	PPM	8	HR-SAME

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TABLE I

LISTING OF TIME WEIGHTED AVERAGES (PPM) BY API UNIT

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=FCCU-GENERAL

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203XN0313	05/27/81	OP HELP TYPE	403	<	0.02	PPM	8 HR-SAME
6203XN0311	05/27/81	OP HELP TYPE	426	<	0.06	PPM	8 HR-SAME
6203XN0324	05/28/81	OP HELP TYPE	441	<	0.20	PPM	8 HR-SAME
6203XN0312	05/27/81	OPERATOR TYPE	425	<	0.21	PPM	8 HR-SAME
6203XN0326	05/28/81	OPERATOR TYPE	440	<	0.21	PPM	8 HR-SAME
6203XD1438	11/11/81	HDOP, TYPE	425	B	0.25	PPM	8 HR-SAME
6203XD1429	11/10/81	OPERATOR TYPE	451		0.28	PPM	8 HR-SAME
6203XD1439	11/11/81	OP HELP TYPE	427	B	0.39	PPM	8 HR-SAME
6203XN0323	05/28/81	OP HELP TYPE	441		0.40	PPM	8 HR-SAME
6203XN0314	05/27/81	OPERATOR TYPE	420		0.46	PPM	8 HR-SAME
6203XD1410	11/09/81	HDOP, TYPE	416		0.67	PPM	8 HR-SAME
6203XD1427	11/10/81	OP HELP TYPE	458		0.97	PPM	8 HR-SAME
6203000298	11/10/82	OP HELP TYPE	417	<	1.00	PPM	8 HR-SAME
6203000299	11/10/82	OPERATOR TYPE	415	<	1.00	PPM	8 HR-SAME
6203000300	11/11/82	OPERATOR TYPE	416	<	1.00	PPM	8 HR-SAME
6203000301	11/11/82	OP HELP TYPE	434	<	1.00	PPM	8 HR-SAME
6203XD1415	11/09/81	OP HELP TYPE	427		1.92	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=FCCU-COMPRESSOR

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203XD1423	11/11/81	OPERATOR TYPE	435		0.14	PPM	8 HR-SAME
6203XD1424	11/11/81	OP HELP TYPE	426		0.39	PPM	8 HR-SAME
6203XD1412	11/09/81	OPERATOR TYPE	425		0.41	PPM	8 HR-SAME
6203XD1413	11/09/81	OP HELP TYPE	423		0.50	PPM	8 HR-SAME
6203XD1428	11/10/81	OP HELP TYPE	458		0.95	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=FCCU-CATALYST

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203XD1426	11/10/81	OPERATOR TYPE	456		0.30	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=CRU,PLATFORMER

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000148	10/21/81	HDOP, TYPE	372	<	0.11	PPM	8 HR-SAME
6203000145	10/20/81	HDOP, TYPE	396	<	0.15	PPM	8 HR-SAME
6203000149	10/22/81	OP HELP TYPE	394		1.62	PPM	8 HR-SAME
6203000328	02/03/83	OPERATOR TYPE	407		1.64	PPM	8 HR-ZERO
6203000330	02/04/83	OP HELP TYPE	410		1.80	PPM	8 HR-SAME
6203000325	02/02/83	OPERATOR TYPE	444		1.82	PPM	8 HR-SAME
6203000329	02/03/83	OP HELP TYPE	411		2.28	PPM	8 HR-SAME
6203000151	10/23/81	OP HELP TYPE	413		4.40	PPM	8 HR-SAME

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WA-TEX006775

TABLE I

LISTING OF TIME WEIGHTED AVERAGES (PPM) BY API UNIT

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=ALKYLATION

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000130	10/07/81	HDOP, TYPE	385		0.18	PPM	8 HR-SAME
6203000203	12/10/81	OPERATOR TYPE	430	B	0.29	PPM	8 HR-ZERO
6203000135	10/08/81	OPERATOR TYPE	366		0.65	PPM	8 HR-SAME
6203000199	12/09/81	OPERATOR TYPE	414		0.73	PPM	8 HR-ZERO
6203000297	11/03/82	OPERATOR TYPE	417	<	0.87	PPM	8 HR-ZERO
6203000295	11/02/82	OP HELP TYPE	411		1.46	PPM	8 HR-ZERO
6203000296	11/03/82	OP HELP TYPE	435		2.27	PPM	8 HR-ZERO
6203000134	10/08/81	HDOP, TYPE	373		2.80	PPM	8 HR-SAME
6203000294	11/02/82	OPERATOR TYPE	419		3.58	PPM	8 HR-ZERO
6203000137	10/09/81	OP HELP TYPE	387		9.96	PPM	8 HR-SAME
6203000138	10/09/81	OP HELP TYPE	385		100.20	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=HYDRO-TREAT UNIT

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000193	12/08/81	OPERATOR TYPE	403		0.48	PPM	8 HR-ZERO
6203000198	12/09/81	OPERATOR TYPE	408		1.57	PPM	8 HR-ZERO

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=H2O WSTE TRT

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000125	10/05/81	OP HELP TYPE	382	<	0.13	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=MAINTENANCE

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT	CALC
6203000154	10/26/81	BOILERMAKER	355	<	0.06	PPM	8 HR-SAME
6203000155	10/27/81	MACHINIST	391	<	0.06	PPM	8 HR-SAME
6203000160	10/29/81	ELEC-INST	385	<	0.06	PPM	8 HR-SAME
6203000156	10/27/81	MACHINIST	393	<	0.06	PPM	8 HR-SAME
6203000153	10/26/81	BOILERMAKER	365	<	0.06	PPM	8 HR-SAME
6203000163	10/30/81	YARD	409	<	0.06	PPM	8 HR-SAME
6203000152	10/23/81	PIPEFITTER	369	<	0.07	PPM	8 HR-SAME
6203000141	10/16/81	PIPEFITTER	394		0.83	PPM	8 HR-SAME
6203000232	02/09/82	PIPEFITTER	428	<	0.89	PPM	8 HR-ZERO
6203000227	02/05/82	MACHINIST	411		2.65	PPM	8 HR-ZERO
6203000233	02/17/82	ELEC-INST	419		2.88	PPM	8 HR-ZERO
6203000315	01/13/83	PAINTER	424		3.35	PPM	8 HR-SAME
6203000234	02/18/82	ELEC-INST	421		4.03	PPM	8 HR-ZERO
6203000310	01/11/83	PAINTER	417		7.78	PPM	8 HR-SAME
6203000313	01/12/83	PAINTER	419		9.23	PPM	8 HR-SAME

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TABLE I

LISTING OF TIME WEIGHTED AVERAGES (PPM) BY API UNIT

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=LAB-QUAL CONT

BASESAMP	DATE	TITLE	TIME	LGB	TWA	UNIT		CALC
6203000121	10/01/81	PRO LAB STAFF	412		1.68	PPM	8	HR-SAME
6203000316	01/18/83	NONTECH LAB	415		2.59	PPM	8	HR-SAME
6203000124	10/02/81	PRO LAB STAFF	415		2.78	PPM	8	HR-SAME
6203000319	01/19/83	NONTECH LAB	420		4.46	PPM	8	HR-SAME
6203000318	01/19/83	TECH LAB STAFF	421		4.82	PPM	8	HR-SAME
6203000317	01/18/83	TECH LAB STAFF	423		4.96	PPM	8	HR-SAME
6203000191	12/07/81	NONTECH LAB	385		5.17	PPM	8	HR-ZERO
6203000171	11/25/81	NONTECH LAB	465		6.52	PPM	8	HR-ZERO
6203000122	10/01/81	TECH LAB STAFF	315		6.55	PPM	8	HR-SAME
6203000123	10/02/81	TECH LAB STAFF	341		7.85	PPM	8	HR-SAME

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TABLE II

LISTING OF TIME WEIGHTED AVERAGE (PPM) AREA SAMPLES

BY API UNIT

CONTAM=ASBESTOS API_UNIT=CRUDE UNIT

BASESAMP	DATE	TITLE	TIME	LGB	AREA	UNIT	CALC
6203000287	10/05/82	AREA SAMPLE	300	<	0.01	F/CC	8 HR-SAME
6203000291	10/08/82	AREA SAMPLE	321		0.05	F/CC	8 HR-SAME
6203000286	10/05/82	AREA SAMPLE	297		0.05	F/CC	8 HR-SAME
6203000290	10/08/82	AREA SAMPLE	333		0.06	F/CC	8 HR-SAME

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TABLE III

LISTING OF SHORT TERM EXPOSURE LIMITS (PPM) BY API UNIT

CONTAM=ASBESTOS API_UNIT=MAINTENANCE

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000167	11/13/81	YARD	14	<	0.12	F/CC	15 MIN-SAME
6203000168	11/13/81	YARD	14	<	0.12	F/CC	15 MIN-SAME
6203000169	11/13/81	YARD	14	<	0.12	F/CC	15 MIN-SAME
6203000166	11/13/81	YARD	13	<	0.13	F/CC	15 MIN-SAME

CONTAM=BENZENE API_UNIT=RP&S TYPE

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000304	12/01/82	OP HELP TYPE	11	<	0.07	PPM	8 HR-ZERO
6203000303	12/01/82	OP HELP TYPE	10	<	0.07	PPM	8 HR-ZERO
6203000211	12/16/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000212	12/16/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000213	12/16/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000214	12/16/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000215	12/16/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000216	12/16/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000217	12/17/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000218	12/17/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000219	12/17/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=WATER TRANSPORT

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000225	01/13/82	OP HELP TYPE	15		0.01	PPM	8 HR-SAME
6203000222	01/13/82	OP HELP TYPE	15		0.15	PPM	8 HR-SAME
6203000224	01/13/82	OP HELP TYPE	16		0.25	PPM	8 HR-SAME
6203000223	01/13/82	OP HELP TYPE	15		0.85	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=CRUDE UNIT

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000188	12/04/81	OPERATOR TYPE	15	<	0.11	PPM	8 HR-SAME
6203000184	12/03/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000185	12/03/81	OPERATOR TYPE	15	<	0.12	PPM	8 HR-SAME
6203000187	12/04/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000190	12/07/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=FCCU-GENERAL

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000327	02/03/83	OP HELP TYPE	17	<	0.06	PPM	8 HR-SAME
6203000326	02/03/83	OP HELP TYPE	18	<	0.06	PPM	8 HR-SAME

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TABLE III

LISTING OF SHORT TERM EXPOSURE LIMITS (PPM) BY API UNIT

CONTAM=BENZENE API_UNIT=FCCU-GENERAL

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000323	02/02/83	OP HELP TYPE	14	<	0.07	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=ALKYLATION

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000200	12/09/81	OPERATOR TYPE	15	<	0.12	PPM	8 HR-SAME
6203000204	12/10/81	OPERATOR TYPE	15	<	0.12	PPM	8 HR-SAME
6203000205	12/10/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000206	12/10/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=HYDRO-TREAT UNIT

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000194	12/08/81	OPERATOR TYPE	15	<	0.12	PPM	8 HR-SAME
6203000195	12/08/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000196	12/08/81	OPERATOR TYPE	15	<	0.12	PPM	8 HR-SAME
6203000197	12/08/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000202	12/09/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000201	12/09/81	OPERATOR TYPE	15		0.37	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=H2O WSTE TRT

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000209	12/11/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME
6203000210	12/11/81	OP HELP TYPE	15	<	0.12	PPM	8 HR-SAME

CONTAM=BENZENE API_UNIT=LAB-QUAL CONT

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000231	02/08/82	TECH LAB STAFF	15		0.09	PPM	8 HR-SAME
6203000177	12/02/81	NONTECH LAB	15	<	0.12	PPM	8 HR-SAME
6203000178	12/02/81	PRO LAB STAFF	15	<	0.12	PPM	8 HR-SAME
6203000179	12/02/81	PRO LAB STAFF	15	<	0.12	PPM	8 HR-SAME
6203000180	12/02/81	PRO LAB STAFF	15	<	0.12	PPM	8 HR-SAME
6203000230	02/08/82	TECH LAB STAFF	15		0.16	PPM	8 HR-SAME
6203000229	02/08/82	TECH LAB STAFF	15		0.60	PPM	8 HR-SAME
6203000228	02/08/82	TECH LAB STAFF	18		0.62	PPM	8 HR-SAME
6203000181	12/02/81	NONTECH LAB	15		4.27	PPM	8 HR-SAME
6203000172	11/30/81	NONTECH LAB	15		6.93	PPM	8 HR-SAME

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TABLE III

LISTING OF SHORT TERM EXPOSURE LIMITS (PPM) BY API UNIT

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=RP&S TYPE

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000214	12/16/81	OP HELP TYPE	15		0.21	PPM	8 HR-SAME
6203000212	12/16/81	OP HELP TYPE	15		0.71	PPM	8 HR-SAME
6203000211	12/16/81	OP HELP TYPE	15		0.79	PPM	8 HR-SAME
6203000217	12/17/81	OP HELP TYPE	15		0.83	PPM	8 HR-SAME
6203000215	12/16/81	OP HELP TYPE	15		1.59	PPM	8 HR-SAME
6203000303	12/01/82	OP HELP TYPE	10	B	1.86	PPM	8 HR-ZERO
6203000213	12/16/81	OP HELP TYPE	15		1.96	PPM	8 HR-SAME
6203000219	12/17/81	OP HELP TYPE	15		2.04	PPM	8 HR-SAME
6203000304	12/01/82	OP HELP TYPE	11	B	2.46	PPM	8 HR-ZERO
6203000216	12/16/81	OP HELP TYPE	15		7.46	PPM	8 HR-SAME
6203000218	12/17/81	OP HELP TYPE	15		11.60	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=WATER TRANSPORT

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000223	01/13/82	OP HELP TYPE	15		6.30	PPM	8 HR-SAME
6203000225	01/13/82	OP HELP TYPE	15		8.40	PPM	8 HR-SAME
6203000224	01/13/82	OP HELP TYPE	16		8.50	PPM	8 HR-SAME
6203000222	01/13/82	OP HELP TYPE	15		9.20	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=CRUDE UNIT

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000188	12/04/81	OPERATOR TYPE	15	<	0.12	PPM	8 HR-SAME
6203000185	12/03/81	OPERATOR TYPE	15	<	0.13	PPM	8 HR-SAME
6203000190	12/07/81	OP HELP TYPE	15	<	0.13	PPM	8 HR-SAME
6203000184	12/03/81	OP HELP TYPE	15		0.19	PPM	8 HR-SAME
6203000187	12/04/81	OP HELP TYPE	15		0.89	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=FCCU-GENERAL

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000327	02/03/83	OP HELP TYPE	17		1.74	PPM	8 HR-SAME
6203000326	02/03/83	OP HELP TYPE	18		7.00	PPM	8 HR-SAME
6203000323	02/02/83	OP HELP TYPE	14		21.45	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=ALKYLATION

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000200	12/09/81	OPERATOR TYPE	15		0.80	PPM	8 HR-SAME
6203000204	12/10/81	OPERATOR TYPE	15	B	1.17	PPM	8 HR-SAME
6203000206	12/10/81	OP HELP TYPE	15		3.52	PPM	8 HR-SAME

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TABLE III

LISTING OF SHORT TERM EXPOSURE LIMITS (PPM) BY API UNIT

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=ALKYLATION

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000205	12/10/81	OP HELP TYPE	15		4.68	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=HYDRO-TREAT UNIT

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000197	12/08/81	OP HELP TYPE	15		1.17	PPM	8 HR-SAME
6203000194	12/08/81	OPERATOR TYPE	15		1.23	PPM	8 HR-SAME
6203000196	12/08/81	OPERATOR TYPE	15		1.79	PPM	8 HR-SAME
6203000195	12/08/81	OP HELP TYPE	15		6.89	PPM	8 HR-SAME
6203000202	12/09/81	OP HELP TYPE	15		12.48	PPM	8 HR-SAME
6203000201	12/09/81	OPERATOR TYPE	15		33.26	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=H2O WSTE TRT

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000209	12/11/81	OP HELP TYPE	15	<	0.13	PPM	8 HR-SAME
6203000210	12/11/81	OP HELP TYPE	15	<	0.13	PPM	8 HR-SAME

CONTAM=TOTAL OTHER HYDROCARBONS API_UNIT=LAB-QUAL CONT

BASESAMP	DATE	TITLE	TIME	LGB	STEL	UNIT	CALC
6203000178	12/02/81	PRO LAB STAFF	15		0.57	PPM	8 HR-SAME
6203000177	12/02/81	NONTECH LAB	15		1.47	PPM	8 HR-SAME
6203000179	12/02/81	PRO LAB STAFF	15		1.76	PPM	8 HR-SAME
6203000231	02/08/82	TECH LAB STAFF	15		2.40	PPM	8 HR-SAME
6203000180	12/02/81	PRO LAB STAFF	15		3.96	PPM	8 HR-SAME
6203000230	02/08/82	TECH LAB STAFF	15		7.70	PPM	8 HR-SAME
6203000229	02/08/82	TECH LAB STAFF	15		21.00	PPM	8 HR-SAME
6203000228	02/08/82	TECH LAB STAFF	18		31.00	PPM	8 HR-SAME
6203000181	12/02/81	NONTECH LAB	15		78.33	PPM	8 HR-SAME
6203000172	11/30/81	NONTECH LAB	15		131.80	PPM	8 HR-SAME

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