

December 9, 2004

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Mr. Kirk Coulter  
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Project No. 0023892

Subject: Second Half 2004 Monitoring Data Transmittal  
Former Cameron Iron Works Facility, Houston, Texas  
VCP No. 221

Dear Messrs. Riggle and Coulter:

On behalf of Cooper Cameron Corporation, Environmental Resources Management (ERM) is providing this transmittal of ground water and surface water data collected during the Second Half 2004 sampling event at the Former Cameron Iron Works Facility, Houston, Texas (the facility) for your records. In a March 22, 2004 comment letter, the Texas Commission on Environmental Quality (TCEQ) approved a routine ground water monitoring program as part of the response action for the facility.

The semiannual ground water and surface water sampling schedule was initiated in September 2003. A data transmittal summarizing the ground water and surface water analytical data collected during the first half of the semiannual sampling events will be provided to the TCEQ approximately one month after the final laboratory reports are received. This transmittal is the second of these data summaries.

Attachment 1 provides a summary of the ground water and surface water analytical data that were collected during the second half of 2004. A review of the volatile organic ground water data summarized on Table 1 indicates that the ground water concentrations have decreased or remain steady throughout the areas of affected ground water with the exception of samples collected at MW-70, MW-93, and MW-126. Historically ground water has been reported below the Method Quantitation Limits (MQLs) at these locations. A ground water sample will be collected at these monitor wells during December 2004 and analyzed for the constituents that had reported concentrations above the MQLs. In addition, the ground water concentrations for antimony and copper in the Cooling Water Pond Area (Table 2) do not exceed the critical Protective Concentration Levels (PCLs). In the Cooling Water Pond Area, there has been over 13 years of ground water concentrations for antimony and copper below the critical PCLs. The quality of ground water throughout the affected area is improving.

The reported surface water concentrations, summarized on Table 3, are below the critical PCLs provided in the *Human Health and Ecological Risk Assessment for Surface Water and Sediment*, dated June 19, 2003 and 80% of the critical PCLs. The quality assurance/quality control data are summarized in Table 4.

As mentioned above, analytical laboratory reports and data usability summaries for the samples collected during the second half of 2004 will be provided in a detailed annual monitoring report and field activities summary after the First Half 2005 sampling event scheduled for April 2005. The detailed annual monitoring report and field activities summary should be submitted to your attention by July 2005.

Please contact Mr. Jesse McKendree of Cooper Cameron Corporation at (713) 513-3325 with any questions or comments.

Sincerely,

Environmental Resources Management

Gregory J. Wheeler, P.G.

GJW/fr  
Attachments

cc: Jesse McKendree, Cooper Cameron Corporation  
Bruce Himmelreich, Cooper Cameron Corporation, (without attachments)  
Lance Shea, Fulbright & Jaworski L.L.P. (without attachments)  
David Corban, Fulbright & Jaworski L.L.P.  
Paul Stefan, Environmental Resources Management (Houston)  
Marsha Hill, Texas Commission on Environmental Quality, Region X II  
Robin Morse, Crain, Caton & James (without attachments)  
Scott Leafe, SKA Consulting (without attachments)  
Alan Feinsilver, Creekstone Builders Inc.

**Tables**  
*Attachment 1*

*December 9, 2004*  
*Project No. 0023892*

**Environmental Resources Management**  
15810 Park Ten Place, Suite 300  
Houston, Texas 77084  
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TABLE 1

Summary of Volatile Organic Ground Water Data  
Second Half 2004 Monitoring LetterFormer Cameron Iron Works Facility  
Houston, Texas

Constituent	Critical PCLs (a)	Location: KMW-01		KMW-07		KMW-13		KMW-14		MW-01 (c)		MW-02		MW-07R	
		Depth: (b)		25		25		25		25		25		25	
		Date:		10/28/2004		10/25/2004		10/27/2004		10/27/2004		10/25/2004		10/28/2004	
1,1-Dichloroethane	2.4	NA	NA	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NA
1,1-Dichloroethane	0.0070	ND (0.0050)	ND (0.0050)	0.0014 J	ND (0.0050)	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.062
1,2-Dichloroethane	0.0050	NA	NA	NA	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NA
cis-1,2-Dichloroethene	0.070	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	NS	NS	NS	NS	NS	NS	NS	NS	ND (0.0050)	ND (0.0050)
Tetrachloroethene	0.0050	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND (0.0050)
Trichloroethene	0.0050	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND (0.0050)
Vinyl Chloride	0.0020	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND (0.0020)

  

Constituent	Critical PCLs (a)	Location: MW-15R		MW-16R		MW-17R		MW-35		MW-42	
		Depth: (b)		20		20		26		23	
		Date:		7/22/2004		10/27/2004		7/22/2004		10/27/2004	
1,1-Dichloroethane	2.4	0.037	0.025	0.041	0.074	ND (0.0050)	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.0070	0.19	0.15	0.12	0.56 JH	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0041 J	0.0041 J	0.0041 J
1,2-Dichloroethane	0.0050	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0016 J	ND (0.0050)	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.070	0.019	0.014	ND (0.0050)	0.0076	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Tetrachloroethene	0.0050	0.026	0.020	0.010	0.016	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Trichloroethene	0.0050	0.029	0.024	0.011	0.0063	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Vinyl Chloride	0.0020	0.0038	ND (0.0020)	ND(0.0020)	ND(0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)

  

Constituent	Critical PCLs (a)	Location: MW-44		MW-48		MW-50 (c)		MW-52		MW-54		MW-55		MW-59	
		Depth: (b)		25		25		25		23		23		25	
		Date:		10/26/2004		10/26/2004		10/28/2004		10/25/2004		10/27/2004		10/26/2004	
1,1-Dichloroethane	2.4	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND (0.0050)
1,1-Dichloroethane	0.0070	NS	3.3	22	0.056	0.83	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	ND (0.0050)
1,2-Dichloroethane	0.0050	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND (0.0050)
cis-1,2-Dichloroethene	0.070	NS	0.065	0.30	ND (0.0050)	9.2	0.040	0.040	0.040	0.040	0.040	0.040	0.040	0.040	ND (0.0050)
Tetrachloroethene	0.0050	NS	0.26	0.098	ND (0.0050)	0.54	0.082	0.082	0.082	0.082	0.082	0.082	0.082	0.082	ND (0.0050)
Trichloroethene	0.0050	NS	0.059	0.34	ND (0.0050)	1.6	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	ND (0.0050)
Vinyl Chloride	0.0020	NS	0.066	0.51	ND (0.0020)	0.29	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	ND (0.0020)

## NOTES:

0.062 = exceedance of TCEQ Texas Risk Reduction Program (TRRP) Tier 1 Residential Class 2 Groundwater critical PCLs.

**Bold Value** = exceedance of the Method Quantitation Limit (MQL) at a monitor well south of I-10 outside of the plume boundary.

The reported concentrations are in mg/L.

NS = Not sampled because of the visual presence of potassium permanganate in ground water extracted from monitor well.

NA = Not Analyzed

ND (0.0050) = *Not Detected* at the Reporting Limit given in parentheses.

(a) TCEQ Texas Risk Reduction Program (TRRP) Tier 1 Residential Class 2 Groundwater PCLs, 30-acre source area, Table 3, table for TRRP Rule dated March 31, 2004.

(b) The sample depths are reported in feet below ground surface.

(c) A solution of potassium permanganate was injected on June 22, 2004.

J = Estimated data, the reported sample concentration is approximated due to exceedance of QC requirements.

UJ = *Not Detected*, sample quantitation limit is estimated.

H = Bias in sample result likely to be high.

L = Bias in sample result likely to be low.

TABLE 1 (Cont'd)

Summary of Volatile Organic Ground Water Data  
Second Half 2004 Monitoring LetterFormer Cameron Iron Works Facility  
Houston, Texas

Constituent	Critical PCLs (a)	Location:	MW-60	MW-61	MW-62	MW-64	MW-65	MW-70	MW-71	MW-72	
		Depth: (b)	34	23	25	25	25	25	25	25	24
		Date:	10/28/2004	10/28/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004
1,1-Dichloroethane	2.4		ND (0.0050)	ND (0.0050)	NA	NA	NA	<b>0.011</b>	ND (0.0050)	ND (0.0050)	
1,1-Dichloroethane	0.0070		ND (0.0050)	0.0024 J	ND (0.0050)	ND (0.0050)	0.0091	<b>0.015</b>	ND (0.0050)	ND (0.0050)	
1,2-Dichloroethane	0.0050		ND (0.0050)	ND (0.0050)	NA	NA	NA	ND (0.0050)	ND (0.0050)	ND (0.0050)	
cis-1,2-Dichloroethene	0.070		ND (0.0050)	ND (0.0050)	ND (0.0050)	0.023	0.0066	<b>0.0082</b>	ND (0.0050)	ND (0.0050)	
Tetrachloroethene	0.0050		ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0077	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	
Trichloroethene	0.0050		ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0038 J	ND (0.0050)	0.0018 J	ND (0.0050)	ND (0.0050)	
Vinyl Chloride	0.0020		ND (0.0020)	ND (0.0020)	ND (0.0020)	0.0035 JH	0.0041 JH	ND (0.0020)	ND (0.0020)	ND (0.0020)	

  

Constituent	Critical PCLs (a)	Location:	MW-73	MW-74	MW-75R	MW-76	MW-77	MW-78	MW-79	MW-80
		Depth: (b)	25	27	33	31	30	26	33	31
		Date:	10/28/2004	10/27/2004	10/26/2004	10/27/2004	10/26/2004	10/28/2004	10/28/2004	10/28/2004
1,1-Dichloroethane	2.4		0.0088	ND (0.0050)	0.0035 J	0.0030 J	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,1-Dichloroethane	0.0070		0.028	ND (0.0050)	0.019	0.013	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,2-Dichloroethane	0.0050		ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0011 J	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
cis-1,2-Dichloroethene	0.070		0.0049 J	ND (0.0050)	ND (0.0050)	0.018	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Tetrachloroethene	0.0050		ND (0.0050)	ND (0.0050)	0.0033 J	0.040	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Trichloroethene	0.0050		0.033	ND (0.0050)	ND (0.0050)	0.023	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Vinyl Chloride	0.0020		ND (0.0020)	ND (0.0020)	ND (0.0020)	0.0022	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)

  

Constituent	Critical PCLs (a)	Location:	MW-81	MW-82	MW-83	MW-84	MW-85R	MW-86
		Depth: (b)	28	31	30	31	29	33
		Date:	10/27/2004	10/27/2004	7/22/2004	10/27/2004	10/26/2004	10/28/2004
1,1-Dichloroethane	2.4		ND (0.0050)	0.0047 J	ND (0.0050)	0.0034 J	ND (0.0050)	ND (0.0050)
1,1-Dichloroethane	0.0070		ND (0.0050)	0.018	0.011	0.033 JH	ND (0.0050)	ND (0.0050)
1,2-Dichloroethane	0.0050		ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
cis-1,2-Dichloroethene	0.070		ND (0.0050)	0.0082	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Tetrachloroethene	0.0050		ND (0.0050)	0.12	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Trichloroethene	0.0050		ND (0.0050)	0.036	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Vinyl Chloride	0.0020		ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)

## NOTES:

0.062 = exceedance of TCEQ Texas Risk Reduction Program (TRRP) Tier 1 Residential Class 2 Groundwater critical PCLs.

**Bold Value** = exceedance of the Method Quantitation Limit (MQL) at a monitor well south of I-10 outside of the plume boundary.

The reported concentrations are in mg/L.

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ND (0.0050) = *Not Detected* at the Reporting Limit given in parentheses.

(a) TCEQ Texas Risk Reduction Program (TRRP) Tier 1 Residential Class 2 Groundwater PCLs, 30-acre source area, Table 3, table for TRRP Rule dated March 31, 2004.

(b) The sample depths are reported in feet below ground surface.

(c) A solution of potassium permanganate was injected on June 22, 2004.

J = Estimated data, the reported sample concentration is approximated due to exceedance of QC requirements.

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L = Bias in sample result likely to be low.

TABLE 1 (Cont'd)

Summary of Volatile Organic Ground Water Data  
Second Half 2004 Monitoring Letter

Former Cameron Iron Works Facility  
Houston, Texas

Constituent	Critical PCLs (a)	Location: MW-87		MW-88	MW-89	MW-90		MW-91	MW-92
		Depth: (b) 32		38	37	35		37	43
		Date: 7/22/2004		10/26/2004	10/27/2004	10/27/2004	7/22/2004	10/27/2004	10/27/2004
1,1-Dichloroethane	2.4	ND (0.0050)	0.0041 J	NS	0.0023 J	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,1-Dichloroethane	0.0070	0.012	0.011	NS	0.011	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,2-Dichloroethane	0.0050	ND (0.0050)	0.0018 J	NS	ND (0.0050) UJL	ND (0.0050)	ND (0.0050) UJL	ND (0.0050)	ND (0.0050) UJL
cis-1,2-Dichloroethene	0.070	ND (0.0050)	ND (0.0050)	NS	0.013	ND (0.0050)	0.0029 J	0.0031 J	0.0024 J
Tetrachloroethene	0.0050	ND (0.0050)	ND (0.0050)	NS	ND (0.0050)	0.31	0.30	0.48	1.1
Trichloroethene	0.0050	0.0070	0.0051	NS	0.060	ND (0.0050)	0.0066	0.0090	0.0038 J
Vinyl Chloride	0.0020	ND (0.0020)	ND (0.0020)	NS	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)

Constituent	Critical PCLs (a)	Location: MW-93		MW-94	MW-95	MW-96	MW-97	MW-98	MW-99	MW-100
		Depth: (b) 43		25	30	33	38	36	32	31
		Date: 10/27/2004		10/28/2004	10/27/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004
1,1-Dichloroethane	2.4	ND (0.0050)	0.0010 J	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0039 J	0.047
1,1-Dichloroethane	0.0070	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.023	0.060
1,2-Dichloroethane	0.0050	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
cis-1,2-Dichloroethene	0.070	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0064
Tetrachloroethene	0.0050	0.010	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0013 J
Trichloroethene	0.0050	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.00091 J	0.0026 J	
Vinyl Chloride	0.0020	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)

Constituent	Critical PCLs (a)	Location: MW-101		MW-102	MW-106	MW-107	MW-108	MW-109	MW-110	MW-111
		Depth: (b) 30		45	42	42	27	26	27	26
		Date: 10/26/2004		10/28/2004	10/26/2004	10/28/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004
1,1-Dichloroethane	2.4	0.0021 J	ND (0.0050)	ND (0.0050)	ND (0.0050)	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.0070	0.0053	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.12	0.14	0.15	0.16	
1,2-Dichloroethane	0.0050	ND (0.0050)	ND (0.0050) UJL	ND (0.0050)	ND (0.0050)	NA	NA	NA	NA	
cis-1,2-Dichloroethene	0.070	0.0052	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.086	0.036	0.070	
Tetrachloroethene	0.0050	0.29	0.28	0.40	1.2	ND (0.0050)	0.036	0.0065	0.0029 J	
Trichloroethene	0.0050	0.037	0.0026 J	0.0048 J	0.017	ND (0.0050)	0.031	0.014	0.0023 J	
Vinyl Chloride	0.0020	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	0.0019 JH	0.0075 JH	0.0097	0.0049 JH	

NOTES:

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(a) TCEQ Texas Risk Reduction Program (TRRP) Tier 1 Residential Class 2 Groundwater PCLs, 30-acre source area, Table 3, table for TRRP Rule dated March 31, 2004.

(b) The sample depths are reported in feet below ground surface.

(c) A solution of potassium permanganate was injected on June 22, 2004.

J = Estimated data, the reported sample concentration is approximated due to exceedance of QC requirements.

UJ = *Not Detected*, sample quantitation limit is estimated.

H = Bias in sample result likely to be high.

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TABLE 1 (Cont'd)

Summary of Volatile Organic Ground Water Data  
Second Half 2004 Monitoring Letter

Former Cameron Iron Works Facility  
Houston, Texas

Constituent	Critical PCLs (a)	Location:	MW-112	MW-113	MW-114	MW-115	MW-116	MW-117	MW-118	MW-119
		Depth: (b)	26	27	32	34	27	25	27	28
		Date:	10/26/2004	10/26/2004	10/25/2004	10/26/2004	10/26/2004	10/26/2004	10/26/2004	10/27/2004
1,1-Dichloroethane	2.4		NA	NA	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0026 J	ND (0.0050)
1,1-Dichloroethane	0.0070		0.18	0.015	0.0053	0.078	0.0022 J	ND (0.0050)	0.015 JH	0.0041 J
1,2-Dichloroethane	0.0050		NA	NA	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
cis-1,2-Dichloroethene	0.070		0.91	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0060	ND (0.0050)
Tetrachloroethene	0.0050		0.18	ND (0.0050)	0.020	0.00091 J	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0038 J
Trichloroethene	0.0050		0.025	ND (0.0050)	0.0028 J	0.0029 J	0.0021 J	ND (0.0050)	0.029	0.002 J
Vinyl Chloride	0.0020		ND (0.0020)	0.0034 JH	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)

Constituent	Critical PCLs (a)	Location:	MW-120	MW-121	MW-122	MW-123	MW-124	MW-125	MW-126
		Depth: (b)	25	28	28	27.5	29	32	25
		Date:	7/22/2004	10/27/2004	10/28/2004	10/28/2004	10/26/2004	10/27/2004	10/27/2004
1,1-Dichloroethane	2.4		0.0061	0.0014 J	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0093
1,1-Dichloroethane	0.0070		0.045	0.0060 JH	0.11	ND (0.0050)	0.0036 J	0.0053	0.014 JH
1,2-Dichloroethane	0.0050		ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
cis-1,2-Dichloroethene	0.070		ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0048 J
Tetrachloroethene	0.0050		ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050) J	0.0011 J	0.0027 J
Trichloroethene	0.0050		ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0095
Vinyl Chloride	0.0020		ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)

Constituent	Critical PCLs (a)	Location:	MW-127	MW-128	MW-129	MW-130	MW-131	MW-02 (C)	MW-02 (S)	MW-03 (S)
		Depth: (b)	32	40	35	25	25	23	23	23
		Date:	10/25/2004	10/26/2004	10/25/2004	10/28/2004	10/27/2004	10/25/2004	10/28/2004	10/28/2004
1,1-Dichloroethane	2.4		ND (0.0050)	ND (0.0050)	0.056	ND (0.0050)	ND (0.0050)	NA	ND (0.0050)	ND (0.0050)
1,1-Dichloroethane	0.0070		0.0093	ND (0.0050)	0.38	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,2-Dichloroethane	0.0050		ND (0.0050)	ND (0.0050)	0.0023 J	ND (0.0050)	ND (0.0050)	NA	ND (0.0050)	ND (0.0050)
cis-1,2-Dichloroethene	0.070		0.007	0.0017 J	0.0028 J	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Tetrachloroethene	0.0050		ND (0.0050)	ND (0.0050)	0.0085	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Trichloroethene	0.0050		0.044	0.0081	0.0084	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Vinyl Chloride	0.0020		ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)

NOTES:

0.062 = exceedance of TCEQ Texas Risk Reduction Program (TRRP) Tier 1 Residential Class 2 Groundwater critical PCLs.

**Bold Value** = exceedance of the Method Quantitation Limit (MQL) at a monitor well south of 1-10 outside of the plume boundary.

The reported concentrations are in mg/L.

NS = Not sampled because of the visual presence of potassium permanganate in ground water extracted from monitor well.

NA = Not Analyzed

ND (0.0050) = *Not Detected* at the Reporting Limit given in parentheses.

(a) TCEQ Texas Risk Reduction Program (TRRP) Tier 1 Residential Class 2 Groundwater PCLs, 30-acre source area, Table 3, table for TRRP Rule dated March 31, 2004.

(b) The sample depths are reported in feet below ground surface.

(c) A solution of potassium permanganate was injected on June 22, 2004.

J = Estimated data, the reported sample concentration is approximated due to exceedance of QC requirements.

UJ = *Not Detected*, sample quantitation limit is estimated.

H = Bias in sample result likely to be high.

L = Bias in sample result likely to be low.

TABLE 2

Summary of Antimony and Copper Concentrations in the Cooling Water Pond Area  
Second Half 2004 Monitoring Letter

Former Cameron Iron Works Facility  
Houston, Texas

		Location: KMW-11						
		Depth (b) 25						
Constituent	Critical PCLs (a)	6/21/1991	3/4/2002	9/17/2002	3/18/2003	10/27/2004		
Antimony	0.0060	ND(0.05)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.00500)		
Copper	1.3	ND(0.002)	NA	ND(0.005)	0.00195 J	0.00108 J		

  

		Location: KMW-13						
		Depth (b) 25						
Constituent	Critical PCLs (a)	6/21/1991	11/5/1991	1/24/1997	3/4/2002	9/16/2002	6/17/2003	10/27/2004
Antimony	0.0060	ND(0.05)	ND(0.05)	ND(0.025)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.00500)
Copper	1.3	ND(0.002)	ND(0.002)	0.03	NA	ND(0.005)	0.00166 UJ	0.000917 J

  

		Location: KMW-14					
		Depth (b) 25					
Constituent	Critical PCLs (a)	6/21/1991	1/24/1997	3/5/2002	9/16/2002	6/17/2003	10/27/2004
Antimony	0.0060	ND(0.05)	ND(0.025)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.00500)
Copper	1.3	ND(0.002)	0.02	NA	ND(0.005)	0.00122 UJ	ND(0.00500)

  

		Location: KMW-15						
		Depth (b) 25						
Constituent	Critical PCLs (a)	6/21/1991	11/5/1991	2/6/1997	3/5/2002	9/17/2002	6/17/2003	10/27/2004
Antimony	0.0060	ND(0.05)	ND(0.05)	ND(0.025)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.00500)
Copper	1.3	ND(0.002)	ND(0.002)	0.01	NA	ND(0.005)	0.00215 UJ	0.00216 J

  

		Location: KMW-16					
		Depth (b) 25					
Constituent	Critical PCLs (a)	6/21/1991	2/10/1997	3/5/2002	9/17/2002	6/17/2003	10/27/2004
Antimony	0.0060	ND(0.05)	ND(0.06)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.00500)
Copper	1.3	ND(0.002)	0.03	NA	ND(0.005)	0.00210 UJ	0.00114 J

NOTES:

The reported concentrations are in mg/L.

NA = Not Analyzed.

ND (0.0050) = *Not Detected* at the Reporting Limit given in parentheses.

(a) TCEQ Texas Risk Reduction Program (TRRP) Tier 1 Residential Class 2 Groundwater PCLs, 30-acre source area, Table 3, table for TRRP Rule dated March 31, 2004.

(b) The screen intervals are reported in feet below ground surface.

UJ = Not Detected, sample quantitation limit is estimated.

J = Estimated data, the reported sample concentration is approximated due to exceedance of QC requirements.



TABLE 3

Summary of Surface Water Data  
Second Half 2004 Monitoring Letter

Former Cameron Iron Works Facility  
Houston, Texas

Constituent	Critical PCLs (a)	80% Critical PCLs (b)	Location: Date:	SWD-12	SWD-14	SWD-15
				10/25/2004	10/25/2004	10/25/2004
1,1-Dichloroethane	5.13	4.10		ND (0.0050)	0.0013 J	0.0022 J
1,1-Dichloroethene	0.06	0.05		ND (0.0050)	0.011	0.025
1,2-Dichloroethane	0.554	0.443		ND (0.0050)	ND (0.0050)	ND (0.0050)
cis-1,2-Dichloroethene	9.36	7.49		ND (0.0050)	ND (0.0050)	ND (0.0050)
Tetrachloroethene	0.790	0.632		ND (0.0050)	ND (0.0050)	0.0095
Trichloroethene	1.110	0.888		ND (0.0050)	ND (0.0050)	0.0012 J
Vinyl Chloride	0.0336	0.0269		ND (0.0020)	ND (0.0020)	ND (0.0020)

  

Constituent	Critical PCLs (a)	80% Critical PCLs (b)	Location: Date:	SWD-17	SWD-18	SWD-20
				10/25/2004	10/25/2004	10/25/2004
1,1-Dichloroethane	5.13	4.10		ND (0.0050)	ND (0.0050)	ND (0.0050)
1,1-Dichloroethene	0.06	0.05		0.0086	0.0074	ND (0.0050)
1,2-Dichloroethane	0.554	0.443		ND (0.0050)	ND (0.0050)	ND (0.0050)
cis-1,2-Dichloroethene	9.36	7.49		ND (0.0050)	ND (0.0050)	ND (0.0050)
Tetrachloroethene	0.790	0.632		0.0026 J	0.0045 J	ND (0.0050)
Trichloroethene	1.110	0.888		0.0016 J	0.0012 J	ND (0.0050)
Vinyl Chloride	0.0336	0.0269		ND (0.0020)	ND (0.0020)	ND (0.0020)

## NOTES:

The reported concentrations are in mg/L.

ND (0.0050) = *Not Detected* at the Reporting Limit given in parentheses.

J = Estimated data, the reported sample concentration is approximated due to exceedance of QC requirements.

(a) Taken from the critical PCLs calculated in the *Human Health Ecological Risk Assessment for Surface Water and Sediment*, dated June 2003.

(b) Value used to determine if quarterly sampling or a response action is necessary

SWD = Surface Water Harris County Flood Control Ditch.

TABLE 4

Summary of Quality Assurance/Quality Control Data  
Second Half 2004 Monitoring Letter

Former Cameron Iron Works Facility  
Houston, Texas

Constituent	Critical PCLs (a)	Location: Date:	Second Half 2004 Duplicates					
			Dup-1 (b) 7/22/2004	Dup-1 (c) 10/27/2004	Dup-2 (d) 10/26/2004	Dup-3 (e) 10/27/2004	Dup-4(f) 10/27/2004	Dup-5 (g) 10/25/2004
<i>Volatile Organics</i>								
1,1-Dichloroethane	2.4		0.0059	0.073	0.0110	NA	0.0016 J	0.0017 J
1,1-Dichloroethene	0.0070		0.042	0.66	0.015	ND (0.0050)	0.0055	0.024
1,2-Dichloroethane	0.0050		ND (0.0050)	0.0031 J	ND (0.0050)	NA	ND (0.0050)	ND (0.0050)
cis-1,2-Dichloroethene	0.070		ND (0.0050)	0.0075	0.0082	ND (0.0050)	ND (0.0050)	ND (0.0050)
Tetrachloroethene	0.0050		ND (0.0050)	0.016	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0083
Trichloroethene	0.0050		ND (0.0050)	0.0095	0.0018 J	ND (0.0050)	ND (0.0050)	0.0011 J
Vinyl Chloride	0.0020		ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)
<i>Metals</i>								
Antimony	0.0060		NA	NA	NA	ND(0.00500)	NA	NA
Copper	1.3		NA	NA	NA	0.000313 J	NA	NA

Constituent	Critical PCLs (a)	Location: Date:	Second Half 2004 Field Blanks					
			FB072204 7/22/2004	FB102504 10/25/2004	FB102604 10/26/2004	FB102704 10/27/2004	FB102804B 10/28/2004	FB102804 10/28/2004
<i>Volatile Organics</i>								
1,1-Dichloroethane	2.4		ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,1-Dichloroethene	0.0070		ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,2-Dichloroethane	0.0050		ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
cis-1,2-Dichloroethene	0.070		ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Tetrachloroethene	0.0050		ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Trichloroethene	0.0050		ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Vinyl Chloride	0.0020		ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)	ND (0.0020)

## NOTES:

0.042 = exceedance of TCEQ Texas Risk Reduction Program (TRRP) Tier 1 Residential Class 2 Groundwater critical PCLs.

The reported concentrations are in mg/L.

NA = Not Analyzed

ND (0.0050) = *Not Detected* at the Reporting Limit given in parentheses.

(a) TCEQ Texas Risk Reduction Program (TRRP) Tier 1 Residential Class 2 Groundwater PCLs, 30-acre source area, Table 3, table for TRRP Rule dated March 31, 2004.

(b) Dup-1 (7/22/2004) is a duplicate sample of MW-120

(c) Dup-1 (10/27/2004) is a duplicate sample of MW-16R

(d) Dup-2 is a duplicate sample for MW-70

(e) Dup-3 is a duplicate sample of KMW-14

(f) Dup-4 is a duplicate of sample MW-120.

(g) Dup-5 is a duplicate of sample SWD-15.

J = Estimated data, the reported sample concentration is approximated due to exceedance of QC requirements.

H = Bias in sample result likely to be high.