Table 2-1
Chronology of Events
Ascon Landfill Site
Huntington Beach, California

1938-1971	Rotary drilling muds, wastes and waste water brines were the major wastes deposited at the site. Garrish Brothers owned and operated the facility from 1938-1950. Steverson Brothers owned and operated the facility from 1950-1971.
1949	Department of Health Services issued permit to Garrish Brothers to operate the site as a rotary mud dump.
1950	Twenty-two areas used for oil field wastes. Ponds designed to flow to the east with 25 to 30 foot berms.
1955	Pit E was in use.
1957-1971	"Unusable oil" dumped by General Edison Power Co. (256,000 gals.) in big lagoon (Carl Steverson of Steverson Bros., Inc.).
1957	Three-hundred barrels of chromic and sulfuric acid wastes dumped into Pits C, D and F (M & M Pumping, 12,600 gallons for period).
1958	Shell Chemical disposed of "dregs from Bunker C fuel oil" containing "light hydrocarbon" conglomerate mixture of C and C; and styrene tar to Pit F.
1951-1959	Aluminum and Magnesium, Inc., disposed of aluminum slag and other process wates (magnesium chloride and potassium chloride) at a rate not exceeding 25 tons per month (maximum 2,700 tons for period).
1958-1971	AQMD received persistent complaints of odors from the site.
1962	Shell Chemical deposited corrosive materials.
1964	Shell Chemical deposited polyester resins and phenolic laden compounds (20 percent free phenol).
1962-1964	Numerous mercaptan and styrene odors reported. Most of the styrene waste went to Pit F. Some may have gone to Pit E. Pit E was covered in 1964 with soil (1968 aerial shows Pit E covered).
1971	Oily waste disposed in Pits A and B by Douglas Oil.
1971	All oilfield waste disposal ceased.
1971-1984	Class III inert wastes accepted.

Table 2-1 (continued)
Chronology of Events
Ascon Landfill Site
Huntington Beach, California

1980-1984	Site Sampling conducted by Oil Well Research, Inc.
	Site Investigation conducted by Woodward-Clyde Consultants.
	Site Characterization conducted by J.W. Barrington.
	Site Investigation conducted by Ecology and Environment, Inc.
	Site Investigation conducted by Orange County Health Department.
	Site evaluated by U.S. EPA for inclusion on the National Priorities Ranking List.
1984	The site was purchased by ASCON Properties. All disposal activities ceased.
	The site was listed on the State Department of Health Services' Toxic Substances Control Program, Site Ranking and Priorities List. ASCON Properties started negotiations with the Department for site cleanup.
	The Regional Water Quality Control Board became responsible for the cleanup of on site pits.
	Site characterization report prepared by Lockman & Associates.
	ASCON Ad-Hoc Committee is established.
1985	Waste characterization study prepared by Proteck Environmental.
1987	AQMD issues odor violation report to ASCON Properties.
1987-1988	Site Investigation conducted by H.V. Lawmaster.
	Site Investigation conducted by Radian Corporation.
1988	AQMD issued ASCON Properties an excavation permit under Rule 1150.
1989-1990	ASCON Properties filed for protection under Bankruptcy Court.
	NESI Investment Group acquired the site through foreclosure.

Table 2-1
Chronology of Events (continued)
Ascon Landfill Site
Huntington Beach, California

1991-1992	NESI executed a Consent Agreement with the DTSC and initiated Site Remediation activities. NESI prepared Remedial Investigation/Feasibility Study and Removal Action Workplans for the site. NESI implemented Remedial Investigation Workplan. NESI submitted to AQMD permit application under Rules 203, 1150 and 1166.
1993	NESI Investment Group files for Bankruptcy. Property ownership transferred to Signal Mortgage Company.
1995	Signal Mortgage Company entered into agreement with Savannah Resources Corporation to complete DTSC-required RI/FS and Remedial Action Plan (RAP). Savannah Resources Corporation entered into a Voluntary Cleanup Agreement (VCA) with the DTSC for the oversight, review and approval of RI/FS and RAP.
1997	RI report and Baseline Health Risk Assessment completed by ESE. California/Nevada Developments, LLC acquired the interests of Savannah Resources Corporation and assumed responsibility for completion of the RI/FS and RAF.
1998	Treatability testing conducted as a part of the FS.
1999	Pilot Testing conducted as a part of the FS.
2000	Feasibility Study Completed. Draft RAP preparation in progress.
2002	Site groundwater assessment conducted by PNL.
2003	Cannery Hamilton Properties, LLC, purchased site from Beach Coast Properties (formerly Signal Mortgage Company). GeoSyntec prepares Draft Groundwater RI and conducts Tidal Study Investigation.
2005-2006	Emergency Action performed to strengthen north berm (15 wells destroyed)
2006	GeoSyntec conducts supplemental groundwater investigation in Pit F area
2006	GeoSyntec completes GW RI field investigation includng four quarters of groundwater in 2004 and December 2006 sampling.

Source for 1938-2000 information: ISCO Industries/ITARA Engineers (1992) and ESE (1997).

Table 2-2
Pit Locations and History
Ascon Landfill Site
Huntington Beach, California

Pit	Site Quadrant	Waste
A & B	NW	Oily wastes disposed of by Douglas Oil - 1971; Pit not shown in 1973 photograph.
C & D	SE	A portion of 300 barrels of chromic and sulfuric acid disposed of by M & M Pumping - 1957; Pit not shown in 1978 photograph.
E	SE	Styrene - 1962 to 1964; pit covered with soil in 1964. Liquid present in pit in 1965 photograph; office trailer located over pit area in 1973 photograph.
F	SE	Styrene tar disposed of by Shell Chemical - 1957; Synthetic rubber disposed of by Shell Chemical. Pit still present, covered with tarp.
G	SE	Waste of unknown source; Pit not shown in 1978 photograph.
H	NW	Waste of unknown source; Pit not shown in 1973 photograph.

ESE's Source: Radian (1988)
Reference: ESE (1997)

Table 2-3
Information on Oil Wells on the Ascon Landfill Site
Ascon Landfill Site
Huntington Beach, California

Well	Owner	Year Drilled	Year Abandoned	Depth (ft)	Notes
Pacific Ranch 1	Standard	1922	No	2,239	Notice of intention to abandon filed in 1922, but no history of abandonment. In 1922, made cement plug from 443 to 417 bgs. Casing was perforated from 320 to 400 bgs to turn into water well. Located in Lagoon 5. See Geophyisical Invesigation Report dated February 15, 2006, in Appendix C
Pacific Ranch 1A	Standard	1922	1924	3,896	Abandoned because flooded with water. Located in Lagoon 5, just east of Pacific Ranch 1. See Geophysical Investigation Report dated February 15, 2006, in Appendix C.
Deeble 1	Signal Petroleum Co.	1946	1953	4,847	Located east of Pit E.
Krik 1(80)	Meeker & Garner	1946	2004	3,788	Abandoned by DOGGR March 2004 after release. Records indicate "Kirk" although now known as "Krik." Located NE of Pit F.
SCOC 40	South Coast Oil	1954	Active	4,200	Formerly called Deeble 1 (name changed in 2002). Replaced Deeble 1 that was abandoned in 1953.
SCOC 41	South Coast Oil	1955	Active	3,899	Formerly call Deeble 2 (name changed in 2002).

bgs: below ground suface
Source: Division of Oil, Gas, & Geothermal Resources Files (PNL, personnel communication, 2005)

Table 4-1
Well Construction Information
Ascon Landfill Site
Huntington Beach, California

Groundwater Monitoring Well Number	Well Diameter (inches)	Well Type	NAV88 Well Head Elevation[1] (ft)	Well Head Elevation-Feet Above Mean Sea Level [2] (ft MSL)	Reported Approximate Well Screen Interval (ft btoc)	Reported Screen Interval (ft above MSL)	Reported Screen Interval (ft NAVD88)	Measured Bottom of Monitoring Point [3] (ft btoc)
Semi-Perched Monitoirng Points								
AW-1	2	PVC	8.69	6.23	5-15	1.23 - (-8.77)	3.69-(-6.31)	17.5
AW-1A	2	PVC	12.46	10.00	7.8-22.8	2.20 - (-12.8)	4.66-(-10.34)	21.34
AW-2	2	PVC	8.08	5.62	9.6-19.6	-3.98 - (-13.98)	-1.52 - (-11.52)	20.0
AW-3	2	PVC	10.84	8.38	10-20	-1.62 - (-11.62)	0.84 - (-9.16)	20.2
AW-4	2	PVC	8.47	6.01	17-27	-10.99 - (-20.99)	-8.53 - (-18.53)	27.2
AW-4A	2	PVC	9.78	7.32	5.9-20.9	1.42 - (-13.58)	3.88 - (-11.12)	18.6
AW-5	2	PVC	7.32	4.86	10-20	-5.14 - (-15.14)	-2.68 - (-12.68)	20.3
AW-8	2	PVC	8.24	5.78	10-20	-4.22-(14.22)	-1.76 - (-11.76)	20.1
B-2	2	Stainless Steel	27.00	24.54	40-77	-15.46 - (-52.46)	-13.00 - (-50.00)	74.2
B-4	2	Stainless Steel	21.30	18.84	28-38	-9.16 - (-19.16)	-6.70 - (-16.70)	36.0
B-4A	2	PVC	22.16	19.70	18.6-33.6	1.1-(-13.9)	3.56 - (-11.44)	33.7
B-5	2	Stainless Steel	28.13	25.67	32-42	-6.33 - (-16.33)	-3.87 - (-13.87)	30.5
B-6	2	Stainless Steel	10.51	8.05	22-37	-13.95 - (-28.95)	-11.49 - (-26.49)	23.3
B-7	2	Stainless Steel	17.57	15.11	12-27	3.11 - (-11.89)	5.57 - (-9.43)	28.8
MW-4	4	PVC	24.69	22.23	20-45	2.23 - (-22.77)	4.69 - (-20.31)	45.0
MW-9	4	PVC	17.49	15.03	15-30	0.03 - (-14.97)	2.49 - (-12.51)	30.4
MW-13	4	PVC	9.29	6.83	10-25	-3.17 - (-18.17)	-0.71 - (-15.71)	25.5
MW-14	4	PVC	25.19	22.73	29-44	-6.27 - (-21.27)	-3.81 - (-18.81)	44.9
MW-15	4	PVC	8.03	5.57	10-25	-4.43 - (19.43)	1.97 - (-16.97)	25.5
NMW-1	4	PVC	23.74	21.28	19-39	2.28 - (-17.72)	4.74 - (-15.26)	38.7
NMW-2	4	PVC	19.81	17.35	18-38	-0.65 - (-20.65)	1.81 - (-18.19)	38.2
MW-16	4	PVC	9.47	7.01	7-22	0.01 - (-14.99)	2.47 - (-12.53)	25.0
MW-17	4	PVC	7.63	5.17	9-24	-3.83 - (-18.83)	-1.37 - (-16.37)	24.9
MW-18	4	PVC	5.39	2.93	4.9-19.9	-1.97 - (-16.97)	0.49 - (-14.51)	20.0
MW-19	2	PVC	5.2	2.74	3.5-18.5	-0.81 - (-15.81)	1.70-(-13.3)	16.3
MW-20	2	PVC	27.43	24.97	66.5-76.5	-41.53 - (-51.53)	-39.07 - (-49.07)	73.2
P-1	6	PVC	27.42	24.96	25.5-35.5	-0.54 - (-10.54)	1.92 - (-8.08)	35.2
P-2	6	PVC	24.36	21.90	28.2-38.2	-6.3 - (-16.30)	-3.84 - (-13.84)	37.0
P-3	6	PVC	29.06	26.60	23.8-38.8	2.8 - (-12.2)	5.26 - (-9.74)	38.8
P-4	6	PVC	27.64	25.18	20.3-35.3	4.88 - (-10.12)	7.34 - (-7.66)	35.4
P-5	6	PVC	30.01	27.55	25-40	2.55 - (-12.45)	5.01 - (-9.99)	37.6
P-6	6	PVC	29.62	27.16	34.0-44.0	-6.84 - (-16.84)	-4.38 - (-14.38)	41.9
P-8	6	PVC	24.45	21.99	20.6-30.6	1.39 - (-8.61)	3.85 - (-6.15)	30.4
P-9	6	PVC	16.9	14.44	13.9-23.9	0.54 - (-9.46)	3.00 - (-7.00)	24.4
P-10	6	PVC	7.64	5.18	5.3-15.3	-0.12 -(-10.12)	2.34 - (-7.66)	15.0
GP-1	1	PVC	24.17	21.71	23.1-33.1	-1.39 - (-11.39)	1.07 - (-8.93)	33.0

Table 4-1
Well Construction Information
Ascon Landfill Site
Huntington Beach, California

Groundwater Monitoring Well Number	Well Diameter (inches)	Well Type	NAV88 Well Head Elevation[1] (ft)	Well Head Elevation-Feet Above Mean Sea Level [2] (ft MSL)	Reported Approximate Well Screen Interval (ft btoc)	Reported Screen Interval (ft above MSL)	Reported Screen Interval (ft NAVD88)	Measured Bottom of Monitoring Point [3] (ft btoc)
GP-2	1	PVC	26.49	24.03	23.0-33.0	1.03 - (-8.97)	3.49 - (-6.51)	18.3
GP-3	1	PVC	22.47	20.01	17.0-27.0	3.01 - (-6.99)	5.47 - (-4.53)	26.8
GP-4	1	PVC	21.1	18.64	17.2-27.2	1.41 - (-8.56)	3.90 - (-6.10)	27.1
GP-12	1	PVC	18.69	16.23	14.1-24.1	2.13 - (-7.87)	4.59 - (-5.41)	23.1
GP-21	1	PVC	18.76	16.30	18.1-28.1	-1.8 - (-11.8)	0.66 - (-9.34)	27.5
GP-22	1	PVC	18.31	15.85	20.6-30.6	-4.75 - (-14.75)	-2.29 - (-12.29)	29.4
GP-23	1	PVC	27.34	24.88	28.3-38.3	-3.42 - (-13.42)	-0.96 - (-10.96)	32.5
GP-24	1	PVC	28.78	26.32	26.8-36.8	-0.48 - (-10.48)	1.98 - (-8.02)	33.2
GP-25	1	PVC	22.35	19.89	30.5-40.5	-10.64 - (-20.64	-8.15 - (-18.15)	39.6
Perched Monitoring Points								
P-7	6	PVC	21.19	18.73	5.5-20.5	13.23 - (-1.77)	15.69 - 0.69	20.3
GP-5	1	PVC	19.25	16.79	9.1-19.1	7.69 - (-2.31)	10.15 - 0.15	17.9
GP-6	1	PVC	17.58	15.12	6.7-16.7	8.42 - (-1.58)	10.88 - 0.88	18.1
GP-7	1	PVC	18.29	15.83	10.0-20.0	5.83 - (-4.17)	8.29 - (-1.71)	22.2
GP-8	1	PVC	17.01	14.55	4.9-14.9	9.65 - (-0.35)	12.11 - 2.11	7.5
GP-9	1	PVC	18.15	15.69	10.1-20.1	5.59 - (-4.41)	8.05 - (-1.95)	10.2
GP-10	1	PVC	17.52	15.06	13.0-23.0	2.06 - (-7.94)	4.52 - (-5.48)	21.5
GP-11	1	PVC	17.29	14.83	6.0-16.0	8.83 - (-1.17)	11.29 - 1.29	14.8
GP-13	1	PVC	23.86	21.40	14.7-24.7	6.70 - (-3.30)	9.16 - (-0.84)	22.1
GP-14	1	PVC	27.66	25.20	14.5-24.5	10.70 - (0.70)	13.16 - 3.16	23.5
GP-15	1	PVC	19.9	17.44	8.12-18.12	9.32 - (-0.68)	11.78 - 1.78	12.2
GP-16	1	PVC	23.01	20.55	8.0-18.0	12.55 - (2.55)	15.01 - 5.01	18.0
GP-17	1	PVC	22.95	20.49	5.2-10.2	15.29 - (-5.29)	17.75 - 12.75	14.3
GP-18	1	PVC	27.72	25.26	9.8-19.8	15.46 - (-5.46)	17.92 - 7.92	-
GP-19	1	PVC	28.18	25.72	14.2-24.2	11.52 - (1.52)	13.98 - 3.98	-
GP-20	1	PVC	23.66	21.20	5.2-15.2	16.00 - (6.00)	18.46 - 8.46	14.8

ft btoc: feet below top of casing
ft: feet
Ft MSL: Feet above mean sea level
(1): Surveyed elevation based on bench mark located at intersection of Hamilton Avenue and Magnolis Street. Datum is the NAVD88 (height 5.609).
(2): Elevation is feet above mean sea level and was derived by subtracting 2.46 feet from the NAVD88 well head elevations (see text for further explanation).
(3): Observations made during June 23, 2003, Well Inventory Event conducted by GeoSyntec.

Table 4-2
Summary of Groundwater Sample Collection
Ascon Landfill Site

Wells	Wells Sampled Pre-2002					Input for GWRI: PNL 2002	Input for GWRI: GeoSyntec					Notes
	E&E 1982[4]	W&C 1983[5]	Radian 1988[6]	Isco-Itara 1991[7]	ESE 1997[8]	PNL 2002[9]	Q1 2004[10]	Q2 2004[11]	Q3 2004[12]	Q4 2004[12]	December 2006[13]	
AW-1	X		X				X	X	X	X	X	
AW-1A							X	X	X	X	X	
AW-2	X		X			X					X	
AW-3	X		X		X	X	X	X	X	X	X	
AW-4/4A[1]	X		X		X	X	X	X	X	X	X	
AW-5	X				X	X	X	X	X	X	X	
AW-6	X											Well believed to be paved over during Hamilton Ave. widening
AW-7	X											Well believed to be paved over during Hamilton Ave. widening
AW-8	X		X						X	X	X	
B-2		X										Well destroyed in 2005 during Emergency Action
B-4/4A[2]		X	X			X	X	X	X	X	X	
B-5		X										Well generally not sampled due to LNAPL
B-6		X				X[3]						Well generally not sampled due to LNAPL
B-7		X	X		X	X	X	X	X	X	X	
MW-4			X		X	X	X	X	X	X		Well destroyed in 2005 during Emergency Action
MW-9			X		X	X	X	X	X	X	X	
MW-13			X		X	X	X	X	X	X	X	
MW-14			X									Well destroyed in 2005 during Emergency Action
MW-15			X		X	X	X	X	X	X	X	
NMW-1				X	X	X			X	X		Well destroyed in 2005 during Emergency Action
NMW-2				X		X	X	X	X	X	X	
MW-16						X	X	X	X	X	X	
MW-17						X	X	X	X	X	X	
MW-18						X	X	X	X	X	X	
MW-19							X	X	X	X	X	
MW-20							X	X	X	X		Well destroyed in 2005 during Emergency Action
GP-1							X	X	X	X		Well destroyed in 2005 during Emergency Action
GP-12							X	X	X	X	X	
GP-23							X	X	X	X	X	
GP-24							X	X	X	X		Well destroyed in 2005 during Emergency Action

Footnotes:

1. AW-4A was sampled in 2004. Sample collection prior to 2004 was conducted at AW-4.
2. B-4A was sampled in 2004. Sample collection prior to 2004 was conducted at B-4.
3. Sampled for TPH only.
4. Wells sampled for VOCs, SVOCs, metals, calcium, magnesium, and sodium. Selected wells sampled for ammonia, TOC, sulfide, and cyanide.
5. Wells sampled for VOCs, selected wells sampled for SVOCs metals, pesticides, PCBs, TDS, and general minerals.
6. Wells sampled for VOCs, metals, and TPH.
7. Wells sampled for VOCs, SVOCs, and metals.
8. Wells sampled for VOCs, SVOCs, metals, TPH, and TDS.
9. Wells sampled for VOCs, SVOCs, metals, chromium-VI, and TPH.
10. Wells sampled for VOCs, SVOCs, and metals. Selected wells sampled for 1,4-Dioxane, perchlorate, chromium-VI, NDMA, general minerals, and TDS.
11. Wells sampled for VOCs, SVOCs, and metals. Selected wells sampled for 1,4-Dioxane, perchlorate, chromium-VI, and NDMA.
12. Wells sampled for VOCs, SVOCs, and metals. Selected wells sampled for 1,4-Dioxane. NAPL collected for analysis in selected wells.
13. Wells sampled for VOCs, SVOCs and select wells for metals.

Notes:

E&E: Ecology and the Environment
ESE: Environmental Science & Engineering
W&C: Woodward-Clyde
PNL: Project Navigator, Ltd.

VOCs: volatile organic compounds
PCBs: polychlorinated biphenyls
NDMA: N-nitrosodimethylamine
SVOCs: semi-volatile organic compounds
TDS: total dissolved solids
TOC: total organic carbon

Table 5-1
Perched Zone Well Gauging Data
March 2004 - December 2006
Ascon Landfill Site
Huntington Beach, California

Groundwater Monitoring Well Number	Date Measured	Well Head Elevation-Feet Above Mean Sea Level (ft MSL)[1]	Well Head Elevation-Feet Above NAVD88 Datum	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)	Groundwater Elevation (ft above NAVD88)	Depth to Top of Product (ft below TOC)	Product Thickness (ft)	PID reading (ppm)
Perched Monitoirng Points									
P-7	3/15/2004	18.73	21.19	9.44	9.29	11.75	-	-	3.0
	6/7/2004			9.03	9.70	12.16	-	-	0.0
	9/7/2004			8.5	10.23	12.69	-	-	0.0
	12/7/2004			6.2	12.53	14.99	-	-	0.0
[7]	12/4/2006			NM	-	-	NM	-	NM
GP-5[2]	3/15/2004	16.79	19.25	NM	-	-	NM	-	NM
	6/7/2004			NM	-	-	NM	-	NM
	9/7/2004			NM	-	-	NM	-	NM
	12/8/2004			11.95	4.84	7.30	11.94	0.01	0.0
	12/4/2006			10.75	6.04	8.50	10.55	0.20	5.4
GP-6[2]	3/15/2004	15.12	17.58	NM	-	-	NM	-	NM
	6/7/2004			NM	-	-	NM	-	NM
	9/7/2004			NM	-	-	NM	-	NM
	12/8/2004			13.80	1.32	3.78	12.79	1.01	5.9
	12/4/2006			ND	NA	NA	12.40	NA	6.8
GP-7	3/15/2004	15.83	18.29	12.50	3.33	5.79	P	-	3.9
	6/7/2004			12.36	3.47	5.93	P	-	5.1
	9/7/2004			12.63	3.20	5.66	P	-	4.7
	12/7/2004			11.79	4.04	6.50	-	-	0.0
	12/4/2006			ND	NA	NA	10.84	NA	3.0
GP-8[2]	3/15/2004	14.55	17.01	NM	-	-	NM	-	NM
	6/7/2004			NM	-	-	NM	-	NM
	9/7/2004			NM	-	-	NM	-	NM
	12/8/2004			7.82	6.73	9.19	7.79	0.03	10.8
	12/4/2006			ND	NA	NA	6.60	NA	6.5
GP-9[2]	3/15/2004	15.69	18.15	NM	-	-	NM	-	NM
	6/7/2004			NM	-	-	NM	-	NM
	9/7/2004			NM	-	-	NM	-	NM
	12/8/2004			9.80	5.89	8.35	9.78	0.02	3.9
	12/4/2006			ND	NA	NA	10.20	NA	4.6
GP-10	9/6/2002	15.06	17.52	18.40	-3.34	-0.88	-	-	-
	9/18/2002			18.11	-3.05	-0.59	-	-	-
	9/30/2002			18.32	-3.26	-0.80	-	-	-
	10/7/2002			18.22	-3.16	-0.70	-	-	-
	6/26/2003			18.55	-3.49	-1.03	P	-	0.0
	10/15/2003			18.26	-3.20	-0.74	P	-	0.2
	11/13/2003			NM	-	-	NM	-	0.1
	12/30/2003			17.68	-2.62	-0.16	P	-	0.0
[8]	3/15/2004			NM	-	-	NM	-	NM
[8]	6/7/2004			NM	-	-	NM	-	NM
[9]	9/7/2004	15.66	18.12	18.12	-2.46	0.00	P	-	8.2
	12/7/2004			16.01	-0.35	2.11	P	-	0.7
	12/4/2006			DRY	NA	NA	-	-	0.0
GP-11	3/15/2004	14.83	17.29	8.08	6.75	9.21	-	-	0.2
	6/7/2004			7.05	7.78	10.24	-	-	0.0
	9/7/2004			7.66	7.17	9.63	-	-	0.6
	12/7/2004			6.71	8.12	10.58	-	-	0.0
	12/4/2006			8.75	6.08	8.54	-	-	0.0
GP-13	3/15/2004	21.40	23.86	10.99	10.41	12.87	-	-	1.5
	6/7/2004			10.75	10.65	13.11	-	-	2.0
	9/7/2004			11.11	10.29	12.75	-	-	10.7
	12/7/2004			8.68	12.72	15.18	-	-	9.2
	12/4/2006			11.28	10.12	12.58	-	-	1.1

Table 5-1
Perched Zone Well Gauging Data
March 2004 - December 2006
Ascon Landfill Site
Huntington Beach, California

Groundwater Monitoring Well Number	Date Measured	Well Head Elevation-Feet Above Mean Sea Level (ft MSL)[1]	Well Head Elevation-Feet Above NAVD88 Datum	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)	Groundwater Elevation (ft above NAVD88)	Depth to Top of Product (ft below TOC)	Product Thickness (ft)	PID reading (ppm)
GP-14	3/15/2004	25.20	27.66	13.45	11.75	14.21	-	-	2.0
	6/7/2004			13.40	11.80	14.26	-	-	1.0
	9/7/2004			13.63	11.57	14.03	-	-	0.0
	12/8/2004			5.00	20.20	22.66	-	-	9.3
	12/4/2006			12.71	12.49	14.95	-	-	1.3
GP-15[2]	3/15/2004	17.44	19.90	NM	-	-	NM	-	NM
	6/7/2004			NM	-	-	NM	-	NM
[5]	9/7/2004	18.32	20.78	NM	-	-	NM	-	NM
	12/8/2004			10.20	8.12	10.58	10.18	0.02	3.7
	12/4/2006			ND	NA	NA	8.81	NA	15.8
GP-16[2]	3/15/2004	20.55	23.01	NM	-	-	NM	-	NM
	6/7/2004			NM	-	-	NM	-	NM
	9/7/2004			NM	-	-	NM	-	NM
	12/8/2004			ND	NA	NA	8.80	NA	88.9
	12/4/2006			ND	NA	NA	8.38	NA	37.9
GP-17	3/15/2004	20.50	22.96	8.89	11.61	14.07	-	-	0.6
	6/7/2004			7.01	13.49	15.95	-	-	1.4
	9/7/2004			9.85	10.65	13.11	P	-	0.9
	12/7/2004			8.03	12.47	14.93	-	-	0.8
	12/4/2006			7.67	12.83	15.29	-	-	2.0
GP-18[3]	3/15/2004	?	?	NM	-	-	NM	-	NM
	6/7/2004			NM	-	-	NM	-	NM
	9/7/2004			NM	-	-	NM	-	NM
[6]	12/8/2004			NM	-	-	NM	-	NM
[6]	12/4/2006			NM	-	-	NM	-	NM
GP-19[4]	3/15/2004	25.72	28.18	NM	-	-	NM	-	NM
	6/7/2004			NM	-	-	NM	-	NM
	9/7/2004			NM	-	-	NM	-	NM
	12/8/2004			NM	-	-	NM	-	NM
	12/4/2006			NM	-	-	NM	-	NM
GP-20	3/15/2004	21.20	23.66	8.28	12.92	15.38	-	-	0.7
	6/7/2004			8.20	13.00	15.46	-	-	0.0
	9/7/2004			8.50	12.70	15.16	-	-	0.0
	12/7/2004			7.20	14.00	16.46	-	-	0.0
	12/4/2006			7.60	13.60	16.06	-	-	0.1

Explanation:

ft	Feet
TOC	Top of Casing
MSL	Mean Sea Level Based on Newport Bay Entrance Tidal Station
ppm	Parts per Million
ND	Not able to detect with interface probe
PID	Photoionization Detector (organic vapor reading). Readings collected at well head at the top of the well casing.
P	Only water detected with interface probe; however, product visually observed on interface probe after withdrawal from well or monitoring point.
NM	Not Measured
NA	Not applicable or not able to calculate.
?	Unknown.

Footnotes:

[1] Surveying data based on NAVD88 datum with 2.46 foot correction to derive MSL elevation.

[2] Location not monitored in March, June, and September 2004 due to previous detections of free product.

[3] Casing damaged.

[4] GP-19 could not be located.

[5] GP-15 resurveyed on September 17, 2004, after well casing was repaired.

[6] GP-18 could not be located.

[7] P-7 could not be located.

[8] GP-10 was not located during March and June gauging events, but was found in damaged condition in August 2004.

[9] Well casing resurveyed on September 17, 2004, after well casing was repaired.

Table 5-2
Semi-Perched Aquifer Gauging Data: June 2002 - December 2006

Ascon Landfill Site
Huntington Beach, CA

Groundwater Monitoring Well Number	Well Head Elevation-- Feet Above Mean Sea Level (ft MSL)[1]	Well Head Elevation-- Feet Above NAVD88 Datum	Date of Gauging Event	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)	Groundwater Elevation (ft above NAVD88)	Depth to Top of Product (ft below TOC)	Product Thickness (ft)	PID Reading (ppm)
AW-1	6.23	8.69	3/15/2004[5]	-	-	-	-	-	-
			6/7/2004	9.11	-2.88	-0.42	-	-	0.0
			9/7/2004	9.32	-3.09	-0.63	-	-	-
			12/7/2004	8.29	-2.06	0.40	-	-	0.0
			12/4/2006	8.89	-2.66	-0.20	-	-	0.0
AW-1A	10.00	12.46	3/15/2004	12.51	-2.51	-0.05	-	-	3.1
			6/7/2004	13.13	-3.13	-0.67	-	-	0.0
			9/7/2004	13.07	-3.07	-0.61	-	-	0.0
			12/7/2004	12.08	-2.08	0.38	-	-	0.0
			12/4/2006	12.54	-2.54	-0.08	-	-	0.0
AW-2	5.62	8.08	6/7/2002	8.80	-3.18	-0.72	-	-	-
			8/9/2002	8.78	-3.16	-0.70	-	-	-
			10/7/2002	8.71	-3.09	-0.63	-	-	-
			6/26/2003	8.41	-2.79	-0.33	-	-	0.0
			10/14/2003	8.92	-3.30	-0.84	-	-	0.0
			11/12/2003	8.81	-3.19	-0.73	-	-	0.0
			12/29/2003	8.45	-2.83	-0.37	-	-	0.0
			3/15/2004	7.87	-2.25	0.21	-	-	0.7
			6/7/2004	8.31	-2.69	-0.23	-	-	0.0
			9/7/2004	8.45	-2.83	-0.37	-	-	0.0
			12/7/2004	7.44	-1.82	0.64	-	-	0.3
			12/4/2006	7.85	-2.23	0.23	-	-	0.0
AW-3	8.38	10.84	6/7/2002	11.87	-3.49	-1.03	-	-	-
			8/9/2002	11.97	-3.59	-1.13	-	-	-
			10/7/2002	11.92	-3.54	-1.08	-	-	-
			6/26/2003	11.43	-3.05	-0.59	-	-	0.0
			10/14/2003	11.96	-3.58	-1.12	-	-	0.0
			11/12/2003	11.90	-3.52	-1.06	-	-	0.0
			12/29/2003	11.61	-3.23	-0.77	-	-	0.0
			3/15/2004	10.99	-2.61	-0.15	-	-	0.5
			6/7/2004	11.10	-2.72	-0.26	-	-	0.0
			9/7/2004	11.54	-3.16	-0.70	-	-	0.0
			12/14/2004	10.46	-2.08	0.38	-	-	0.0
			12/4/2006	11.17	-2.79	-0.33	-	-	0.0
AW-4	6.01	8.47	6/7/2002	8.10	-2.09	0.37	-	-	-
			8/9/2002	8.35	-2.34	0.12	-	-	-
			10/7/2002	7.85	-1.84	0.62	-	-	-
			6/26/2003	8.11	-2.10	0.36	-	-	0.0
			10/14/2003	8.73	-2.72	-0.26	-	-	0.0
			11/12/2003	8.58	-2.57	-0.11	-	-	0.0
			12/29/2003	8.05	-2.04	0.42	-	-	0.0
			3/15/2004	7.51	-1.50	0.96	-	-	0.7
			6/7/2004	7.02	-1.01	1.45	-	-	0.0
			9/7/2004	7.79	-1.78	0.68	-	-	0.0
			12/7/2004	7.25	-1.24	1.22	-	-	0.0
			12/4/2006	7.68	-1.67	0.79	-	-	0.0
AW-4A	7.32	9.78	3/15/2004	8.90	-1.58	0.88	-	-	7.4
			6/7/2004	9.10	-1.78	0.68	-	-	0.0
			9/7/2004	9.19	-1.87	0.59	-	-	0.0
			12/7/2004	8.61	-1.29	1.17	-	-	0.0
			12/4/2006	9.04	-1.72	0.74	-	-	0.0
AW-5	4.86	7.32	6/7/2002	7.45	-2.59	-0.13	-	-	-
			8/9/2002	7.61	-2.75	-0.29	-	-	-
			10/7/2002	7.20	-2.34	0.12	-	-	-
			6/26/2003	7.08	-2.22	0.24	-	-	0.8
			10/14/2003	7.69	-2.83	-0.37	-	-	0.0
			11/12/2003	7.56	-2.70	-0.24	-	-	0.0
			12/29/2003	7.11	-2.25	0.21	-	-	0.0
			3/15/2004	6.60	-1.74	0.72	-	-	0.6
			6/14/2004	6.79	-1.93	0.53	-	-	0.0
			9/7/2004	6.82	-1.96	0.50	-	-	0.0
			12/7/2004	6.68	-1.82	0.64	-	-	0.0
			12/4/2006	6.65	-1.79	0.67	-	-	0.0

Table 5-2
Semi-Perched Aquifer Gauging Data: June 2002 - December 2006

Ascon Landfill Site
Huntington Beach, CA

Groundwater Monitoring Well Number	Well Head Elevation-- Feet Above Mean Sea Level (ft MSL)[1]	Well Head Elevation-- Feet Above NAVD88 Datum	Date of Gauging Event	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)	Groundwater Elevation (ft above NAVD88)	Depth to Top of Product (ft below TOC)	Product Thickness (ft)	PID Reading (ppm)
AW-8	5.78	8.24	6/7/2002	11.50	-5.72	-3.26	-	-	-
			8/9/2002	11.60	-5.82	-3.36	-	-	-
			10/7/2002	11.44	-5.66	-3.20	-	-	-
			6/26/2003	11.26	-5.48	-3.02	-	-	0.0
			10/14/2003	11.69	-5.91	-3.45	-	-	0.1
			11/12/2003	11.59	-5.81	-3.35	-	-	0.0
			12/29/2003	11.38	-5.60	-3.14	-	-	0.0
			3/15/2004	10.92	-5.14	-2.68	-	-	0.7
			6/7/2004	11.11	-5.33	-2.87	-	-	0.0
			9/7/2004	11.15	-5.37	-2.91	-	-	0.0
			12/7/2004	10.34	-4.56	-2.10	-	-	0.0
			12/4/2006	10.80	-5.02	-2.56	-	-	0.0
B-2[3]	24.54	27.00	6/7/2002	NM	NA	NA	P/NM	NA	-
			8/9/2002	28.99	-4.45	-1.99	-	-	-
			7/8/2002	ND	NA	NA	26.8	NA	-
			7/16/2002	28.99	-4.45	-1.99	-	-	-
			7/22/2002	28.99	-4.45	-1.99	-	-	-
			7/29/2002	29.06	-4.52	-2.06	-	-	-
			10/7/2002	29.05	-4.51	-2.05	28.8	0.25	-
			6/26/2003	31.15	-6.61	-4.15	28.34	2.81	0.0
			10/15/2003	ND	NA	NA	28.79	NA	0.0
			11/13/2003	ND	NA	NA	28.76	NA	0.0
			12/30/2003	ND	NA	NA	28.65	NA	0.0
			3/15/2004[4]	NM	-	-	NM	-	NM
			6/7/2004[4]	NM	-	-	NM	-	NM
			9/7/2004[4]	NM	-	-	NM	-	NM
			12/8/2004	26.72	-2.18	0.28	26.5	0.22	2.7
B-4	18.84	21.30	6/7/2002	21.50	-2.66	-0.20	-	-	-
			8/9/2002	21.62	-2.78	-0.32	-	-	-
			10/7/2002	21.31	-2.47	-0.01	-	-	-
			6/26/2003	21.28	-2.44	0.02	-	-	0.2
			10/14/2003	21.84	-3.00	-0.54	-	-	0.2
			11/12/2003	21.68	-2.84	-0.38	-	-	0.0
			12/29/2003	21.22	-2.38	0.08	-	-	0.0
			3/15/2004	20.70	-1.86	0.60	-	-	0.4
			6/7/2004	20.98	-2.14	0.32	-	-	0.0
			9/7/2004	20.95	-2.11	0.35	-	-	0.0
			12/7/2004	20.40	-1.56	0.90	-	-	0.0
			12/4/2006	20.80	-1.96	0.50	-	-	0.0
B-4A	19.70	22.16	3/15/2004	21.60	-1.90	0.56	-	-	15.6
			6/7/2004	21.77	-2.07	0.39	-	-	16.2
			9/7/2004	21.86	-2.16	0.30	-	-	21.4
			12/7/2004	21.32	-1.62	0.84	-	-	20.1
			12/4/2006	21.72	-2.02	0.44	-	-	23.2
B-5	25.67	28.13	6/7/2002	NM	NA	NA	27.8	NA	-
			7/8/2002	ND	NA	NA	27.1	NA	-
			8/9/2002	NM	NA	NA	P/NM	NA	-
			10/7/2002	NM	NA	NA	28.36	NA	-
			6/26/2003	ND	NA	NA	28.23	NA	0.0
			10/22/2003	ND	NA	NA	28.51	NA	NM
			11/13/2003	ND	NA	NA	28.78	NA	43.4
			12/30/2003	ND	NA	NA	28.13	NA	1.6
			3/15/2004[4]	NM	-	-	NM	-	NM
			6/7/2004[4]	NM	-	-	NM	-	NM
			9/7/2004[4]	NM	-	-	NM	-	NM
			12/8/2004	ND	NA	NA	27.27	NA	11.4
			12/4/2006	ND	NA	NA	29.84	NA	0.0

Table 5-2
Semi-Perched Aquifer Gauging Data: June 2002 - December 2006

Ascon Landfill Site
Huntington Beach, CA

Groundwater Monitoring Well Number	Well Head Elevation-- Feet Above Mean Sea Level (ft MSL)[1]	Well Head Elevation-- Feet Above NAVD88 Datum	Date of Gauging Event	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)	Groundwater Elevation (ft above NAVD88)	Depth to Top of Product (ft below TOC)	Product Thickness (ft)	PID Reading (ppm)
B-6	8.05	10.51	6/7/2002	11.27	-3.22	-0.76	P	-	-
			7/8/2002	11.42	-3.37	-0.91	11.41	0.01	-
			8/9/2002	11.44	-3.39	-0.93	11.43	0.01	-
			10/7/2002	11.35	-3.30	-0.84	11.34	0.01	-
			6/26/2003	10.86	-2.81	-0.35	P	-	33.0
			10/15/2003	ND	NA	NA	11.33	NA	93.7
			11/13/2003	ND	NA	NA	11.38	NA	91.9
			12/30/2003	11.02	-2.97	-0.51	P	-	86.4
			3/15/2004	10.18	-2.13	0.33	P	-	45.9
			6/7/2004	10.79	-2.74	-0.28	P	-	17.3
			9/7/2004	10.88	-2.83	-0.37	-	-	25.9
			12/7/2004	9.91	-1.86	0.60	P	-	92.0
			12/4/2006	10.38	-2.33	0.13	P	-	157.0
B-7	15.11	17.57	6/7/2002	18.30	-3.19	-0.73	-	-	-
			8/9/2002	18.40	-3.29	-0.83	-	-	-
			10/7/2002	18.29	-3.18	-0.72	-	-	-
			6/26/2003	17.98	-2.87	-0.41	-	-	0.0
			10/14/2003	18.46	-3.35	-0.89	-	-	0.0
			11/12/2003	18.34	-3.23	-0.77	-	-	0.0
			12/29/2003	17.95	-2.84	-0.38	-	-	0.0
			3/15/2004	17.38	-2.27	0.19	-	-	0.6
			6/7/2004	17.73	-2.62	-0.16	-	-	1.3
			9/7/2004	17.85	-2.74	-0.28	-	-	0.0
			12/7/2004	16.95	-1.84	0.62	-	-	0.1
			12/4/2006	17.41	-2.30	0.16	-	-	0.0
MW-4	22.23	24.69	6/7/2002	25.97	-3.74	-1.28	-	-	-
			8/9/2002	26.02	-3.79	-1.33	-	-	-
			10/7/2002	25.98	-3.75	-1.29	-	-	-
			6/26/2003	25.44	-3.21	-0.75	-	-	0.0
			10/14/2003	25.95	-3.72	-1.26	-	-	0.0
			11/12/2003	25.92	-3.69	-1.23	-	-	0.0
			12/29/2003	25.61	-3.38	-0.92	-	-	0.0
			3/15/2004	24.97	-2.74	-0.28	-	-	0.2
			6/7/2004	25.29	-3.06	-0.60	-	-	0.0
			9/7/2004	25.45	-3.22	-0.76	-	-	0.0
			12/7/2004	24.56	-2.33	0.13	-	-	0.0
MW-9	15.03	17.49	6/7/2002	17.68	-2.65	-0.19	-	-	-
			8/9/2002	17.80	-2.77	-0.31	-	-	-
			10/7/2002	17.50	-2.47	-0.01	-	-	-
			6/26/2003	17.43	-2.40	0.06	-	-	0.3
			10/14/2003	17.99	-2.96	-0.50	-	-	0.0
			11/12/2003	17.82	-2.79	-0.33	-	-	0.2
			12/29/2003	17.31	-2.28	0.18	-	-	0.0
			3/15/2004	16.67	-1.64	0.82	-	-	0.9
			6/7/2004	17.05	-2.02	0.44	-	-	0.0
			9/7/2004	17.15	-2.12	0.34	-	-	1.7
			12/7/2004	16.37	-1.34	1.12	-	-	2.7
			12/4/2006	16.78	-1.75	0.71	-	-	10.1
MW-13	6.83	9.29	6/7/2002	10.25	-3.42	-0.96	-	-	-
			8/9/2002	10.29	-3.46	-1.00	-	-	-
			10/7/2002	10.21	-3.38	-0.92	-	-	-
			6/26/2003	9.84	-3.01	-0.55	-	-	0.2
			10/14/2003	10.35	-3.52	-1.06	-	-	0.0
			11/12/2003	10.30	-3.47	-1.01	-	-	0.0
			12/29/2003	10.05	-3.22	-0.76	-	-	0.0
			3/15/2004	9.27	-2.44	0.02	-	-	0.7
			6/7/2004	9.71	-2.88	-0.42	-	-	0.0
			9/7/2004	9.88	-3.05	-0.59	-	-	0.0
			12/7/2004	8.85	-2.02	0.44	-	-	0.0
			12/4/2006	9.40	-2.57	-0.11	-	-	0.0

Table 5-2
Semi-Perched Aquifer Gauging Data: June 2002 - December 2006

Ascon Landfill Site
Huntington Beach, CA

Groundwater Monitoring Well Number	Well Head Elevation-- Feet Above Mean Sea Level (ft MSL)[1]	Well Head Elevation-- Feet Above NAVD88 Datum	Date of Gauging Event	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)	Groundwater Elevation (ft above NAVD88)	Depth to Top of Product (ft below TOC)	Product Thickness (ft)	PID Reading (ppm)
MW-14	22.73	25.19	6/7/2002	NM	NA	NA	26.25	NA	-
			7/8/2002	26.75	-4.02	-1.56	26.47	0.28	-
			7/16/2002	26.62	-3.89	-1.43	26.61	0.01	-
			7/22/2002	26.63	-3.90	-1.44	26.62	0.01	-
			7/29/2002	26.63	-3.90	-1.44	26.62	0.01	-
			8/9/2002	26.64	-3.91	-1.45	26.63	0.01	-
			10/7/2002	26.44	-3.71	-1.25	26.46	0.2	-
			6/26/2003	ND	NA	NA	25.95	NA	142.0
			10/15/2003	ND	NA	NA	26.54	NA	161.0
			11/13/2003	ND	NA	NA	26.53	NA	172.0
			12/30/2003	ND	NA	NA	26.53	NA	150.0
			3/15/2004[4]	NM	-	-	NM	-	NM
			6/7/2004[4]	NM	-	-	NM	-	NM
			9/7/2004[4]	NM	-	-	NM	-	NM
			12/8/2004	ND	NA	NA	24.98	NA	132.0
MW-15	5.57	8.03	6/7/2002	8.80	-3.23	-0.77	-	-	-
			8/9/2002	8.79	-3.22	-0.76	-	-	-
			10/7/2002	8.71		-0.68	-	-	-
			6/26/2003	8.48	-2.91	-0.45	-	-	0.0
			10/14/2003	8.89	-3.32	-0.86	-	-	0.0
			11/12/2003	8.80	-3.23	-0.77	-	-	0.0
			12/29/2003	8.47	-2.90	-0.44	-	-	0.0
			3/15/2004	7.89	-2.32	0.14	-	-	0.8
			6/7/2004	8.30	-2.73	-0.27	-	-	0.0
			9/7/2004	8.43	-2.86	-0.40	-	-	0.0
			12/7/2004	7.42	-1.85	0.61	-	-	0.0
			12/4/2006	7.85	-2.28	0.18	-	-	0.0
NMW-1	21.28	23.74	6/7/2002	25.70	-4.42	-1.96	-	-	-
			8/9/2002	25.83	-4.55	-2.09	-	-	-
			10/7/2002	25.70	-4.42	-1.96	-	-	-
			6/26/2003	25.40	-4.12	-1.66	-	-	0.0
			10/14/2003	25.92	-4.64	-2.18	-	-	0.0
			11/12/2003	25.79	-4.51	-2.05	-	-	0.0
			12/29/2003	25.49	-4.21	-1.75	-	-	0.0
			3/15/2004	25.13	-3.85	-1.39	-	-	0.4
			6/7/2004	25.30	-4.02	-1.56	-	-	0.0
			9/7/2004	25.18	-3.90	-1.44	-	-	0.0
			12/7/2004	24.44	-3.16	-0.70	-	-	0.0
NMW-2	17.35	19.81	6/7/2002	20.26	-2.91	-0.45	-	-	-
			8/9/2002	20.39	-3.04	-0.58	-	-	-
			10/7/2002	20.11	-2.76	-0.30	-	-	-
			6/26/2003	20.04	-2.69	-0.23	-	-	0.2
			10/14/2003	20.60	-3.25	-0.79	-	-	0.0
			11/12/2003	20.45	-3.10	-0.64	-	-	0.0
			12/29/2003	20.02	-2.67	-0.21	-	-	0.0
			3/15/2004	19.48	-2.13	0.33	-	-	0.6
			6/7/2004	19.68	-2.33	0.13	-	-	0.0
			9/7/2004	19.75	-2.40	0.06	-	-	0.0
			12/7/2004	19.23	-1.88	0.58	-	-	0.0
			12/4/2006	22.10	-4.75	-2.29	-	-	0.0
MW-16	7.01	9.47	8/9/2002	10.90	-3.89	-1.43	-	-	-
			10/7/2002	10.75	-3.74	-1.28	-	-	-
			6/26/2003	10.21	-3.20	-0.74	-	-	0.2
			10/14/2003	10.81	-3.80	-1.34	-	-	0.0
			11/12/2003	10.69	-3.68	-1.22	-	-	0.0
			12/29/2003	10.42	-3.41	-0.95	-	-	0.0
			3/15/2004	9.67	-2.66	-0.20	-	-	1.1
			6/7/2004	9.96	-2.95	-0.49	-	-	0.0
			9/7/2004	10.09	-3.08	-0.62	-	-	0.0
			12/7/2004	9.25	-2.24	0.22	-	-	0.0
			12/4/2006	9.64	-2.63	-0.17	-	-	0.0

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Groundwater Monitoring Well Number	Well Head Elevation-- Feet Above Mean Sea Level (ft MSL)[1]	Well Head Elevation-- Feet Above NAVD88 Datum	Date of Gauging Event	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)	Groundwater Elevation (ft above NAVD88)	Depth to Top of Product (ft below TOC)	Product Thickness (ft)	PID Reading (ppm)
MW-17	5.17	7.63	8/9/2002	11.45	-6.28	-3.82	-	-	-
			10/7/2002	11.35	-6.18	-3.72	-	-	-
			6/26/2003	11.13	-5.96	-3.50	-	-	0.0
			10/14/2003	11.49	-6.32	-3.86	-	-	0.0
			11/12/2003	11.40	-6.23	-3.77	-	-	0.0
			12/29/2003	11.25	-6.08	-3.62	-	-	0.0
			3/15/2004	10.81	-5.64	-3.18	-	-	1.2
			6/7/2004	10.97	-5.80	-3.34	-	-	0.4
			9/7/2004	10.98	-5.81	-3.35	-	-	0.0
			12/7/2004	10.06	-4.89	-2.43	-	-	0.0
			12/4/2006	10.64	-5.47	-3.01	-	-	0.0
MW-18	2.93	5.39	8/9/2002	6.22	-3.29	-0.83	-	-	-
			10/7/2002	6.13	-3.20	-0.74	-	-	-
			6/26/2003	5.78	-2.85	-0.39	-	-	0.5
			10/14/2003	6.23	-3.30	-0.84	-	-	0.0
			11/12/2003	6.18	-3.25	-0.79	-	-	0.0
			12/29/2003	5.93	-3.00	-0.54	-	-	0.0
			3/15/2004	5.24	-2.31	0.15	-	-	1.1
			6/7/2004	5.68	-2.75	-0.29	-	-	1.0
			9/7/2004	5.81	-2.88	-0.42	-	-	1.0
			12/7/2004	4.88	-1.95	0.51	-	-	0.0
			12/4/2006	5.38	-2.45	0.01	-	-	0.0
MW-19	2.74	5.20	3/15/2004	5.28	-2.54	-0.08	-	-	0.7
			6/7/2004	5.73	-2.99	-0.53	-	-	10.1
			9/7/2004	5.85	-3.11	-0.65	-	-	0.9
			12/7/2004	4.88	-2.14	0.32	-	-	0.1
			12/4/2006	5.30	-2.56	-0.10	-	-	0.0
MW-20	24.97	27.43	3/15/2004	26.42	-1.45	1.01	-	-	0.8
			6/7/2004	26.62	-1.65	0.81	-	-	0.0
			9/7/2004	27.03	-2.06	0.40	-	-	0.0
			12/7/2004	26.11	-1.14	1.32	-	-	0.0
P-1	24.96	27.42	8/26/2002	28.00	-3.04	-0.58	-	-	-
			9/18/2002	29.60	-4.64	-2.18	29.00	0.60	-
			9/30/2002	29.70	-4.74	-2.28	28.98	0.72	-
			10/7/2002	29.73	-4.77	-2.31	28.91	0.82	-
			6/26/2003	31.32	-6.36	-3.90	28.50	2.82	29.4
			10/15/2003	ND	NA	NA	28.88	NA	51.2
			11/13/2003	ND	NA	NA	28.86	NA	48.6
			12/30/2003	ND	NA	NA	28.53	NA	2.7
			3/15/2004[4]	NM	-	-	NM	-	NM
			6/7/2004[4]	NM	-	-	NM	-	NM
			9/7/2004[4]	NM	-	-	NM	-	NM
			12/8/2004	30.83	-5.87	-3.41	27.33	3.5	96.3
P-2	21.90	24.36	9/18/2002	25.90	-4.00	-1.54	-	-	-
			9/18/2002	25.67	-3.77	-1.31	-	-	-
			9/30/2002	25.81	-3.91	-1.45	-	-	-
			10/7/2002	25.71	-3.81	-1.35	-	-	-
			6/26/2003	26.29	-4.39	-1.93	-	-	0.0
			10/14/2003	25.78	-3.88	-1.42	-	-	0.0
			11/12/2003	25.69	-3.79	-1.33	-	-	0.0
			12/29/2003	25.30	-3.4	-0.94	-	-	0.0
			3/15/2004	24.52	-2.62	-0.16	-	-	0.2
			6/7/2004	24.97	-3.07	-0.61	-	-	0.0
			9/7/2004	25.09	-3.19	-0.73	-	-	0.0
			12/7/2004	24.29	-2.39	0.07	-	-	0.0

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Groundwater Monitoring Well Number	Well Head Elevation-- Feet Above Mean Sea Level (ft MSL)[1]	Well Head Elevation-- Feet Above NAVD88 Datum	Date of Gauging Event	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)	Groundwater Elevation (ft above NAVD88)	Depth to Top of Product (ft below TOC)	Product Thickness (ft)	PID Reading (ppm)
P-3	26.60	29.06	8/29/2002	30.90	-4.30	-1.84	-	-	-
			9/18/2002	30.50	-3.90	-1.44	29.80	0.70	-
			9/30/2002	30.52	-3.92	-1.46	29.90	0.62	-
			10/7/2002	30.10	-3.50	-1.04	29.77	0.33	-
			6/26/2003	29.64	-3.04	-0.58	29.46	0.18	68.3
			10/15/2003	ND	NA	NA	29.96	NA	63.1
			11/13/2003	ND	NA	NA	29.95	NA	57.7
			12/30/2003	ND	NA	NA	29.33	NA	23.3
			3/15/2004[4]	NM	-	-	NM	-	NM
			6/7/2004[4]	NM	-	-	NM	-	NM
			9/7/2004[4]	NM	-	-	NM	-	NM
			12/8/2004	ND	NA	NA	28.43	NA	49.9
P-4	25.18	27.64	9/18/2002	28.87	-3.69	-1.23	-	-	-
			9/30/2002	28.93	-3.75	-1.29	-	-	-
			10/7/2002	28.86	-3.68	-1.22	-	-	-
			6/26/2003	28.50	-3.32	-0.86	-	-	0.4
			10/15/2003	28.96	-3.78	-1.32	P	-	18.6
			11/12/2003	28.84	-3.66	-1.20	-	-	13.8
			12/29/2003	28.46	-3.28	-0.82	-	-	14.0
			3/15/2004	27.85	-2.67	-0.21	P	-	17.6
			6/7/2004	28.34	-3.16	-0.70	P	-	32.8
			9/7/2004	ND	-	-	28.34	NM	24.1
			12/7/2004	27.95	-2.77	-0.31	27.67	0.28	47.3
P-5	27.55	30.01	8/29/2002	30.85	-3.30	-0.84	-	-	-
			9/18/2002	30.90	-3.35	-0.89	-	-	-
			9/30/2002	30.86	-3.31	-0.85	30.81	0.05	-
			10/7/2002	31.47	-3.92	-1.46	30.65	0.82	-
			6/26/2003	32.35	-4.80	-2.34	30.46	1.89	16.3
			10/15/2003	ND	NA	NA	30.99	NA	26.1
			11/13/2003	ND	NA	NA	31.02	NA	22.1
			12/30/2003	ND	NA	NA	30.02	NA	15.7
			3/15/2004[4]	NM	-	-	NM	-	
			6/7/2004[4]	NM	-	-	NM	-	NM
			9/7/2004[4]	NM	-	-	NM	-	NM
			12/8/2004	ND	NA	NA	29.47	NA	27.5
			12/4/2006	ND	NA	NA	25.95	NA	35.8
P-6	27.16	29.62	9/18/2002	30.30	-3.14	-0.68	-	-	-
			9/30/2002	30.44	-3.28	-0.82	-	-	-
			10/7/2002	30.40	-3.24	-0.78	-	-	-
			6/26/2003	30.17	-3.01	-0.55	30.10	0.07	115.0
			10/15/2003	ND	NA	NA	30.64	NA	88.7
			11/13/2003	ND	NA	NA	30.57	NA	82.6
			12/30/2003	ND	NA	NA	30.05	NA	169.0
			3/15/2004[4]	NM	-	-	NM	-	NM
			6/7/2004[4]	NM	-	-	NM	-	NM
			9/7/2004[4]	NM	-	-	NM	-	NM
			12/8/2004	29.15	-1.99	0.47	28.82	0.33	45.9
			12/4/2006	ND	NA	NA	29.55	NA	184.0
P-8	21.99	24.45	9/18/2002	24.64	-2.65	-0.19	-	-	-
			9/30/2002	24.79	-2.80	-0.34	-	-	-
			10/7/2002	24.65	-2.66	-0.20	-	-	-
			6/26/2003	25.12	-3.13	-0.67	24.56	0.56	150.0
			10/15/2003	26.54	-4.55	-2.09	25.29	1.25	74.1
			11/13/2003	26.44	-4.45	-1.99	25.18	1.26	83.3
			12/30/2003	ND	NA	NA	24.38	NA	52.8
			3/15/2004[4]	NM	-	-	NM	-	NM
			6/7/2004[4]	NM	-	-	NM	-	NM
			9/7/2004[4]	NM	-	-	NM	-	NM
			12/8/2004	26.97	-4.98	-2.52	23.80	3.17	79.5
			12/4/2006	29.04	-7.05	-4.59	24.50	4.54	45.7

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Groundwater Monitoring Well Number	Well Head Elevation-- Feet Above Mean Sea Level (ft MSL)[1]	Well Head Elevation-- Feet Above NAVD88 Datum	Date of Gauging Event	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)	Groundwater Elevation (ft above NAVD88)	Depth to Top of Product (ft below TOC)	Product Thickness (ft)	PID Reading (ppm)
P-9	15.81	18.27	8/29/2002	18.70	-2.89	-0.43	-	-	-
			9/18/2002	17.98	-2.17	0.29	-	-	-
			9/6/2002	18.48	-2.67	-0.21	-	-	-
			9/30/2002	18.22	-2.41	0.05	-	-	-
			10/7/2002	18.10	-2.29	0.17	-	-	-
			6/26/2003	18.06	-2.25	0.21	-	-	1.9
			10/14/2003	18.64	-2.83	-0.37	-	-	2.5
			11/12/2003	18.47	-2.66	-0.20	-	-	2.8
			1/6/2004	18.32	-2.51	-0.05	P	-	NM
			3/15/2004	17.35	-1.54	0.92	P	-	8.1
			6/7/2004	ND	NA	NA	17.70	NA	3.6
			9/7/2004	17.77	-1.96	0.50	-	-	3.2
			12/7/2004	17.13	-1.32	1.14	P	-	12.4
			12/4/2006	ND	NA	NA	17.57	NA	8.5
P-10	5.18	7.64	9/18/2002	8.81	-3.63	-1.17	-	-	-
			9/30/2002	9.00	-3.82	-1.36	-	-	-
			10/7/2002	8.85	-3.67	-1.21	-	-	-
			6/26/2003	8.47	-3.29	-0.83	14.65	0.3 [2]	1.4
			10/15/2003	NM	-	-	NM	-	NM
			11/13/2003	8.67	-3.49	-1.03	-	-	82.7
			12/30/2003	8.16	-2.98	-0.52	P	-	2.7
			3/15/2004	7.57	-2.39	0.07	P	-	18.4
			6/7/2004	ND	NA	NA	7.95	NA	0.7
			9/7/2004	8.10	-2.92	-0.46	P	-	0.0
			12/7/2004	7.11	-1.93	0.53	P	-	1.8
			12/4/2006	7.58	-2.40	0.06	-	-	0.6
GP-1	21.71	24.17	8/19/2002	26.35	-4.64	-2.18	-	-	-
			8/23/2002	26.30	-4.59	-2.13	-	-	-
			9/18/2002	26.06	-4.35	-1.89	-	-	-
			9/30/2002	26.15	-4.44	-1.98	-	-	-
			10/7/2002	26.06	-4.35	-1.89	-	-	-
			6/26/2003	25.86	-4.15	-1.69	-	-	16.5
			10/14/2003	26.36	-4.65	-2.19	-	-	4.7
			11/12/2003	26.26	-4.55	-2.09	-	-	2.8
			12/29/2003	25.97	-4.26	-1.80	-	-	0.0
			3/15/2004	25.40	-3.69	-1.23	-	-	3.8
			6/7/2004	25.62	-3.91	-1.45	-	-	2.1
			9/7/2004	25.61	-3.90	-1.44	-	-	0.0
			12/7/2004	24.96	-3.25	-0.79	-	-	9.2
GP-2	24.03	26.49	8/19/2002	29.50	-5.47	-3.01	28.00	1.5	-
			8/23/2002	30.30	-6.27	-3.81	28.80	1.5	-
			9/18/2002	32.80	-8.77	-6.31	27.60	5.2	-
			9/30/2002	32.83	-8.80	-6.34	26.95	5.88	-
			10/7/2002	32.52	-8.49	-6.03	26.58	5.94	-
			6/27/2003	ND	NA	NA	25.25	NA	63.8
			10/15/2003	ND	NA	NA	25.84	NA	48.8
			11/13/2003	ND	NA	NA	25.48	NA	43.5
			12/30/2003	ND	NA	NA	25.13	NA	39.1
[4]			3/15/2004	NM	-	-	NM	-	NM
[4]			6/7/2004	NM	-	-	NM	-	NM
[4]			9/7/2004	NM	-	-	NM	-	NM
			12/8/2004	ND	NA	NA	24.53	NA	99.4

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GP-3	20.01	22.47	8/19/2002	24.15	-4.14	-1.68	-	-	-
			8/23/2002	24.00	-3.99	-1.53	-	-	-
			9/18/2002	22.94	-2.93	-0.47	-	-	-
			9/30/2002	22.91	-2.90	-0.44	-	-	-
			10/7/2002	22.86	-2.85	-0.39	-	-	-
			6/26/2003	22.12	-2.11	0.35	22.04	0.08	23.0
			10/15/2003	ND	NA	NA	22.80	NA	111.0
			11/13/2003	ND	NA	NA	22.76	NA	97.1
			12/30/2003	ND	NA	NA	22.51	NA	202.0
			[4] 3/15/2004	NM	-	-	NM	-	NM
			[4] 6/7/2004	NM	-	-	NM	-	NM
			[4] 9/7/2004	NM	-	-	NM	-	NM
			12/8/2004	ND	NA	NA	21.11	NA	63.2
GP-4	18.64	21.10	8/19/2002	20.80	-2.16	0.30	-	-	-
			9/18/2002	21.49	-2.85	-0.39	-	-	-
			9/30/2002	21.51	-2.87	-0.41	-	-	-
			10/7/2002	21.41	-2.77	-0.31	-	-	-
			6/26/2003	21.37	-2.73	-0.27	-	-	13.2
			10/14/2003	21.93	-3.29	-0.83	-	-	14.0
			11/12/2003	21.83	-3.19	-0.73	-	-	9.6
			12/29/2003	21.37	-2.73	-0.27	-	-	3.6
			3/15/2004	20.81	-2.17	0.29	-	-	4.7
			6/7/2004	20.98	-2.34	0.12	-	-	0.0
			9/7/2004	21.13	-2.49	-0.03	-	-	10.9
			12/7/2004	20.48	-1.84	0.62	-	-	0.0
GP-12	16.23	18.69	8/23/2002	20.63	-4.40	-1.94	-	-	-
			8/29/2002	20.70	-4.47	-2.01	-	-	-
			9/6/2002	19.85	-3.62	-1.16	-	-	-
			9/18/2002	19.62	-3.39	-0.93	-	-	-
			9/30/2002	19.78	-3.55	-1.09	-	-	-
			10/7/2002	19.69	-3.46	-1.00	-	-	-
			6/26/2003	19.38	-3.15	-0.69	-	-	0.5
			10/14/2003	19.90	-3.67	-1.21	-	-	1.9
			11/12/2003	19.74	-3.51	-1.05	-	-	5.9
			12/29/2003	19.34	-3.11	-0.65	-	-	5.1
			3/15/2004	18.76	-2.53	-0.07	-	-	0.9
			6/7/2004	17.23	(?)	(?)	-	-	0.0
			[9] 9/7/2004	19.46	-2.77	-0.31	-	-	9.5
	16.69	19.15	12/7/2004	18.56	-1.87	0.59	-	-	2.6
			12/4/2006	18.70	-2.01	0.45	-	-	2.0
GP-21	16.30	18.76	9/18/2002	18.62	-2.32	0.14	-	-	-
			9/30/2002	18.77	-2.47	-0.01	-	-	-
			10/7/2002	18.60	-2.30	0.16	-	-	-
			6/26/2003	18.78	-2.48	-0.02	-	-	0.2
			10/14/2003	19.41	-3.11	-0.65	-	-	0.0
			11/12/2003	19.22	-2.92	-0.46	-	-	0.0
			12/29/2003	18.72	-2.42	0.04	-	-	0.0
			3/15/2004	18.11	-1.81	0.65	-	-	0.7
			6/7/2004	18.39	-2.09	0.37	-	-	0.0
			9/7/2004	18.50	-2.20	0.26	-	-	0.0
			12/7/2004	17.89	-1.59	0.87	-	-	0.0
			12/4/2006	18.30	-2.00	0.46	-	-	0.0

Table 5-2
Semi-Perched Aquifer Gauging Data: June 2002 - December 2006

Ascon Landfill Site
Huntington Beach, CA

Groundwater Monitoring Well Number	Well Head Elevation-- Feet Above Mean Sea Level (ft MSL)[1]	Well Head Elevation-- Feet Above NAVD88 Datum	Date of Gauging Event	Depth to Water (ft below TOC)	Groundwater Elevation (ft above MSL)	Groundwater Elevation (ft above NAVD88)	Depth to Top of Product (ft below TOC)	Product Thickness (ft)	PID Reading (ppm)
GP-22	15.85	18.31	9/18/2002	18.84	-2.99	-0.53	-	-	-
			9/30/2002	19.03	-3.18	-0.72	-	-	-
			10/7/2002	18.95	-3.10	-0.64	-	-	-
			6/26/2003	18.77	-2.92	-0.46	-	-	13.0
			10/14/2003	19.32	-3.47	-1.01	-	-	8.4
			11/12/2003	19.13	-3.28	-0.82	-	-	8.7
			12/29/2003	18.61	-2.76	-0.30	-	-	3.6
			3/15/2004	17.99	-2.14	0.32	-	-	9.6
			6/7/2004	18.43	-2.58	-0.12	-	-	10.2
			9/7/2004	18.50	-2.65	-0.19	-	-	14.7
			12/7/2004	17.70	-1.85	0.61	-	-	0.0
			12/4/2006	18.16	-2.31	0.15	-	-	12.3
GP-23	24.88	27.34	9/18/2002	28.07	-3.19	-0.73	-	-	-
			9/30/2002	28.32	-3.44	-0.98	-	-	-
			10/7/2002	28.15	-3.27	-0.81	-	-	-
			6/26/2003	27.87	-2.99	-0.53	-	-	1.2
			10/14/2003	28.36	-3.48	-1.02	-	-	17.0
			11/12/2003	28.24	-3.36	-0.90	-	-	13.9
			12/29/2003	27.96	-3.08	-0.62	-	-	15.6
			3/15/2004	27.42	-2.54	-0.08	-	-	28.3
			6/7/2004	27.79	-2.91	-0.45	-	-	10.3
			9/7/2004	27.99	-3.11	-0.65	-	-	2.5
			12/7/2004	27.09	-2.21	0.25	-	-	0.4
			12/4/2006	27.57	-2.69	-0.23	-	-	24.3
GP-24	26.32	28.78	9/18/2002	29.90	-3.58	-1.12	-	-	-
			9/30/2002	30.01	-3.69	-1.23	-	-	-
			10/7/2002	29.95	-3.63	-1.17	-	-	-
[8]	24.13	26.59	6/27/2003	27.15	-3.02	-0.56	-	-	8.8
			10/14/2003	27.65	-3.52	-1.06	-	-	8.4
			11/12/2003	27.51	-3.38	-0.92	-	-	0.5
			12/29/2003	27.15	-3.02	-0.56	-	-	5.3
[9]	27.49	29.95	3/15/2004	29.92	-2.43	0.03	-	-	19.3
			6/7/2004	30.42	-2.93	-0.47	-	-	33.2
			9/7/2004	30.26	-2.77	-0.31	-	-	17.4
			12/7/2004	29.51	-2.02	0.44	-	-	12.3
GP-25	19.89	22.35	9/18/2002	23.43	-3.54	-1.08	-	-	-
			9/30/2002	23.55	-3.66	-1.20	-	-	-
			10/7/2002	23.40	-3.51	-1.05	-	-	-
			6/26/2003	23.31	-3.42	-0.96	-	-	0.0
			10/14/2003	23.85	-3.96	-1.50	-	-	0.0
			11/12/2003	23.72	-3.83	-1.37	-	-	0.0
			12/29/2003	23.33	-3.44	-0.98	-	-	0.0
			3/15/2004	23.79	-3.90	-1.44	-	-	0.4
			6/7/2004	22.96	-3.07	-0.61	-	-	0.3
			9/7/2004	23.04	-3.15	-0.69	-	-	0.0
			12/7/2004	ND	NA	NA	22	NA	325.0

Explanation:

ft	Feet.
TOC	Top of Casing.
MSL	Mean Sea Level Based on Newport Bay Entrance Tidal Station.
-	Not able to detect with interface probe.
P	Only water detected with interface probe, however, product visually observed on interface probe after withddrawal from monitoring location. Data judged usable for contouring.
NM	Not Measured.
NA	Not applicable or unable to calculate.
ND	Not Detected. Only product detected by interface probe.
?	GP-12 well casings damaged at surface.

Footnotes:

[1]	Surveying data based on NAVD88 datum with 2.46 foot conversion to derive MSL.
[2]	Bottom of product located at 14.95 feet below TOC.
[3]	4.5 feet of product was observed in well B-2 on September 22, 1988.
[4]	Monitoring location not monitored due to previous detections of product
[5]	Well AW-1 was located in April, 2004
[8]	Well casing resurveyed on Febuary 3, 2004, after well casing was damaged .
[9]	Well casing resurveyed on September 17, 2004, after well casing was repaired.

Notes

A	Wells AW-6 and AW-7 have been reported as being paved over during expansion of Hamilton roadway.

Table 5-3
Groundwater Level Data From Selected Site Wells
Ascon Landfill Site
Huntington Beach, California

Gauging Date	Monitoring Well and Groundwater Elevation (feet above NAVD88)								
	AW-3	AW-4	AW-5	AW-8	B-7	MW-4	MW-9	MW-13	MW-15
9/28/1988	-0.62	1.07	--	-2.64	--	-0.52	0.66	-0.81	-0.70
1/15/1996	--	1.15	--	-2.99	--	-0.21	0.83	-1.82	-1.29
3/12/1997	0.28	1.94	1.10		0.61	2.14	3.42	0.19	0.11
6/7/2002	-1.03	0.37	-0.15	-3.26	-0.73	-1.28	-0.19	-0.96	-0.77
8/9/2002	-1.13	0.12	-0.31	-3.36	-0.83	-1.33	-0.31	-1.00	-0.76
10/7/2002	-1.08	0.62	0.10	-3.20	-0.72	-1.29	-0.01	-0.92	-0.68
6/26/2003	-0.59	0.36	0.24	-3.02	-0.41	-0.75	0.06	-0.55	-0.45
10/14/2003	-1.12	-0.26	-0.37	-3.45	-0.89	-1.26	-0.50	-1.06	-0.86
11/12/2003	-1.06	-0.11	-0.24	-3.35	-0.77	-1.23	-0.33	-1.01	-0.77
12/29/2003	-0.77	0.42	0.21	-3.14	-0.38	-0.92	0.18	-0.76	-0.44
3/15/2004	-0.15	0.96	0.72	-2.68	0.19	-0.28	0.82	0.02	0.14
6/7/2004	-0.26	1.45	0.53	-2.87	-0.16	-0.60	0.44	-0.42	-0.27
9/7/2004	-0.70	0.68	0.50	-2.91	-0.28	-0.76	0.34	-0.59	-0.40
12/7/2004	0.38	1.22	0.64	-2.10	0.62	0.13	1.12	0.44	0.61
12/4/2006	-0.33	0.79	0.67	-2.56	0.16	0.13	0.71	-0.11	0.18

Table 6-1
General Mineral Concentrations in Groundwater
Ascon Landfill Site
Huntington Beach, California

Site Location	Sample Date	Calcium (mg/l)	Magnesium (mg/l)	Potassium (mg/l)	Sodium (mg/l)	Chloride (mg/l)	Sulfate (mg/l)	Bicarbonate Alkalinity as CaCO3 (mg/l)	Alkalinity as CaCO3 (mg/l)	Specific Conductance (umhos/cm)	Total Dissolved Solids (mg/l)
AW1	04/22/04	430	240	56	3200	5200	1100	650	650	19000	10000
AW4A	04/16/04	410	790	440	7400	13000	1900	350	350	36000	26000
AW5	04/19/04	420 J+	610 J-	190 J	5100 J+	8800	1600	500	500	26000	18000
B4A	04/19/04	21	32	10	5600	10000	1600	490	490	31000	19000
D4DA (B4A Dup.)	04/19/04	21	33	11	5900	11000	1600	480	480	31000	19000
MW9	04/16/04	390	770	280	6300	11000	1800	440	440	32000	23000
MW16	03/16/04	590 J-	200 J+	28	1400 J	3200	780	360	360	11000	6800
MW17	03/16/04	860	220	50	1800	5100	140	360	360	14000	8400
MW18	04/12/04	300 J-	230 J-	56	1000 J+	1400	1100	560	560	7000	4600
MW20	04/13/04	710 J-	120	17	760 J-	2700	46	180	180	8600	6600
NMW2	04/16/04	960	420	410	4700	9200	1600	540	540	28000	21000
MCL		--	--	--	--	500	500	--	--	1,600	1,000

mg/l: milligrams per liter
umhos/cm: micro mhos per centimeter
Dup.: Duplicate
MCL: California Secondary Upper Maximum Contaminant Levels for drinking water
: Shade area indicates detected concentration above MCL

J: estimated value
J+: estimated with a high bias
J-: estimated with a low bias

Table 6-2
Summary of Metal and General Mineral Concentrations in
Huntington Beach Flood Control Channel Water Sample
Ascon Landfill Site
Huntington Beach, California

Analytes	Concentration	Units
Metals		
Mercury	<0.00020	mg/l
Antimony	<8.0	ug/l
Arsenic	<4.0	ug/l
Barium	**19**	ug/l
Beryllium	<2.0	ug/l
Cadmium	<4.0	ug/l
Chromium	<4.0	ug/l
Cobalt	<4.0	ug/l
Copper	**9**	ug/l
Lead	<4.0	ug/l
Molybdenum	**12**	ug/l
Nickel	<4.0	ug/l
Selenium	**89**	ug/l
Silver	<4.0	ug/l
Thallium	<4.0	ug/l
Vanadium	<4.0	ug/l
Zinc	<4.0	ug/l
General Minerals		
Calcium	**340**	mg/l
Magnesium	**1100**	mg/l
Potassium	**370**	mg/l
Sodium	**9600**	mg/l
Bicarbonate Alkalinity as CaCO3	**120**	mg/l
Carbonate Alkalinity as CaCO3	<2.0	mg/l
Hydroxide Alkalinity as CaCO3	<2.0	mg/l
Chloride	**19000**	mg/l
Sulfate	**2500**	mg/l
Total Dissolved Solids	**33000**	mg/l
Specific Conductance	**51000**	umhos/cm

Note: sample collected on 12/20/2004 at Magnolia Street Bridge.
mg/l: milligrams per liter
ug/l: micrograms per liter
umhos/cm: micromhos per centimeter

Table 6-3
Metal Concentrations in Groundwater
Ascon Landfill Site
Huntington Beach, California

Site Location	Event	Sample Date	Antimony (ug/l)	Arsenic (ug/l)	Barium (ug/l)	Beryllium (ug/l)	Cadmium (ug/l)	Chromium (ug/l)	Cobalt (ug/l)	Copper (ug/l)	Lead (ug/l)	Mercury (mg/l)	Molybdenum (ug/l)	Nickel (ug/l)	Selenium (ug/l)	Silver (ug/l)	Thallium (ug/l)	Vanadium (ug/l)	Zinc (ug/l)
AW1	Q1	04/22/04	2.5	3.8	72	<0.5 J-	<1	2	1.8	11	<1	<0.0002	11	2.1	58	<1 J-	<1	<1	<20 J-
	Q2	06/11/04	<2	2.6	67	<0.5	<1	1.7	1.5	5.3	<1	<0.0002	9.3	4.3	74	<1	<1	<1	<20
	Q3	09/14/04	<6	3	130	<1.5	<3	<3	<3	<6	<3	<0.0002	<3	5.5	31	<3	<3	<3	<60
	Q4	12/15/04	<4	4.7	57	<1	<2	2.2	<2	11	<2	<0.0002	19	9.7	93	<2	<2	<2	<40
AW1A	Q1	04/15/04	<2	1.2	100	<0.5	<1	1.1	1.7	4.5	<1	<0.0002	3.2	<1	30	<1	<1	<1	<20
	Q2	06/11/04	<2	<1	100	<0.5	<1	<1	1.9	4.1	<1	<0.0002	1.2	4.6	62	<1	<1	<1	<20
	Q3	09/14/04	<6	5.8	82	<1.5	<3	<3	<3	<6	<3	<0.0002	13	4	34	<3	<3	<3	<60
	Q4	12/15/04	<4	2.5	94	<1	<2	<2	<2	4	<2	<0.0002	6.6	2	36	<2	<2	<2	<40
AW2	PNL	06/14/02	11	<25	10	<4	<5	<5	<10	<10	<25	<0.0002	<20	<10	<5	<10	<5	<10	<20
	Q4_2006	12/11/2006	<4	<2	110	16	<2	<4	2	6.3	<2	<0.0002J	8.6	9.1	61	<2	<2	<4	<40
AW3	PNL	06/15/02	<10	<25	130	<4	<5	9.6	<10	<10	<25	<0.0002	<20	<10	<5	<10	<5	16	25
	Q1	04/14/04	<2	<1	120	<0.5	<1	1.2	1.5	3.5	<1	<0.0002	2.9	<1	49	<1	<1	<1	<20
	Q1 Dup	04/14/04	<2	<1	120	<0.5	<1	1.2	1.5	3.7	<1	<0.0002	3	<1	52	<1	<1	<1	<20
	Q2	06/10/04	<2	<1	110	<0.5 J-	<1 J-	1.6	1.8	3	<1	<0.0002 R	1.9	2.6	74 J-	<1	<1	1.5	<20 J-
	Q3	09/13/04	<2	<1	100	<0.5	<1	2	1.2	2.5	<1	<0.0002	1.8	2	59	<1	<1	<1	<20
	Q4	12/14/04	<2	<1	130	<0.5	<1	2.2	1.4	2.3	<1	<0.0002	7.8	2.1	63 J-	1.3	<1	<1	<20 J-
AW4	PNL	06/15/02	<20	<25	90	<8	<10	<10	<20	<20	<25	<0.0002	<40	<20	<10	<20	<10	<20	<40
AW4A	Q1	04/16/04	<2	<1	100	<0.5 J-	<1	2.6	3	13	<1	<0.0002	13	5.2	110 J-	<1	<1	<1	<20 J-
	Q2	06/16/04	<2	<1	100	<0.5	<1	2	2.5	13	<1	<0.0002	12	1.4	72	<1	<1	<1	30
	Q3	09/15/04	<6	3.1	100	<1.5	<3	<3	<3	7.8	<3	<0.0002	13	5.1	59	<3	<3	<3	<60
	Q4	12/17/04	<4	5.2	100	<1	<2	<2	<2	7.1	<2	<0.0002	17	5.4	120	<2	<2	<2	<40
AW5	PNL	06/15/02	<10	<25	72	<4	<5	<5	<10	<10	<25	<0.0002	31	<10	<5	<10	<5	10	21
	Q1	04/19/04	<2	<1	71 J+	<0.5 J-	<1	1.9	2.3	13	<1	<0.0002	10 J+	<1	49	<1	<1	<1	<20 J-
	Q2	06/14/04	<2	<1	53	<0.5	<1	1.4	1.6	7.1	<1	<0.0002	6.8	4.3	82	<1	<1	<1	<20
	Q3	09/16/04	<6	<3	66	<1.5	<3	<3	<3	<6	<3	<0.0002	6.3	5	73	<3	<3	<3	<60
	Q4	12/17/04	<4	<2	60	<1	<2	<2	<2	5.9	<2	<0.0002	12	3.7	86	<2	<2	<2	<40
AW8	Q3	09/16/04	<6	<3	130	<1.5	<3	<3	<3	<6	<3	<0.0002	<3	<3	89	<3	<3	<3	<60
	Q4	12/15/04	<4	<2	120	<1	<2	<2	<2	4.5	<2	<0.0002	<2	<2	98	<2	<2	<2	<40
B4	PNL	06/14/02	12	9.4	1200	<4	<5	18	<10	79	10	<0.0002	84	97	<5	<10	<5	<10	73
B4A	Q1	04/19/04	<2	<1	250	<0.5	<1	3.5	2.5	15	<1	<0.0002	7.6	3	90	<1	<1	1.6	<20
	Q1 Dup	04/19/04	<2	<1	250	<0.5	<1	3.4	2.5	16	<1	<0.0002	6.5	4	100	<1	<1	<1	<20
	Q2	06/17/04	<2	3	170	<0.5	<1	3.2	1.8	9.8	<1	<0.0002	16	2	97	<1	<1	4.9	<20
	Q2 Dup	06/17/04	<2	2.7	180	<0.5	<1	3.1	1.8	9.9	<1	<0.0002	11	1.6	85	<1	<1	4.1	<20
	Q3	09/15/04	<6	16	340	<1.5	<3	3.9	<3	6.1	<3	<0.0002	19	7.4	62	<3	<3	13	<60
	Q4	12/20/04	<4	2.3	210	<1	<2	2.9	<2	5.4	<2	<0.0002	<2	<2	77	<2	<2	4.4	<40
	Q4 Dup	12/20/04	<4	2.3	200	<1	<2	3.3	<2	5.2	<2	<0.0002	<2	<2	70	<2	<2	4.8	<40
	Q4_2006	12/13/2006	<20	11	1200	<5	<10	<20	<10	<20	<10	<0.0002	180	<20	74	<10	<10	23	<200
B7	PNL	06/15/02	<10	<25	190	<4	<5	47	<10	22	<25	<0.0002	<20	53	<5	<10	<5	11	84
	Q1	04/19/04	<2	<1	180	<0.5	<1	3.7	1.7	7.2	<1	<0.0002	<1	2	73	<1	<1	6.8	<20
	Q2	06/12/04	<2	<1	120	<0.5	<1	2.9	1.6	4	<1	<0.0002	<1	5.7	88	<1	<1	7.2	<20
	Q3	09/17/04	<6	<3	140	<1.5	<3	3.5	<3	<6	<3	<0.0002	<3	5.5	68	<3	<3	3.3	<60
	Q3 Dup	09/17/04	<6	<3	140	<1.5	<3	3.5	<3	<6	<3	<0.0002	<3	5.4	69	<3	<3	5.2	<60
	Q4	12/20/04	<4	<2	150	<1	<2	2.8	<2	<4	<2	<0.0002	<2	<2	57	<2	<2	6.9	<40
	Q4_2006	12/13/2006	<2	1.6	180	<0.5	<1	3.2	1.8	4.3	<1	<0.0002R	<2	11	49	<1	<1	8.3	<20
GP01	Q1	04/20/04	<2	<1	110	<0.5	<1	2.2	3.8	18	<1	<0.0002	5.5	<1	70	<1	<1	<1	<20
	Q2	06/17/04	<2	<1	100	<0.5	<1	3.1	3.8	14	<1	<0.0002	5.9	<1	95	<1	<1	<1	<20
	Q3	09/17/04	<10	<5	170	<2.5	<5	7.5	<5	<10	<5	<0.0002	11	7.3	140	<5	<5	<5	<100
	Q4	12/17/04	<4	<2	98	<1	<2 J-	2.8	2.8	7.3	<2	<0.0002	8	4.1	110	<2	<2	<2	<40 J-
GP12	Q1	04/21/04	<2	<1	90	<0.5	<1	2.6	1.5	<2	<1	<0.0002	<1	4.7	80	<1	<1	2.7	<20
	Q2	06/16/04	<2	<1	82	<0.5	<1	3	1.4	<2	<1	<0.0002	<1	4	92 J-	<1	<1	3.2	<20 J-
	Q3	09/17/04	<2	<1	25	<0.5	<1	1	<1	<2	<1	<0.0002	<1	2.8	28	<1	<1	<1	<20
	Q4	12/16/04	<2	8.7	120	<0.5	<1	2.6	1.1	<2	<1	<0.0002	2.4	4	60	<1	<1	3.3	<20
GP23	Q1	04/22/04	<2	<1	360	<0.5	<1	2.5	2	6.9	<1	<0.0002	<1	3.6	82	<1	<1	<1	<20
	Q2	06/12/04	<2	1.3	370	<0.5	<1	3	1.9	4	<1	<0.0002	<1	4.7	94	<1	<1	2.1	<20
	Q3	09/16/04	<6	<3	640	<1.5	<3	5	<3	<6	<3	<0.0002	<3	12	86	<3	<3	<3	<60
	Q4	12/16/04	<4	<2	520	<1	<2	3.2	<2	<4	<2	<0.0002	<2	<2	60	2.1	<2	2.6	<40
GP24	Q1	04/20/04	<2	2.2	550	<0.5	<1	5.3	1.5	<2	<1	<0.0002	<1	<1	43	<1	<1	7.4	<20 J-
	Q2	06/17/04	<2	26	540	<0.5	<1	4.8	1.5	2.2	<1	<0.0002	5.4	<1	54	<1	<1	11	<20
	Q3	09/17/04	<2	1.8	170	<0.5	<1	2	<1	<2	<1	<0.0002	<1	<1	17	<1	<1	2.7	<20
	Q4	12/16/04	<2	5.6	460	<0.5	<1	4.6	1.3	<2	<1	<0.0002	1.5	<1	39	<1	<1	6	<20

Table 6-3
Metal Concentrations in Groundwater
Ascon Landfill Site
Huntington Beach, California

Site Location	Event	Sample Date	Antimony (ug/l)	Arsenic (ug/l)	Barium (ug/l)	Beryllium (ug/l)	Cadmium (ug/l)	Chromium (ug/l)	Cobalt (ug/l)	Copper (ug/l)	Lead (ug/l)	Mercury (mg/l)	Molybdenum (ug/l)	Nickel (ug/l)	Selenium (ug/l)	Silver (ug/l)	Thallium (ug/l)	Vanadium (ug/l)	Zinc (ug/l)
MW04	PNL	06/14/02	<10	<25	24	<4	<5	<5	<10	11	<25	<0.0002	<20	28	<5	<10	<5	<10	<20
	PNL Dup	06/14/02	11	<25	30	<4	<5	<5	<10	<10	<25	<0.0002	<20	<10	<5	<10	<5	<10	<20
	Q1	04/14/04	<2	<1	26	<0.5	<1	<1	<1	<2	<1	<0.0002	<1	<1	12	<1	<1	<1	<20
	Q2	06/09/04	<2	<1	31	<0.5	<1	<1	<1	<2	<1	<0.0002	<1	<1	12	<1	<1	<1	<20
	Q3	09/13/04	<2	<1	27	<0.5	<1	<1	<1	<2	<1	<0.0002	<1	1.2	13	<1	<1	<1	<20
	Q4	12/13/04	<2	<1	30	<0.5	<1	<1	<1	<2	<1	<0.0002	<1	<1	14	<1	<1	<1	<20
MW09	PNL	06/14/02	<10	<25	96	<4	<5	<5	<10	13	<25	<0.0002	<20	<10	<5	<10	7.4	<10	<20
	Q1	04/15/04	<2	<1	130	<0.5	<1	2.7	1.9	12	<1	<0.0002	<1	3.5	82	<1	<1	<1	<20
	Q2	06/11/04	<2	<1	140	<0.5 J-	<1 J-	2.5	2.7	9.3	<1	<0.0002	<1	8.9	120 J-	<1	<1	<1	<20 J-
	Q3	09/14/04	<6	<3	180	<1.5	<3	3.2	<3	8.7	<3	<0.0002	<3	4.6	61	<3	<3	<3	<60
	Q4	12/14/04	<2	<1	140	<0.5	<1	2.5	1.5	5.4	<1	<0.0002	<1	5.2	110	<1	<1	<1	<20
MW13	PNL	06/14/02	<10	5.6	78	<4	<5	<5	<10	<10	<25	<0.0002	<20	<10	<5	<10	<5	<10	<20
	Q1	04/14/04	<2	2.3	92	<0.5	<1	1.4	<1	9.5	<1	<0.0002	27	4.7	36	<1	<1	2	<20
	Q2	06/10/04	<2	5.4	170	<0.5	<1	3.1	1.6	5.8	<1	<0.0002	5.3	9.4	94	<1	<1	<1	<20
	Q3	09/13/04	<2	5.6	180	<0.5	<1	4.5	1.4	4.4	<1	<0.0002	2.5	3.7	67	<1	<1	<1	<20
	Q4	12/14/04	<2	11	180	<0.5	<1	6.5	1.1	2.8	<1	<0.0002	11	4.2	64	<1	<1	<1	<20
	Q4 Dup	12/14/04	<2	12	170	<0.5	<1	5.9	<1	2.8	<1	<0.0002	10	3.9	63	<1	<1	<1	<20
MW15	PNL	06/14/02	<20	<25	110	<8	<10	<10	<20	<20	<25	<0.0002	<40	<20	<10	<20	<20	<20	<40
	PNL Dup	06/14/02	<20	<25	100	<8	<10	<10	<20	<20	<25	<0.0002	<40	<20	<10	<20	<20	<20	<40
	Q1	04/15/04	<2	<1	140	<0.5	<1	2	1.7	9.4	<1	<0.0002	18	<1	43	<1	<1	<1	<20
	Q2	06/10/04	<2	<1	140	<0.5	<1	1.3	2.2	5.5	<1	<0.0002	2.3	4.6	73	<1	<1	<1	<20
	Q3	09/14/04	<6	<3	140 J+	<1.5	<3	14	<3	<6	<3	<0.0002	<3	7.6	33	<3	<3	<3	<60 J
	Q4	12/14/04	<2	<1	140	<0.5	<1	2.1	1.7	5.2	<1	<0.0002	27	6.5	58	<1	<1	<1	<20
MW16	PNL	08/09/02	<20	<25	120	<8	<10	<10	<20	<20	<5	<0.0002	<40	<20	<10	<20	<10	<20	<40
	Q1	03/16/04	<2	<1	80	<0.5	<1	<1	1.7	6.5	<1	<0.0002	2.7	<1	19	<1	<1	<1	<20
	Q2	06/08/04	<2	1	23	<0.5	<1	<1	2.2	14	<1	<0.0002	9.7	4.7	8.6	<1	<1	<1	<20
	Q3	09/08/04	<2	<1	8.6	<0.5	<1	<1	1.3	11	<1	<0.0002	4.5	3.1	3.8	<1	<1	<1	<20
	Q4	12/11/04	<2	<1	6.2	<0.5	<1	<1	1.4	22	5.3	<0.0002	28	12	5.3	<1	<1	<1	21
MW17	PNL	08/09/02	<20	<25	170	<8	<10	<10	<20	<20	<5	<0.0002	<40	<20	<10	<20	<10	<20	<40
	Q1	03/16/04	<2	<1	150	<0.5	<1	<1	1.9	2.7	<1	<0.0002	<1	<1	30	<1	<1	<1	<20
	Q2	06/08/04	<2	<1	140	<0.5	<1	<1	2.2	3.3	<1	<0.0002	<1	<1	33	<1	<1	<1	<20
	Q2 Dup	06/08/04	<2	<1	140	<0.5	<1	<1	2.1	3.2	<1	<0.0002	<1	<1	33	<1	<1	<1	<20
	Q3	09/08/04	<2	<3	160	<0.5	<1	<1	1.6	2	<1	<0.0002	<1	3.4	17 J-	<1	<1	<3	<20
	Q4	12/11/04	<2	<1	180	<0.5	<1	<1	1.3	13	4.7	<0.0002	<1	<1	34	<1	<1	<1	32
MW18	PNL	08/09/02	<10	<25	64	<4	<5	<5	<10	<10	<5	<0.0002	<20	<10	<5	<10	<5	<10	<20
	Q1	04/12/04	<2	1.2	46	<0.5	<1	<1	<1	5.9	<1	<0.0002	1.5	<1	14	<1	<1	1.2	<20
	Q2	06/09/04	<2	2.9	28	<0.5	<1	<1	<1	3.8	<1	<0.0002	8	<1	13	<1	<1	<1	<20
	Q3	09/09/04	<2	2.9	24	<0.5	<1	1.1	<1	2.1	<1	<0.0002	9.5	1.3	9.7	<1	<1	<1	<20
	Q4	12/13/04	<2	2	65	<0.5	<1	<1	<1	3.5	<1	<0.0002	2.4	1.9	19	<1	<1	<1	21
MW19	Q1	04/13/04	<2	5.9	44	<0.5	<1	<1	1.1	3.7	<1	<0.0002	13	1	13	<1	<1	1.4	<20
	Q2	06/09/04	<2	7.3	46	<0.5	<1	1	1.8	3.4	<1	<0.0002	16	<1	13	<1	<1	1.6	<20
	Q3	09/09/04	<2	7.1	26	<0.5	<1	1.1	<1	<2	<1	<0.0002	12	<1	6.7	<1	<1	<1	<20
	Q3 Dup	09/09/04	<2	5.5	30	<0.5	<1	1.1	<1	<2	<1	<0.0002	11	<1	7.3	<1	<1	<1	<20
	Q4	12/13/04	<2	8.8	49	<0.5	<1	2.2	1.3	18	6.6	<0.0002	10	2.4	8.5	<1	<1	5.4	24
MW20	Q1	04/13/04	<2	<1	1700	<0.5	<1	<1	1.4	2.2	<1	<0.0002	1	<1	20	<1	<1	<1	<20
	Q2	06/09/04	<2	<1	1800	<0.5	<1	<1	1.4	2.2	<1	<0.0002	<1	<1	19	<1	<1	<1	<20
	Q3	09/16/04	<6	<3	2000 J+	<1.5	<3	<3	<3	<6	<3	<0.0002	<3	4.4	21	<3	<3	<3	<60
	Q4	12/13/04	<2	<1	1900	<0.5	<1	<1	1.2	<2	<1	<0.0002	<1	2.8	25	<1	<1	<1	<20
NMW1	PNL	06/14/02	<10	<25	76	<4	<5	<5	<10	<10	<25	<0.0002	46	14	<5	<10	<5	<10	31
	Q3	09/15/04	<6	<3	18	<1.5	<3	<3	<3	7.8	<3	<0.0002	<3	4.6	59	<3	<3	<3	<60
	Q4	12/15/04	<4	<2	160	<1	<2	<2	<2	4.8	<2	<0.0002	<2	<2	96	<2 J-	<2	<2	<40
NMW2	PNL	06/14/02	<30	<25	97	<12	<15	<15	<30	<30	<25	<0.0002	<60	<30	<15	<30	<30	<30	<60
	Q1	04/16/04	<2	3.4	140	<0.5	<1	1.6	2.8	12	<1	<0.0002	13	<1	83	<1	<1	<1	<20
	Q2	06/12/04	<2	2.3	110	<0.5	<1	<1	2.5	5.2	<1	<0.0002	12	<1	120	<1	<1	<1	<20
	Q3	09/14/04	<6	7.4	130	<1.5	<3	<3	<3	7.1	<3	<0.0002	11	<3	72	<3	<3	<3	<60
	Q4	12/16/04	<8	<4	150	<2	<4	<4	<4	<8	<4	<0.0002	9.6	<4	82	28	<4	<4	<80
MCL			6	10	1000	4	5	50	--	1300	15	0.002	--	100	50	100	--	--	5000

ug/l: micrograms per liter
mg/l: milligrams per liter
Dup: Duplicate
MCL: Maxiumum Contaminant Levels for drinking water. All MCLs reported are State of Californa starndards with the exception of the arsenic MCL which is a Federal standard. The MCL reported for each metal is the most conservative between the State and Federal MCL.
: Shade areas indicate concentration detected above MCL.

J: estimated
J+: estimated with a high bias
J-: estimated with a low bias
R: rejected

Table 6-4

VOC Concentrations in Groundwater

Ascon Landfill Site

Huntington Beach, California

Site Location	Event	Sample Date	1,2,4-Trimethylbenzene (ug/l)	1,3,5-Trimethylbenzene (ug/l)	1,3-Dichlorobenzene (ug/l)	1,4-Dichlorobenzene (ug/l)	Benzene (ug/l)	Chlorobenzene (ug/l)	Chloromethane (ug/l)	Ethylbenzene (ug/l)	Isopropylbenzene (ug/l)	m,p-Xylenes (ug/l)	Naphthalene (ug/l)	n-Butylbenzene (ug/l)	n-Propylbenzene (ug/l)	o-Xylene (ug/l)	p-Isopropyltoluene (ug/l)	sec-Butylbenzene (ug/l)	Toluene (ug/l)
AW1	Q1 2004	04/22/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2 2004	06/11/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3 2004	09/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4 2004	12/15/04	**3.1**	<1	<1	<1	<0.5	<1	<1	<1	**1.2**	<1	<1	<1	<1	<1	<1	**2.3**	<1
	Q4_2006	12/8/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
AW1A	Q1	04/15/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/11/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/15/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/8/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
AW-2	PNL	06/14/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
AW3	PNL	06/15/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	Q1	04/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q1 Dup	04/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/10/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/13/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	**1.3**	<1	<1	<1	<1	<1	<1	<1
	Q4	12/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/5/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
AW-4	PNL	06/15/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
AW4A	Q1	04/16/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/16/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/15/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/17/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/12/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006 Dup	12/12/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
AW5	PNL	06/15/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	Q1	04/19/04	<1	<1	<1	<1	<0.5	<1	<1	**43**	<1	**35**	<1	<1	<1	<1	<1	<1	<1
	Q2	06/14/04	<1	<1	<1	<1	<0.5	<1	<1	**30**	<1	**8.2**	<1	<1	<1	<1	<1	<1	<1
	Q3	09/16/04	<1	<1	<1	<1	<0.5	<1	<1	**37**	<1	**9.1**	<1	<1	<1	<1	<1	<1	<1
	Q4	12/17/04	<1	<1	<1	<1	<0.5	<1	<1	**7.9**	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/13/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
AW8	Q3	09/16/04	<1	<1	<1	**1.2**	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/15/04	<1	<1	<1	**2**	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/11/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
B4	PNL	06/14/02	**15**	**2.9**	<2	<2	**61**	<2	<5	**16**	**6.8**	**7**	**20**	<5	**6.7**	<2	<2	<5	**3.1**
B4A	Q1	04/19/04	**12**	**3.2**	<1	<1	**10**	<1	<1	**7**	**2.3**	**5.3**	**7.5**	<1	**2.6**	**1.4**	<1	<1	**1.6**
	Q1 Dup	04/19/04	**18**	**5.1**	<1	<1	**16**	<1	<1	**11**	**3.6**	**7.8**	**12**	<1	**4**	**1.6**	**1.3**	<1	**2.4**
	Q2	06/17/04	**10**	**2.5**	<1	<1	**31**	<1	<1	**3.2**	**3.2**	**1.4**	**11**	<1	**3.2**	**1.8**	<1	<1	<1
	Q2 Dup	06/17/04	**8.9**	**1.9**	<1	<1	**24**	<1	**2**	**2.4**	**2.6**	<1	**7.9**	<1	**2.6**	**1.4**	<1	<1	<1
	Q3	09/15/04	**12**	**1.4**	<1	<1	**46**	<1	<1	**11**	**4.1**	**6.2**	**12**	<1	**3.7**	**16**	<1	<1	**3.9**
	Q4	12/20/04	**1.3**	<1	<1	<1	**2.5**	<1	<1	<1	**1.5**	<1	<1	<1	**1.6**	<1	<1	<1	<1
	Q4 Dup	12/20/04	<1	<1	<1	<1	**1.8**	<1	<1	<1	**1.2**	<1	<1	<1	**1.2**	<1	<1	<1	<1
	Q4_2006	12/13/2006	**34**	**7**	<1	<1	**70**	<1	<1	**41**	**8.8**	**32**	**30**	**1.8**	**8**	**30**	**1.7**	**1.6**	**28**
B7	PNL	06/15/02	<8	<8	<8	<8	<4	<8	<20	**10**	**300**	<8	<20	<20	<8	<8	<8	**24**	<8
	Q1	04/19/04	<1	<1	<1	<1	<0.5	<1	<1	**1.7**	**92**	<1	**1.3**	<1	**1.9**	<1	<1	**6**	<1
	Q2	06/12/04	<2	<2	<2	<2	<1	<2	<2	**3.9**	**200**	<2	<2	<2	**4.9**	<2	<2	**13**	<2
	Q3	09/17/04	<1	<1	<1	<1	<0.5	<1	<1	**2.7**	**230**	<1	**5.9**	<1	**6**	<1	<1	**16**	<1
	Q3 Dup	09/17/04	<1	<1	<1	<1	<0.5	<1	<1	**2.9**	**200**	<1	**8.8**	<1	**5.6**	<1	<1	**15**	<1
	Q4	12/20/04	<1	<1	<1	<1	<0.5	<1	<1	**3.4**	**200**	<1	**15**	<1	**7.3**	<1	<1	**19**	<1
	Q4_2006	12/13/2006	<2	<2	<2	<2	<1	<2	<2	**5.5**	**260**	<2	**30**	<2	**7.2**	<2	<2	**16**	<2
GP01	Q1	04/20/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/17/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/17/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/17/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
GP12	Q1	04/21/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/16/04	<1	<1	<1	<1	<0.5	<1	**1.7**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/17/04	<10	<10	<10	<10	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Q4	12/16/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/12/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Table 6-4
VOC Concentrations in Groundwater
Ascon Landfill Site
Huntington Beach, California

Site Location	Event	Sample Date	1,2,4-Trimethylbenzene (ug/l)	1,3,5-Trimethylbenzene (ug/l)	1,3-Dichlorobenzene (ug/l)	1,4-Dichlorobenzene (ug/l)	Benzene (ug/l)	Chlorobenzene (ug/l)	Chloromethane (ug/l)	Ethylbenzene (ug/l)	Isopropylbenzene (ug/l)	m,p-Xylenes (ug/l)	Naphthalene (ug/l)	n-Butylbenzene (ug/l)	n-Propylbenzene (ug/l)	o-Xylene (ug/l)	p-Isopropyltoluene (ug/l)	sec-Butylbenzene (ug/l)	Toluene (ug/l)
GP23	Q1	04/22/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/12/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/16/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/16/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/12/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
GP24	Q1	04/20/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	**1**	<1
	Q2	06/17/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/17/04	<10	<10	<10	<10	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Q4	12/16/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW04	PNL	06/14/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	PNL Dup	06/14/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	Q1	04/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/09/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/13/04	**1.7**	<1	<1	<1	**0.53**	<1	<1	<1	<1	**3.4**	**1**	<1	<1	**1.2**	<1	<1	**2.3**
	Q4	12/13/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW09	PNL	06/14/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	Q1	04/15/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/11/04	<1	<1	<1	<1	**0.53**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/14/04	<1	<1	<1	<1	**3.2**	**2**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/8/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW13	PNL	06/14/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	Q1	04/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/10/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/13/04	**2**	<1	<1	<1	**0.51**	<1	<1	<1	<1	**3.8**	<1	<1	<1	**1.4**	<1	<1	**2.3**
	Q4	12/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4 Dup	12/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/7/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW15	PNL	06/14/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	PNL Dup	06/14/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	Q1	04/15/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/10/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/7/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW16	PNL	08/09/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	Q1	03/16/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/08/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/08/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/11/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/6/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW17	PNL	08/09/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	Q1	03/16/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/08/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2 Dup	06/08/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/08/04	<1 J-	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/11/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/07/06	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW18	PNL	08/09/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	Q1	04/12/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/09/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/09/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/13/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/6/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006 Dup	12/6/2006	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MW19	Q1	04/13/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/09/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/09/04	<1	<1	<1	<1	<0.5	<1	**2.5**	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3 Dup	09/09/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/13/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/05/06	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Table 6-4

VOC Concentrations in Groundwater

Ascon Landfill Site

Huntington Beach, California

Site Location	Event	Sample Date	1,2,4-Trimethylbenzene (ug/l)	1,3,5-Trimethylbenzene (ug/l)	1,3-Dichlorobenzene (ug/l)	1,4-Dichlorobenzene (ug/l)	Benzene (ug/l)	Chlorobenzene (ug/l)	Chloromethane (ug/l)	Ethylbenzene (ug/l)	Isopropylbenzene (ug/l)	m,p-Xylenes (ug/l)	Naphthalene (ug/l)	n-Butylbenzene (ug/l)	n-Propylbenzene (ug/l)	o-Xylene (ug/l)	p-Isopropyltoluene (ug/l)	sec-Butylbenzene (ug/l)	Toluene (ug/l)
MW20	Q1	04/13/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/09/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/16/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/13/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NMW1	PNL	06/14/02	<2	<2	**2.2**	**5.6**	<1	<2	<5	<2	<2	<2	<5	<1	<2	<2	<2	<5	<2
	Q3	09/15/04	<1	<1	<1	**1.3**	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/15/04	<1	<1	<1	**1.1**	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
NMW2	PNL	06/14/02	<2	<2	<2	<2	<1	<2	<5	<2	<2	<2	<5	<5	<2	<2	<2	<5	<2
	Q1	04/16/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q2	06/12/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q3	09/14/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4	12/16/04	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Q4_2006	12/11/06	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
MCL			--	--	--	5	1	70	--	300	--	1750	--	--	--	1750	--	--	150

ug/l: micrograms per liter

Dup: Duplicate

Only detected analytes shown. Detections shown in bold.

MCL: California Maximum Detection Limit. MCL for xylene is sum of isomers.

J-: estimated low bias

: Shaded area indicates concentration detected above MCL.

Table 6-5
SVOC Concentrations in Groundwater
Ascon Landfill Site
Huntington Beach, California

Site Location	Event	Sample Date	2,4-Dimethylphenol (ug/l)	2-Methylphenol (ug/l)	Benzoic Acid (ug/l)	Napthalene (ug/l)
AW1	Q1	04/22/04	<20	<10	<20	<10
	Q2	06/11/04	<20	<10	<20	<10
	Q3	09/14/04	<20	<10	<20	<10
	Q4	12/15/04	<20	<10	<20	<10
	Q4_2006	12/8/2006	<1.9	<1.9	<19	<0.94
AW1A	Q1	04/15/04	<20	<10	<20	<10
	Q2	06/11/04	<20	<10	<20	<10
	Q3	09/14/04	<20	<10	<20	<10
	Q4	12/15/04	<20	<10	<20	<10
	Q4_2006	12/8/2006	<1.9	<1.9	<19	<0.94
AW-2	PNL	06/14/02	<20	<10	<20	<10
AW3	PNL	06/15/02	<20	<10	<20	<10
	Q1	04/14/04	<20	<10	<20	<10
	Q1 Dup	04/14/04	<20	<10	<20	<10
	Q2	06/10/04	<20	<10	<20	<10
	Q3	09/13/04	<20 J-	<10 J-	<20 J-	<10
	Q4	12/14/04	<20	<10	<20 J-	<10
	Q4_2006[1]	12/5/2006	<1.9	<1.9	<19	<0.94
AW4	PNL	06/15/02	<20	<10	<20	<10
AW4A	Q1	04/16/04	<20	<10	<20	<10
	Q2	06/16/04	<20	<10	<20	<10
	Q3	09/15/04	<20 J-	<10 J-	<20	<10
	Q4	12/17/04	<20	<10	<20	<10
	Q4_2006	12/12/2006	<1.9	<1.9	<19	<0.94
	Q4_2006 Dup	12/12/2006	<1.9	<1.9	<19	<0.94
AW5	PNL	06/15/02	<20	<10	<20	<10
	Q1	04/19/04	<20	<10	<20	<10
	Q2	06/14/04	<20	<10	<20	<10
	Q3	09/16/04	<20 R	<10 R	<20	<10
	Q4	12/17/04	<20	<10	<20	<10
	Q4_2006	12/13/2006	<1.9	<1.9	<19	<0.94
AW8	Q3	09/16/04	<20 J-	<10 J-	<20	<10
	Q4	12/15/04	<20	<10	<20	<10
	Q4_2006	12/13/2006	<1.9	<1.9	<19	<0.94
B4	PNL	06/14/02	**230**	<50	<100	<50
B4A	Q1	04/19/04	**140**	**36**	<20	<10
	Q1 Dup	04/19/04	**97**	**29**	<20	<10
	Q2	06/17/04	**110**	**37**	<50	<25
	Q2 Dup	06/17/04	**130**	<40	<80	<40
	Q3	09/15/04	**192**	**652**	<20	<10
	Q4	12/20/04	<20	<10	<20	<10
	Q4 Dup	12/20/04	<20	<10	<20	<10
	Q4_2006	12/13/2006	**1500**	**2100**	<1900	<94
B7	PNL	06/15/02	<20	<10	<20	<10
	Q1	04/19/04	<20	<10	<20	<10
	Q2	06/12/04	<20	<10	**20**	<10
	Q3	09/17/04	<20	<10	<20	<10
	Q3 Dup	09/17/04	<20	<10	<20	<10
	Q4	12/20/04	<20	<10	<20	<10
	Q4_2006	12/13/2006	<19	<19	<190	**20**
GP01	Q1	04/20/04	<20	<10	<20	<10
	Q2	06/17/04	<20	<10	<20	<10
	Q3	09/17/04	<20 J-	<10 J-	<20	<10
	Q4	12/17/04	<20	<10	<20	<10
GP12	Q1	04/21/04	<20	<10	<20	<10
	Q2	06/16/04	<20	<10	<20	<10
	Q3	09/17/04	<20	<10	<20	<10
	Q4	12/16/04	<20	<10	<20	<10
	Q4_2006	12/12/2006	<19	<19	<190	<9.5
GP23	Q1	04/22/04	<20	<10	<20	<10
	Q2	06/12/04	<20	<10	<20	<10
	Q3	09/16/04	<20	<10	<20	<10
	Q4	12/16/04	<20	<10	<20	<10
	Q4_2006	12/12/2006	<19	<19	<190	<9.5

Table 6-5
SVOC Concentrations in Groundwater
Ascon Landfill Site
Huntington Beach, California

Site Location	Event	Sample Date	2,4-Dimethylphenol (ug/l)	2-Methylphenol (ug/l)	Benzoic Acid (ug/l)	Napthalene (ug/l)
GP24	Q1	04/20/04	<20	<10	<20	<10
	Q2	06/17/04	<20	<10	<20	<10
	Q3	09/17/04	<20	<10	<20	<10
	Q4	12/16/04	<20	<10	<20	<10
MW04	PNL	06/14/02	<20	<10	<20	<10
	PNL Dup	06/14/02	<20	<10	<20	<10
	Q1	04/14/04	<20	<10	<20	<10
	Q2	06/09/04	<20	<10	<20	<10
	Q3	09/13/04	<20 J-	<10 J-	<20	<10
	Q4	12/13/04	<20	<10	<20 J-	<10
MW09	PNL	06/14/02	<20	<10	<20	<10
	Q1	04/15/04	<20	<10	<20	<10
	Q2	06/11/04	<20	<10	<20	<10
	Q3	09/14/04	<20 J-	<10 J-	<20	<10
	Q4	12/14/04	<20	<10	<20 J-	<10
	Q4_2006	12/8/2006	<1.9	<1.9	<19	<.94
MW13	PNL	06/14/02	<20	<10	<20	<10
	Q1	04/14/04	<20	<10	<20	<10
	Q2	06/10/04	<20	<10	<20	<10
	Q3	09/13/04	<20 J-	<10 J-	<20 J-	<10
	Q4	12/14/04	<20	<10	<20 J-	<10
	Q4 Dup	12/14/04	<20	<10	<20 J-	<10
	Q4_2006[2]	12/7/2006	<1.9	<1.9	<19	<0.94
MW15	PNL	06/14/02	<20	<10	<20	<10
	PNL Dup	06/14/02	<20	<10	<20	<10
	Q1	04/15/04	<20	<10	<20	<10
	Q2	06/10/04	<20	<10	<20	<10
	Q3	09/14/04	<20 J-	<10 J-	<20 J-	<10
	Q4	12/14/04	<20	<10	<20 J-	<10
	Q4_2006[2]	12/7/2006	<1.9	<1.9	<19	<0.94
MW16	PNL	08/09/02	<20	<10	<20	<10
	Q1	03/16/04	<20	<10	<20	<10
	Q2	06/08/04	<20	<10	<20	<10
	Q3	09/08/04	<20 J-	<10 J-	<20 J-	<10
	Q4	12/11/04	<20	<10	<20	<10
	Q4_2006[1]	12/6/2006	<1.9	<1.9	<19	<0.96
MW17	PNL	08/09/02	<20	<10	<20	<10
	Q1	03/16/04	<20	<10	<20	<10
	Q2	06/08/04	<20	<10	<20	<10
	Q2 Dup	06/08/04	<20	<10	<20	<10
	Q3	09/08/04	<20 J-	<10J-	<20	<10
	Q4	12/11/04	<20	<10	<20	<10
	Q4_2006[1]	12/7/2006	<1.9	<1.9	<19	<0.94
MW18	PNL	08/09/02	<20	<10	<20	<10
	Q1	04/12/04	<20	<10	<20	<10
	Q2	06/09/04	<20	<10	<20	<10
	Q3	09/09/04	<20	<10	<20	<10
	Q4	12/13/04	<20 J-	<10 J-	<20 J-	<10
	Q4_2006[1]	12/6/2006	<1.9	<1.9	<19	<0.95
	Q4_2006 Dup[1]	12/6/2006	<1.9	<1.9	<19	<0.95

Table 6-5
SVOC Concentrations in Groundwater
Ascon Landfill Site
Huntington Beach, California

Site Location	Event	Sample Date	2,4-Dimethylphenol (ug/l)	2-Methylphenol (ug/l)	Benzoic Acid (ug/l)	Napthalene (ug/l)
MW19	Q1	04/13/04	<20	<10	<20	<10
	Q2	06/09/04	<20	<10	<20	<10
	Q3	09/09/04	<20	<10	<20	<10
	Q3 Dup	09/09/04	<20	<10	<20	<10
	Q4	12/13/04	<20	<10	<20 J-	<10
	Q4_2006[1]	12/5/2006	<1.9	<1.9	<19	<0.94
MW20	Q1	04/13/04	<20	<10	<20	<10
	Q2	06/09/04	<20	<10	<20	<10
	Q3	09/16/04	<20	<10	<20	<10
	Q4	12/13/04	<20	<10	<20 J-	<10
NMW1	PNL	06/14/02	<20	<10	<20	<10
	Q3	09/15/04	<20	<10	<20	<10
	Q4	12/15/04	<20	<10	<20	<10
NMW2	PNL	06/14/02	<20	<10	<20	<10
	Q1	04/16/04	<20	<10	<20	<10
	Q2	06/12/04	<20	<10	<20	<10
	Q3	09/14/04	<20	<10	<20	<10
	Q4	12/16/04	<20	<10	<20	<10
	Q4_2006	12/11/2006	<1.9	<1.9	<19	<0.94

ug/l: micrograms per liter
Dup: Duplicate
Only detected analytes shown
J-: qualified with a low bias
R: rejected due to low percent recovery in the LCS
1: Di-n-butylphthalate reported as qualified non-detected because of detection in equipment blank (EB-1).
2: Bis(2-ethylhexyl)phthalate reported as qualified non-detected because of detection in equipment blank (EB-1).

Table 6-6
Emergent Compound Concentrations in Groundwater
Ascon Landfill Site
Huntington Beach, California

Site Location	Event	Sample Date	1,4-Dioxane (ug/l)	Chromium VI (mg/l)	N-Nitrosodimethylamine (ug/l)	Perchlorate (ug/l)
AW1	Q1	04/22/04	<0.5	<0.002 R	<0.002	<2
	Q2	06/11/04	---	<0.02 R	---	---
	Q3	09/14/04	<0.5	---	---	---
	Q4	12/15/04	<0.5	---	---	---
AW1A	Q1	04/15/04	---	<0.002 R	---	---
	Q2	06/11/04	---	<0.02	---	---
AW-2	PNL	06/14/02	---	---	---	---
AW3	PNL	06/15/02	---	<0.001	---	---
	Q1	04/14/04	---	<0.002	---	<2
	Q1 Dup	04/14/04	---	<0.002	---	<2
AW-4	PNL	06/15/02	---	<0.001	---	---
AW4A	Q1	04/16/04	<0.5	<0.002 R	<0.002	<20
	Q2	06/16/04	---	<0.02 R	---	---
	Q3	09/15/04	**0.61**	---	---	---
	Q4	12/17/04	<0.5	---	---	---
AW5	PNL	06/15/02	---	<0.001	---	---
	Q1	04/19/04	---	<0.002 R	---	---
	Q2	06/14/04	---	<0.02 R	---	---
B4A	Q1	04/19/04	**1.3**	<0.002	<0.002	<20
	Q1 Dup	04/19/04	**1**	<0.002	<0.002	<10
	Q2	06/17/04	**2**	---	---	---
	Q2 Dup	06/17/04	**1.7**	---	---	---
	Q3	09/15/04	**2.4**	---	---	---
	Q4	12/20/04	**1.3**	---	---	---
	Q4 Dup	12/20/04	**1.3**	---	---	---
B7	PNL	06/15/02	---	<0.001	---	---
	Q1	04/19/04	**1.8**	<0.002	<0.002	<20
	Q2	07/02/04	**2.1**	---	---	---
	Q3	09/17/04	**2.3**	---	---	---
	Q3 Dup	09/17/04	**2.1**	---	---	---
	Q4	12/20/04	**1.8**	---	---	---
GP01	Q1	04/20/04	**3.4**	<0.002	<0.002	<20
	Q2	06/17/04	**3.5**	<0.02 R	---	---
	Q3	09/17/04	**2.9**	---	---	---
	Q4	12/17/04	**2.5**	---	---	---
GP12	Q1	04/21/04	---	<0.002	---	---
GP23	Q1	04/22/04	---	<0.002	---	---
GP24	Q1	04/20/04	---	<0.002	---	---
MW04	PNL	06/14/02	---	<0.001	---	---
	PNL	06/14/02	---	<0.001	---	---
	Q1	04/14/04	<0.5	<0.002 J-	<0.002	<2
	Q3	09/13/04	<0.5	---	---	---
	Q4	12/13/04	<0.5	---	---	---
MW09	PNL	06/14/02	---	<0.001	---	---
	Q1	04/15/04	---	<0.002	---	---
MW13	PNL	06/14/02	---	<0.001	---	---
	Q1	04/14/04	<0.5	<0.002	<0.002	<2
	Q3	09/13/04	**0.72**	---	---	---
	Q4	12/14/04	<0.5	---	---	---
	Q4 Dup	12/14/04	<0.5	---	---	---
MW15	PNL	06/14/02	---	<0.001	---	---
	PNL	06/14/02	---	<0.001	---	---
	Q1	04/15/04	---	<0.002	---	---
MW16	PNL	08/09/02	---	<0.001	---	---
	Q1	03/16/04	<0.5	<0.002	<0.002	<2
	Q3	09/08/04	<0.5	---	---	---
	Q4	12/11/04	<0.5	---	---	---
MW17	PNL	08/09/02	---	<0.001	---	---
	Q1	03/16/04	<0.5	<0.002	**0.0021 J**	<2
	Q2	06/08/04	---	---	<0.002	---
	Q2 Dup	06/08/04	---	---	<0.002	---
	Q3	09/08/04	<0.5	---	---	---
	Q4	12/11/04	<0.5	---	---	---
MW18	PNL	8/)9/02	---	<0.001	---	---
	Q1	04/12/04	<0.5	<0.002	<0.002	<2
	Q3	09/09/04	<0.5	---	---	---
	Q4	12/13/04	<0.5	---	---	---
MW19	Q1	04/13/04	<0.5	<0.002 R	<0.002	<2
	Q2	06/09/04	---	<0.002 R	---	---
	Q3	09/09/04	<0.5	---	---	---
	Q3 Dup	09/09/04	<0.5	---	---	---
	Q4	12/13/04	<0.5	---	---	---
MW20	Q1	04/13/04	---	<0.002	---	<2
NMW1	PNL	06/14/02	---	<0.001	---	---
NMW2	PNL	06/14/02	---	<0.001	---	---
	Q1	04/16/04	---	<0.002	---	---

ug/l: mictograms per liter
Dup: Duplicate
---: Not analyzed

R: rejected
J: estimated
J+: estimated with a high bias
J-: estimated with a low bias

Table 6-7
Summary of Analytical Results For
Total Petroleum Hydrocarbons in Groundwater
June-August 2002
Ascon Landfill Site
Huntington Beach, California

Sample Location	Sampling Date	TPH (EPA Method 8015M) (mg/L)
AW-2	6/14/2002	<0.05
AW-3	6/15/2002	<0.05
AW-4	6/15/2002	<0.05
AW-5	6/15/2002	<0.05
B-4	6/14/2002	**0.65**
B-6	6/15/2002	<0.05
B-7	6/15/2002	<0.25
MW-4	6/14/2002	<0.05
Duplicate of MW-4	6/14/2002	<0.05
MW-9	6/14/2002	<0.05
MW-13	6/14/2002	<0.05
MW-15	6/14/2002	<0.05
Duplicate of MW-15	6/14/2002	<0.05
MW-16	8/9/2002	<0.05
MW-17	8/9/2002	<0.05
MW-18	8/9/2002	<0.05
NMW-1	6/14/2002	<0.05
NMW-2	6/14/2002	<0.05

Source: PNL 2002a

mg/L - Milligrams per Liter

Note:

1. TPH detections are shown in bold font.

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Table 6-8
Metal Concentrations and pH Results in NAPL
Ascon Landfill Site
Huntington Beach, California

Site Location	Sample Date	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (um/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)	pH
P1	12/09/04	<5	<1.0	<0.5	<0.5	<1	<1.0	<1.0	<0.5	<1	<0.1	<1.0	**7.3**	<5.0	<1	<5.0	**4.6**	<1.0	5.2
P4	12/09/04	<5	**4.2**	**5.7**	<0.5	<1	**4.3**	<1.0	<0.5	**2.9**	<0.1	<1.0	**31**	<5.0	<1	<5.0	**20**	**2**	6.6
P5	12/09/04	<5	**2.9**	**6.3**	<0.5	<1	**2.2**	<1.0	<0.5	**2.5**	<0.1	<1.0	**34**	<5.0	<1	<5.0	**24**	**1.2**	5.5
P6	12/09/04	<5	<1	**10**	<0.5	<1	**1.1**	<1.0	<0.5	<1	<0.1	<1.0	**31**	<5.0	<1	<5.0	**15**	**1.8**	7.0
P8	12/09/04	<5	**1.3**	**2.3**	<0.5	<1	**2**	<1.0	<0.5	**5**	<0.1	<1.0	**19**	<5.0	<1	<5.0	**16**	<1.0	5.1

mg/kg: milligrams per kilogram
Note:
Bold denotes detection

Table 6-9
Detected VOCs in NAPL
Ascon Landfill Site
Huntington Beach, California

Site Location	Sample Date	1,2,4-Trimethylbenzene (mg/kg)	1,3,5-Trimethylbenzene (mg/kgl)	Ethylbenzene (mg/kgl)	Isopropylbenzene (mg/kg)	Xylenes (mg/kg)	Naphthalene (mg/kg)	n-Propylbenzene (mg/kg)	sec-Butylbenzene (mg/kg)	n-Butylbenzene (mg/kg)	p-Isopropyltoluene (mg/kg)	Toluene (mg/kg)
P1	12/09/04	690	<8.0	180	94	570	280	150	74	98	140	58
P4	12/09/04	21	6.1	10	7.9	7.5	80	11	9.4	10	9.2	<4.0
P5	12/09/04	100	24	12	25	33	240	39	24	32	25	<4.0
P6	12/09/04	79	20	13	14	24	93	23	18	31	28	<8.0
P8	12/09/04	610	170	120	63	580	360	110	67	110	100	<40.0

mg/kg: micrograms per kilogram
Note:
Only detected analytes shown.

TABLE 7-1
Exposure Parameters
Ascon Landfill Site
Huntington Beach, California

Exposure Parameters	Units	Commercial Exposure Scenario		Residential Exposure Scenario		
		Adult	Source	Adult	Child	Source
Chemical Concentration in Groundwater (Cw)	µg/L	max detect	--	max detect	max detect	--
Inhalation Rate of Air (IR-A)	m^3/day	20	USEPA 1991a	20	10	USEPA 1991a
Exposure Frequency (EF)	days/year	250	USEPA 1991a	350	350	USEPA 1991a
Exposure Duration (ED)	years	25	USEPA 1991a	24	6	USEPA 1991a
Body Weight (BW)	kg	70	USEPA 1991a	70	15	USEPA 1991a
Averaging Time for Noncarcinogens (AT_n)	days	9,125	USEPA 1989	8,760	2,190	USEPA 1989
Averaging Time for Carcinogens (AT_c)	days	25,550	USEPA 1989	25,550	25,550	USEPA 1989

References:

" -- " not applicable; max: maximum detected groundwater concentration

USEPA 1989. Risk Assessment Guidance for Superfund (RAGS). Volume I: Human Health Evaluation Manual, Part A. EPA/540/1-89/002.

USEPA 1991a. RAGS. Vol I: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. OSWER 9285.6-03.

TABLE 7-2
Model Input Parameters
Ascon Landfill Site
Huntington Beach, California

Model Input Parameter	Value Used	Rationale
Soil Properties		
Average Soil / Groundwater Temperature (Ts), °C	19	southern California average
Depth below grade to bottom of enclosed space floor (L_F), cm	15	Slab construction
Depth below grade to water table (Lwt), cm	153	Average depth to groundwater, 5 feet bgs
Thickness of soil stratum A (h_A), cm	92	approximately 3 feet
Thickness of soil stratum B (h_B), cm	61	approximately 2 feet
Thickness of soil stratum C (h_C), cm	--	Not applicable
Soil stratum A SCS soil type	L	loam soil type
SCS soil type directly above water table	SIC	silty clay soil type
Stratum A soil dry bulk density, gm/cm^3	1.5	default from USEPA 2002 Guidance for Developing Soil Screening Levels
Stratum A soil total porosity, unitless	0.43	default from USEPA 2002 Guidance for Developing Soil Screening Levels
Stratum A soil water-filled porosity, cm^3/cm^3	0.15	default from USEPA 2002 Guidance for Developing Soil Screening Levels
Stratum B soil dry bulk density, gm/cm^3	1.38	J&E model default assumption for SIC soil type
Stratum B soil total porosity, unitless	0.481	J&E model default assumption for SIC soil type
Stratum B soil water-filled porosity, cm^3/cm^3	0.216	J&E model default assumption for SIC soil type
Crack-to-total area ratio, unitless	0.005	DTSC default assumption
Thickness of capillary zone (Lcz), cm	61	Set equal to clay layer thickness
Commercial Building Parameters		
Enclosed space floor thickness (L_{crack}), cm	10	Default assumption
Soil-building pressure differential, g/cm-sec^2	40	Default assumption
Enclosed space floor length (L_B), cm	1525	proposed 50-foot length of building
Enclosed space floor width (W_B), cm	1525	proposed 50-foot width of building
Enclosed space height (H_B), cm	305	Proposed ceiling height, 10 feet
Floor-wall seam crack width (w), cm	0.1	Default assumption
Indoor air exchange rate (ER), hour^{-1}	1	DTSC default residential assumption
Average vapor flow rate into building (Qsoil), L/m	11.6	Adjusted based on proposed building length and width
Residential Building Parameters		
Enclosed space floor thickness (L_{crack}), cm	10	Default assumption
Soil-building pressure differential, g/cm-sec^2	40	Default assumption
Enclosed space floor length (L_B), cm	1000	Default residential building dimension
Enclosed space floor width (W_B), cm	1000	Default residential building dimension
Enclosed space height (H_B), cm	244	Default residential building dimension, 8 feet
Floor-wall seam crack width (w), cm	0.1	Default assumption
Indoor air exchange rate (ER), hour^{-1}	0.5	DTSC default residential assumption
Average vapor flow rate into building (Qsoil), L/m	5	Default residential assumption

TABLE 7-3
Toxicity Criteria
Ascon Landfill Site
Huntington Beach, California

Chemical of Potential Concern	Cancer Toxicity Criteria			Noncancer Toxicity Criteria		
	Inhalation Unit Risk Factor $(ug/m^3)^{-1}$	Inhalation Cancer Slope Factor $(mg/kg\text{-}day)^{-1}$	Reference	Inhalation RfC or REL (mg/m^3)	Inhalation RfD (mg/kg-d)	Reference
VOCs						
1,2,4-Trimethylbenzene	--	--		6.0E-03	1.7E-03	A
1,3,5-Trimethylbenzene	--	--		6.0E-03	1.7E-03	A
1,3-Dichlorobenzene	--	--		1.1E-01	3.0E-02	N,A,R
1,4-Dichlorobenzene	1.1E-05	4.0E-02	C	8.0E-01	2.3E-01	C,REL
Benzene	2.9E-05	1.0E-01	C	3.0E-02	8.6E-03	A
n-Butylbenzene	--	--		1.4E-01	4.0E-02	N,A,R
sec-Butylbenzene	--	--		1.4E-01	4.0E-02	N,A,R
Chlorobenzene	--	--		1.0E+00	2.9E-01	C,REL
Chloromethane	--	--		9.0E-02	2.6E-02	A
Ethylbenzene	--	--		1.0E+00	2.9E-01	A
Isopropylbenzene	--	--		4.0E-01	1.1E-01	A
Isopropyltoluene*	--	--		4.0E-01	1.1E-01	A
Naphthalene	3.4E-05	1.2E-01	C*	3.0E-03	8.6E-04	A
n-Propylbenzene	--	--		1.4E-01	4.0E-02	N,A,R
Toluene	--	--		3.0E-01	8.6E-02	C,REL
Xylenes	--	--		1.0E-01	2.9E-02	A

Notes:

RfD: reference dose; RfC: reference concentration; REL: reference exposure level

* Surrogate value - assumes similar toxicity to isopropylbenzene

References:

A: USEPA Region 9, Preliminary Remediation Goals (PRGs) Table, October (USEPA 2004b)

C: Cal-EPA (2007) Office of Environmental Health Hazard Assessment (OEHHA), Toxicity Criteria Database http://www.oehha.ca.gov/risk/chemicalDB/index.asp

C*: Draft naphthalene cancer slope factor is found in Long-term Health Effects of Exposure to Naphthalene, Background and Status of Napthalene as a Toxic Air Contaminant and Potential Carcinogen. DRAFT, 2004

REL: Cal-EPA OEHHA, Chronic RELs for Airborne Toxicants, http://www.oehha.org/air/chronic_rels/AllChrels.html

N: National Center for Environmental Assessment (NCEA), from Region 9 PRG table (USEPA 2004b)

R: route extrapolated value

Cancer Toxicity Value Reference Priority:

1. Cal-EPA OEHHA (2007), Toxicity Criteria Database http://www.oehha.ca.gov/risk/chemicalDB/index.asp
2. USEPA Region 9 PRG Table (USEPA 2004b)

Noncancer Toxicity Value Reference Priority:

1. Cal-EPA OEHHA (2007), RELs for Airborne Toxicants, http://www.oehha.org/air/chronic_rels/AllChrels.html
2. USEPA Region 9 PRG Table (USEPA 2004b)

TABLE 7-4

Cumulative Cancer Risk and Noncancer Hazard

Residential Exposure Scenario

Ascon Landfill Site

Hungtington Beach, California

Chemical of Potential Concern	Maximum Groundwater Concentration (µg/L)	Site ID of Maximum Groundwater Concentration	Modeled Groundwater to Indoor Air Concentration (mg/m^3)	Groundwater to Indoor Air Pathway	
				Cancer Risk	Noncancer Hazard
1,2,4-Trimethylbenzene	34	B4A	9.0E-05	--	3E-02
1,3,5-Trimethylbenzene	7	B4A	1.9E-05	--	7E-03
1,3-Dichlorobenzene	2.2	NMW1	4.3E-06	--	9E-05
1,4-Dichlorobenzene	5.6	NMW1	9.7E-06	6E-08	3E-05
Benzene	70	B4A	2.6E-04	4E-06	2E-02
n-Butylbenzene	1.8	B4A	7.9E-06	--	1E-04
sec-Butylbenzene	24	B7	2.6E-05	--	4E-04
Chlorobenzene	2	MW09	4.7E-06	--	1E-05
Chloromethane	2.5	MW19	1.8E-05	--	4E-04
Ethylbenzene	43	AW5	1.6E-04	--	4E-04
Isopropylbenzene	300	B7	9.9E-02	--	6E-01
Isopropyltoluene	1.7	B4A	5.4E-04	--	3E-03
Naphthalene	30	B4A/B7	3.0E-05	5E-07	2E-02
n-Propylbenzene	8	B4A	3.1E-05	--	5E-04
Toluene	28	B4A	1.1E-04	--	8E-04
Xylenes	62	B4A	2.4E-04	--	5E-03
			Cumulative Risk and Hazard =	**4E-06**	**6E-01**

Notes:

" -- " not applicable or not available

See Appendix J for detailed risk calculations

TABLE 7-5

Cumulative Cancer Risk and Noncancer Hazard

Commercial Worker Exposure Scenario

Ascon Landfill Site

Hungtington Beach, California

Chemical of Potential Concern	Maximum Groundwater Concentration (µg/L)	Site ID of Maximum Groundwater Concentration	Modeled Groundwater to Indoor Air Concentration (mg/m^3)	Groundwater to Indoor Air Pathway	
				Cancer Risk	Noncancer Hazard
1,2,4-Trimethylbenzene	34	B4A	3.5E-05	--	4E-03
1,3,5-Trimethylbenzene	7	B4A	7.3E-06	--	8E-04
1,3-Dichlorobenzene	2.2	NMW1	1.7E-06	--	1E-05
1,4-Dichlorobenzene	5.6	NMW1	3.8E-06	1E-08	3E-06
Benzene	70	B4A	1.0E-04	7E-07	2E-03
n-Butylbenzene	1.8	B4A	3.1E-06	--	2E-05
sec-Butylbenzene	24	B7	1.0E-05	--	5E-05
Chlorobenzene	2	MW09	1.9E-06	--	1E-06
Chloromethane	2.5	MW19	7.0E-06	--	5E-05
Ethylbenzene	43	AW5	6.3E-05	--	4E-05
Isopropylbenzene	300	B7	3.9E-02	--	7E-02
Isopropyltoluene	1.7	B4A	2.1E-04	--	4E-04
Naphthalene	30	B4A/B7	1.2E-05	1E-07	3E-03
n-Propylbenzene	8	B4A	1.2E-05	--	6E-05
Toluene	28	B4A	4.3E-05	--	1E-04
Xylenes	62	B4A	9.3E-05	--	6E-04
			Cumulative Risk and Hazard =	**8E-07**	**8E-02**

Notes:

" -- " not applicable or not available

See Appendix J for detailed risk calculations