

OUTFALL 013 (Bravo Test Stand)

**ANNUAL 2009 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

January 1 through December 31, 2009

ANALYTE	UNITS	Benchmark Limit Daily Max/Monthly Avg	2/6/2009		2/16/2009	
			RESULT	VALIDATION QUALIFIER	RESULT	VALIDATION QUALIFIER
Ammonia as Nitrogen (N)	mg/L	10.1/-	0.56	--	0.56	*
Biochemical Oxygen Demand (BOD 5 day)	mg/L	-/-	1.8	J (DNQ)	2.2	--
Chloride	mg/L	150/-	30	--	8.4	*
Fluoride	mg/L	1.6/-	0.33	--	0.14	*
Nitrate + Nitrite as Nitrogen (N)	mg/L	8.0/-	2.4	--	0.66	*
Nitrate as Nitrogen (N)	mg/L	8.0/-	2.3	--	0.66	*
Nitrite-N	mg/L	1.0/-	ND < 0.090	U	ND < 0.090	*
Oil & Grease	mg/L	15/-	ND < 1.3	U	ND < 1.3	*
Perchlorate	ug/L	6.0/-	1.5	J (DNQ)	ND < 0.90	*
pH (Field)	pH units	6.5-8.5/-	7.7	*	7.3	*
Total Settleable Solids	ml/L	0.3/-	ND < 0.10	U	ND < 0.10	pH*
Sulfate	mg/L	300/-	19	--	4.5	*
Temperature	deg. F	86/-	53	*	47	*
Total Cyanide	ug/L	-/-	ND < 2.2	U	ANR	ANR
Total Dissolved Solids	mg/L	950/-	160	--	58	*
Hardness	mg/L	-/-	22	--	ANR	ANR
Hardness, dissolved	mg/L	-/-	21	--	ANR	ANR
Total Suspended Solids	mg/L	45/-	1.0	J (DNQ)	1.0	J* (DNQ)
Turbidity	NTU	-/-	5.6	--	7.6	--
Volume Discharged	MGD	0.004/-	NR	*	NR	*
METALS						
Antimony	ug/L	-/-	3.3	--	ANR	ANR
Antimony, dissolved	ug/L	-/-	3.0	--	ANR	ANR
Arsenic	ug/L					

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ANALYTE	UNITS	Benchmark Limit Daily Max/Monthly Avg	2/6/2009		2/16/2009	
			RESULT	VALIDATION QUALIFIER	RESULT	VALIDATION QUALIFIER
Thallium	ug/L	-/-	ND < 0.20	U	ANR	ANR
Thallium, dissolved	ug/L	-/-	ND < 0.20	U	ANR	ANR
Zinc	ug/L	159/-	23	--	13	J* (DNQ)
Zinc, dissolved	ug/L	-/-	18	J (DNQ)	6.1	B, J* (DNQ)
ORGANICS						
Benzene	ug/L	-/-	ND < 0.28	U	ANR	ANR
Carbon Tetrachloride	ug/L	-/-	ND < 0.28	UJ (C)	ANR	ANR
Chloroform	ug/L	-/-	ND < 0.33	U	ANR	ANR
1,1-Dichloroethane	ug/L	-/-	ND < 0.40	U	ANR	ANR
1,2-Dichloroethane	ug/L	-/-	ND < 0.28	U	ANR	ANR
1,1-Dichloroethene	ug/L	-/-	ND < 0.42	U	ANR	ANR
1,4-Dioxane	ug/L	3/-	ND < 1.0	U	ND < 1.0	*
Ethylbenzene	ug/L	-/-	ND < 0.25	U	ANR	ANR
Tetrachloroethene	ug/L	-/-	ND < 0.32	U	ANR	ANR
Toluene	ug/L	-/-	ND < 0.36	U	ANR	ANR
Xylenes (Total)	ug/L	-/-	ND < 0.90	U	ANR	ANR
1,1,1-Trichloroethane	ug/L	-/-	ND < 0.30	U	ANR	ANR
1,1,2-Trichloroethane	ug/L	-/-	ND < 0.30	U	ANR	ANR
Trichloroethene	ug/L	-/-	ND < 0.26	U	ANR	ANR
Trichlorofluoromethane	ug/L	-/-	ND < 0.34	U	ANR	ANR
Trichlorotrifluoroethane (Freon 113)	ug/L	-/-	ND < 0.50	U	ANR	ANR
Vinyl chloride	ug/L	-/-	ND < 0.40	U	ANR	ANR
TPH						
DRO (C13 - C28)	mg/L	0.1/-	ND < 0.047	U	ND < 0.047	*
GRO (C4 - C12)	mg/L	0.1/-	ND < 0.030	U	ND < 0.030	*
ADDITIONAL ANALYTES						
2,4,5-Trichlorophenol	ug/L	-/-	ND < 2.8	U	ANR	ANR
1,1,2,2-Tetrachloroethane	ug/L	-/-	ND < 0.30	U	ANR	ANR
1,2,4-Trichlorobenzene	ug/L	-/-	ND < 2.4	U	ANR	ANR
1,2,3-Trichloropropane	ug/L	-/-	ND < 0.40	UJ (C)	ND < 0.40	*
1,2-Dibromoethane (EDB)	ug/L	50/-	ND < 0.40	U	ND < 0.40	*
1,2-Dichlorobenzene (EPA 625)	ug/L	-/-	ND < 2.8	U	ANR	ANR
1,2-Dichlorobenzene (EPA 624)	ug/L	-/-	ND < 0.32	U	ANR	ANR
1,2-Dichloropropane	ug/L	-/-	ND < 0.35	U	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	ND < 2.4	U	ANR	ANR
1,3-Dichlorobenzene (EPA 624)	ug/L	-/-	ND < 0.35	U	ANR	ANR
1,3-Dichlorobenzene (EPA 625)	ug/L	-/-	ND < 2.8	U	ANR	ANR
1,4-Dichlorobenzene (EPA 625)	ug/L	-/-	ND < 2.4	U	ANR	ANR
1,4-Dichlorobenzene (EPA 624)	ug/L	-/-	ND < 0.37	U	ANR	ANR
2,4,6-Trichlorophenol	ug/L	-/-	ND < 4.2	U	ANR	ANR
2,4-Dichlorophenol	ug/L	-/-	ND < 3.3	U	ANR	ANR
2,4-Dimethylphenol	ug/L	-/-	ND < 3.3	U	ANR	ANR
2,4-Dinitrophenol	ug/L	-/-	ND < 7.5	U	ANR	ANR
2,4-Dinitrotoluene	ug/L	-/-	ND < 3.3	U	ANR	ANR
2,6-Dinitrotoluene	ug/L	-/-	ND < 1.9	U	ANR	ANR
2-Chloroethylvinylether	ug/L	-/-	ND < 1.8	U	ANR	ANR
2-Chloronaphthalene	ug/L	-/-	ND < 2.8	U	ANR	ANR
2-Chlorophenol	ug/L	-/-	ND < 2.8	U	ANR	ANR
2-Methyl-4,6-dinitrophenol	ug/L	-/-	ND < 3.8	U	ANR	ANR
2-Methylnaphthalene	ug/L	-/-	ND < 1.9	U	ANR	ANR

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			RESULT	VALIDATION QUALIFIER	RESULT	VALIDATION QUALIFIER
2-Methylphenol	ug/L	-/-	ND < 2.8	U	ANR	ANR
2-Nitrophenol	ug/L	-/-	ND < 3.3	U	ANR	ANR
3,3'-Dichlorobenzidine	ug/L	-/-	ND < 7.1	U	ANR	ANR
4,4'-DDD	ug/L	-/-	ND < 0.0019	UJ (C)	ANR	ANR
4,4'-DDE	ug/L	-/-	ND < 0.0028	UJ (C)	ANR	ANR
4,4'-DDT	ug/L	-/-	ND < 0.0038	UJ (C)	ANR	ANR
4-Bromophenylphenylether	ug/L	-/-	ND < 2.8	U	ANR	ANR
4-Chloro-3-methylphenol	ug/L	-/-	ND < 2.4	U	ANR	ANR
4-Chloroaniline	ug/L	-/-	ND < 1.9	U	ANR	ANR
4-Chlorophenylphenylether	ug/L	-/-	ND < 2.4	U	ANR	ANR
4-Nitrophenol	ug/L	-/-	ND < 5.2	U	ANR	ANR
Acenaphthene	ug/L	-/-	ND < 2.8	U	ANR	ANR
Acenaphthylene	ug/L	-/-	ND < 2.8	U	ANR	ANR
Acrolein	ug/L	-/-	ND < 4.0	U	ANR	ANR
Acrylonitrile	ug/L	-/-	ND < 0.70	UJ (C)	ANR	ANR
Acute Toxicity	% SURVIVAL	70-100/-	100	*	ANR	ANR
Aldrin	ug/L	-/-	ND < 0.0014	UJ (C)	ANR	ANR
alpha-BHC	ug/L	-/-	ND < 0.0053	UJ (H)	ANR	ANR
Aniline	ug/L	-/-	ND < 3.3	U	ANR	ANR
Anthracene	ug/L	-/-	ND < 2.4	U	ANR	ANR
Aroclor-1016	ug/L	-/-	ND < 0.24	U	ANR	ANR
Aroclor-1221	ug/L	-/-	ND < 0.24	U	ANR	ANR
Aroclor-1232	ug/L	-/-	ND < 0.24	U	ANR	ANR
Aroclor-1242	ug/L	-/-	ND < 0.24	U	ANR	ANR
Aroclor-1248	ug/L	-/-	ND < 0.24	U	ANR	ANR
Aroclor-1254	ug/L	-/-	ND < 0.24	U	ANR	ANR
Aroclor-1260	ug/L	-/-	ND < 0.24	U	ANR	ANR
Benzidine	ug/L	-/-	ND < 9.4	U	ANR	ANR
Benzo(a)anthracene	ug/L	-/-	ND < 2.4	U	ANR	ANR
Benzo(a)pyrene	ug/L	-/-	ND < 2.8	U	ANR	ANR
Benzo(b)fluoranthene	ug/L	-/-	ND < 1.9	U	ANR	ANR
Benzo(g,h,i)perylene	ug/L	-/-	ND < 3.8	U	ANR	ANR
Benzo(k)fluoranthene	ug/L	-/-	ND < 2.4	U	ANR	ANR
Benzoic acid	ug/L	-/-	ND < 9.4	U	ANR	ANR
Benzyl alcohol	ug/L	-/-	ND < 3.3	U	ANR	ANR
beta-BHC	ug/L	-/-	ND < 0.0038	UJ (C)	ANR	ANR
bis (2-Chloroethyl) ether	ug/L	-/-	ND < 2.8	U	ANR	ANR
bis (2-ethylhexyl) Phthalate	ug/L	-/-	ND < 3.8	U	ANR	ANR
bis(2-Chloroethoxy) methane	ug/L	-/-	ND < 2.8	U	ANR	ANR
bis(2-Chloroisopropyl) ether	ug/L	-/-	ND < 2.4	U	ANR	ANR
Bromodichloromethane	ug/L	-/-	ND < 0.30	U	ANR	ANR
Bromoform	ug/L	-/-	ND < 0.40	U	ANR	ANR
Bromomethane	ug/L	-/-	ND < 0.42	U	ANR	ANR
Butylbenzylphthalate	ug/L	-/-	ND < 3.8	U	ANR	ANR
Chlordane	ug/L	-/-	ND < 0.038	U	ANR	ANR
Chlorobenzene	ug/L	-/-	ND < 0.36	U	ANR	ANR
Chloroethane	ug/L	-/-	ND < 0.40	U	ANR	ANR
Chloromethane	ug/L	-/-	ND < 0.40	U	ANR	ANR
Chrysene	ug/L	-/-	ND < 2.4	U	ANR	ANR
cis-1,3-Dichloropropene	ug/L	-/-	ND < 0.22	U	ANR	ANR

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ANALYTE	UNITS	Benchmark Limit Daily Max/Monthly Avg
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THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

January 1 through December 31, 2009

ANALYTE	UNITS	Benchmark Limit Daily Max/Monthly Avg	10/14/2009	
			RESULT	VALIDATION QUALIFIER
Thallium	ug/L	-/-	ANR	ANR
Thallium, dissolved	ug/L	-/-	ANR	ANR
Zinc	ug/L	159/-	260	--
Zinc, dissolved	ug/L	-/-	260	--
ORGANICS				
Benzene	ug/L	-/-	ANR	ANR
Carbon Tetrachloride	ug/L	-/-	ANR	ANR
Chloroform	ug/L	-/-	ANR	ANR
1,1-Dichloroethane	ug/L	-/-	ANR	ANR
1,2-Dichloroethane	ug/L	-/-	ANR	ANR
1,1-Dichloroethene	ug/L	-/-	ANR	ANR
1,4-Dioxane	ug/L	3/-	ND < 1.0	*
Ethylbenzene	ug/L	-/-	ANR	ANR
Tetrachloroethene	ug/L	-/-	ANR	ANR
Toluene	ug/L	-/-	ANR	ANR
Xylenes (Total)	ug/L	-/-	ANR	ANR
1,1,1-Trichloroethane	ug/L	-/-	ANR	ANR
1,1,2-Trichloroethane	ug/L	-/-	ANR	ANR
Trichloroethene	ug/L	-/-	ANR	ANR
Trichlorofluoromethane	ug/L	-/-	ANR	ANR
Trichlorotrifluoroethane (Freon 113)	ug/L	-/-	ANR	ANR
Vinyl chloride	ug/L	-/-	ANR	ANR
TPH				
DRO (C13 - C28)	mg/L	0.1/-	ND < 0.048	*
GRO (C4 - C12)	mg/L	0.1/-	ND < 0.030	*
ADDITIONAL ANALYTES				
2,4,5-Trichlorophenol	ug/L	-/-	ANR	ANR
1,1,2,2-Tetrachloroethane	ug/L	-/-	ANR	ANR
1,2,4-Trichlorobenzene	ug/L	-/-	ANR	ANR
1,2,3-Trichloropropane	ug/L	-/-	ND < 0.40	*
1,2-Dibromoethane (EDB)	ug/L	50/-	ND < 0.40	*
1,2-Dichlorobenzene (EPA 625)	ug/L	-/-	ANR	ANR
1,2-Dichlorobenzene (EPA 624)	ug/L	-/-	ANR	ANR
1,2-Dichloropropane	ug/L	-/-	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	ANR	ANR
1,3-Dichlorobenzene (EPA 624)	ug/L	-/-	ANR	ANR
1,3-Dichlorobenzene (EPA 625)	ug/L	-/-	ANR	ANR
1,4-Dichlorobenzene (EPA 625)	ug/L	-/-	ANR	ANR
1,4-Dichlorobenzene (EPA 624)	ug/L	-/-	ANR	ANR
2,4,6-Trichlorophenol	ug/L	-/-	ANR	ANR
2,4-Dichlorophenol	ug/L	-/-	ANR	ANR
2,4-Dimethylphenol	ug/L	-/-	ANR	ANR
2,4-Dinitrophenol	ug/L	-/-	ANR	ANR
2,4-Dinitrotoluene	ug/L	-/-	ANR	ANR
2,6-Dinitrotoluene	ug/L	-/-	ANR	ANR
2-Chloroethylvinylether	ug/L	-/-	ANR	ANR
2-Chloronaphthalene	ug/L	-/-	ANR	ANR
2-Chlorophenol	ug/L	-/-	ANR	ANR
2-Methyl-4,6-dinitrophenol	ug/L	-/-	ANR	ANR
2-Methylnaphthalene	ug/L	-/-	ANR	ANR

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ANALYTE	UNITS	Benchmark Limit Daily Max/Monthly Avg	10/14/2009	
			RESULT	VALIDATION QUALIFIER
2-Methylphenol	ug/L	-/-	ANR	ANR
2-Nitrophenol	ug/L	-/-	ANR	ANR
3,3'-Dichlorobenzidine	ug/L	-/-	ANR	ANR
4,4'-DDD	ug/L	-/-	ANR	ANR
4,4'-DDE	ug/L	-/-	ANR	ANR
4,4'-DDT	ug/L	-/-	ANR	ANR
4-Bromophenylphenylether	ug/L	-/-	ANR	ANR
4-Chloro-3-methylphenol	ug/L	-/-	ANR	ANR
4-Chloroaniline	ug/L	-/-	ANR	ANR
4-Chlorophenylphenylether	ug/L	-/-	ANR	ANR
4-Nitrophenol	ug/L	-/-	ANR	ANR
Acenaphthene	ug/L	-/-	ANR	ANR
Acenaphthylene	ug/L	-/-	ANR	ANR
Acrolein	ug/L	-/-	ANR	ANR
Acrylonitrile	ug/L	-/-	ANR	ANR
Acute Toxicity	% SURVIVAL	70-100/-	ANR	ANR
Aldrin	ug/L	-/-	ANR	ANR
alpha-BHC	ug/L	-/-	ANR	ANR
Aniline	ug/L	-/-	ANR	ANR
Anthracene	ug/L	-/-	ANR	ANR
Aroclor-1016	ug/L	-/-	ANR	ANR
Aroclor-1221	ug/L	-/-	ANR	ANR
Aroclor-1232	ug/L	-/-	ANR	ANR
Aroclor-1242	ug/L	-/-	ANR	ANR
Aroclor-1248	ug/L	-/-	ANR	ANR
Aroclor-1254	ug/L	-/-	ANR	ANR
Aroclor-1260	ug/L	-/-	ANR	ANR
Benzidine	ug/L	-/-	ANR	ANR
Benzo(a)anthracene	ug/L	-/-	ANR	ANR
Benzo(a)pyrene	ug/L	-/-	ANR	ANR

OUTFALL 013 (Bravo Test Stand)

**ANNUAL 2009 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

Sample Date February 16, 2009

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HpCDD	0.00E+00	2.50E-05	3.98E-06	J (DNQ)	0.01	ND
1,2,3,4,6,7,8-HpCDF	1.31E-06	2.50E-05	ND	U	0.01	ND
1,2,3,4,7,8,9-HpCDF	1.45E-06	2.50E-05	ND	U	0.01	ND
1,2,3,4,7,8-HxCDD	1.18E-06	2.50E-05	ND	U	0.1	ND
1,2,3,4,7,8-HxCDF	5.47E-07	2.50E-05	ND	U	0.1	ND
1,2,3,6,7,8-HxCDD	1.11E-06	2.50E-05	ND	U	0.1	ND
1,2,3,6,7,8-HxCDF	5.41E-07	2.50E-05	ND	U	0.1	ND
1,2,3,7,8,9-HxCDD	1.10E-06	2.50E-05	ND	U	0.1	ND
1,2,3,7,8,9-HxCDF	9.21E-07	2.50E-05	ND	U	0.1	ND
1,2,3,7,8-PeCDD	9.15E-07	2.50E-05	ND	U	1	ND
1,2,3,7,8-PeCDF	5.57E-07	2.50E-05	ND	U	0.05	ND
2,3,4,6,7,8-HxCDF	6.42E-07	2.50E-05	ND	U	0.1	ND
2,3,4,7,8-PeCDF	5.93E-07	2.50E-05	ND	U	0.5	ND
2,3,7,8-TCDD	4.39E-07	5.00E-06	ND	U	1	ND
2,3,7,8-TCDF	4.67E-07	5.00E-06	ND	U	0.1	ND
OCDD	0.00E+00	5.00E-05	2.15E-05	J (DNQ)	0.0001	ND
OCDF	0.00E+00	5.00E-05	3.06E-06	J (DNQ)	0.0001	ND

TCDD TEQ w/out DNQ Values	ND
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TCDD TEQ BENCHMARK LIMIT = 2.80E-08

See attached notes for abbreviations, definitions, and other explanations for the data presented in this table.

OUTFALL 013 (Bravo Test Stand)

**ANNUAL 2009 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

Sample Date October 14, 2009

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HpCDD	0.00E+00	2.50E-05	2.42E-06	J (DNQ)	0.01	ND

















