

#### IV. Combined Ocean Outfall Data

##### Data Summaries

This section presents the results of analyses of the combined or mixed effluent stream being discharged to the South Bay Ocean Outfall from the South Bay Wastewater Reclamation and International Wastewater Treatment Plant for 2010

SB\_ITP\_COMB\_EFF designates a composite sample taken at a point downstream of the discharges of both plants where the wastewater stream is a mixture of both effluents (the secondary or tertiary effluent from SBWRP and the primary effluent from the IWTP).

Sampling and monitoring analyses occurred quarterly in February, May, August and October.

Discharge limits do not apply to this combined flow; but quarterly monitoring is required.

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SOUTH BAY WATER RECLAMATION PLANT  
COMBINED OUTFALL

Annual 2010

Source: SB\_ITP\_COMB\_EFF

Date:

Sample ID:	MDL Units	02-FEB-2010	04-MAY-2010	03-AUG-2010	05-OCT-2010
Aluminum	47 UG/L	302	225	212	245
Antimony	2.9 UG/L	ND	ND	ND	ND
Arsenic	.4 UG/L	1.83	1.77	2.46	2.46
Barium	.039 UG/L	45.5	30.2	22.8	26.3
Beryllium	.022 UG/L	ND	ND	ND	ND
Boron	7 UG/L	396	381	442	326
Cadmium	.53 UG/L	ND	ND	ND	ND
Chromium	1.2 UG/L	8.8	3.8	2.5	2.4
Cobalt	.85 UG/L	0.9	0.9	1.1	1.0
Copper	2 UG/L	33.8	30.1	31.8	42.7
Iron	37 UG/L	1890	2360	1820	2180
Lead	2 UG/L	ND	4.8	2.4	2.7
Manganese	.24 UG/L	66.1	70.4	81.2	79.8
Mercury	.09 UG/L	ND	ND	ND	0.02
Molybdenum	.89 UG/L	6.9	9.0	8.9	10.8
Nickel	.53 UG/L	26.5	12.3	12.2	25.6
Selenium	.28 UG/L	1.62	1.80	1.96	3.34
Silver	.4 UG/L	0.8	ND	ND	ND
Thallium	3.9 UG/L	ND	ND	ND	ND
Vanadium	.64 UG/L	2.7	2.8	2.9	2.5
Zinc	2.5 UG/L	65.0	50.1	47.4	45.5
Calcium Hardness	.1 MG/L	232	192	195	206
Magnesium Hardness	.4 MG/L	159	127	146	155
Total Hardness	.4 MG/L	391	319	341	361
Total Alkalinity (bicarbonate)	20 MG/L	306	306	318	336
Calcium	.04 MG/L	93	77	78	83
Lithium	.002 MG/L	0.06	0.04	0.05	0.05
Magnesium	.1 MG/L	39	31	36	38
Potassium	.3 MG/L	23	23	25	24
Sodium	1 MG/L	265	236	269	277
Bromide	.1 MG/L	0.35	0.36	0.48	0.35
Chloride	7 MG/L	298	272	351	348
Fluoride	.05 MG/L	0.67	0.68	0.76	0.29
Nitrate	.04 MG/L	0.11	2.43	0.76	0.06
Ortho Phosphate	.2 MG/L	7.02	10.0	11.1	13.4
Sulfate	9 MG/L	343	246	259	274
Cyanides, Total	.002 MG/L	0.002	0.003	0.005	0.036
Sulfides-Total	.18 MG/L	ND	0.89	ND	0.24
BOD (Biochemical Oxygen Demand)	2 MG/L	124	179	105	137
Total Suspended Solids	1.4 MG/L	54.0	70.0	66.0	124.0
Volatile Suspended Solids	1.6 MG/L	50.0	48.0	50.0	119.0
Total Dissolved Solids	28 MG/L	1330	1100	1160	1230
Settleable Solids	.1 ML/L	ND	0.5	0.8	3.5
pH	PH	7.8	7.4	7.5	7.3
Turbidity	.13 NTU	37.9	39.9	48.0	38.8
Chlorine Residual, Total	.03 MG/L	ND	ND	ND	ND
Ammonia-N	.3 MG/L	32	39	35	41
Total Kjeldahl Nitrogen	1.6 MG/L	45.3	52.2	48.3	49.9

ND= Not Detected

NA= Not Analyzed

NS= Not Sampled

Chromium results are for Total Chromium

SOUTH BAY WATER RECLAMATION PLANT  
ANNUAL SEWAGE: COMBINED OUTFALL (SB\_ITP\_COMB\_EFF)  
Temperature

Annual 2010

	Temperature GRAB (C)
=====	=====
02-FEB-2010	20.9
04-MAY-2010	22.0
03-AUG-2010	23.9
05-OCT-2010	25.9
=====	=====
Average:	23.2
Maximum:	25.9
Minimum:	20.9

SOUTH BAY WATER RECLAMATION PLANT  
 ANNUAL SEWAGE: COMBINED EFFLUENT (SB\_ITP\_COMB\_EFF)

Ammonia-Nitrogen and Total Cyanides

Annual 2010

	Ammonia-N .3 MG/L COMB EFF	Cyanides, Total .002 MG/L COMB EFF
=====	=====	=====
FEBRUARY -2010	32.3	0.0023
MAY -2010	39.1	0.0025
AUGUST -2010	34.7	0.0055
OCTOBER -2010	41.1	0.0357
=====	=====	=====
Average:	36.8	0.0115

ND= not detected  
 NA= not analyzed  
 NS= not sampled

SOUTH BAY WATER RECLAMATION PLANT  
COMBINED OUTFALL (SB\_ITP\_COMB\_EFF)

Radioactivity

Annual 2010

Source	Month	Gross Alpha Radiation
SB_ITP_COMB_EFF	FEBRUARY -2010	2.6 ± 3.3
SB_ITP_COMB_EFF	MAY -2010	-0.9 ± 2.0
SB_ITP_COMB_EFF	AUGUST -2010	3.6 ± 1.9
SB_ITP_COMB_EFF	OCTOBER -2010	3.2 ± 2.9
AVERAGE		2.1 ± 2.5

Source	Month	Gross Beta Radiation
SB_ITP_COMB_EFF	FEBRUARY -2010	25.4 ± 5.6
SB_ITP_COMB_EFF	MAY -2010	24.6 ± 6.4
SB_ITP_COMB_EFF	AUGUST -2010	19.9 ± 5.6
SB_ITP_COMB_EFF	OCTOBER -2010	25.6 ± 7.0
AVERAGE		23.9 ± 6.2

Units in picocuries/liter (pCi/L)

SOUTH BAY WATER RECLAMATION PLANT  
 QUARTERLY SEWAGE - COMBINED OUTFALL

Chlorinated Pesticide Analysis

Annual 2010

Analyte	MDL	Units	COMB_EFF	COMB_EFF	COMB_EFF	COMB_EFF	Average
			02-FEB-2010	04-MAY-2010	03-AUG-2010	05-OCT-2010	
Aldrin	7	NG/L	ND	ND	ND	ND	ND
Dieldrin	3	NG/L	ND	ND	ND	ND	ND
BHC, Alpha isomer	7	NG/L	ND	ND	ND	ND	ND
BHC, Beta isomer	3	NG/L	ND	ND	ND	ND	ND
BHC, Gamma isomer	5	NG/L	ND	ND	ND	5.7	1.4
BHC, Delta isomer	3	NG/L	ND	ND	ND	ND	ND
p,p-DDD	3	NG/L	ND	ND	ND	ND	ND
p,p-DDE	4	NG/L	ND	ND	ND	ND	ND
p,p-DDT	8	NG/L	ND	ND	ND	ND	ND
o,p-DDD	4	NG/L	ND	ND	ND	ND	ND
o,p-DDE	5	NG/L	ND	ND	ND	ND	ND
o,p-DDT	3	NG/L	ND	ND	ND	ND	ND
Heptachlor	8	NG/L	ND	ND	ND	ND	ND
Heptachlor epoxide	4	NG/L	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	3	NG/L	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	4	NG/L	ND	ND	ND	ND	ND
Alpha Chlordene		NG/L	NA	NA	NA	NA	NA
Gamma Chlordene		NG/L	NA	NA	NA	NA	NA
Oxychlordane	6	NG/L	ND	ND	ND	ND	ND
Trans Nonachlor	5	NG/L	ND	ND	ND	ND	ND
Cis Nonachlor	3	NG/L	ND	ND	ND	ND	ND
Alpha Endosulfan	4	NG/L	ND	ND	ND	ND	ND
Beta Endosulfan	2	NG/L	ND	ND	ND	ND	ND
Endosulfan Sulfate	6	NG/L	ND	ND	ND	ND	ND
Endrin	2	NG/L	ND	ND	ND	ND	ND
Endrin aldehyde	9	NG/L	ND	ND	ND	ND	ND
Mirex	10	NG/L	ND	ND	ND	ND	ND
Methoxychlor	10	NG/L	ND	ND	ND	ND	ND
Toxaphene	330	NG/L	ND	ND	ND	ND	ND
PCB 1016	4000	NG/L	ND	ND	ND	ND	ND
PCB 1221	4000	NG/L	ND	ND	ND	ND	ND
PCB 1232	360	NG/L	ND	ND	ND	ND	ND
PCB 1242	4000	NG/L	ND	ND	ND	ND	ND
PCB 1248	2000	NG/L	ND	ND	ND	ND	ND
PCB 1254	2000	NG/L	ND	ND	ND	ND	ND
PCB 1260	2000	NG/L	ND	ND	ND	ND	ND
PCB 1262	930	NG/L	ND	ND	ND	ND	ND
Aldrin + Dieldrin	7	NG/L	0	0	0	0	0
Hexachlorocyclohexanes	7	NG/L	0	0	0	6	2
DDT and derivatives	8	NG/L	0	0	0	0	0
Chlordane + related cmpds.	6	NG/L	0	0	0	0	0
Polychlorinated biphenyls	4000	NG/L	0	0	0	0	0
Endosulfans	6	NG/L	0	0	0	0	0
Heptachlors	8	NG/L	0	0	0	0	0
Chlorinated Hydrocarbons	4000	NG/L	0	0	0	6	2

ND=not detected

Standards for alpha and gamma chlordene are no longer available in the U.S. for the analysis of these compounds.

SOUTH BAY WATER RECLAMATION PLANT  
COMBINED EFFLUENT

Acid Extractables

Annual 2010

Source: SB\_ITP\_COMB\_EFF

Analyte	MDL	Units	FEB	MAY	AUG	OCT	Avg
2-chlorophenol	1.32	UG/L	ND	ND	ND	ND	ND
2,4-dichlorophenol	1.01	UG/L	ND	ND	ND	ND	ND
4-chloro-3-methylphenol	1.67	UG/L	ND	ND	ND	ND	ND
2,4,6-trichlorophenol	1.65	UG/L	ND	ND	ND	ND	ND
Pentachlorophenol	1.12	UG/L	ND	ND	ND	ND	ND
Phenol	1.76	UG/L	29.1	41.3	32.9	35.1	34.6
2-nitrophenol	1.55	UG/L	ND	ND	ND	ND	ND
2,4-dimethylphenol	2.01	UG/L	ND	ND	ND	ND	ND
2,4-dinitrophenol	2.16	UG/L	ND	ND	ND	ND	ND
4-nitrophenol	1.14	UG/L	ND	ND	ND	ND	ND
2-methyl-4,6-dinitrophenol	1.52	UG/L	ND	ND	ND	ND	ND
Total Chlorinated Phenols	1.67	UG/L	0.0	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	2.16	UG/L	29.1	41.3	32.9	35.1	34.6
Total Phenols	2.16	UG/L	29.1	41.3	32.9	35.1	34.6
2-methylphenol	2.15	UG/L	ND	ND	ND	ND	ND
3-methylphenol(4-MP is unresolved)		UG/L	NA	NA	NA	NA	NA
4-methylphenol(3-MP is unresolved)	2.11	UG/L	26.9	20.3	3.1	5.1	13.9
2,4,5-trichlorophenol	1.66	UG/L	ND	ND	ND	ND	ND

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT  
Priority Pollutants Base/Neutrals  
COMBINED EFFLUENT

Annual 2010

Analyte	MDL	Units	FEB	MAY	AUG	OCT	Avg
Acenaphthene	1.8	UG/L	ND	ND	ND	ND	ND
Acenaphthylene	1.77	UG/L	ND	ND	ND	ND	ND
Anthracene	1.29	UG/L	ND	ND	ND	ND	ND
Benzydine	1.52	UG/L	ND	ND	ND	ND	ND
Benzo[A]anthracene	1.1	UG/L	ND	ND	ND	ND	ND
3,4-benzo(B)fluoranthene	1.35	UG/L	ND	ND	ND	ND	ND
Benzo[K]fluoranthene	1.49	UG/L	ND	ND	ND	ND	ND
Benzo[A]pyrene	1.25	UG/L	ND	ND	ND	ND	ND
Benzo[G,H,I]perylene	1.09	UG/L	ND	ND	ND	ND	ND
4-bromophenyl phenyl ether	1.4	UG/L	ND	ND	ND	ND	ND
bis(2-chloroethoxy)methane	1.01	UG/L	ND	ND	ND	ND	ND
bis(2-chloroethyl) ether	1.38	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	1.16	UG/L	ND	ND	ND	ND	ND
4-chlorophenyl phenyl ether	1.57	UG/L	ND	ND	ND	ND	ND
2-chloronaphthalene	1.87	UG/L	ND	ND	ND	ND	ND
Chrysene	1.16	UG/L	ND	ND	ND	ND	ND
Dibenzo(A,H)anthracene	1.01	UG/L	ND	ND	ND	ND	ND
Butyl benzyl phthalate	2.84	UG/L	ND	ND	ND	ND	ND
Di-n-butyl phthalate	3.96	UG/L	ND	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	8.96	UG/L	ND	ND	ND	ND	ND
Diethyl phthalate	3.05	UG/L	17.4	20.2	13.7	16.5	17.0
Dimethyl phthalate	1.44	UG/L	ND	ND	ND	ND	ND
Di-n-octyl phthalate	1	UG/L	ND	ND	ND	ND	ND
3,3-dichlorobenzidine	2.44	UG/L	ND	ND	ND	ND	ND
2,4-dinitrotoluene	1.36	UG/L	ND	ND	ND	ND	ND
2,6-dinitrotoluene	1.53	UG/L	ND	ND	ND	ND	ND
1,2-diphenylhydrazine	1.37	UG/L	ND	ND	ND	ND	ND
Fluoranthene	1.33	UG/L	ND	ND	ND	ND	ND
Fluorene	1.61	UG/L	ND	ND	ND	ND	ND
Hexachlorobenzene	1.48	UG/L	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.64	UG/L	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	1.25	UG/L	ND	ND	ND	ND	ND
Hexachloroethane	1.32	UG/L	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	1.14	UG/L	ND	ND	ND	ND	ND
Isophorone	1.53	UG/L	ND	ND	ND	ND	ND
Naphthalene	1.65	UG/L	ND	ND	ND	ND	ND
Nitrobenzene	1.6	UG/L	ND	ND	ND	ND	ND
N-nitrosodimethylamine	1.27	UG/L	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.16	UG/L	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	3.48	UG/L	ND	ND	ND	ND	ND
Phenanthrene	1.34	UG/L	ND	ND	ND	ND	ND
Pyrene	1.43	UG/L	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	1.52	UG/L	ND	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	1.77	UG/L	0.0	0.0	0.0	0.0	0.0
Base/Neutral Compounds	8.96	UG/L	17.4	20.2	13.7	16.5	17.0
Benzo[e]pyrene	1.44	UG/L	ND	ND	ND	ND	ND
Biphenyl	2.29	UG/L	ND	ND	ND	ND	ND
2,6-dimethylnaphthalene	2.16	UG/L	ND	ND	ND	ND	ND
1-methylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND
1-methylphenanthrene	1.46	UG/L	ND	ND	ND	ND	ND
2-methylnaphthalene	2.14	UG/L	ND	ND	ND	ND	ND
2,3,5-trimethylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND
Perylene	1.41	UG/L	ND	ND	ND	ND	ND

ND=not detected



SOUTH BAY WATER RECLAMATION PLANT  
ANNUAL SEWAGE: COMBINED EFFLUENT

Tributyl Tin Analysis

Annual 2010

Source: SB\_ITP\_COMB\_EFF

Analyte	MDL	Units	FEB	MAY	AUG	OCT	Avg
Dibutyltin	7	UG/L	ND	ND	ND	ND	ND
Monobutyltin	16	UG/L	ND	ND	ND	ND	ND
Tributyltin	2	UG/L	ND	ND	ND	ND	ND

ND=not detected  
NS=not sampled  
NA=not analyzed

SOUTH BAY WATER RECLAMATION PLANT  
 COMBINED OUTFALL  
 Priority Pollutants Purgeable Compounds

ANNUAL 2010

Source: SB\_ITP\_COMB\_EFF EFF

Analyte	MDL	Units	FEB	MAY	AUG	OCT	AVG
Dichlorodifluoromethane	.66	UG/L	ND	ND	ND	ND	ND
Chloromethane	.5	UG/L	ND	ND	ND	ND	ND
Vinyl chloride	.4	UG/L	ND	ND	ND	ND	ND
Bromomethane	.7	UG/L	ND	ND	ND	ND	ND
Chloroethane	.9	UG/L	ND	ND	ND	ND	ND
Trichlorofluoromethane	.3	UG/L	ND	ND	ND	ND	ND
Acrolein	1.3	UG/L	ND	ND	ND	ND	ND
1,1-dichloroethane	.4	UG/L	ND	ND	ND	ND	ND
Methylene chloride	.3	UG/L	2.7	5.8	3.0	3.3	3.7
trans-1,2-dichloroethene	.6	UG/L	ND	ND	ND	ND	ND
1,1-dichloroethene	.4	UG/L	ND	ND	ND	ND	ND
Acrylonitrile	.7	UG/L	ND	ND	ND	ND	ND
Chloroform	.2	UG/L	5.8	12.9	8.5	9.6	9.2
1,1,1-trichloroethane	.4	UG/L	ND	ND	ND	ND	ND
Carbon tetrachloride	.4	UG/L	ND	ND	ND	ND	ND
Benzene	.4	UG/L	ND	ND	ND	ND	ND
1,2-dichloroethane	.5	UG/L	ND	ND	ND	ND	ND
Trichloroethene	.7	UG/L	ND	ND	ND	0.8	0.2
1,2-dichloropropane	.3	UG/L	ND	ND	ND	ND	ND
Bromodichloromethane	.5	UG/L	1.4	ND	ND	ND	0.4
2-chloroethylvinyl ether	1.1	UG/L	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	.3	UG/L	ND	ND	ND	ND	ND
Toluene	.4	UG/L	5.4	17.9	8.9	32.8	16.3
trans-1,3-dichloropropene	.5	UG/L	ND	ND	ND	ND	ND
1,1,2-trichloroethane	.5	UG/L	ND	ND	ND	ND	ND
Tetrachloroethene	1.1	UG/L	ND	ND	ND	ND	ND
Dibromochloromethane	.6	UG/L	1.5	ND	ND	ND	0.4
Chlorobenzene	.4	UG/L	ND	ND	ND	ND	ND
Ethylbenzene	.3	UG/L	0.7	1.5	0.4	1.1	0.9
Bromoform	.5	UG/L	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	.5	UG/L	ND	ND	ND	ND	ND
1,3-dichlorobenzene	.5	UG/L	ND	ND	ND	ND	ND
1,4-dichlorobenzene	.4	UG/L	2.2	3.7	2.7	3.5	3.0
1,2-dichlorobenzene	.4	UG/L	ND	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	.7	UG/L	0.0	0.0	0.0	0.0	0.0
Dichlorobenzenes	.5	UG/L	0.0	0.0	0.0	0.0	0.0
Total Chloromethanes	.5	UG/L	8.5	18.7	11.5	12.9	12.9
Purgeable Compounds	1.3	UG/L	19.7	41.8	23.5	51.1	34.0
Methyl Iodide	.6	UG/L	ND	ND	ND	ND	ND
Carbon disulfide	.6	UG/L	1.3	2.7	1.5	4.0	2.4
Acetone	4.5	UG/L	368	486	484	636	494
Allyl chloride	.6	UG/L	ND	ND	ND	ND	ND
Methyl tert-butyl ether	.4	UG/L	ND	ND	ND	ND	ND
Chloroprene	.4	UG/L	ND	ND	ND	ND	ND
1,2-dibromoethane	.3	UG/L	ND	ND	ND	ND	ND
2-butanone	6.3	UG/L	15.3	9.5	6.8	14.5	11.5
Methyl methacrylate	.8	UG/L	ND	ND	ND	ND	ND
2-nitropropane	12	UG/L	ND	ND	ND	ND	ND
4-methyl-2-pentanone	1.3	UG/L	ND	ND	ND	2.9	0.7
meta,para xylenes	.6	UG/L	2.9	6.0	1.4	4.5	3.7
ortho-xylene	.4	UG/L	1.9	4.0	1.9	7.0	3.7
Isopropylbenzene	.3	UG/L	ND	0.6	1.3	0.9	0.7
Styrene	.3	UG/L	ND	ND	ND	ND	ND
Benzyl chloride	1.1	UG/L	ND	ND	4.3	1.8	1.5
1,2,4-trichlorobenzene	1.52	UG/L	ND	ND	ND	ND	ND

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT  
COMBINED OUTFALL (SB\_ITP\_COMB\_EFF)

Organophosphorus Pesticides

Annual 2010

Analyte:	MDL Units	04-MAY-2010	05-OCT-2010
		P515511	P533626
Demeton O	.15 UG/L	ND	ND
Demeton S	.08 UG/L	ND	ND
Diazinon	.03 UG/L	ND	ND
Guthion	.15 UG/L	ND	ND
Malathion	.03 UG/L	ND	0.3
Parathion	.03 UG/L	ND	ND
Dichlorvos	.05 UG/L	0.5	0.4
Dibrom	.2 UG/L	ND	NR
Ethoprop	.04 UG/L	ND	NR
Phorate	.04 UG/L	ND	NR
Sulfotepp	.04 UG/L	ND	NR
Disulfoton	.02 UG/L	ND	ND
Monocrotophos	UG/L	NR	NR
Dimethoate	.04 UG/L	4.0	ND
Ronnel	.03 UG/L	ND	NR
TrichloroNRte	.04 UG/L	ND	NR
Merphos	.09 UG/L	ND	NR
Dichlofenthion	.03 UG/L	ND	NR
Tokuthion	.06 UG/L	ND	NR
Stirophos	.03 UG/L	ND	ND
Bolstar	.07 UG/L	ND	NR
Fensulfothion	.07 UG/L	ND	NR
EPN	.09 UG/L	ND	NR
Coumaphos	.15 UG/L	ND	ND
Mevinphos, e isomer	.05 UG/L	ND	NR
Mevinphos, z isomer	.3 UG/L	ND	NR
Chlorpyrifos	.03 UG/L	ND	ND
Thiophosphorus Pesticides	.15 UG/L	0.0	0.3
Demeton -O, -S	.15 UG/L	0.0	0.0
Total Organophosphorus Pesticides	.3 UG/L	4.5	0.7

ND=not detected  
NR=not required

SOUTH BAY WATER RECLAMATION PLANT  
Annual Sewage Dioxin and Furan Analysis

COMBINED OUTFALL

Annual 2010

Analyte:	MDL	Units	Equiv	COMB EFF	COMB EFF	COMB EFF	COMB EFF
				FEB P504517	MAY P515511	AUG P525077	OCT P533626
2,3,7,8-tetra CDD	125	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	123	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	113	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	98	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	111	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	137	PG/L	0.010	ND	ND	ND	ND
octa CDD	247	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	115	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	140	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	118	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	147	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	107	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	152	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	148	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	90	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	166	PG/L	0.010	ND	ND	ND	ND
octa CDF	222	PG/L	0.001	ND	ND	ND	ND

Analyte:	MDL	Units	Equiv	COMB EFF	COMB EFF	COMB EFF	COMB EFF
				TCCD FEB P504517	TCCD MAY P515511	TCCD AUG P525077	TCCD OCT P533626
2,3,7,8-tetra CDD	125	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	123	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	113	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	98	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	111	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	137	PG/L	0.010	ND	ND	ND	ND
octa CDD	247	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	115	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	140	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	118	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	147	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	107	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	152	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	148	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	90	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	166	PG/L	0.010	ND	ND	ND	ND
octa CDF	222	PG/L	0.001	ND	ND	ND	ND

Above are permit required CDD/CDF isomers.  
ND= not detected