Appendix C
Summary of Quarterly Monitoring for Wells on EMF Site

1.0 Introduction

This appendix is included to briefly summarize data from a group of monitoring wells located on the EMF property that have been sampled periodically since the 1997 MTCA RI/FS was completed. This data is not summarized in other data summary reports and has therefore been included in this appendix.

2.0 VOC Data from Wells Bounding the Plume on the EMF Property

The monitoring wells that bound the plume boundary on the EMF property include the following: EMFMW-6 and EMFMW-7 in the up gradient area, EMFMW-2 and EMFMW-14D (shallow and deep to the south), EMFMW-4 and EMFMW-12D (shallow and deep to the north. The figure and tables present all detections of the site COCs (TCE, DCE, and vinyl chloride) since the start of remedial actions at the EMF property. For most of the wells the most recent sampling data is from July 2006. The summary of analytical data and well locations are shown graphically on Figure C-1.

3.0 VOC Data from Wells within Source Area and Central Portion of VOC plume (on EMF Property)

The monitoring wells within the source area and central portion of VOC plume on the EMF property include the following: EMFNV-01, EMFNV-02, EMFMW-1s, EMFMW-1d, EMFMW-08, EMFMW-09, EMFMW-10, MW 16, EMFMW-17, and EMFMW-24. Several additional wells are located at the down gradient edge of the EMF property (within the central area of the VOC plume) including EMFMW-11sr, EMFMW-11dr, and EMFMW-13dr. The position of these wells is shown in Figure C-1. This group of wells was installed to monitor the central portion of the EMF VOC plume (the area with highest VOC concentrations) and have been included in performance monitoring to evaluate the effectiveness of source control measures implemented on the EMF property.

The summary of groundwater monitoring (specifically for performance evaluation of source control effectiveness) is presented in Tables C-1 through C-3. Each table presents the highest concentration detected for each of the analytes (TCE, DCE and vinyl chloride) since the start of remedial actions at the EMF property and the most recent sampling data for each specific well. For most of the wells the most recent sampling data is from January 2007 (except well EMFMW-9 which was closed in 2001 due to damage from the Nisqually earthquake).

4.0 VOC Data Throughout Plume

Monitoring data from wells throughout the VOC plume are shown in Tables C-4 and C-5 for sampling conducted between 1997 and 2007. The position of the monitoring wells sampled is shown in Figure C-2 (as fold out plate).

5.0 Data from Metals Analysis for Priority Pollutant Metals

Following the 1997 RI/FS, sampling as part of groundwater monitoring for priority pollutant metals continued for three years, between 1997 and 1999. The monitoring wells sampled were located within the source area and central portion of the EMF VOC plume on the EMF property and included EMFMW-1s, EMFMW-1d, EMFMW-2, EMFMW-3s, EMFMW-3d, EMFMW-4, EMFMW-5, EMFMW-6, EMFMW-7, EMFMW-8, EMFMW-9 and EMFMW-10. Two monitoring wells, EMFMW-11s and EMFMW-11d, were added in 1998 to the performance monitoring program after installation. After three years, it was apparent that metals were not a problem and the analyses were dropped from further sampling.

Additional metals analyses were included in September 2006 and January 2007. These wells were not located on the EMF property, but within the VOC plume area in the vicinity of an ERD injection area for the remedial action. These wells included EMFWF-26, EMFWF-29 and EMFMW-12d in September 2006 and EMFWF-29, EMFWF-33 and EMFWF-32 in January 2007. These wells were sampled specifically to evaluate any possible changes in metals concentrations as a result of ERD implementation. There were no elevated levels of metals concentrations observed.

The summary of groundwater monitoring for metals is presented in Tables C-6 through C-12

Table C-1 TCE Concentrations Near Source Area of EMF VOC Plume

Well Name	Location/ Description	Highest TCE Concentration	TCE Concentration Jan 2000	TCE Concentration Jul 2005	TCE Concentration Jan 2007	% Reduction from Jan 2000-Jul 2005 (1,2)	% Reduction from Jul 2005-Jan 2007(3)	% Reduction from Highest Prior Concentration(4)
EMFNV-01	source area	1,007,000	162,000	14,000	660	91%	95%	99.9%
EMFMW-8	central plume area	24,230	8,150	2.8	44	99.9%	-1471%	99.8%
EMFMW-1s	N of plume center	195	59.2	NS	12	--	80%	94%
EMFMW-1d	N of plume center	3,380	1,416	NS	13	--	99%	99.6%
EMFNV-02	central plume area	52,000	11,600	490	20	96%	96%	99.9%
EMFMW-10	S of plume center	29,100	41	NS	600	--	--	98%
EMFMW-9	central plume	18,900	1.4	NS	NS	--	--	99.9%
EMFMW-16	central plume	3,140	3,140	190	1.6	94%	99%	99.9%
EMFMW-17	central plume	4,760	1,230	650	58	47%	91%	99%
EMFMW-24	central plume	2,000	< 1,000	< 100	1.1	--	--	99.9%
EMFMW-11s	central plume	1.20	< 10	44	1	--	98%	17%
EMFMW-11d	central plume	2,300	520	500	58	4%	88%	97%
EMFMW-13d	central plume	1,200	520	<20	1	--	--	99.9%

Data from EMFMW-08 and EMFMW-09 are from Jan 05 (not sampled in Jul 2005)

Data from EMFMW16 are from Apr 2000 (not sampled in Jan 2000)

Data from EMFMW16 are from Jan 2005 (not sampled in Jul 2005)

Data from EMFMW24 are from Oct 2000 (not sampled in Jan 2000)

(1) % Reduction from Jan 2000-Jul 2005 is presented as concentration change over the period based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2005), (ISCO was not implemented in area of EMFNV-01, EMFMW-8, EMFMW-1S/D, EMFNV-02, EMFMW-10, and EMFMW-9).

(2) % Reduction from Jan 2000-Jul 2005 is presented as concentration change over the period based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2005), ISCO (2000-2001).

(3) % Reduction from Jul 2005-Jan 2007 is presented as concentration change over the period based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2006), ISCO (2000-2001), and ERD (Nov 2005-present).

(4) % Reduction from highest prior concentration is presented as concentration change based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2006), ISCO (2000-2001), and ERD (Nov 2005-present), considering data as early as 1997 when first groundwater remedial actions were initiated.

Table C-2 DCE Concentrations Near Source Area of EMF VOC Plume
(DCE is reported as sum of cis1,2-DCE and trans1,2-DCE)

Well Name	Location/ Description	Highest DCE Concentration	DCE Concentration Jan 2000	DCE Concentration Jul 2005	DCE Concentration Jan 2007	% Reduction from Jan 2000-Jul 2005 (1,2)	% Reduction from Jul 2005-Jan 2007(3)	% Reduction from Highest Prior Concentration(4)
EMFNV-01	source area	500	<1000	220	41	--	81%	91.8%
EMFMW-8	central plume area	25,200	9,900	18	895	100%	-4872%	96%
EMFMW-1s	N of plume center	1,010	49.3	NS	9	--	--	99%
EMFMW-1d	N of plume center	17,600	9,964	NS	94	--	--	99.5%
EMFNV-02	central plume area	18,480	18,480	1,630	36	91%	98%	99.8%
EMFMW-10	S of plume center	12,000	166.8	NS	2,710	--	--	77%
EMFMW-9	central plume	1,350	9.1	NS	NS	--	--	99.3%
EMFMW-16	central plume	6,910	6,910	125	14.6	98%	88%	99.8%
EMFMW-17	central plume	6,180	3,320	870	610	74%	30%	90%
EMFMW-24	central plume	27,100	27,100	4,400	43	84%	99%	99.8%
EMFMW-11s	central plume	5,300	89	1,140	501	-1181%	56%	91%
EMFMW-11d	central plume	18,300	11,080	8,870	6,890	20%	22%	62%
EMFMW-13d	central plume	27,500	22,460	470	340	98%	28%	98.8%

Data from EMFMW-08 and EMFMW-09 are from Jan 05 (not sampled in Jul 2005)
Data from EMFMW16 are from Apr 2000 (not sampled in Jan 2000)
Data from EMFMW16 are from Jan 2005 (not sampled in Jul 2005)
Data from EMFMW24 are from Oct 2000 (not sampled in Jan 2000)

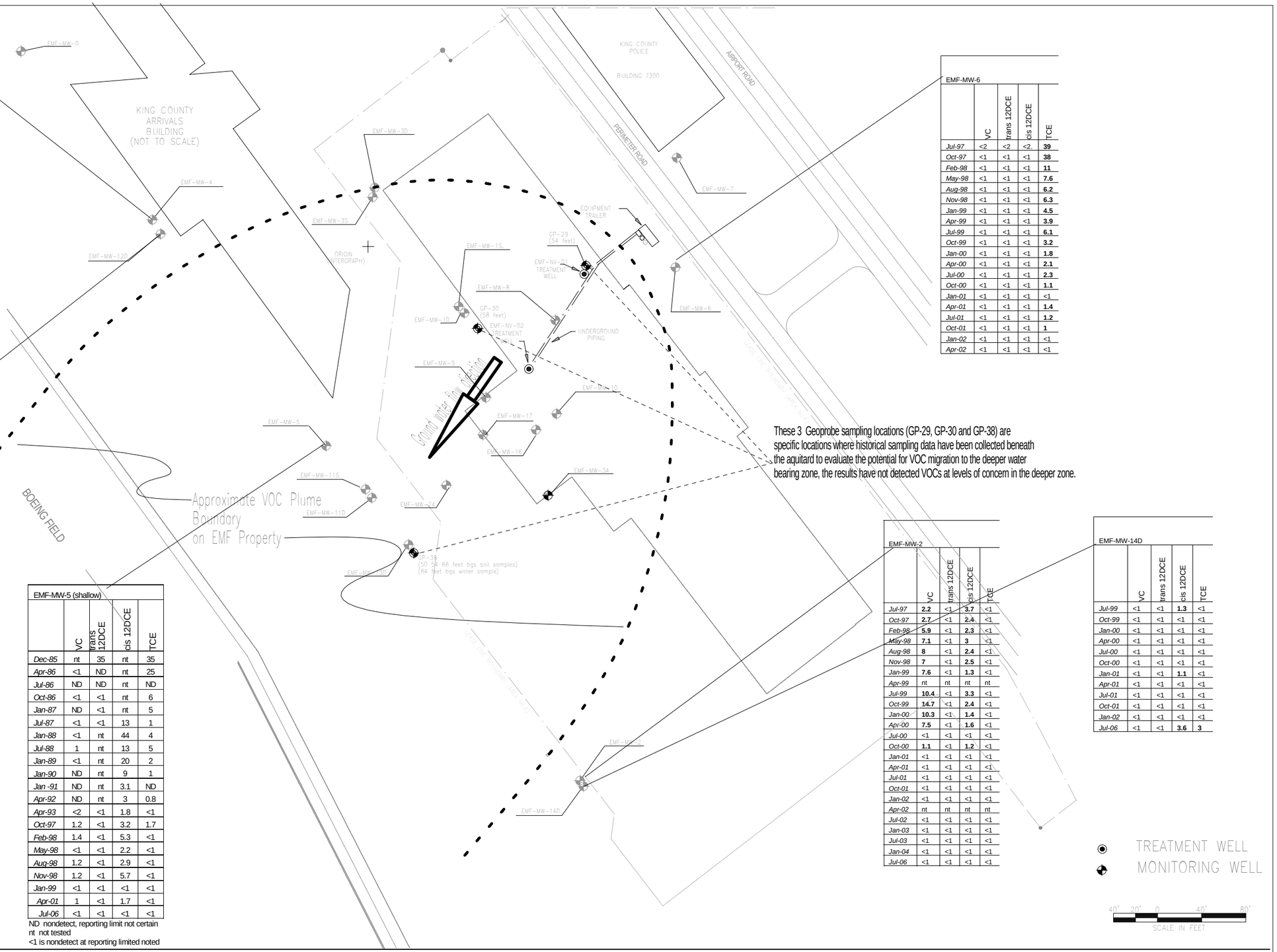
(1) % Reduction from Jan 2000-Jul 2005 is presented as concentration change over the period based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2005), ISCO (2000-2001), (ISCO was not implemented in area of EMFNV-01, EMFMW-8, EMFMW-1S/D, EMFNV-02, EMFMW-10, and EMFMW-9).
(2) % Reduction from Jan 2000-Jul 2005 is presented as concentration change over the period based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2005), ISCO (2000-2001).
(3) % Reduction from Jul 2005-Jan 2007 is presented as concentration change over the period based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2006), ISCO (2000-2001), and ERD (Nov 2005-present).
(4) % Reduction from highest prior concentration is presented as concentration change based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2006), ISCO (2000-2001), and ERD (Nov 2005-present), considering data as early as 1997 when first groundwater remedial actions were initiated.

Table C-3 Vinyl Chloride Concentrations Near Source Area of EMF VOC Plume

Well Name	Location/ Description	Highest VC Concentration	VC Concentration Jan 2000	VC Concentration Jul 2005	VC Concentration Jan 2007	% Reduction from Jan 2000-Jul 2005 (1,2)	% Reduction from Jul 2005-Jan 2007(3)	% Reduction from Highest Prior Concentration(4)
EMFNV-01	source area	500	<1000	< 150	<10	--	--	98%
EMFMW-8	central plume area	3,690	2,350	4.9	15	99.8%	-206%	99.6%
EMFMW-1s	N of plume center	113	30.5	NS	1.7	--	--	98%
EMFMW-1d	N of plume center	2,160	2,160	NS	61	--	--	97%
EMFNV-02	central plume area	4,220	4,220	1,400	10	67%	99%	99.8%
EMFMW-10	S of plume center	2,100	156.6	NS	320	--	--	85%
EMFMW-9	central plume	430	28.9	NS	NS	--	--	93%
EMFMW-16	central plume	4,140	4,140	150	2.5	96%	98%	99.9%
EMFMW-17	central plume	4,190	4,190	260	98	94%	62%	97.7%
EMFMW-24	central plume	15,200	15,200	6,100	19	60%	99.7%	99.9%
EMFMW-11s	central plume	1,600	153.2	180	160	-17%	11%	90%
EMFMW-11d	central plume	2,920	2,060	1,500	850	27%	43%	70.9%
EMFMW-13d	central plume	23,100	21,600	1,100	320	95%	71%	98.6%

Data from EMFMW-08 and EMFMW-09 are from Jan 05 (not sampled in Jul 2005)
Data from EMFMW16 are from Apr 2000 (not sampled in Jan 2000)
Data from EMFMW16 are from Jan 2005 (not sampled in Jul 2005)
Data from EMFMW24 are from Oct 2000 (not sampled in Jan 2000)

(1) % Reduction from Jan 2000-Jul 2005 is presented as concentration change over the period based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2005), (ISCO was not implemented in area of EMFNV-01, EMFMW-8, EMFMW-1S/D, EMFNV-02, EMFMW-10, and EMFMW-9).
(2) % Reduction from Jan 2000-Jul 2005 is presented as concentration change over the period based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2005), ISCO (2000-2001).
(3) % Reduction from Jul 2005-Jan 2007 is presented as concentration change over the period based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2006), ISCO (2000-2001), and ERD (Nov 2005-present).
(4) % Reduction from highest prior concentration is presented as concentration change based on cumulative effect of natural attenuation processes, DNAPL recovery (1997), In-well stripping (1997-2006), ISCO (2000-2001), and ERD (Nov 2005-present), considering data as early as 1997 when first groundwater remedial actions were initiated.



EMF-MW-4

	VC	trans 12DCE	cis 12DCE	TCE
Jul-97	<2.	<2.	<2.	**2.3**
Oct-97	<1	<1	**1.4**	<1
Feb-98	<1	<1	<1	**1.9**
May-98	nt	nt	nt	nt
Aug-98	nt	nt	nt	nt
Nov-98	nt	nt	nt	nt
Jan-99	nt	nt	nt	nt
Apr-99	nt	nt	nt	nt
Jul-99	<1	**2.3**	**3.4**	**1.8**
Oct-99	<1	<1	<1	**2.6**
Jan-00	<1	<1	<1	<1
Apr-00	<1	<1	<1	<1
Jul-00	<1	<1	<1	<1
Oct-00	<1	<1	<1	**1.6**
Jan-01	<1	<1	<1	<1
Apr-01	<1	<1	<1	<1
Jul-01	**3.4**	<1	**18**	**1.5**
Oct-01	**1.3**	<1	**8**	**2**
Jan-02	<1	<1	<1	<1
Apr-02	nt	nt	nt	nt
Jul-02	<1	<1	<1	<1
Jan-03	<1	<1	<1	<1
Jul-03	**38**	**2.9**	**44**	<1
Jan-04	<1	<1	<1	<1
Jul-06	<1	<1	<1	<1

EMF-MW-6

	VC	trans 12DCE	cis 12DCE	TCE
Jul-97	<2	<2	<2.	**39**
Oct-97	<1	<1	<1	**38**
Feb-98	<1	<1	<1	**11**
May-98	<1	<1	<1	**7.6**
Aug-98	<1	<1	<1	**6.2**
Nov-98	<1	<1	<1	**6.3**
Jan-99	<1	<1	<1	**4.5**
Apr-99	<1	<1	<1	**3.9**
Jul-99	<1	<1	<1	**6.1**
Oct-99	<1	<1	<1	**3.2**
Jan-00	<1	<1	<1	**1.8**
Apr-00	<1	<1	<1	**2.1**
Jul-00	<1	<1	<1	**2.3**
Oct-00	<1	<1	<1	**1.1**
Jan-01	<1	<1	<1	<1
Apr-01	<1	<1	<1	**1.4**
Jul-01	<1	<1	<1	**1.2**
Oct-01	<1	<1	<1	**1**
Jan-02	<1	<1	<1	<1
Apr-02	<1	<1	<1	<1

EMF-MW-12D

	VC	trans 12DCE	cis 12DCE	TCE
Jul-99	**3.6**	1.3	2.6	<1
Oct-99	<1	<1	<1	<1
Jan-00	**2.1**	<1	<1	<1
Apr-00	<1	<1	<1	<1
Jul-00	<1	<1	<1	<1
Oct-00	<1	<1	<1	<1
Jan-01	<1	<1	<1	<1
Apr-01	<1	<1	<1	<1
Jul-01	**6.6**	<1	**4.6**	<1
Oct-01	**5.2**	<1	<1	<1
Jan-02	**5.6**	<1	<1	<1
Jul-06	<1	<1	**2.5**	**2.6**

EMF-MW-5 (shallow)

	VC	trans 12DCE	cis 12DCE	TCE
Dec-85	nt	35	nt	35
Apr-86	<1	ND	nt	25
Jul-86	ND	ND	nt	ND
Oct-86	<1	<1	nt	6
Jan-87	ND	<1	nt	5
Jul-87	<1	<1	13	1
Jan-88	<1	nt	44	4
Jul-88	1	nt	13	5
Jan-89	<1	nt	20	2
Jan-90	ND	nt	9	1
Jan -91	ND	nt	3.1	ND
Apr-92	ND	nt	3	0.8
Apr-93	<2	<1	1.8	<1
Oct-97	1.2	<1	3.2	1.7
Feb-98	1.4	<1	5.3	<1
May-98	<1	<1	2.2	<1
Aug-98	1.2	<1	2.9	<1
Nov-98	1.2	<1	5.7	<1
Jan-99	<1	<1	<1	<1
Apr-01	1	<1	1.7	<1
Jul-06	<1	<1	<1	<1

ND nondetect, reporting limit not certain
nt not tested
<1 is nondetect at reporting limited noted

EMF-MW-2

	VC	trans 12DCE	cis 12DCE	TCE
Jul-97	**2.2**	<1	**3.7**	<1
Oct-97	**2.7**	<1	**2.4**	<1
Feb-98	**5.9**	<1	**2.3**	<1
May-98	**7.1**	<1	**3**	<1
Aug-98	**8**	<1	**2.4**	<1
Nov-98	**7**	<1	**2.5**	<1
Jan-99	**7.6**	<1	**1.3**	<1
Apr-99	nt	nt	nt	nt
Jul-99	**10.4**	<1	**3.3**	<1
Oct-99	**14.7**	<1	**2.4**	<1
Jan-00	**10.3**	<1	**1.4**	<1
Apr-00	**7.5**	<1	**1.6**	<1
Jul-00	<1	<1	<1	<1
Oct-00	**1.1**	<1	**1.2**	<1
Jan-01	<1	<1	<1	<1
Apr-01	<1	<1	<1	<1
Jul-01	<1	<1	<1	<1
Oct-01	<1	<1	<1	<1
Jan-02	<1	<1	<1	<1
Apr-02	nt	nt	nt	nt
Jul-02	<1	<1	<1	<1
Jan-03	<1	<1	<1	<1
Jul-03	<1	<1	<1	<1
Jan-04	<1	<1	<1	<1
Jul-06	<1	<1	<1	<1

EMF-MW-14D

	VC	trans 12DCE	cis 12DCE	TCE
Jul-99	<1	<1	**1.3**	<1
Oct-99	<1	<1	<1	<1
Jan-00	<1	<1	<1	<1
Apr-00	<1	<1	<1	<1
Jul-00	<1	<1	<1	<1
Oct-00	<1	<1	<1	<1
Jan-01	<1	<1	**1.1**	<1
Apr-01	<1	<1	<1	<1
Jul-01	<1	<1	<1	<1
Oct-01	<1	<1	<1	<1
Jan-02	<1	<1	<1	<1
Jul-06	<1	<1	**3.6**	**3**

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Figure C-1 Monitoring Wells on EMF Property and VOC Data from Bounding Wells

TABLE C-4 EMF SITE
SUMMARY OF ANALYTICAL RESULTS VOCs
JULY 1997 THROUGH JANUARY 2007

vinyl chloride (µg/l)

	Jul-97	Oct-97	Feb-98	May-98	Aug-98	Nov-98	Jan-99	Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01
EMF-NV-01	<2000	<5000	<10000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	nt	<2000	<2000	<2000	<1000	1500 U	1.0 U
EMF-NV-02	<20	97.2	312	352	554	740	920	790	1154	2470	4220	nt	240	1010	60	2200	2000	2500
EMF-MW-1S	<1.00	<1.00	<1.00	13.6	<20.00	60	113	53	<10.00	54.2	30.5	7.1	14.5	25.6	15.4	<1	1.0 U	1.0 U
EMF-MW-1D	<1.00	2.4	18.5	561	944	328	626	1260	795	1004	2160	2050	480	302	281	160	140	160
EMF-MW-2	2.2	2.7	5.9	7.1	8	7	7.6	nt	10.4	14.7	10.3	7.5	<1.00	1.1	<1.00	<1	1.0 U	1.0 U
EMF-MW-3S	<1.00	<1.00	<1.00	3.2	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	<1	nt	nt
EMF-MW-3D	<20	4.5	41.3	7.9	13.4	12.9	14.4	nt	nt	nt	nt	nt	nt	nt	nt	44	nt	nt
EMF-MW-4	<2.00	<1.00	<1.00	nt	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	3.4	1.3
EMF-MW-5	1.7	1.2	1.4	<1.00	1.2	1.2	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	1	nt	nt
EMF-MW-6	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	1.0 U	1.0 U
EMF-MW-7	<1.00	<1.00	<1.00	<1.00	2.3	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	<1	nt	nt
EMF-MW-8	<10	<200	<100	30.4	610	2690	3690	1580	600	2700	2350	850	670	200	387	410	94	46
EMF-MW-9	12.74	<100	430	195	<1.00	<1.00	6.5	2.63	<1.00	4.3	28.9	107	180.6	56.2	900	480	closed	closed
EMF-MW-10	322	<100	1120	2100	755	94	334	154	64	114	156.6	188	199	212	223	2700	1200	1100
EMF-MW-11S	Well Installed in June 1998				6.7	102	16.6	2.5	164	329	153.2	67	176	209	527	490	1600	1000
EMF-MW-11D	Well Installed in June 1998				740	870	1730	1050	580	3720	2060	1075	2200	1640	2920	3300	2400	2100
EMF-MW-12D	Well Installed in July 1999								3.6	<1.00	2.1	<1.00	<1.00	<1.00	<1.00	<1	6.6	5.2
EMF-MW-13D	Well Installed in July 1999								11900	23100	21600	16650	14400	14700	16300	10000	13000	9000
EMF-MW-14D	Well Installed in July 1999								<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	1.0 U	1.0 U
EMF-MW-16	Well Installed in April 2000 - ISCO Pilot											4140	nt	456	<2.00	180	220	41
EMF-MW-17	Well Installed in June 2000 - ISCO Area 1												4190	2660	1340	1300	1600	3300
EMF-MW-24	Well Installed September 2000 - ISCO Area 2													15200	1466	6500	760	770
EMF-MW-34	Well Installed July 2001 - ISCO Area 3																	
EMF-IW-18	Injection well Installed October 2005																	
EMF-IW-21	Injection well Installed October 2005																	
EMF-WF-25	West Field Well Installed April 2001															120	63	180
EMF-WF-26	West Field Well Installed April 2001															1300	1800	1300
EMF-WF-27	West Field Well Installed April 2001															1300	1700	1400
EMF-WF-28	West Field Well Installed April 2001															20	11	9.4
EMF-WF-29	West Field Well Installed April 2001 (Flightline well)															2500	2800	2400
EMF-WF-30	Plant 2 Well Installed August 2002 (2-40 Parking Lot - Near Bldg)																	
EMF-WF-31	Plant 2 Well Installed August 2002 (Transportation Aisle 2-40 Bldg)																	
EMF-WF-32	Plant 2 Well Installed August 2002 (Near Duwamish in 2-41 Bldg)																	
EMF-WF-36	Plant 2 Well Installed July 2004 (2-40 Parking Lot - Near East Marginal Way)																	
	7/17/1997	10/10/1997	2/10/1998	5/5/1998	8/3/1998	11/18/1998	1/25/1999	4/20/1999	7/28/1999	10/19/1999	1/18/2000	4/17/2000	7/12/2000	10/20/2000	1/22/2001	4/12/2001	7/12/2001	10/22/2001

TABLE C-4 EMF SITE
SUMMARY OF ANALYTICAL RESULTS VOCs
JULY 1997 THROUGH JANUARY 2007

vinyl chloride (µg/l)

	Jan-02	Apr-02	Jul-02	Oct-02	Jan-03	Jul-03	Jan-04	Jul-04	Jan-05	Jul-05	Nov-05	Jan-06	Apr-06	Jul-06	Jan-07
EMF-NV-01	1000 U	1000 U	300 U	nt	500 U	250 U	500 U	150 U	300 U	150 U	nt	150 U	nt	150 U	10 U
EMF-NV-02	2900	3800	3200	nt	3600	6800	well maint	2400	1400	1400	nt	nt	nt	3800	9.8
EMF-MW-1S	6	8.4	1.0 U	nt	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	nt	nt	1.6	nt	4.2	1.7
EMF-MW-1D	480	620	98	nt	120	160	87	62	42	nt	nt	140	nt	44	61
EMF-MW-2	1.0 U	nt	1.0 U	nt	1.0 U	1.0 U	1.0 U	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-3S	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-3D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-4	1.0 U	nt	1.0 U	nt	1.0 U	38	1.0 U	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-5	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-6	1.0 U	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-7	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-8	21	10	4.2	nt	9	4.3	5.2	4.5	4.9	nt	nt	35	nt	130	15
EMF-MW-9	closed	closed	closed	nt	closed	closed	closed	closed	closed	closed	closed	closed	closed	closed	closed
EMF-MW-10	890	890	720	nt	2200	1100	920	190	960	nt	nt	820	820	120	320
EMF-MW-11S	870	1100	360	nt	1400	1400	540	470	610	180	nt	450	240	160	160
EMF-MW-11D	2400	2100	3000	nt	2600	3200	1400	1400	1600	1500	1200	1500	830	1000	850
EMF-MW-12D	5.6	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-13D	5900	6000	3900	nt	5000	3800	2000	1900	2300	1100	860	2600	150	540	320
EMF-MW-14D	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-16	23	21	39	nt	210	240	74	62	150	nt	nt	62	5.4	7.5	2.5
EMF-MW-17	1700	820	690	nt	280	1800	230	260	140	nt	nt	260	nt	130	98
EMF-MW-24	1700	1900	1700	nt	2600	5200	7600	9400	6100	nt	nt	610	280	300	19
EMF-MW-34	980	5.4	180	nt	1500	220	130	68	110	nt	nt	540	310	470	470
EMF-IW-18											810	210	510	960	2200
EMF-IW-21											890	60	nt	51	290
EMF-WF-25	25	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.9	1.4
EMF-WF-26	1400	1200	1100	nt	1400	2700	1800	2200	1800	1000	nt	3000	540	850	520
EMF-WF-27	1400	2700	1700	nt	3600	3800	3600	4300	3600	870	nt	2000	910	610	950
EMF-WF-28	1.7	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	98	100
EMF-WF-29	2400	3200	2600	nt	4200	5500	3800	120	2600	2300	nt	1900	1650	1300	1400
EMF-WF-30				1000	1300	2300	1100	3000	1400	820	nt	710	nt	500	120
EMF-WF-31				4400	4000	5600	2800	5700	4100	3100	nt	3600	nt	2300	2400
EMF-WF-32				5800	1400	3800	3300	2100	820	590	nt	36	nt	1.0 U	1
EMF-WF-36								2800	2800	2300	nt	670	nt	210	260
	1/7/2002	4/15/2002	7/8/2002	10/15/2002	1/8/2003	7/7/2003	1/5/2004	7/6/2004	1/20/2005	7/5/2005	11/10/2005	1/25/2006	4/26/2006	7/19/2006	1/24/2007

TABLE C-4 EMF SITE
SUMMARY OF ANALYTICAL RESULTS VOCs
JULY 1997 THROUGH JANUARY 2007

trans-1,2-Dichloroethene (ug/l)

	Jul-97	Oct-97	Feb-98	May-98	Aug-98	Nov-98	Jan-99	Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01
EMF-NV-01	<2000	<5000	<10000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	nt	<2000	<2000	<2000	<1000	1500 U	1.8
EMF-NV-02	40.6	42.3	153	170	364	480	310	240	210	290	380	nt	320	<1000	65	1200	1300	900
EMF-MW-1S	<1.00	<1.00	<1.00	19.5	<20.00	18	16	17	<10.00	3.4	1.4	<1.00	1.1	2.5	<2.00	<1	1.0 U	1.0 U
EMF-MW-1D	<1.00	<1.00	2.4	14.6	<20.00	<10.00	<10.00	22	<50.00	20.6	24	130	<100	<20.00	<10.00	10	30 U	10 U
EMF-MW-2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	1.0 U	1.0 U
EMF-MW-3S	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	<1	nt	nt
EMF-MW-3D	<20	1.2	1.1	1.8	1.2	1.5	1.4	nt	nt	nt	nt	nt	nt	nt	nt	<1	nt	nt
EMF-MW-4	<2.00	<1.00	<1.00	nt	nt	nt	nt	nt	2.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	1.0 U	1.0 U
EMF-MW-5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	<1	nt	nt
EMF-MW-6	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	1.0 U	1.0 U
EMF-MW-7	<1.00	<1.00	<1.00	<1.00	4.4	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	<1	nt	nt
EMF-MW-8	11.5	<200	<100	10.3	<50.00	<100	<100	<100	<50.00	56	<500	30	120	<20.00	<10.00	14	11	12
EMF-MW-9	8.73	<100	21.9	16.8	<1.00	4.2	3.6	5.05	5.4	3.9	3.2	4.2	7.4	<1.00	22	25	closed	closed
EMF-MW-10	160	<100	<200	25	10	<10.00	11	14	10.6	10.9	8.4	9.6	<10.00	<5.00	18	630	250	160
EMF-MW-11S	Well Installed in June 1998				<1.00	1.6	<1.00	<1.00	6.9	30.1	<10.00	<10.00	19.9	<10.00	<10.00	34	230	100
EMF-MW-11D	Well Installed in June 1998				510	800	520	940	630	1340	740	650	1040	<200	1680	1200	1200	1100
EMF-MW-12D	Well Installed in July 1999								1.3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	1.0 U	1.0 U
EMF-MW-13D	Well Installed in July 1999								1430	2290	1460	1525	1600	<1000	2250	870	950	1100
EMF-MW-14D	Well Installed in July 1999								<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	1.0 U	1.0 U
EMF-MW-16	Well Installed in April 2000 - ISCO Pilot											300	nt	<10.00	8.2	20	30	19
EMF-MW-17	Well Installed in June 2000 - ISCO Area 1												380	<200	486	250	420 D	780
EMF-MW-24	Well Installed September 2000 - ISCO Area 2													<1000	612	1600	330 D	730
EMF-MW-34	Well Installed July 2001 - ISCO Area 3																	
EMF-IW-18	Injection well Installed October 2005																	
EMF-IW-21	Injection well Installed October 2005																	
EMF-WF-25	West Field Well Installed April 2001															<1.0	1.0 U	1.0 U
EMF-WF-26	West Field Well Installed April 2001															250	440	210
EMF-WF-27	West Field Well Installed April 2001															22	44	38
EMF-WF-28	West Field Well Installed April 2001															<1.0	1.0 U	1.0 U
EMF-WF-29	West Field Well Installed April 2001 (Flightline well)															15	20 U	16
EMF-WF-30	Plant 2 Well Installed August 2002 (2-40 Parking Lot - Near Bldg)																	
EMF-WF-31	Plant 2 Well Installed August 2002 (Transportation Aisle 2-40 Bldg)																	
EMF-WF-32	Plant 2 Well Installed August 2002 (Near Duwamish in 2-41 Bldg)																	
EMF-WF-36	Plant 2 Well Installed July 2004 (2-40 Parking Lot - Near East Marginal Way)																	
	7/17/1997	10/10/1997	2/10/1998	5/5/1998	8/3/1998	11/18/1998	1/25/1999	4/20/1999	7/28/1999	10/19/1999	1/18/2000	4/17/2000	7/12/2000	10/20/2000	1/22/2001	4/12/2001	7/12/2001	10/22/2001

TABLE C-4 EMF SITE
SUMMARY OF ANALYTICAL RESULTS VOCs
JULY 1997 THROUGH JANUARY 2007

trans-1,2-Dichloroethene (ug/l)

	Jan-02	Apr-02	Jul-02	Oct-02	Jan-03	Jul-03	Jan-04	Jul-04	Jan-05	Jul-05	Nov-05	Jan-06	Apr-06	Jul-06	Jan-07
EMF-NV-01	1000 U	1000 U	300 U	nt	500 U	250 U	500 U	150 U	300 U	150 U	nt	150 U	nt	150 U	10 U
EMF-NV-02	920	890	1200	nt	670	980	well maint	470	280	230	nt	nt	nt	1000	11
EMF-MW-1S	1.0 U	1.6	1.0 U	nt	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	nt	nt	1.0 U	nt	1.0 U	0.2 U
EMF-MW-1D	10 U	50 U	10 U	nt	29	20	20 U	10 U	10 U	nt	nt	22	nt	4.3	3.5
EMF-MW-2	1.0 U	nt	1.0 U	nt	1.0 U	1.0 U	1.0 U	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-3S	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-3D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-4	1.0 U	nt	1.0 U	nt	1.0 U	2.9	1.0 U	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-5	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-6	1.0 U	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-7	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-8	5.6	3.2	1.0 U	nt	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	nt	nt	21	nt	73	15
EMF-MW-9	closed	closed	closed	nt	closed	closed	closed	closed	closed	closed	closed	closed	closed	cloded	closed
EMF-MW-10	90	68	52	nt	340	190	270	160	200	nt	nt	150	150	100	110
EMF-MW-11S	110	140	49	nt	230	190	36	120	390	40	nt	60	160	48	21
EMF-MW-11D	940	830	3100	nt	2200	2800	860	770	790	970	610	1100	470	580	790
EMF-MW-12D	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-13D	920	780	570	nt	470	390	340	270	200	170	160	160	96	150	130
EMF-MW-14D	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-16	14	2.8	5.2	nt	33	120	26	13	22	nt	nt	15	10	12	4.9
EMF-MW-17	440	140	74	nt	40	99	21	18	12	nt	nt	150	nt	170	110
EMF-MW-24	790	500	500	nt	720	680	2000	1700	840	nt	nt	91	67	100	21
EMF-MW-34	500	40	150	nt	410	100 U	34	25	24	nt	nt	190	49	140	74
EMF-IW-18											85	100 U	320	310	350
EMF-IW-21											290	33	nt	110	180
EMF-WF-25	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	0.2 U
EMF-WF-26	240	230	180	nt	130	150	110	80	78	10 U	nt	10 U	12	20 U	30 U
EMF-WF-27	39	61	45	nt	76	140	160	130	69	43	nt	34	42	35	58
EMF-WF-28	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	1.0 U
EMF-WF-29	20 U	25 U	23 U	nt	25 U	50 U	40 U	1.5	30 U	1.4	nt	25 U	nt	25 U	20 U
EMF-WF-30				78	83	58	35	33	41	26	nt	11	nt	19	10 U
EMF-WF-31				170	180	190	81	94	67	50	nt	38	nt	35	27
EMF-WF-32				50 U	10 U	25 U	40 U	20 U	20 U	15 U	nt	1.0 U	nt	1.0 U	0.2 U
EMF-WF-36								150	140	120	nt	70	nt	28	5.6
	1/7/2002	4/15/2002	7/8/2002		1/8/2003	7/7/2003	1/5/2004	7/6/2004	1/20/2005	7/5/2005	11/10/2005	1/25/2006	4/26/2006	7/19/2006	1/24/2007

TABLE C-4 EMF SITE
SUMMARY OF ANALYTICAL RESULTS VOCs
JULY 1997 THROUGH JANUARY 2007

cis-1,2-dichloroethene (µg/l)

	Jul-97	Oct-97	Feb-98	May-98	Aug-98	Nov-98	Jan-99	Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01
EMF-NV-01	<2000	<5000	<10000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	nt	<2000	<2000	<2000	<1000	1500 U	240 E
EMF-NV-02	388	1030 E	6200	4220	15120	15900	9700	5840	3640	11400	18100 E	nt	3000	13100	525	15000	16000	11000
EMF-MW-1S	<1.00	1.6	6.6	1010	722	712	543	560	92	108	47.9	38.9	65.4	150	102.2	54	44	35
EMF-MW-1D	1.4	11	171. E	1750	108.6	69	362	2950	5450	4580	9940	17600	1830	776	1060	860	900	790
EMF-MW-2	3.7	2.4	2.3	3	2.4	2.5	1.3	nt	3.3	2.4	1.04	1.6	<1.00	1.2	<1.00	<1	1.0 U	1.0 U
EMF-MW-3S	<1.00	<1.00	<1.00	<1.00	1.1	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	2.2	nt	nt
EMF-MW-3D	<20.00	19.1	13.4	10.4	9.4	10	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	3.9	nt	nt
EMF-MW-4	<2.00	1.4	<1.00	nt	nt	nt	nt	nt	3.4	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	18	8
EMF-MW-5	2.8	3.2	5.3	2.2	2.9	5.7	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	1.7	nt	nt
EMF-MW-6	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	1.0 U	1.0 U
EMF-MW-7	<1.00	<1.00	<1.00	<1.00	1.6	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	<1	nt	nt
EMF-MW-8	213	454	3700	2050	11800 E	15600	13000	6340	1750	25200	9900	5220	2970	1124	927	1200	970	640
EMF-MW-9	116.2	1350	808	25.2	2.8	1.4	4.4	3.9	<1.00	4.8	5.9	147	170.2	37.3	2400	1600	closed	closed
EMF-MW-10	3086	432	8250	1480	353	41	141	95	66.6	126	158.4	246	260	423	333	12000	4100	3400
EMF-MW-11S	Well Installed in June 1998				1.9	58	8.7	<1.00	122	990	89	23	481	350	542	910	5300	2800
EMF-MW-11D	Well Installed in June 1998				6980	8600	7950	11500	5900	18300	11080	8400	7820	15780	10440	7000	5300	5000
EMF-MW-12D	Well Installed in July 1999								2.6	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	4.6	1.0 U
EMF-MW-13D	Well Installed in July 1999								15500	27500	21000	19550	13600	21400	19850	8400	4100	3400
EMF-MW-14D	Well Installed in July 1999								1.3	<1.00	<1.00	<1.00	<1.00	<1.00	1.1	<1	1.0 U	1.0 U
EMF-MW-16	Well Installed in April 2000 - ISCO Pilot											6610	nt	792	90.2	310	420	130
EMF-MW-17	Well Installed in June 2000 - ISCO Area 1												2940	6180	842	1000	1200	2900
EMF-MW-24	Well Installed September 2000 - ISCO Area 2													27100	1616	21000	2300	2900
EMF-MW-34	Well Installed July 2001 - ISCO Area 3																	
EMF-IW-18	Injection well Installed October 2005																	
EMF-IW-21	Injection well Installed October 2005																	
EMF-WF-25	West Field Well Installed April 2001															1.3	1.0 U	1.0 U
EMF-WF-26	West Field Well Installed April 2001															5600	7200	4000
EMF-WF-27	West Field Well Installed April 2001															1500	1900	1700
EMF-WF-28	West Field Well Installed April 2001															<1.0	1.0 U	1.0 U
EMF-WF-29	West Field Well Installed April 2001 (Flightline well)															1100	1400	980
EMF-WF-30	Plant 2 Well Installed August 2002 (2-40 Parking Lot - Near Bldg)																	
EMF-WF-31	Plant 2 Well Installed August 2002 (Transportation Aisle 2-40 Bldg)																	
EMF-WF-32	Plant 2 Well Installed August 2002 (Near Duwamish in 2-41 Bldg)																	
EMF-WF-36	Plant 2 Well Installed July 2004 (2-40 Parking Lot - Near East Marginal Way)																	
	7/17/1997	10/10/1997	2/10/1998	5/5/1998	8/3/1998	11/18/1998	1/25/1999	4/20/1999	7/28/1999	10/19/1999	1/18/2000	4/17/2000	7/12/2000	10/20/2000	1/22/2001	4/12/2001	7/12/2001	10/22/2001

TABLE C-4 EMF SITE
SUMMARY OF ANALYTICAL RESULTS VOCs
JULY 1997 THROUGH JANUARY 2007

cis-1,2-dichloroethene (µg/l)

	Jan-02	Apr-02	Jul-02	Oct-02	Jan-03	Jul-03	Jan-04	Jul-04	Jan-05	Jul-05	Nov-05	Jan-06	Apr-06	Jul-06	Jan-07
EMF-NV-01	1000 U	1000 U	300 U	nt	500 U	340	500 U	150 U	300 U	220	nt	160	nt	210	41
EMF-NV-02	12000	11000	16000	nt	8200	10000	well maint	4600	2200	1400	nt	nt	nt	26000	36
EMF-MW-1S	60	170	64	nt	62	9.8	14	8.1	27	nt	nt	16	nt	21	8.7
EMF-MW-1D	1200	2200	600	nt	560	1000	860	760	350	nt	nt	1500	nt	39	90
EMF-MW-2	1.0 U	nt	1.0 U	nt	1.0 U	1.0 U	1.0 U	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-3S	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-3D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-4	1.0 U	nt	1.0 U	nt	1.0 U	44	1.0 U	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-5	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-6	1.0 U	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-7	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-8	350	180	31	nt	21	28	28	100	18	nt	nt	1100	nt	3700 D	880
EMF-MW-9	closed	closed	closed	nt	closed	closed	closed	closed	closed	closed	closed	closed	closed	closed	closed
EMF-MW-10	2400	2700	2900	nt	7000	4700	5200	6200	3700	nt	nt	2700	2700	2000	2600
EMF-MW-11S	3800	3900	1700	nt	9600	5600	1800	3600	9100	1100	nt	1800	3900	1200	480
EMF-MW-11D	5400	5200	20000	nt	14000	17000	7500	6400	6600	7900	5600	12000	5700	6400	6100
EMF-MW-12D	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	2.5	nt
EMF-MW-13D	2500	1800	1400	nt	930	620	700	440	320	300	340	260	200	220	210
EMF-MW-14D	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	3.6	nt
EMF-MW-16	81	26	75	nt	530	1700	440	230	450	nt	nt	110	6.2	93	9.7
EMF-MW-17	1100	430	380	nt	440	540	410	200	190	nt	nt	720	nt	890	500
EMF-MW-24	5000	2700	3000	nt	5000	3300	13000	7500	3600	nt	nt	330	250	220	22
EMF-MW-34	9500	230	1300	nt	11000	470	580	320	440	nt	nt	3400 D	800	3600 D	1900
EMF-IW-18											4000	7000	12000	14000	12000
EMF-IW-21											6200	450	nt	100	2900
EMF-WF-25	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	0.2 U
EMF-WF-26	5200	4700	4100	nt	3000	3700	2600	1900	1600	11	nt	28	96	180	30 U
EMF-WF-27	2500	2600	2700	nt	2900	3800	3600	1700	320	570	nt	120	210	120	270
EMF-WF-28	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	4	5.5
EMF-WF-29	1200	820	470	nt	200	93	40 U	1.0 U	30 U	3.9	nt	25 U	nt	25 U	20 U
EMF-WF-30				1900	2600	1600	950	900	730	430	nt	160	nt	440	18
EMF-WF-31				4100	3600	3400	1400	1200	540	470	nt	160	nt	180	20 U
EMF-WF-32				370	10 U	120	40 U	20 U	20 U	15 U	nt	1.0 U	nt	1.0 U	0.2 U
EMF-WF-36								4200	3200	2900	nt	1800	nt	260	5.0 U
	1/7/2002	4/15/2002	7/8/2002	10/15/2002	1/8/2003	7/7/2003	1/5/2004	7/6/2004	1/20/2005	7/5/2005	11/10/2005	1/25/2006	4/26/2006	7/19/2006	1/24/2007

TABLE C-4 EMF SITE
SUMMARY OF ANALYTICAL RESULTS VOCs
JULY 1997 THROUGH JANUARY 2007

trichloroethene (µg/l)

	Jul-97	Oct-97	Feb-98	May-98	Aug-98	Nov-98	Jan-99	Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01
EMF-NV-01	870000	1007000	430000	180000	188000	165000	185000	177800	237000	222000	162000	nt	324000	136400	82800	120000	79000	60000
EMF-NV-02	129	652	7500	3160	23800	23100	13000	1700	2120	12800	11600	nt	4800	40600	2525	52000	41000	24000
EMF-MW-1S	6.9	15.2	40.6	195	84.2	101	67	85	78	77	59.2	91	106	134	125.6	110	100	140
EMF-MW-1D	1.7	29.9	84.5	2.4	<20.00	<10.00	<10.00	169	2200	1638	1416	3380	320	142	219	110	110	150
EMF-MW-2	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	1.0 U	1.0 U
EMF-MW-3S	8.72	5.7	3.8	<1.00	3.5	3.7	4.4	nt	nt	nt	nt	nt	nt	nt	nt	3.5	nt	nt
EMF-MW-3D	85.4	<1.00	1.2	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	1	nt	nt
EMF-MW-4	2.3	<1.00	1.9	nt	nt	nt	nt	nt	1.8	2.6	<1.00	<1.00	<1.00	1.6	<1.00	<1	1.5	2
EMF-MW-5	<1.00	1.7	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	<1	nt	nt
EMF-MW-6	39.2	38.2	10.7	7.6	6.2	6.3	4.5	3.92	6.1	3.2	1.8	2.1	2.3	1.1	<1.00	1.4	1.2	1
EMF-MW-7	19.9	2.9	5.6	6.4	<1.00	2.4	5.1	nt	nt	nt	nt	nt	nt	nt	nt	1.4	nt	nt
EMF-MW-8	4700	7030	114	33.8	50.5	600	2590	420	85	24230	8150	8540	5500	1320	672	650	760	990
EMF-MW-9	17.9	18900	<10	<10.00	2	<1.00	<1.00	<1.00	1.2	1.6	1.4	12.7	15.8	5.6	50	710	closed	closed
EMF-MW-10	29100 E	8300	720	147	9.8	<10.00	<10.00	24	12.6	23.6	41	49.8	48	82	90.5	2300	700	400
EMF-MW-11S	Well Installed in June 1998				<1.00	<1.00	<1.00	<1.00	1.1	1.2	<10.00	<10.00	<1.00	<10.00	<10.00	<1	30 U	20 U
EMF-MW-11D	Well Installed in June 1998				747	810	840	2300	670	1310	520	585	<1000	500	<200	59	50 U	50 U
EMF-MW-12D	Well Installed in July 1999								<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	1.0 U	1.0 U
EMF-MW-13D	Well Installed in July 1999								733	1200	520	675	<1000	<1000	<500	79	100 U	100 U
EMF-MW-14D	Well Installed in July 1999								<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1	1.0 U	1.0 U
EMF-MW-16	Well Installed in April 2000 - ISCO Pilot											3140	nt	157	43.2	100	100	90
EMF-MW-17	Well Installed in June 2000 - ISCO Area 1												1230	4760	184	250	7.3	15 U
EMF-MW-24	Well Installed September 2000 - ISCO Area 2													<1000	<20.00	<200	300	20 U
EMF-MW-34	Well Installed July 2001 - ISCO Area 3																	
EMF-IW-18	Injection well Installed October 2005																	
EMF-IW-21	Injection well Installed October 2005																	
EMF-WF-25	West Field Well Installed April 2001															<1.0	1.0 U	1.0 U
EMF-WF-26	West Field Well Installed April 2001															44	54	40
EMF-WF-27	West Field Well Installed April 2001															<1.0	10 U	1.0 U
EMF-WF-28	West Field Well Installed April 2001															<1.0	1.0 U	1.0 U
EMF-WF-29	West Field Well Installed April 2001 (Flightline well)															1.4	20 U	1.5
EMF-WF-30	Plant 2 Well Installed August 2002 (2-40 Parking Lot - Near Bldg)																	
EMF-WF-31	Plant 2 Well Installed August 2002 (Transportation Aisle 2-40 Bldg)																	
EMF-WF-32	Plant 2 Well Installed August 2002 (Near Duwamish in 2-41 Bldg)																	
EMF-WF-36	Plant 2 Well Installed July 2004 (2-40 Parking Lot - Near East Marginal Way)																	
	7/17/1997	10/10/1997	2/10/1998	5/5/1998	8/3/1998	11/18/1998	1/25/1999	4/20/1999	7/28/1999	10/19/1999	1/18/2000	4/17/2000	7/12/2000	10/20/2000	1/22/2001	4/12/2001	7/12/2001	10/22/2001

TABLE C-4 EMF SITE
SUMMARY OF ANALYTICAL RESULTS VOCs
JULY 1997 THROUGH JANUARY 2007

trichloroethene (µg/l)

	Jan-02	Apr-02	Jul-02	Oct-02	Jan-03	Jul-03	Jan-04	Jul-04	Jan-05	Jul-05	Nov-05	Jan-06	Apr-06	Jul-06	Jan-07
EMF-NV-01	90000	110000	40000	nt	74000	36000	64000	16000	38000	14000	nt	16000	nt	9800	660
EMF-NV-02	39000	35000	28000	nt	27000	4700	nt	6300	2400	490	nt	nt	nt	28000	20
EMF-MW-1S	80	100	79	nt	69	77	78	74	40	nt	nt	12	nt	1.0 U	12
EMF-MW-1D	240	6600	1100	nt	720	2100	800	430	53	nt	nt	130	nt	1.0 U	13
EMF-MW-2	1.0 U	nt	1.0 U	nt	1.0 U	1.0 U	1.0 U	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-3S	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-3D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-4	1.0 U	nt	1.0 U	nt	1.0 U	1.0 U	1.0 U	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-5	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	nt
EMF-MW-6	1.0 U	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-7	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
EMF-MW-8	400	160	11	nt	3.4	5	4	5.3	2.8	nt	nt	170	nt	1200	44
EMF-MW-9	closed	closed	closed	nt	closed	closed	closed	closed	closed	closed	closed	closed	closed	closed	closed
EMF-MW-10	540	750	580	nt	420	1900	1900	2300	750	nt	nt	650	650	520	600
EMF-MW-11S	30 U	25 U	30 U	nt	15 U	48	20 U	100	4200	44	nt	200	200	30 U	10 U
EMF-MW-11D	130	250	290	nt	560	360	480	400	500	500	500	920	340	120	58
EMF-MW-12D	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	2.6	nt
EMF-MW-13D	100 U	50 U	50 U	nt	50 U	50 U	50 U	20 U	20 U	20 U	4.7	15 U	3.0 U	10 U	20 U
EMF-MW-14D	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	3	nt
EMF-MW-16	58	14	23	nt	390	1500	320	100	190	nt	nt	79	5	85	1.6
EMF-MW-17	30 U	7.2	5.0 U	nt	310	240	75	5.0 U	3.3	nt	nt	650	nt	780	58
EMF-MW-24	50 U	50 U	23 U	nt	30 U	65	100 U	100 U	100 U	nt	nt	59	25	37	1.1
EMF-MW-34	3400	210	740	nt	2700	100 U	84	16	11	nt	nt	2100	340	1300	430
EMF-IW-18											20000	1400	720	610	100 U
EMF-IW-21											4600	59	nt	19	320
EMF-WF-25	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	1.0 U	0.2 U
EMF-WF-26	20 U	50 U	50 U	nt	50 U	50 U	30 U	30 U	20 U	10 U	nt	10 U	5.0 U	20 U	30 U
EMF-WF-27	30 U	25 U	23 U	nt	25 U	25 U	25 U	30 U	30 U	10 U	nt	15 U	15 U	15 U	15 U
EMF-WF-28	1.0 U	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	2.3	1.0 U
EMF-WF-29	20 U	25 U	23 U	nt	25 U	50 U	40 U	1.4	30 U	1.0 U	nt	25 U	nt	25 U	20 U
EMF-WF-30				* 1 U	25 U	25 U	20 U	30 U	15 U	10 U	nt	3.0 U	nt	10 U	10 U
EMF-WF-31				* 50 U	25 U	50 U	50 U	50 U	50 U	25 U	nt	30 U	nt	30 U	20 U
EMF-WF-32				* 50 U	10 U	25 U	40 U	20 U	20 U	15 U	nt	1.0 U	nt	1.0 U	0.2 U
EMF-WF-36								30 U	30 U	20 U	nt	25 U	nt	3.0 U	5.0 U
	1/7/2002	4/15/2002	7/8/2002		1/8/2003	7/7/2003	1/5/2004	7/6/2004	1/20/2005	7/5/2005	11/10/2005	1/25/2006	4/26/2006	7/19/2006	1/24/2007

TABLE C-5 VOC Monitoring from ERD Pilot Test Wells and orther ERD Injection Wells

PILOT TEST INJECTION WELLS

Sampling	Well IW-1 (north end)				Well IW-2 (central injection point)				Well IW-3 (south end)				Well IW-7 (farthest south)			
Date	TCE	DCE	VC	Total VOCs	TCE	DCE	VC	Total VOCs	TCE	DCE	VC	Total VOCs	TCE	DCE	VC	Total VOCs
28-Aug-03	ND	142.5	150	293	ND	945	1,000	1945	ND	894.7	2,300	3195				
2-Oct-03	ND	3.2	25	28	ND	165.8	540	706	ND	143.9	280	424				
5-Nov-03	ND	ND	3.8	3.8	ND	220	1,200	1420	ND	22	81	103				
10-Dec-03	ND	9.6	ND	9.6	ND	3.4	110	113	ND	13.6	300	314				
14-Jan-04	ND	1	23	24	ND	82	220	302	ND	22	180	202				
9-Mar-04	ND	2.5	5.9	8.4	ND	36.7	310	346.7	ND	39	290	329				
13-Apr-04	ND	3.7	20	23.7	ND	10	96	106	ND	66.5	400	466.5				
26-May-04	ND	ND	13	13	ND	ND	5.3	5.3	ND	40	300	340	New Well Installation			
1-Jul-04	ND	ND	18	18	ND	1.2	9	10.2	ND	6.2	8.9	15.1	ND	34	70	104
5-Aug-04	ND	ND	15	15	ND	3.5	48	51.5	ND	31.5	290	321.5				
14-Oct-04	ND	ND	20	20	ND	ND	15	15	ND	40	390	430				
24-Jan-05	1	19.2	100	120.2	ND	ND	37	37	ND	1.3	6.5	7.8				
6-Jul-05	NT	NT	NT		ND	4.1	12	16.1	NT	NT	NT		ND	4.3	4.3	8.6
4-Oct-05	ND	1.3	2.7	4	ND	ND	1.6	1.6	ND	24.3	6.3	30.6	ND	ND	ND	0
26-Jan-06	ND	2.3	2.8	5.1	ND	ND	1.8	1.8	ND	13.1	20	33.1	ND	ND	1.4	1.4
19-Jul-06	ND	0.3	3.8	4.1	ND	ND	2	2	ND	ND	1.2	1.2	ND	2	4.7	6.7
24-Jan-07	NT	NT	NT		ND	ND	ND	0	NT	NT	NT		ND	1.4	4.7	6.1

PILOT TEST DOWNGRADIENT MONITORING WELLS

	Well WF-33 (75 ft downgradient)				Well WF-34 (150 ft downgradient)				Well WF-35 (225 ft downgradient)				Well WF-31 (2-41 trans. aisle)			
	TCE	DCE	VC	Total VOCs	TCE	DCE	VC	Total VOCs	TCE	DCE	VC	Total VOCs	TCE	DCE	VC	Total VOCs
28-Aug-03	ND	328.9	300	628.9	ND	1463	590	2053	ND	1,907	900	2807	ND	3,590	5600	9,190
2-Oct-03	ND	460	460	920												
5-Nov-03	ND	460	670	1130												
10-Dec-03	ND	630	1,000	1630												
14-Jan-04	ND	40.5	59	99.5	ND	1444	440	1884	ND	1661	600	2261	ND	1481	2800	4281
9-Mar-04	ND	44	270	314	ND	1137	480	1617	ND	1460	790	2250				
13-Apr-04	ND	133.9	310	443.9	ND	1003	410	1413	ND	1355	710	2065				
26-May-04	ND	ND	2.1	2.1	ND	1353	490	1843	ND	2293	1100	3393				
1-Jul-04	ND	ND	1	1	ND	850	310	1160	ND	1459	710	2169	ND	1294	5700	6994
5-Aug-04	ND	ND	1.5	1.5	ND	921	450	1371	ND	2087	1200	3287				
14-Oct-04	ND	2.7	88	90.7	ND	1249	760	2009	ND	1361	1400	2761				
24-Jan-05	ND	25	380	405	ND	779	330	1109	ND	477	1000	1477	ND	607	4100	4707
6-Jul-05	ND	209	380	589	ND	654	340	994	ND	305	1400	1705	ND	520	3100	3620
5-Oct-05	ND	5.7	3.8	9.5	ND	2258	610	2868	ND	178	1300	1478	ND	331	2800	3131
26-Jan-06	ND	ND	ND	0	ND	1144	590	1734	ND	70	1100	1170	ND	198	3600	3798
19-Jul-06	ND	3.5	15	18.5	ND	1547	590	2137	ND	59	1300	1359	ND	215	2300	2515
24-Jan-07	ND	71.8	170	141.8	ND	1554	560	2114	ND	ND	780	780	ND	27	2400	2427

All VOCs in units of ug/L
ND = Not Detected
NT = Not Tested
DCE= includes sum of cis12 DCE, trans 12 DCE and 1,1DCE
Baseline Conditions

TABLE C-5 VOC Monitoring from ERD Pilot Test Wells and orther ERD Injection Wells

After September 3rd 2003 Lactate Injection
After February 10th 2004 Lactate Injection
After April 25th 2005 Sugar Substrate Injection

OTHER INJECTION WELLS

Sampling	Well IW-4 (2-41)				Well IW-5 (2-41)				Well IW-6 (2-41)							
Date	TCE	DCE	VC	Total VOCs	TCE	DCE	VC	Total VOCs	TCE	DCE	VC	Total VOCs				
7-Jul-04	ND	3169	2400	5569	ND	940	160	1100	ND	35	190	225				
6-Jul-05					1.1	640	160	801.1								
24-Jul-06					<5	616	250	866								
	Well IW-8 (2-40 Parking Lot)				Well IW-9 (2-40 Parking Lot)				Well IW-10 (2-40 Parking Lot)				Well IW-11 (2-40 Parking Lot)			
	TCE	DCE	VC	Total VOCs	TCE	DCE	VC	Total VOCs	TCE	DCE	VC	Total VOCs	TCE	DCE	VC	Total VOCs
7-Jul-04	ND	2383	2900	5283	ND	2091	760	2851	ND	322	360	682	ND	4799	1500	6299
6-Jul-05																
19-Jul-06																
11-Nov-06	<1	12.8	310	322.8	<1	40.4	310	350.4	<1	102.7	120	222.7	<1	1963	2300	4263
30-Jan-07									<.2	0.7	2.9	3.6				

TABLE C-6 METALS/INORGANICS DATA, EMF QUARTERLY GROUNDWATER MONITORING
OCTOBER 1997

EAL Sample ID:		32699	32700	32715	32701	32702	32703	32704	32705	32706	32707
Sample Name:		GW02-EMF01S-0	GW02-EMF01D-0	GW02-EMF02-0	GW02-EMF03S-0	GW02-EMF03D-0	GW02-EMF04-0	GW02-EMF05-0	GW02-EMF06-0	GW02-EMF07-0	GW02-EMF08-0
Sample Date:		10-Oct-97	10-Oct-97	9-Oct-97	10-Oct-97	10-Oct-97	9-Oct-97	9-Oct-97	9-Oct-97	10-Oct-97	9-Oct-97
Test ID: ANIONS-ARI	Units										
Nitrate	mg/L	9.8	0.03	1	1.3	0.02	0.55	0.02	2.2	3.1	<0.01
Nitrite	mg/L	0.12	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sulfate	mg/L	250	370	9.6	31	16	18	86	36	53	100
Carbonate	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bicarbonate	mg/L	22	22	96	67	130	72	92	60	110	72
Chloride	mg/L	48	25	2.5	5.1	5	1.8	5.6	5.8	9.4	17
O-Phosphate	mg/L	<0.00	<0.004	0.38	<0.004	<0.004	0.027	<0.004	0.017	0.015	<0.004
Sulfide	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Test ID: GFAA											
Antimony	ug/L	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
Arsenic	ug/L	<1.5	1.8	<1.5	<1.5	<1.5	<1.5	5.6	<1.5	<1.5	<1.5
Cadmium	ug/L	<0.10	<0.10	0.58	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Lead	ug/L	1.2	0.5	2.8	1.1	0.8	0.88	0.65	0.63	0.45	0.38
Selenium	ug/L	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Test ID: HG											
Mercury in aqueous solution	ug/L	0.065	0.061	0.11	0.062	0.076	0.069	0.092	0.079	0.093	0.1
Test ID: ICP-PP-D											
Silver	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	mg/L	0.029	0.031	0.01	0.004	0.01	0.006	0.018	0.004	0.006	0.013
Chromium	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.002
Copper	mg/L	0.053	0.037	0.046	`	0.022	0.035	0.003	0.031	0.011	0.021
Iron	mg/L	4.1	29	3.6	0.009	12	0.021	26	0.028	0.033	14
Manganese	mg/L	0.3	1.1	0.23	0.005	0.51	0.001	0.67	0.001	0.023	0.3
Nickel	mg/L	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080
Zinc	mg/L	0.011	0.04	370	0.14	0.13	0.035	0.017	0.052	0.043	0.023
Test ID: TDS											
Total dissolved solids	mg/L	616	706	900	152	185	135	293	174	10219	301
Test ID: TOC-ARI											
TOC	mg/L	2.3	2.6	<1.5	<1.5	2.9	<1.5	3.5	<1.5	<1.5	<1.5

TABLE C-6 METALS/INORGANICS DATA, EMF QUARTERLY GROUNDWATER MONITORING
OCTOBER 1997

EAL Sample ID:		32708	32709	32710	32711	32712	32714
Sample Name:		GW02-EMF09-0	GW02-EMF10-0	GW02-EMFNOVOC01	GW02-EMFNOVOC02	TRIP BLANK	TRIP BLANK
Sample Date:		9-Oct-97	9-Oct-97	10-Oct-97	9-Oct-97	9-Oct-97	10-Oct-97
Test ID: ANIONS-ARI	Units						
Nitrate	mg/L	<0.01	0.03	<0.01	<0.01	NA	NA
Nitrite	mg/L	0.01	<0.01	<0.01	<0.01	NA	NA
Sulfate	mg/L	120	70	67	99	NA	NA
Carbonate	mg/L	<1.00	<1.00	<1.00	<1.00	NA	NA
Bicarbonate	mg/L	52	58	89	84	NA	NA
Chloride	mg/L	18	9.2	9.7	18	NA	NA
O-Phosphate	mg/L	<0.004	0.022	0.012	<0.004	NA	NA
Sulfide	mg/L	<0.06	<0.06	<0.06	<0.06	NA	NA
Test ID: GFAA							
Antimony	ug/L	<1.3	<1.3	<1.3	<1.3	NA	NA
Arsenic	ug/L	<1.5	1.6	<1.5	2.3	NA	NA
Cadmium	ug/L	<0.10	<0.10	<0.10	<0.10	NA	NA
Lead	ug/L	0.4	0.6	0.38	0.43	NA	NA
Selenium	ug/L	<1.530	<1.530	<1.530	<1.530	NA	NA
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	NA	NA
Test ID: HG							
Mercury in aqueous solution	ug/L	0.1	0.11	0.1	0.11	NA	NA
Test ID: ICP-PP-D							
Silver	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	NA	NA
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	NA	NA
Cadmium	mg/L	0.009	0.007	0.009	0.01	NA	NA
Chromium	mg/L	<0.0020	0.004	0.004	<0.0020	NA	NA
Copper	mg/L	0.005	0.014	0.02	0.007	NA	NA
Iron	mg/L	20	1.1	3.5	1	NA	NA
Manganese	mg/L	0.31	0.05	0.13	0.24	NA	NA
Nickel	mg/L	<0.0080	<0.0080	<0.0080	0.019	NA	NA
Zinc	mg/L	0.006	0.012	0.13	0.16	NA	NA
Test ID: TDS							
Total dissolved solids	mg/L	293	233	253	250	NA	NA
Test ID: TOC-ARI							
TOC	mg/L	2.1	2.2	11	1.6	NA	NA

TABLE C-7 METALS/INORGANICS DATA EMF QUARTERLY GROUNDWATER MONITORING
JULY 1997

EAL Sample ID:		30890	30885	30884	30831	30832	30828	30886	30827	30888	30830
Sample Name:		GW01-EMF01S-0	GW01-EMF01D-0	GW01-EMF02-0	GW01-EMF03S-0	GW01-EMF03D-0	GW01-EMF04-0	GW01-EMF05-0	GW01-EMF06-0	GW01-EMF07-0	GW01-EMF08-0
Sample Date:		18-JUL-1997	18-JUL-1997	18-JUL-1997	17-JUL-1997	17-Jul-97	18-JUL-1997	18-JUL-1997	17-JUL-1997	18-JUL-1997	17-JUL-1997
Test ID: ANIONS-ARI	Units										
Nitrate	mg/L	4.5	<0.01	0.23	0.5	0.14	0.64	0.02	0.39	0.52	0.23
Nitrite	mg/L	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
Sulfate	mg/L	300	420	30	20	12	14	100	44	120	60
Carbonate	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bicarbonate	mg/L	33	39	84	45	140	46	100	65	120	64
Chloride	mg/L	21	20	3.4	3.9	6	1.8	5	4.9	6.7	5.5
O-Phosphate	mg/L	<0.01	<0.01	0.04	0.04	<0.01	0.02	<0.01	0.04	0.03	<0.01
Sulfide	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Test ID: GFAA											
Antimony	ug/L	<1.3	<1.3	<1.3	1.7	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
Arsenic	ug/L	<1.5	2	<1.5	<1.5	<1.5	<1.5	3.4	<1.5	<1.5	<1.5
Cadmium	ug/L	0.21	<0.10	<0.10	0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Lead	ug/L	0.48	0.35	0.8	0.75	0.85	0.85	0.7	0.7	0.75	1.4
Selenium	ug/L	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Test ID: HG											
Mercury in aqueous solution	ug/L	0.035	0.034	0.031	0.025	0.029	0.024	0.46	<0.021	0.036	<0.021
Test ID: ICP-PP-D											
Silver	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	mg/L	0.024	0.024	0.008	0.003	0.008	0.003	0.014	0.003	0.006	0.003
Chromium	mg/L	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.003
Copper	mg/L	0.003	<0.0010	0.001	0.013	<0.0010	0.002	<0.0010	0.002	0.002	0.015
Iron	mg/L	8.3	33	3	0.01	14	0.13	18	0.015	0.006	0.38
Manganese	mg/L	0.51	1.2	0.26	0.01	0.56	0.012	0.69	0.008	0.001	0.083
Nickel	mg/L	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080
Zinc	mg/L	0.017	0.006	0.005	<0.0050	<0.0050	<0.0050	0.018	0.005	0.025	0.011
Test ID: TDS											
Total dissolved solids	mg/L	555	660	175	103	246	102	287	211	264	209
Test ID: TOC-ARI											
TOC	mg/L	2.9	1.9	1.7	<1.5	3.9	<1.5	2.6	<1.5	3.1	<1.5

TABLE C-7 METALS/INORGANICS DATA EMF QUARTERLY GROUNDWATER MONITORING
JULY 1997

EAL Sample ID:		30829	30826	30887	30889	30833
Sample Name:		GW01-EMF09-0	GW01-EMF10-0	GW01-EMFNOVOC01	GW01-EMFNOVOC02	TRIP BLANK
Sample Date:		17-JUL-1997	17-JUL-1997	18-JUL-1997	18-JUL-1997	16-JUL-1997
Test ID: ANIONS-ARI	Units					
Nitrate	mg/L	0.18	0.07	0.07	0.24	NA
Nitrite	mg/L	<0.01	0.02	<0.01	<0.01	NA
Sulfate	mg/L	130	380	52	72	NA
Carbonate	mg/L	<1.00	<1.00	<1.00	<1.00	NA
Bicarbonate	mg/L	76	44	330	82	NA
Chloride	mg/L	9.1	28	6.8	7	NA
O-Phosphate	mg/L	<0.01	0.01	<0.01	<0.01	NA
Sulfide	mg/L	<0.05	<0.05	<0.05	<0.05	NA
Test ID: GFAA						
Antimony	ug/L	<1.3	<1.3	<1.3	<1.3	NA
Arsenic	ug/L	<1.5	<1.5	1.5	1.7	NA
Cadmium	ug/L	<0.10	0.3	<0.10	<0.10	NA
Lead	ug/L	0.93	0.85	0.43	0.65	NA
Selenium	ug/L	<1.530	<1.530	<1.530	<1.530	NA
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	NA
Test ID: HG						
Mercury in aqueous solution	ug/L	0.027	<0.021	0.041	0.039	NA
Test ID: ICP-PP-D						
Silver	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	NA
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	NA
Cadmium	mg/L	0.01	0.011	0.004	0.007	NA
Chromium	mg/L	<0.0020	<0.0020	0.005	<0.0020	NA
Copper	mg/L	0.003	0.007	<0.0010	<0.0010	NA
Iron	mg/L	13	17	1.5	13	NA
Manganese	mg/L	0.39	0.64	0.11	0.2	NA
Nickel	mg/L	<0.0080	<0.0080	<0.0080	<0.0080	NA
Zinc	mg/L	<0.0050	0.006	3	0.006	NA
Test ID: TDS						
Total dissolved solids	mg/L	331	889	232	244	NA
Test ID: TOC-ARI						
TOC	mg/L	2.6	3	49	2.2	NA

TABLE C-8 METALS/INORGANICS DATA EMF QUARTERLY GROUNDWATER MONITORING
FEBRUARY 1998

EAL Sample ID:		35144	35145	35151	35147	35146	35153	35152	35149	35148	35143
Sample Name:		EMF-MW-1S	EMF-MW-1D	EMF-MW-2	EMF-MW-3S	EMF-MW-3D	EMF-MW-4	EMF-MW-5	EMF-MW-6	EMF-MW-7	EMF-MW-8
Sample Date:		10-FEB-1998	10-FEB-1998	11-FEB-1998	10-FEB-1998	10-Feb-98	11-FEB-1998	11-FEB-1998	10-FEB-1998	10-FEB-1998	10-FEB-1998
Test ID: ANIONS-ARI	Units										
Nitrate	mg/L	13	0.06	0.28	0.43	0.06	0.17	0.04	1.2	0.76	0.05
Nitrite	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sulfate	mg/L	220	210	9.4	44	10	5.8	80	61	65	<50.00
Carbonate	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bicarbonate	mg/L	51	96	110	92	170	31	150	100	93	210
Chloride	mg/L	26	14	4.1	2.9	4.8	3.1	7.1	6.3	6.7	33
O-Phosphate	mg/L	<0.004	<0.004	0.058	0.029	0.004	0.014	0.45	0.042	0.014	<0.004
Sulfide	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Test ID: GFAA											
Antimony	ug/L	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
Arsenic	ug/L	4.9	2	<1.5	<1.5	<1.5	<1.5	1.9	<1.5	<1.5	<1.5
Cadmium	ug/L	0.19	<0.10	0.18	0.34	<0.10	0.1	<0.10	<0.10	<0.10	<0.10
Lead	ug/L	1.6	1.2	9	11	2.3	<1.030	<1.030	12	11	1.3
Selenium	ug/L	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Test ID: HG											
Mercury in aqueous solution	ug/L	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
Test ID: ICP-PP-D											
Silver	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Beryllium	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cadmium	mg/L	<0.0040	<0.0040	<0.0040	0.009	<0.0040	<0.0040	<0.0040	0.009	0.005	<0.0040
Chromium	mg/L	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Copper	mg/L	0.031	0.018	0.054	0.019	0.016	0.024	0.029	0.04	0.065	0.003
Iron	mg/L	15	17	22	1.8	14	3.7	14	2.9	3	19
Manganese	mg/L	0.39	0.64	0.25	0.19	0.55	0.047	0.67	0.022	0.13	0.37
Nickel	mg/L	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031	<0.031
Zinc	mg/L	<0.018	<0.018	<0.018	0.022	<0.018	<0.018	<0.018	<0.018	0.035	<0.018

TABLE C-8 METALS/INORGANICS DATA EMF QUARTERLY GROUNDWATER MONITORING
FEBRUARY 1998

EAL Sample ID:		35142	35141	35139	35140	35150
Sample Name:		EMF-MW-9	EMF-MW-10	EMF-NV-01	EMF-NV-02	EMF-DUP
Sample Date:		9-FEB-1998	9-FEB-1998	9-FEB-1998	9-FEB-1998	10-FEB-1998
Test ID: ANIONS-ARI	Units					
Nitrate	mg/L	0.02	<0.01	0.04	0.01	0.05
Nitrite	mg/L	0.02	<0.01	<0.01	0.02	<0.01
Sulfate	mg/L	8.3	15	71	90	6.2
Carbonate	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00
Bicarbonate	mg/L	190	180	110	71	200
Chloride	mg/L	50	44	9.3	9.5	32
O-Phosphate	mg/L	<0.004	<0.004	<0.004	0.012	<0.004
Sulfide	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Test ID: GFAA						
Antimony	ug/L	<1.3	<1.3	<1.3	<1.3	<1.3
Arsenic	ug/L	<1.5	2.8	<1.5	4.3	<1.5
Cadmium	ug/L	<0.10	<0.10	0.47	<0.10	<0.10
Lead	ug/L	<1.030	6.9	1.2	1.1	1.6
Selenium	ug/L	<1.530	<1.530	<1.530	<1.530	<1.530
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5
Test ID: HG						
Mercury in aqueous solution	ug/L	<0.021	<0.021	<0.021	<0.021	<0.021
Test ID: ICP-PP-D						
Silver	mg/L	<0.0030	<0.0030	0.006	<0.0030	<0.0030
Beryllium	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cadmium	mg/L	<0.0040	<0.0040	0.007	0.004	<0.0040
Chromium	mg/L	<0.0060	0.095	0.01	<0.0060	<0.0060
Copper	mg/L	<0.0030	0.24	0.02	0.024	0.04
Iron	mg/L	43	6.9	5.3	30	20
Manganese	mg/L	0.62	0.11	0.13	0.3	0.39
Nickel	mg/L	<0.031	<0.031	<0.031	<0.031	<0.031
Zinc	mg/L	<0.018	<0.018	0.042	<0.018	0.018

TABLE C-9 METALS/INORGANICS DATA EMF QUARTERLY GROUNDWATER MONITORING
MAY 1998

EAL Sample ID:		36928	36927	36929	36934	36933	36931	36932	36935	36944	36943
Sample Name:		EMF-MW-1S	EMF-MW-1D	EMF-MW-2	EMF-MW-3S	EMF-MW-3D	EMF-MW-4	EMF-MW-5	EMF-MW-6	EMF-MW-7	EMF-MW-8
Sample Date:		5-MAY-1998	5-MAY-1998	5-MAY-1998	5-MAY-1998	5-MAY-1998	5-MAY-1998	5-MAY-1998	5-MAY-1998	6-MAY-1998	6-MAY-1998
Test ID: ANIONS-ARI	Units										
Nitrate	mg/L	5.80	<0.10	0.20	0.30	<0.10	0.20	<0.10	0.40	0.40	<0.10
Nitrite	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	93.00	8.40	4.80	19.00	28.40	11.80	48.70	77.00	78.80	<0.10
Carbonate	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bicarbonate	mg/L	120.00	200.00	100.00	66.00	130.00	24.00	99.00	89.00	100.00	170.00
Chloride	mg/L	31.80	25.70	6.40	8.90	3.90	3.00	7.80	12.10	7.50	24.10
O-Phosphate	mg/L	<0.100	<0.100	0.200	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Sulfide	mg/L	0.11	0.06	<0.05	0.10	<0.05	<0.05	0.05	0.14	0.12	<0.05
Test ID: GFAA											
Antimony	ug/L	4.9	2.9	2.5	1.4	1.8	3.3	4.1	1.6	2.0	1.3
Arsenic	ug/L	5.0	<1.5	<1.5	1.5	<1.5	1.6	4.2	<1.5	<1.5	<1.5
Cadmium	ug/L	<0.10	0.35	<0.10	0.26	<0.10	<0.10	<0.10	0.20	0.11	<0.10
Lead	ug/L	<1.030	5.6	<1.030	2.4	1.2	<1.030	<1.030	6.6	1.6	<1.030
Selenium	ug/L	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530	<1.530
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	1.9	<1.5	<1.5	<1.5	<1.5
Test ID: HG											
Mercury in aqueous solution	ug/L	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
Test ID: ICP-PP-D											
Silver	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0050	<0.0010	0.0060	<0.0010	<0.0010
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	mg/L	0.0010	0.0030	0.0010	0.0010	0.0020	0.0030	0.0010	0.0010	0.0010	0.0020
Chromium	mg/L	0.0020	0.0030	0.0050	0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.0020	0.0020
Copper	mg/L	0.019	0.054	0.017	0.044	0.0080	0.015	0.0090	0.010	0.045	0.0030
Iron	mg/L	4.9	14	4.3	0.49	15	1.5	11	0.25	1.3	16
Manganese	mg/L	0.084	0.51	0.21	0.035	0.58	0.024	0.60	0.0050	0.087	0.32
Nickel	mg/L	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	0.012
Zinc	mg/L	0.0050	0.074	<0.0050	<0.0050	<0.0050	0.013	<0.0050	<0.0050	0.012	<0.0050
Test ID: FE-II-ARI											
Ferrous Iron (Fe(II))	mg/L	0.52	13.00	2.60	0.36	15.00	0.18	9.40	0.35	0.33	16.00

TABLE C-9 METALS/INORGANICS DATA EMF QUARTERLY GROUNDWATER MONITORING
MAY 1998

EAL Sample ID:		36942	36941	36925	36926	36936
Sample Name:		EMF-MW-9	EMF-MW-10	EMF-NV-01	EMF-NV-02	EMF-MW-DUP
Sample Date:		6-MAY-1998	6-MAY-1998	5-MAY-1998	5-MAY-1998	5-MAY-1998
Test ID: ANIONS-ARI	Units					
Nitrate	mg/L	<0.10	<0.10	0.10	<0.10	<0.10
Nitrite	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	<0.10	22.60	63.40	133.00	7.40
Carbonate	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00
Bicarbonate	mg/L	170.00	190.00	87.00	71.00	200.00
Chloride	mg/L	27.20	31.80	10.90	25.80	25.40
O-Phosphate	mg/L	<0.100	<0.500	<0.100	<0.100	<0.100
Sulfide	mg/L	<0.05	0.30	<0.05	<0.05	0.07
Test ID: GFAA						
Antimony	ug/L	1.6	2.5	2.4	1.9	2.3
Arsenic	ug/L	<1.5	2.0	<1.5	2.1	<1.5
Cadmium	ug/L	<0.10	<0.10	0.12	<0.10	0.30
Lead	ug/L	<1.030	2.3	<1.030	<1.030	8.4
Selenium	ug/L	<1.530	<1.530	<1.530	<1.530	<1.530
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5
Test ID: HG						
Mercury in aqueous solution	ug/L	<0.021	<0.021	<0.021	<0.021	<0.021
Test ID: ICP-PP-D						
Silver	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Beryllium	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium	mg/L	0.0030	0.0030	<0.0010	0.0030	0.0030
Chromium	mg/L	0.0040	0.034	0.0030	<0.0020	0.0040
Copper	mg/L	0.020	0.017	0.038	0.028	0.022
Iron	mg/L	27	8.9	5.2	29	13
Manganese	mg/L	0.39	0.14	0.13	0.66	0.49
Nickel	mg/L	0.012	0.022	<0.0080	<0.0080	0.0090
Zinc	mg/L	<0.0050	<0.0050	0.017	0.0070	0.074
Test ID: FE-II-ARI						
Ferrous Iron (Fe(II))	mg/L	31.00	9.20	5.80	29.00	14.00

TABLE C-10 METALS/INORGANICS DATA EMF QUARTERLY GROUNDWATER MONITORING
NOVEMBER 1998

EAL Sample ID:		44072	44071	44142	44074	44073	44143	44144	44076	44077	44068
Sample Name:		EMF-MW1S	EMF-MW1D	EMF-MW2	EMF-MW3S	EMF-MW3D	EMF-MW4	EMF-MW5	EMF-MW6	EMF-MW7	EMF-MW8
Sample Date:		18-NOV-1998	18-NOV-1998	19-NOV-1998	18-NOV-1998	18-NOV-1998	19-NOV-1998	19-NOV-1998	18-NOV-1998	18-NOV-1998	18-NOV-1998
Test ID: ANIONS-ARI	Units										
Nitrate	mg/L	0.6	<0.50	<0.50	0.5	<0.50	<0.50	<0.50	0.7	1.7	<0.50
Nitrite	mg/L	<0.20	<0.50	<0.50	<0.20	<0.50	<0.50	<0.50	<0.20	<0.20	<0.50
Sulfate	mg/L	31.3	2.9	8.5	50	39.6	22.2	48.4	89	25.1	12.3
Carbonate (Alkalinity)	mg/L CaCO3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bicarbonate (Alkalinity)	mg/L CaCO3	170	210	100	37	77	38	110	88	120	250
Chloride	mg/L	21.5	34.6	9.6	17.5	10.1	2.6	4.6	7.5	5.3	73.8
O-Phosphate	mg/L	<0.200	<0.500	<0.500	<0.200	<0.500	<0.500	<0.500	<0.200	<0.200	<0.500
Sulfide	mg/L	<0.28	<0.28	<0.28	<0.06	<0.28	<0.06	<0.28	<0.06	<0.06	<0.28
Test ID: GFAA											
Antimony	ug/L	2.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	2	<1.3	<1.3
Arsenic	ug/L	9.1	<1.5	<1.5	<1.5	<1.5	<1.5	5.8	<1.5	<1.5	5.3
Cadmium	ug/L	0.24	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Lead	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	<1.0
Selenium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Test ID: HG											
Mercury in aqueous solution	ug/L	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
Test ID: ICP-PP-D											
Silver	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.001	<0.0010	<0.0010	<0.0010
Beryllium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cadmium	mg/L	0.004	0.003	0.002	0.002	0.001	0.002	0.003	0.002	0.002	0.004
Chromium	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.002	<0.0020	<0.0020	0.037
Copper	mg/L	0.008	0.002	0.002	0.005	0.001	0.002	0.004	0.003	0.005	0.024
Iron	mg/L	9.4	11	7.1	0.27	12	1.4	27	0.042	0.53	12
Manganese	mg/L	0.22	0.39	0.27	0.039	0.46	0.13	0.57	0.001	0.057	0.27
Nickel	mg/L	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080
Zinc	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.007	<0.0050	0.005	0.012	0.008
Test ID: FE-II-ARI											
Ferrous Iron (Fe(II))	mg/L	0.76	8.7	3.8	<0.04	12	0.72	23	<0.04	0.11	10

TABLE C-10 METALS/INORGANICS DATA EMF QUARTERLY GROUNDWATER MONITORING
NOVEMBER 1998

EAL Sample ID:		44069	44070	44146	44145	44140	44141	44067	44075
Sample Name:		EMF-MW9	EMF-MW10	EMF-MW11S	EMF-MW11D	EMF-NV01	EMF-NV02	EMF-DUP1	EMF-DUP2
Sample Date:		18-NOV-1998	18-NOV-1998	19-NOV-1998	19-NOV-1998	19-NOV-1998	19-NOV-1998	18-NOV-1998	18-NOV-1998
Test ID: ANIONS-ARI	Units								
Nitrate	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.6
Nitrite	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20
Sulfate	mg/L	<0.50	<0.50	7.1	<0.50	34.1	64.7	12	89.4
Carbonate (Alkalinity)	mg/L CaCO3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bicarbonate (Alkalinity)	mg/L CaCO3	260	190	120	190	83	84	260	89
Chloride	mg/L	68.1	134	29.5	5.6	9.2	209	74.6	7.2
O-Phosphate	mg/L	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.200
Sulfide	mg/L	<0.28	<0.28	<0.28	<0.28	<0.06	<0.28	<0.28	<0.06
Test ID: GFAA									
Antimony	ug/L	1.6	<1.3	1.4	<1.3	1.3	<1.3	<1.3	3.8
Arsenic	ug/L	<1.5	<1.5	6	3.5	<1.5	<1.5	3.9	1.5
Cadmium	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Lead	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0
Selenium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	1.7	<1.5
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Test ID: HG									
Mercury in aqueous solution	ug/L	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
Test ID: ICP-PP-D									
Silver	mg/L	0.003	0.003	0.001	0.001	<0.0010	0.005	<0.0010	<0.0010
Beryllium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cadmium	mg/L	0.004	0.003	<0.0010	0.003	0.002	0.001	0.004	0.002
Chromium	mg/L	0.002	<0.0020	0.002	0.002	0.006	0.006	0.036	<0.0020
Copper	mg/L	0.006	0.009	0.004	0.007	0.012	0.004	0.018	0.006
Iron	mg/L	24	41	23	27	5.3	80	13	0.076
Manganese	mg/L	0.62	0.61	0.51	0.79	0.11	1.2	0.28	0.003
Nickel	mg/L	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080
Zinc	mg/L	<0.0050	<0.0050	<0.0050	0.006	<0.0050	0.012	0.006	0.014
Test ID: FE-II-ARI									
Ferrous Iron (Fe(II))	mg/L	26	48	19	21	5.6	98	10	<0.04

TABLE C-11 METALS/INORGANICS DATA EMF QUARTERLY GROUNDWATER MONITORING
JANUARY 1999

EAL Sample ID:		46138	46139	46126	46140	46141	46127	46128	46122	46131
Sample Name:		EMF-MW1S	EMF-MW1D	EMF-MW2	EMF-MW3S	EMF-MW3D	EMF-MW4	EMF-MW5	EMF-MW6	EMF-MW7
Sample Date:		26-JAN-1999	26-JAN-1999	25-JAN-1999	26-JAN-1999	26-JAN-1999	25-JAN-1999	25-JAN-1999	25-JAN-1999	25-JAN-1999
Test ID: ANIONS-ARI	Units									
Nitrate	mg/L	0.2	<0.10	0.2	0.4	<0.10	1.3	0.1	2.2	0.8
Nitrite	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/L	21.4	2.6	7	48.9	48.3	16.4	3.8	70	87
Carbonate (Alkalinity)	mg/L CaCO3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bicarbonate (Alkalinity)	mg/L CaCO3	180	240	99	34	100	63	16	97	76
Chloride	mg/L	31.6	54.2	9.9	9.6	7.5	4.2	5.3	10.2	9.8
O-Phosphate	mg/L	<0.100	<0.100	0.1	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Sulfide	mg/L	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Test ID: GFAA										
Antimony	ug/L	<1.3	1.4	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
Arsenic	ug/L	3.9	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
Cadmium	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.15	<0.10
Lead	ug/L	1.2	1.1	<1.0	1.8	<1.0	<1.0	<1.0	6.4	1.2
Selenium	ug/L	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	1.7	<1.5	<1.5
Test ID: HG										
Mercury in aqueous solution	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029
Test ID: ICP-PP-D										
Silver	ug/L	<2.9	<2.9	<2.9	<2.9	<2.9	<2.9	<2.9	<2.9	<2.9
Beryllium	ug/L	<0.18	<0.18	<0.18	<0.18	<0.18	0.36	0.27	0.36	<0.18
Cadmium	ug/L	<0.35	0.65	0.4	<0.35	0.62	0.55	<0.35	0.96	<0.35
Chromium	ug/L	3.5	3.4	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
Copper	ug/L	5.3	<1.2	<1.2	3.1	<1.2	<1.2	4.6	17	5.3
Iron	ug/L	3800	14000	3500	340	14000	1000	360	1700	860
Manganese	ug/L	220	420	150	17	540	26	5	20	57
Nickel	ug/L	7.7	<2.7	<2.7	3.5	<2.7	<2.7	<2.7	3	<2.7
Zinc	ug/L	2	3.4	3.2	4.4	<0.35	20	3.6	15	23
Test ID: FE-II-ARI										
Ferrous Iron (Fe(II))	mg/L	0.67	12	1.7	0.13	14	0.12	<0.04	<0.04	<0.04

TABLE C-11 METALS/INORGANICS DATA EMF QUARTERLY GROUNDWATER MONITORING
JANUARY 1999

EAL Sample ID:		46132	46123	46129	46124	46125	46142	46144	46130
Sample Name:		EMF-MW8	EMF-MW9	EMF-MW10	EMF-MW11S	EMF-MW11D	EMF-NV01	EMF-NV02	EMF-DUP1
Sample Date:		25-JAN-1999	25-JAN-1999	25-JAN-1999	25-JAN-1999	25-JAN-1999	26-JAN-1999	26-JAN-1999	25-JAN-1999
Test ID: ANIONS-ARI	Units								
Nitrate	mg/L	<0.50	<0.50	<0.50	<0.10	<0.10	<0.10	<0.10	<0.20
Nitrite	mg/L	<0.50	<0.50	<0.50	<0.10	<0.10	<0.10	<0.10	<0.20
Sulfate	mg/L	49.3	33.4	32.1	3.8	3	74.2	37.6	2.9
Carbonate (Alkalinity)	mg/L CaCO3	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bicarbonate (Alkalinity)	mg/L CaCO3	190	52	35	240	150	78	200	150
Chloride	mg/L	69.8	353	355	6.1	34.6	7.6	110	34.7
O-Phosphate	mg/L	<0.500	<0.500	<0.500	<0.100	<0.100	<0.100	<0.100	<0.200
Sulfide	mg/L	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07
Test ID: GFAA									
Antimony	ug/L	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
Arsenic	ug/L	4.6	<1.2	<1.2	3.5	4.8	<1.2	1.4	5.4
Cadmium	ug/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Lead	ug/L	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Selenium	ug/L	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
Thallium	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Test ID: HG									
Mercury in aqueous solution	ug/L	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029	<0.029
Test ID: ICP-PP-D									
Silver	ug/L	<2.9	<2.9	<2.9	<2.9	<2.9	<2.9	<2.9	<2.9
Beryllium	ug/L	<0.18	0.35	0.72	0.41	0.43	<0.18	<0.18	0.21
Cadmium	ug/L	0.52	1	1.1	0.53	0.57	<0.35	2.6	<0.35
Chromium	ug/L	51	<1.9	<1.9	<1.9	<1.9	4.5	4.3	<1.9
Copper	ug/L	20	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
Iron	ug/L	11000	38000	60000	33000	27000	5600	52000	27000
Manganese	ug/L	310	1000	1000	1000	560	110	990	550
Nickel	ug/L	4.5	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7
Zinc	ug/L	6.2	4.1	1.6	3.3	2.1	0.54	11	1.7
Test ID: FE-II-ARI									
Ferrous Iron (Fe(II))	mg/L	5.9	40	65	21	16	5.3	50	16

TABLE C-12 METALS DATA EMF GROUNDWATER MONITORING
SEPTEMBER 2006

		total			dissolved (field filtered)		
ARI ID		06-16899-JW73A	06-16900-JW73B	06-16901-JW73C	06-16902-JW73D	06-16903-JW73E	06-16904-JW73F
Sample		EMF-WF-26-906	EMF-WF-29-906	EMF-MW-12DR-906	EMF-WF-26-906	EMF-WF-29-906	EMF-MW-12DR-906
Date		15-Sep-2006	15-Sep-2006	15-Sep-2006	15-Sep-2006	15-Sep-2006	15-Sep-2006
	Units						
Aluminum	mg/L	0.43	1.52	0.11	0.05 U	0.05 U	0.05 U
Antimony	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Arsenic	mg/L	0.0013	0.0008	0.0035	0.0011	0.0003	0.0035
Barium	mg/L	0.01	0.009	0.006	0.008	0.004	0.005
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Calcium	mg/L	36.8	20.9	10.3	36.8	20.3	10.5
Chromium	mg/L	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U
Cobalt	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Copper	mg/L	0.007	0.004	0.002 U	0.002 U	0.002	0.002 U
Iron	mg/L	30.4	19.1	16.6	30.9	16.8	16.9
Lead	mg/L	0.001	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Magnesium	mg/L	17	13.8	11.2	17.2	13.5	11.4
Manganese	mg/L	0.996	0.685	0.465	1.01	0.666	0.475
Mercury	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Nickel	mg/L	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U
Potassium	mg/L	7.3	6.2	8.4	7.5	6.3	8.4
Selenium	mg/L	0.0007	0.0008	0.0005 U	0.0006	0.0006	0.0005 U
Silver	mg/L	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U	0.003 U
Sodium	mg/L	61.1	72.7	72.4	61.2	72.3	70.8
Thallium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	mg/L	0.006	0.008	0.003 U	0.004	0.004	0.003 U
Zinc	mg/L	0.009	0.008	0.006 U	0.01	0.006 U	0.006 U

TABLE C-13 METALS DATA FROM EMF GROUNDWATER MONITORING JANUARY 2007

		Total	Total	Total	Dissolved	Dissolved	Dissolved
Sample		EMF-WF29-070129	EMF-WF32-070130	EMF-WF33-070130	EMF-WF29-070129	EMF-WF32-070130	EMF-WF33-070130
Date		1/29/2007	1/30/2007	1/30/2007	1/29/2007	1/30/2007	1/30/2007
ARI ID	Units	07-1453-KM65I	07-1548-KM82H	07-1544-KM82D	07-1458-KM65N	07-1554-KM82N	07-1553-KM82M
Antimony	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Arsenic	mg/L	0.0003	0.0007	0.0006	0.0002	0.0007	0.0005
Beryllium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Cadmium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Chromium	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.0008
Copper	mg/L	0.0005 U	0.0006	0.0012	0.0005 U	0.0005 U	0.0005 U
Iron	mg/L	19.1	23.7	17.7	18.4	23.4	16.6
Lead	mg/L	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
Manganese	mg/L	0.738	1.07	1.31	0.745	1.11	1.31
Mercury	mg/L	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U	0.0001 U
Nickel	mg/L	0.0006	0.003	0.0018	0.0005 U	0.001	0.0006
Selenium	mg/L	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Silver	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Thallium	mg/L	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U	0.0002 U
Vanadium	mg/L	0.003	0.004	0.006	0.003 U	0.003	0.004
Zinc	mg/L	0.004	0.009	0.018	0.004 U	0.004 U	0.004 U