APPENDIX G

Section 94

Outfall 014, January 22, 2008

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project: Routine Outfall 014

Sampled: 01/22/08
Received: 01/22/08
Revised: 04/25/08 12:13

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

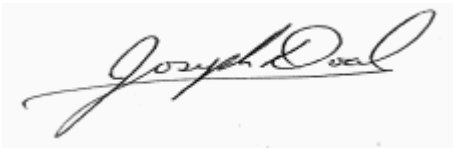
SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: This is a revised report to include only NDMA and Napthalene for 625 data.

Also revised to remove carbon range not required for EFH.

LABORATORY ID	CLIENT ID	MATRIX
IRA2026-01	OUTFALL 014	Water
IRA2026-02	TRIP BLANK	Water

Reviewed By:



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Sampled: 01/22/08
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EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2026-01 (OUTFALL 014 - Water)									
Reporting Units: mg/l									
EFH (C13 - C22)	EPA 8015B	8A25106	0.095	0.47	ND	0.948	01/25/08	01/28/08	
Surrogate: n-Octacosane (40-125%)					*55 %*				

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VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2026-01 (OUTFALL 014 - Water) - cont.									
Reporting Units: ug/l									
GRO (C4 - C12)	EPA 8015 Mod.	8A26005	25	100	ND	1	01/26/08	01/26/08	
Surrogate: 4-BFB (FID) (65-140%)					*94 %*				

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VOLATILE ORGANICS by GCMS SIM

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2026-01 (OUTFALL 014 - Water) - cont.									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B-SIM	8A25014	1.0	2.0	ND	1	01/25/08	01/25/08	
Surrogate: Dibromofluoromethane (80-120%)					*98 %*				

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PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2026-01 (OUTFALL 014 - Water) - cont.									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624	8A25008	0.40	2.0	ND	1	01/25/08	01/25/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8A25008	0.32	5.0	ND	1	01/25/08	01/25/08	
1,2,3-Trichloropropane	EPA 624	8A25008	0.40	10	ND	1	01/25/08	01/25/08	
Di-isopropyl Ether (DIPE)	EPA 624	8A25008	0.25	5.0	ND	1	01/25/08	01/25/08	
tert-Butanol (TBA)	EPA 624	8A25008	4.9	25	ND	1	01/25/08	01/25/08	
Surrogate: Dibromofluoromethane (80-120%)					*107 %*				
Surrogate: Toluene-d8 (80-120%)					*107 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*96 %*				
Sample ID: IRA2026-02 (TRIP BLANK - Water)									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624	8A25008	0.40	2.0	ND	1	01/25/08	01/25/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8A25008	0.32	5.0	ND	1	01/25/08	01/25/08	
1,2,3-Trichloropropane	EPA 624	8A25008	0.40	10	ND	1	01/25/08	01/25/08	
Di-isopropyl Ether (DIPE)	EPA 624	8A25008	0.25	5.0	ND	1	01/25/08	01/25/08	
tert-Butanol (TBA)	EPA 624	8A25008	4.9	25	ND	1	01/25/08	01/25/08	
Surrogate: Dibromofluoromethane (80-120%)					*103 %*				
Surrogate: Toluene-d8 (80-120%)					*107 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*96 %*				

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ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2026-01 (OUTFALL 014 - Water)									
Reporting Units: ug/l									
Naphthalene	EPA 625	8A23097	2.9	9.6	ND	0.962	01/23/08	01/25/08	
N-Nitrosodimethylamine	EPA 625	8A23097	2.4	19	ND	0.962	01/23/08	01/25/08	
Surrogate: 2-Fluorophenol (30-120%)					*69 %*				
Surrogate: Phenol-d6 (35-120%)					*80 %*				
Surrogate: 2,4,6-Tribromophenol (40-120%)					*72 %*				
Surrogate: Nitrobenzene-d5 (45-120%)					*72 %*				
Surrogate: 2-Fluorobiphenyl (50-120%)					*79 %*				
Surrogate: Terphenyl-d14 (50-125%)					*100 %*				

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METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2026-01 (OUTFALL 014 - Water) - cont.									
Reporting Units: mg/l									
Boron	EPA 200.7	8A23081	0.020	0.050	ND	1	01/23/08	01/23/08	
Sample ID: IRA2026-01 (OUTFALL 014 - Water)									
Reporting Units: ug/l									
Cadmium	EPA 200.8	8A23079	0.11	1.0	**0.74**	1	01/23/08	01/24/08	J
Copper	EPA 200.8	8A23079	0.75	2.0	**2.9**	1	01/23/08	01/24/08	
Lead	EPA 200.8	8A23079	0.30	1.0	**2.0**	1	01/23/08	01/24/08	
Selenium	EPA 200.8	8A23079	0.30	2.0	**0.35**	1	01/23/08	01/24/08	J
Zinc	EPA 200.8	8A23079	2.5	20	**23**	1	01/23/08	01/24/08	

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Sampled: 01/22/08
Received: 01/22/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2026-01 (OUTFALL 014 - Water) - cont.									
Reporting Units: mg/l									
Boron	EPA 200.7-Diss	8A22137	0.020	0.050	ND	1	01/22/08	01/23/08	
Sample ID: IRA2026-01 (OUTFALL 014 - Water)									
Reporting Units: ug/l									
Cadmium	EPA 200.8-Diss	8A22140	0.11	1.0	**0.15**	1	01/22/08	01/23/08	J
Copper	EPA 200.8-Diss	8A22140	0.75	2.0	ND	1	01/22/08	01/23/08	
Lead	EPA 200.8-Diss	8A22140	0.30	1.0	ND	1	01/22/08	01/23/08	
Selenium	EPA 200.8-Diss	8A22140	0.30	2.0	ND	1	01/22/08	01/23/08	
Zinc	EPA 200.8-Diss	8A22140	2.5	20	**3.3**	1	01/22/08	01/23/08	J

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2026-01 (OUTFALL 014 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8A28083	1.3	4.8	ND	1	01/28/08	01/28/08	
Ammonia-N (Distilled)	EPA 350.2	8A23117	0.30	0.50	ND	1	01/23/08	01/23/08	
Biochemical Oxygen Demand	EPA 405.1	8A23070	0.59	2.0	**4.8**	1	01/23/08	01/28/08	
Chloride	EPA 300.0	8A22048	5.0	10	**50**	20	01/22/08	01/23/08	
Fluoride	EPA 340.2	8A24126	0.014	0.10	**0.49**	1	01/24/08	01/24/08	
Nitrate-N	EPA 300.0	8A22048	0.060	0.11	ND	1	01/22/08	01/23/08	
Nitrite-N	EPA 300.0	8A22048	0.090	0.15	ND	1	01/22/08	01/23/08	
Nitrate/Nitrite-N	EPA 300.0	8A22048	0.15	0.26	ND	1	01/22/08	01/23/08	
Sulfate	EPA 300.0	8A22048	0.20	0.50	**7.1**	1	01/22/08	01/23/08	
Total Dissolved Solids	SM2540C	8A23102	10	10	**230**	1	01/23/08	01/23/08	
Total Suspended Solids	EPA 160.2	8A23124	10	10	**18**	1	01/23/08	01/23/08	
Sample ID: IRA2026-01 (OUTFALL 014 - Water)									
Reporting Units: ml/l/hr									
Total Settleable Solids	EPA 160.5	8A23073	0.10	0.10	ND	1	01/23/08	01/23/08	
Sample ID: IRA2026-01 (OUTFALL 014 - Water)									
Reporting Units: NTU									
Turbidity	EPA 180.1	8A23074	0.040	1.0	**26**	1	01/23/08	01/23/08	
Sample ID: IRA2026-01 (OUTFALL 014 - Water)									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	8A23064	1.5	4.0	ND	1	01/23/08	01/23/08	

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Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2026-01 (OUTFALL 014 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8A0913	0.050	0.20	ND	1	01/25/08	01/28/08	
Mercury, Total	EPA 245.1	W8A0913	0.050	0.20	ND	1	01/25/08	01/28/08	

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SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: OUTFALL 014 (IRA2026-01) - Water					
EPA 160.5	2	01/22/2008 10:30	01/22/2008 17:05	01/23/2008 16:45	01/23/2008 16:45
EPA 180.1	2	01/22/2008 10:30	01/22/2008 17:05	01/23/2008 15:45	01/23/2008 15:45
EPA 300.0	2	01/22/2008 10:30	01/22/2008 17:05	01/22/2008 18:00	01/23/2008 00:38
EPA 405.1	2	01/22/2008 10:30	01/22/2008 17:05	01/23/2008 17:43	01/28/2008 09:00

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METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A25106 Extracted: 01/25/08											
Blank Analyzed: 01/28/2008 (8A25106-BLK1)											
EFH (C13 - C22)	ND	0.50	0.10	mg/l							
EFH (C13 - C40)	ND	0.50	0.10	mg/l							
Surrogate: n-Octacosane	*0.183*			*mg/l*	*0.200*		*91*	*40-125*			
LCS Analyzed: 01/28/2008 (8A25106-BS1)											**MNR1**
EFH (C13 - C40)	0.687	0.50	0.10	mg/l	0.750		92	40-115			
Surrogate: n-Octacosane	*0.207*			*mg/l*	*0.200*		*104*	*40-125*			
LCS Dup Analyzed: 01/28/2008 (8A25106-BSD1)											
EFH (C13 - C40)	0.660	0.50	0.10	mg/l	0.750		88	40-115	4	25	
Surrogate: n-Octacosane	*0.196*			*mg/l*	*0.200*		*98*	*40-125*			

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METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A26005 Extracted: 01/26/08											
Blank Analyzed: 01/26/2008 (8A26005-BLK1)											
GRO (C4 - C12)	ND	100	25	ug/l							
Surrogate: 4-BFB (FID)	*10.9*			*ug/l*	*10.0*		*109*	*65-140*			
LCS Analyzed: 01/26/2008 (8A26005-BS1)											
GRO (C4 - C12)	843	100	25	ug/l	800		105	80-120			
Surrogate: 4-BFB (FID)	*9.41*			*ug/l*	*10.0*		*94*	*65-140*			
Matrix Spike Analyzed: 01/26/2008 (8A26005-MS1)						**Source: IRA2026-01**					
GRO (C4 - C12)	221	100	25	ug/l	220	ND	100	65-140			
Surrogate: 4-BFB (FID)	*10.3*			*ug/l*	*10.0*		*103*	*65-140*			
Matrix Spike Dup Analyzed: 01/26/2008 (8A26005-MSD1)						**Source: IRA2026-01**					
GRO (C4 - C12)	218	100	25	ug/l	220	ND	99	65-140	1	20	
Surrogate: 4-BFB (FID)	*10.6*			*ug/l*	*10.0*		*106*	*65-140*			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS by GCMS SIM

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A25014 Extracted: 01/25/08											
Blank Analyzed: 01/25/2008 (8A25014-BLK1)											
1,4-Dioxane	ND	2.0	1.0	ug/l							
Surrogate: Dibromofluoromethane	*0.990*			*ug/l*	*1.00*		*99*	*80-120*			
LCS Analyzed: 01/25/2008 (8A25014-BS1)											
1,4-Dioxane	8.94	2.0	1.0	ug/l	10.0		89	70-125			
Surrogate: Dibromofluoromethane	*1.00*			*ug/l*	*1.00*		*100*	*80-120*			
Matrix Spike Analyzed: 01/25/2008 (8A25014-MS1)						**Source: IRA2088-01**					
1,4-Dioxane	10.9	2.0	1.0	ug/l	10.0	2.03	89	70-130			
Surrogate: Dibromofluoromethane	*1.02*			*ug/l*	*1.00*		*102*	*80-120*			
Matrix Spike Dup Analyzed: 01/25/2008 (8A25014-MSD1)						**Source: IRA2088-01**					
1,4-Dioxane	10.8	2.0	1.0	ug/l	10.0	2.03	88	70-130	1	30	
Surrogate: Dibromofluoromethane	*1.00*			*ug/l*	*1.00*		*100*	*80-120*			

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A25008 Extracted: 01/25/08											
Blank Analyzed: 01/25/2008 (8A25008-BLK1)											
1,2-Dibromoethane (EDB)	ND	2.0	0.40	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	0.32	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	0.25	ug/l							
tert-Butanol (TBA)	ND	25	4.9	ug/l							
Surrogate: Dibromofluoromethane	*24.2*			*ug/l*	*25.0*		*97*	*80-120*			
Surrogate: Toluene-d8	*26.3*			*ug/l*	*25.0*		*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.6*			*ug/l*	*25.0*		*94*	*80-120*			
LCS Analyzed: 01/25/2008 (8A25008-BS1)											
1,2-Dibromoethane (EDB)	26.2	2.0	0.40	ug/l	25.0		105	75-125			
Methyl-tert-butyl Ether (MTBE)	27.0	5.0	0.32	ug/l	25.0		108	60-135			
1,2,3-Trichloropropane	28.4	10	0.40	ug/l	25.0		114	60-130			
Di-isopropyl Ether (DIPE)	29.2	5.0	0.25	ug/l	25.0		117	60-135			
tert-Butanol (TBA)	124	25	4.9	ug/l	125		99	70-135			
Surrogate: Dibromofluoromethane	*25.7*			*ug/l*	*25.0*		*103*	*80-120*			
Surrogate: Toluene-d8	*26.6*			*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.3*			*ug/l*	*25.0*		*101*	*80-120*			
Matrix Spike Analyzed: 01/25/2008 (8A25008-MS1)						**Source: IRA2194-05**					
1,2-Dibromoethane (EDB)	26.3	2.0	0.40	ug/l	25.0	ND	105	70-130			
Methyl-tert-butyl Ether (MTBE)	26.5	5.0	0.32	ug/l	25.0	ND	106	55-145			
1,2,3-Trichloropropane	28.1	10	0.40	ug/l	25.0	ND	112	55-135			
Di-isopropyl Ether (DIPE)	29.3	5.0	0.25	ug/l	25.0	ND	117	60-140			
tert-Butanol (TBA)	127	25	4.9	ug/l	125	ND	102	65-140			
Surrogate: Dibromofluoromethane	*24.5*			*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: Toluene-d8	*26.5*			*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.1*			*ug/l*	*25.0*		*100*	*80-120*			

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A25008 Extracted: 01/25/08											
Matrix Spike Dup Analyzed: 01/25/2008 (8A25008-MSD1)						**Source: IRA2194-05**					
1,2-Dibromoethane (EDB)	24.8	2.0	0.40	ug/l	25.0	ND	99	70-130	6	25	
Methyl-tert-butyl Ether (MTBE)	25.2	5.0	0.32	ug/l	25.0	ND	101	55-145	5	25	
1,2,3-Trichloropropane	26.4	10	0.40	ug/l	25.0	ND	106	55-135	6	30	
Di-isopropyl Ether (DIPE)	27.4	5.0	0.25	ug/l	25.0	ND	110	60-140	7	25	
tert-Butanol (TBA)	115	25	4.9	ug/l	125	ND	92	65-140	10	25	
Surrogate: Dibromofluoromethane	*24.5*			*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: Toluene-d8	*26.6*			*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.1*			*ug/l*	*25.0*		*100*	*80-120*			

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METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A23097 Extracted: 01/23/08											
Blank Analyzed: 01/25/2008 (8A23097-BLK1)											
Naphthalene	ND	10	3.0	ug/l							
N-Nitrosodimethylamine	ND	20	2.5	ug/l							
Surrogate: 2-Fluorophenol	*145*			*ug/l*	*200*		*72*	*30-120*			
Surrogate: Phenol-d6	*170*			*ug/l*	*200*		*85*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*163*			*ug/l*	*200*		*81*	*40-120*			
Surrogate: Nitrobenzene-d5	*79.3*			*ug/l*	*100*		*79*	*45-120*			
Surrogate: 2-Fluorobiphenyl	*86.3*			*ug/l*	*100*		*86*	*50-120*			
Surrogate: Terphenyl-d14	*102*			*ug/l*	*100*		*102*	*50-125*			
LCS Analyzed: 01/25/2008 (8A23097-BS1)											**MNR1**
Naphthalene	76.1	10	3.0	ug/l	100		76	55-120			
N-Nitrosodimethylamine	74.1	20	2.5	ug/l	100		74	45-120			
Surrogate: 2-Fluorophenol	*133*			*ug/l*	*200*		*66*	*30-120*			
Surrogate: Phenol-d6	*148*			*ug/l*	*200*		*74*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*167*			*ug/l*	*200*		*83*	*40-120*			
Surrogate: Nitrobenzene-d5	*74.9*			*ug/l*	*100*		*75*	*45-120*			
Surrogate: 2-Fluorobiphenyl	*78.7*			*ug/l*	*100*		*79*	*50-120*			
Surrogate: Terphenyl-d14	*102*			*ug/l*	*100*		*102*	*50-125*			
LCS Dup Analyzed: 01/25/2008 (8A23097-BSD1)											
Naphthalene	75.9	10	3.0	ug/l	100		76	55-120	0	20	
N-Nitrosodimethylamine	71.6	20	2.5	ug/l	100		72	45-120	3	20	
Surrogate: 2-Fluorophenol	*132*			*ug/l*	*200*		*66*	*30-120*			
Surrogate: Phenol-d6	*146*			*ug/l*	*200*		*73*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*155*			*ug/l*	*200*		*77*	*40-120*			
Surrogate: Nitrobenzene-d5	*72.1*			*ug/l*	*100*		*72*	*45-120*			
Surrogate: 2-Fluorobiphenyl	*77.8*			*ug/l*	*100*		*78*	*50-120*			
Surrogate: Terphenyl-d14	*95.3*			*ug/l*	*100*		*95*	*50-125*			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A23079 Extracted: 01/23/08											
Blank Analyzed: 01/24/2008 (8A23079-BLK1)											
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Zinc	ND	20	2.5	ug/l							
LCS Analyzed: 01/24/2008 (8A23079-BS1)											
Cadmium	89.8	1.0	0.11	ug/l	80.0		112	85-115			
Copper	85.6	2.0	0.75	ug/l	80.0		107	85-115			
Lead	85.9	1.0	0.30	ug/l	80.0		107	85-115			
Selenium	81.6	2.0	0.30	ug/l	80.0		102	85-115			
Zinc	86.9	20	2.5	ug/l	80.0		109	85-115			
Matrix Spike Analyzed: 01/24/2008 (8A23079-MS1)						**Source: IRA2025-01**					
Cadmium	84.0	2.0	0.22	ug/l	80.0	ND	105	70-130			
Copper	82.4	4.0	1.5	ug/l	80.0	3.95	98	70-130			
Lead	83.9	2.0	0.60	ug/l	80.0	ND	105	70-130			
Selenium	86.8	4.0	0.60	ug/l	80.0	0.667	108	70-130			
Zinc	78.3	40	5.0	ug/l	80.0	ND	98	70-130			
Matrix Spike Dup Analyzed: 01/24/2008 (8A23079-MSD1)						**Source: IRA2025-01**					
Cadmium	85.5	2.0	0.22	ug/l	80.0	ND	107	70-130	2	20	
Copper	83.1	4.0	1.5	ug/l	80.0	3.95	99	70-130	1	20	
Lead	85.7	2.0	0.60	ug/l	80.0	ND	107	70-130	2	20	
Selenium	89.3	4.0	0.60	ug/l	80.0	0.667	111	70-130	3	20	
Zinc	79.4	40	5.0	ug/l	80.0	ND	99	70-130	1	20	

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METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A23081 Extracted: 01/23/08											
Blank Analyzed: 01/23/2008 (8A23081-BLK1)											
Boron	ND	0.050	0.020	mg/l							
LCS Analyzed: 01/23/2008 (8A23081-BS1)											
Boron	0.498	0.050	0.020	mg/l	0.500		100	85-115			
Matrix Spike Analyzed: 01/23/2008 (8A23081-MS1)						**Source: IRA2026-01**					
Boron	0.498	0.050	0.020	mg/l	0.500	ND	100	70-130			
Matrix Spike Dup Analyzed: 01/23/2008 (8A23081-MSD1)						**Source: IRA2026-01**					
Boron	0.491	0.050	0.020	mg/l	0.500	ND	98	70-130	1	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A22137 Extracted: 01/22/08											
Blank Analyzed: 01/23/2008 (8A22137-BLK1)											
Boron	ND	0.050	0.020	mg/l							
LCS Analyzed: 01/23/2008 (8A22137-BS1)											
Boron	0.981	0.050	0.020	mg/l	1.00		98	85-115			
Matrix Spike Analyzed: 01/23/2008 (8A22137-MS1)						**Source: IRA2026-01**					
Boron	0.943	0.050	0.020	mg/l	1.00	ND	94	70-130			
Matrix Spike Dup Analyzed: 01/23/2008 (8A22137-MSD1)						**Source: IRA2026-01**					
Boron	0.955	0.050	0.020	mg/l	1.00	ND	95	70-130	1	20	
Batch: 8A22140 Extracted: 01/22/08											
Blank Analyzed: 01/23/2008 (8A22140-BLK1)											
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Zinc	ND	20	2.5	ug/l							
LCS Analyzed: 01/23/2008 (8A22140-BS1)											
Cadmium	80.6	1.0	0.11	ug/l	80.0		101	85-115			
Copper	81.1	2.0	0.75	ug/l	80.0		101	85-115			
Lead	81.8	1.0	0.30	ug/l	80.0		102	85-115			
Selenium	82.6	2.0	0.30	ug/l	80.0		103	85-115			
Zinc	83.5	20	2.5	ug/l	80.0		104	85-115			

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A22140 Extracted: 01/22/08											
Matrix Spike Analyzed: 01/23/2008 (8A22140-MS1)						**Source: IRA2025-01**					
Cadmium	79.4	1.0	0.11	ug/l	80.0	ND	99	70-130			
Copper	80.4	2.0	0.75	ug/l	80.0	3.44	96	70-130			
Lead	79.1	1.0	0.30	ug/l	80.0	ND	99	70-130			
Selenium	95.2	2.0	0.30	ug/l	80.0	0.532	118	70-130			
Zinc	81.0	20	2.5	ug/l	80.0	ND	101	70-130			
Matrix Spike Dup Analyzed: 01/23/2008 (8A22140-MSD1)						**Source: IRA2025-01**					
Cadmium	80.0	1.0	0.11	ug/l	80.0	ND	100	70-130	1	20	
Copper	82.0	2.0	0.75	ug/l	80.0	3.44	98	70-130	2	20	
Lead	78.6	1.0	0.30	ug/l	80.0	ND	98	70-130	1	20	
Selenium	96.4	2.0	0.30	ug/l	80.0	0.532	120	70-130	1	20	
Zinc	82.5	20	2.5	ug/l	80.0	ND	103	70-130	2	20	

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A22048 Extracted: 01/22/08											
Blank Analyzed: 01/22/2008 (8A22048-BLK1)											
Chloride	ND	0.50	0.25	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	0.15	0.090	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 01/22/2008 (8A22048-BS1)											
Chloride	5.35	0.50	0.25	mg/l	5.00		107	90-110			*M-3*
Nitrate-N	1.17	0.11	0.060	mg/l	1.13		104	90-110			
Nitrite-N	1.49	0.15	0.090	mg/l	1.52		98	90-110			
Sulfate	10.2	0.50	0.20	mg/l	10.0		102	90-110			
Matrix Spike Analyzed: 01/22/2008 (8A22048-MS1)						**Source: IRA1989-01**					
Nitrate-N	1.42	0.55	0.30	mg/l	1.13	ND	125	80-120			*M1*
Nitrite-N	2.42	0.75	0.45	mg/l	1.52	ND	160	80-120			*M1*
Sulfate	48.7	2.5	1.0	mg/l	10.0	39.0	97	80-120			
Matrix Spike Analyzed: 01/22/2008 (8A22048-MS2)						**Source: IRA2022-01**					
Chloride	25.1	1.0	0.50	mg/l	5.00	20.7	88	80-120			
Nitrate-N	3.93	0.22	0.12	mg/l	1.13	2.78	102	80-120			
Nitrite-N	1.57	0.30	0.18	mg/l	1.52	ND	103	80-120			
Sulfate	23.4	1.0	0.40	mg/l	10.0	13.7	97	80-120			
Matrix Spike Dup Analyzed: 01/22/2008 (8A22048-MSD1)						**Source: IRA1989-01**					
Nitrate-N	1.16	0.55	0.30	mg/l	1.13	ND	103	80-120	20	20	
Nitrite-N	2.25	0.75	0.45	mg/l	1.52	ND	148	80-120	7	20	*M1*
Sulfate	48.2	2.5	1.0	mg/l	10.0	39.0	92	80-120	1	20	

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A23064 Extracted: 01/23/08											
Blank Analyzed: 01/23/2008 (8A23064-BLK1)											
Perchlorate	ND	4.0	1.5	ug/l							
LCS Analyzed: 01/23/2008 (8A23064-BS1)											
Perchlorate	50.7	4.0	1.5	ug/l	50.0		101	85-115			
Matrix Spike Analyzed: 01/23/2008 (8A23064-MS1)						**Source: IRA2059-01**					
Perchlorate	54.1	4.0	1.5	ug/l	50.0	4.87	98	80-120			
Matrix Spike Dup Analyzed: 01/23/2008 (8A23064-MSD1)						**Source: IRA2059-01**					
Perchlorate	54.1	4.0	1.5	ug/l	50.0	4.87	98	80-120	0	20	
Batch: 8A23070 Extracted: 01/23/08											
Blank Analyzed: 01/28/2008 (8A23070-BLK1)											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 01/28/2008 (8A23070-BS1)											
Biochemical Oxygen Demand	175	100	30	mg/l	198		88	85-115			
LCS Dup Analyzed: 01/28/2008 (8A23070-BSD1)											
Biochemical Oxygen Demand	174	100	30	mg/l	198		88	85-115	1	20	
Batch: 8A23074 Extracted: 01/23/08											
Blank Analyzed: 01/23/2008 (8A23074-BLK1)											
Turbidity	0.100	1.0	0.040	NTU							*J*

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A23074 Extracted: 01/23/08											
Duplicate Analyzed: 01/23/2008 (8A23074-DUP1)						**Source: IRA2026-01**					
Turbidity	26.6	1.0	0.040	NTU		26.4			1	20	
Batch: 8A23102 Extracted: 01/23/08											
Blank Analyzed: 01/23/2008 (8A23102-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 01/23/2008 (8A23102-BS1)											
Total Dissolved Solids	1010	10	10	mg/l	1000		101	90-110			
Duplicate Analyzed: 01/23/2008 (8A23102-DUP1)						**Source: IRA1941-04**					
Total Dissolved Solids	80.0	10	10	mg/l		78.0			3	10	
Batch: 8A23117 Extracted: 01/23/08											
Blank Analyzed: 01/23/2008 (8A23117-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 01/23/2008 (8A23117-BS1)											
Ammonia-N (Distilled)	10.6	0.50	0.30	mg/l	10.0		106	80-115			
Matrix Spike Analyzed: 01/23/2008 (8A23117-MS1)						**Source: IRA2026-01**					
Ammonia-N (Distilled)	10.6	0.50	0.30	mg/l	10.0	ND	106	70-120			
Matrix Spike Dup Analyzed: 01/23/2008 (8A23117-MSD1)						**Source: IRA2026-01**					
Ammonia-N (Distilled)	10.4	0.50	0.30	mg/l	10.0	ND	104	70-120	3	15	

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A23124 Extracted: 01/23/08											
Blank Analyzed: 01/23/2008 (8A23124-BLK1)											
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 01/23/2008 (8A23124-BS1)											
Total Suspended Solids	998	10	10	mg/l	1000		100	85-115			
Duplicate Analyzed: 01/23/2008 (8A23124-DUP1)						**Source: IRA2024-01**					
Total Suspended Solids	11.0	10	10	mg/l		ND				10	
Batch: 8A24126 Extracted: 01/24/08											
Blank Analyzed: 01/24/2008 (8A24126-BLK1)											
Fluoride	0.0276	0.10	0.014	mg/l							*J*
LCS Analyzed: 01/24/2008 (8A24126-BS1)											
Fluoride	1.02	0.10	0.014	mg/l	1.00		102	90-110			
Matrix Spike Analyzed: 01/24/2008 (8A24126-MS1)						**Source: IRA2026-01**					
Fluoride	2.54	0.10	0.014	mg/l	2.00	0.492	103	80-120			
Matrix Spike Dup Analyzed: 01/24/2008 (8A24126-MSD1)						**Source: IRA2026-01**					
Fluoride	2.52	0.10	0.014	mg/l	2.00	0.492	101	80-120	1	20	
Batch: 8A28083 Extracted: 01/28/08											
Blank Analyzed: 01/28/2008 (8A28083-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							

TestAmerica Irvine

Joseph Doak
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 014
Report Number: IRA2026

Sampled: 01/22/08
Received: 01/22/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A28083 Extracted: 01/28/08											
LCS Analyzed: 01/28/2008 (8A28083-BS1)											**MNR1**
Hexane Extractable Material (Oil & Grease)	20.2	5.0	1.4	mg/l	20.2		100	78-114			
LCS Dup Analyzed: 01/28/2008 (8A28083-BSD1)											
Hexane Extractable Material (Oil & Grease)	21.2	5.0	1.4	mg/l	20.2		105	78-114	5	11	

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Project Manager

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 014
Report Number: IRA2026

Sampled: 01/22/08
Received: 01/22/08

METHOD BLANK/QC DATA

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: W8A0913 Extracted: 01/25/08											
Blank Analyzed: 01/28/2008 (W8A0913-BLK1)											
Mercury, Dissolved	ND	0.20	0.050	ug/l							
Mercury, Total	ND	0.050	0.025	ug/l							
LCS Analyzed: 01/28/2008 (W8A0913-BS1)											
Mercury, Dissolved	0.967	0.20	0.050	ug/l	1.00		97	85-115			
Mercury, Total	0.967	0.050	0.025	ug/l	1.00		97	85-115			
Matrix Spike Analyzed: 01/28/2008 (W8A0913-MS1)						**Source: 8012328-01**					
Mercury, Dissolved	1.01	0.20	0.050	ug/l	1.00	ND	101	70-130			
Mercury, Total	1.01	0.050	0.025	ug/l	1.00	ND	101	70-130			
Matrix Spike Analyzed: 01/28/2008 (W8A0913-MS2)						**Source: 8012328-02**					
Mercury, Dissolved	0.978	0.20	0.050	ug/l	1.00	ND	98	70-130			
Mercury, Total	0.978	0.050	0.025	ug/l	1.00	ND	98	70-130			
Matrix Spike Dup Analyzed: 01/28/2008 (W8A0913-MSD1)						**Source: 8012328-01**					
Mercury, Dissolved	0.992	0.20	0.050	ug/l	1.00	ND	99	70-130	2	20	
Mercury, Total	0.992	0.050	0.025	ug/l	1.00	ND	99	70-130	2	20	
Matrix Spike Dup Analyzed: 01/28/2008 (W8A0913-MSD2)						**Source: 8012328-02**					
Mercury, Dissolved	1.01	0.20	0.050	ug/l	1.00	ND	101	70-130	3	20	
Mercury, Total	1.01	0.050	0.025	ug/l	1.00	ND	101	70-130	3	20	

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
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Attention: Bronwyn Kelly

Project ID: Routine Outfall 014
Report Number: IRA2026

Sampled: 01/22/08
Received: 01/22/08

DATA QUALIFIERS AND DEFINITIONS

J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For GRO (C4-C12):

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

TestAmerica Irvine

Joseph Doak
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 014

Report Number: IRA2026

Sampled: 01/22/08
Received: 01/22/08

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 1664A	Water		
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 340.2	Water	X	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B-SIM	Water		
SM2540C	Water	X	

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Truesdail Laboratories-SUB *California Cert #1237*
14201 Franklin Avenue - Tustin, CA 92680
Analysis Performed: Hydrazine
Samples: IRA2026-01

Vista Analytical *NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413*
1104 Windfield Way - El Dorado Hills, CA 95762
Analysis Performed: 1613-Dioxin-HR-Alta
Samples: IRA2026-01

Weck Laboratories, Inc. *California Cert #1132*
14859 E. Clark Avenue - City of Industry, CA 91745
Method Performed: EPA 245.1
Samples: IRA2026-01

TestAmerica Irvine

Joseph Doak
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 014
Report Number: IRA2026

Sampled: 01/22/08
Received: 01/22/08

TestAmerica Irvine

Joseph Doak
Project Manager

IRA20260

Test America Version 12/20/07 — CHAIN OF CUSTODY FORM

IRA Acct

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Routine Outfall 014** APTF Test Stand
Project Manager: Bronwyn Kelly Sampler: MARISCAL, J. Barroso, R.	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Oil & Grease (1664-HEM)	8015 - gas	8015 - diesel/jet fuel	TRPH =Total Rec. Petroleum Hydrocarbons (8015)	1,4-Dioxane (8260B)	BOD_5 (20 degrees C)	625 (Naphthalene +NDMA analysis)	Ammonia-N (350.2)	Cl, SO_4, F, NO_3+NO_2-N, Perchlorate	Nitrate-N, Nitrite-N
Outfall 014	W	1L Amber	1	1-22-08 10:30	HCl	1A	X									
Outfall 014 Dup	W	1L Amber	1		HCl	1B	X									
Outfall 014	W	VOAs	1		HCl	2A		X								
Outfall 014 Dup	W	VOAs	2		HCl	2B, 2C		X								
Outfall 014	W	1L Amber	1		None	3A			X							
Outfall 014 Dup	W	1L Amber	1		None	3B			X							
Outfall 014	W	1L Amber	1		HCl	4A				X						
Outfall 014 Dup	W	1L Amber	1		HCl	4B				X						
Outfall 014	W	VOAs	1		HCl	5A					X					
Outfall 014 Dup	W	VOAs	2		HCl	5B, 5C					X					
Outfall 014	W	1L Poly	1		None	6						X				
Outfall 014	W	1L Amber	1		None	7A							X			
Outfall 014 Dup	W	1L Amber	1		None	7B							X			
Outfall 014	W	500 ml Poly	1		H_2SO_4	8								X		
Outfall 014	W	500 ml Poly	2		None	9A, 9B									X	
Outfall 014	W	500 ml Poly	1	1-22-08 10:30	None	10										X

Field readings:
Temp = ~~7.6~~ KS 47.7°
pH = 7.6
Time of readings = 10:30

Comments

Relinquished By	Date/Time:	Received By	Date/Time:
	1-22-08 1400	TAT	1/22/08 1400
Relinquished By	Date/Time:	Received By	Date/Time:
TAT	1/22/08 1705		
Relinquished By	Date/Time:	Received By	Date/Time:
			1/22/08 17:05

Turn around Time: (check)
24 Hours _____ 5 Days _____
48 Hours _____ 10 Days _____
72 Hours _____ Normal X

Sample Integrity: (check)
Intact X On Ice: 4.2/2.2

NPDES - 3619

Test America Version 12/20/07 — CHAIN OF CUSTODY FORM

Client Name/Address	Project
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Routine Outfall 014** APTF Test Stand
Project Manager: Bronwyn Kelly Sampler: MARISCAL, L. Barroso R	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Turbidity, TDS, TSS	Settleable Solids	624 (EDB, 1,2,3-TCP, MTBE, DIPE, TBA)	Total Recoverable Metals, Cd, Se, Zn, B, Cu, Pb, Hg	Total Dissolved Metals, Cd, Se, Zn, B, Cu, Pb, Hg	TCDD (and all congeners)	Monomethyl hydrazine	Comments
Outfall 014	W	500 ml Poly	2	1-22-08 10:30	None	11A, 11B	X							
Outfall 014	W	1L Poly	1		None	12		X						
Outfall 014	W	VOAs	1		HCl	13A			X					
Outfall 014 Dup	W	VOAs	2		HCl	13B, 13C			X					
Outfall 014	W	1L Poly	2		HNO_3	14A, 14B				X				
Outfall 014	W	1L Poly	1		None	15					X			Filter w/in 24hrs of receipt at lab
Outfall 014	W	1L Amber	2		None	16A, 16B						X		
Outfall 014	W	1L Amber	2	1-22-08 10:30	None	17A, 17B							X	
Trip Blanks	W	VOAs	3		HCl	18A, 18B, 18C			X					

ANALYSIS REQUIRED

Relinquished By	Date/Time:	Received By	Date/Time:
Rob Barroso	1-22-08 1400	TAI	1/22/08 1400
TAI	1/22/08 1705		
		1/22/08	17:05

Turn around Time: (check)
24 Hours _____ 5 Days _____
48 Hours _____ 10 Days _____
72 Hours _____ Normal X

Sample Integrity: (check)
Intact X On Ice: 4.2/2.2

A.P. 1400 1/22/08

NPDES - 3620

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NPDES - 3621

Client: TestAmerica Analytical-Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Attention: Joseph Doak
Sample: Water / 1 Sample
Project Name: IRA2026-01
P.O. Number: IRA0404
Method Number: 8315 (Modified)
Investigation: Hydrazines

REPORT

Laboratory No: 972906
Report Date: February 8, 2008
Sampling Date: January 22, 2008
Receiving Date: January 23, 2008
Extraction Date: January 25, 2008
Analysis Date: January 25, 2008
Units: µg/L
Reported By: JAM

Analytical Results

Sample ID	Sample Descript	Sample Amount (mL)	Dilution Factor	Monomethyl Hydrazine	u-Dimethyl Hydrazine	Hydrazine	Qualifier Codes
707192-MB	Method Blank	100	1	ND	ND	ND	None
972906	IRA2026-01	100	1	ND	ND	ND	None
MDL				0.56	0.32	0.15	
PQL				5.0	5.0	1.00	
Sample Reporting Limits				5.0	5.0	1.00	

Note: Results based on detector #1 (UV=365nm) data.

Xuan Dang, Project Manager
Analytical Services, Truesdail Laboratories, Inc.

TRUESDAIL LABORATORIES, INC.

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NPDES - 3622

Client: TestAmerica Analytical-Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Client Contact: Joseph Doak
Sample: Water / 1 Sample
Sample ID: IRA2026-01
P.O. Number: IRA0404
Method Number: 8315 (Modified)
Investigation: Hydrazines
Run Batch No.: Extraction: 4252; Analysis: 595

QC Lab. No.: 707192
Project Lab. No.: 972906
Spiked Sample ID: 972906
Report Date: February 8, 2008
Sampling Date: January 22, 2008
Receiving Date: January 23, 2008
Extraction Date: January 25, 2008
Analysis Date: January 25, 2008
Reported By: JAM

Quality Control/Quality Assurance Calibration Report

ICV

Parameter	Theoretical Value (ug/L)	Measured Value (ug/L)	Percent Recovery	Control Limits	Flag
Monomethyl Hydrazine	25.0	24.1	96.5	85-115	PASS
u-Dimethyl Hydrazine	25.0	23.6	94.6	85-115	PASS
Hydrazine	5.0	5.12	102	85-115	PASS

QCS

Parameter	Theoretical Value (ug/L)	Measured Value (ug/L)	Percent Recovery	Control Limits	Flag
Monomethyl Hydrazine	50.0	46.5	93.1	85-115	PASS
u-Dimethyl Hydrazine	50.0	50.6	101	85-115	PASS
Hydrazine	10.0	9.89	98.9	85-115	PASS

Quality Control/Quality Assurance Spikes Report

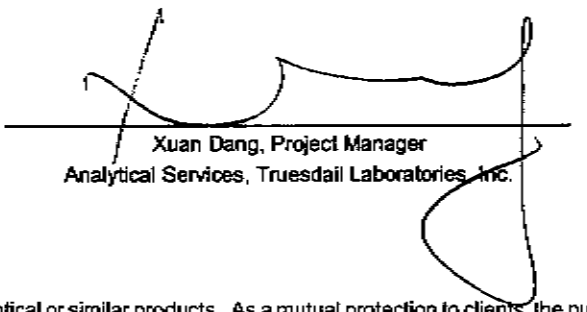
LCS/LCSD

Parameter	Spiked Conc. ug/L	Recovered Concentration LCS	LCSD	MB	Percent Recovery (%) LCS	LCSD	LCS/LCSD RPD	Flag	Control Limits %D	% Rec.
Monomethyl Hydrazine	50.0	42.8	48.6	0.0	85.5	97.2	12.7%	PASS	20	70-130
u-Dimethyl Hydrazine	50.0	41.3	46.4	0.0	82.7	92.9	11.6%	PASS	20	70-130
Hydrazine	10.0	10.5	10.2	0.0	105	102	3.42%	PASS	20	70-130

MS/MSD

Recovered Concentration MS	MSD	Sample	Percent Recovery (%) MS	MSD	MS/MSD RPD	Flag	Accuracy Control Limits %D	% Rec.
40.7	43.5	0.00	81.4	87.0	6.61%	PASS	20	11-134
37.5	44.4	0.00	74.9	88.8	17.0%	PASS	20	42-109
7.79	8.66	0.00	77.9	86.6	10.5%	PASS	20	37-128

Note: Results based on detector #1 (UV=365nm) data.



Xuan Dang, Project Manager
Analytical Services, Truesdail Laboratories, Inc.

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NPDES - 3623

Client: **TestAmerica Analytical-Irvine**
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Attention: **Joseph Doak**
Project Name: **IRA2026-01**
Method Number: **8315 (Modified)**
Investigation: **Hydrazines**

Laboratory No: 972906
Report Date: February 8, 2008
Sampling Date: January 22, 2008
Receiving Date: January 23, 2008
Analysis Date: January 25, 2008
Reported By: JAM

Qualifier Codes and Definitions

Code	***Definition***
FPS	Force Peak Start: Peak start needs to be adjusted to the baseline
FPE	Force Peak End: Peak end needs to be adjusted to the baseline
SP	Split Peak: Background or co-eluting peaks need to be split.
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
ND	Not Detected: Analyte is not detected at or above the method detection limit.
N/A	Not Applicable
ICV	Initial Calibration Verification: First source calibration standard run at a mid-level spike prior to samples.
QCS	Quality Control Standard: Second source calibration standard run at a mid-level spike after all samples.
MB	Method Blank: Reagent water extracted and run with each batch of 20 samples to demonstrate that all analytes are not detected from the extraction process.
LCS (D)	Laboratory Control Spike: Second source standard spiked into blank matrix and extracted and run with each batch of 20 samples (run in duplicate).
MS (D)	Matrix Spike: Second source standard spiked into sample matrix and extracted and run with each batch of 20 samples (run in duplicate).
RPD	Relative Percent Difference: A calculated value of the deviation between the spikes and spike duplicates to measure precision.
J	J-flags: Any result found between the MDL and the PQL will be reported with a "J" attached.
Flag	Pass if within Control Limits; otherwise "Fail"

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2026

972906

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak

RECEIVING LABORATORY:

Truesdail Laboratories-SUB
14201 Franklin Avenue
Tustin, CA 92680
Phone :(714) 730-6239
Fax: (714) 730-6462
Project Location: California
Receipt Temperature:_____°C Ice: Y / N

Rec'd 01/23/08
s21b 972906

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2026-01	**Water**		Sampled: **01/22/08 10:30**	**ph=7.6, temp=47.7**
Hydrazine-OUT	%	01/31/08	01/25/08 10:30	Truesdail-Monomethylhydrazine, J flags, 72hr HT!!!
Level 4 Data Package	N/A	01/31/08	02/19/08 10:30	Include Std logs
Containers Supplied:				
1 L Amber (AG)	1 L Amber (AH)			

ALERT !!
Level IV QC

For Sample Conditions See Form Attached

Released By 1/23/08 0720 Date/Time
Received By TAT 1/23/08 0720 Date/Time
Released By TAT 1/23/08 0755 Date/Time
Received By M. Nguyen/TAT 1/23/08 07:55am Date/Time

NPDES - 3624

Vista
Analytical Laboratory

January 29, 2008

Vista Project I.D.: 30192

Mr. Joseph Doak
Test America-Irvine, CA
17461 Derian Avenue
Suite 100
Irvine, CA 92614

Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on January 24, 2008 under your Project Name "IRA2026". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A rush turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha M. Maier
Laboratory Director

ACCREDITED IN ACCORDANCE WITH nelac

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.

Section I: Sample Inventory Report

Date Received: **1/24/2008**

Vista Lab. ID	Client Sample ID
30192-001	IRA2026-01

SECTION II

Method Blank **EPA Method 1613**

Matrix: Aqueous | QC Batch No.: 9906 | Lab Sample: 0-MB001

Sample Size: 1.00 L | Date Extracted: 27-Jan-08 | Date Analyzed DB-5: 29-Jan-08 | Date Analyzed DB-225: NA

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.000000647		
1,2,3,7,8-PeCDD	ND	0.00000122		
1,2,3,4,7,8-HxCDD	ND	0.00000111		
1,2,3,6,7,8-HxCDD	ND	0.00000109		
1,2,3,7,8,9-HxCDD	ND	0.00000105		
1,2,3,4,6,7,8-HpCDD	ND	0.00000123		
OCDD	ND	0.00000681		
2,3,7,8-TCDF	ND	0.000000578		
1,2,3,7,8-PeCDF	ND	0.000000800		
2,3,4,7,8-PeCDF	ND	0.000000796		
1,2,3,4,7,8-HxCDF	ND	0.000000512		
1,2,3,6,7,8-HxCDF	ND	0.000000533		
2,3,4,6,7,8-HxCDF	ND	0.000000583		
1,2,3,7,8,9-HxCDF	ND	0.000000671		
1,2,3,4,6,7,8-HpCDF	ND	0.000000428		
1,2,3,4,7,8,9-HpCDF	ND	0.000000460		
OCDF	ND	0.00000140		

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	86.5	25 - 164	
	13C-1,2,3,7,8-PeCDD	79.3	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	88.1	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	86.9	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	91.4	23 - 140	
	13C-OCDD	73.6	17 - 157	
	13C-2,3,7,8-TCDF	90.4	24 - 169	
	13C-1,2,3,7,8-PeCDF	76.2	24 - 185	
	13C-2,3,4,7,8-PeCDF	77.2	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	80.4	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	82.8	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	82.6	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	91.5	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	81.2	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	85.2	26 - 138	
	13C-OCDF	78.4	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	84.0	35 - 197	

Totals

Total TCDD	ND	0.00000122
Total PeCDD	ND	0.00000195
Total HxCDD	ND	0.00000207
Total HpCDD	ND	0.00000302
Total TCDF	ND	0.000000578
Total PeCDF	ND	0.00000209
Total HxCDF	ND	0.000000573
Total HpCDF	ND	0.000000443

Footnotes

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

Analyst: MAS

Approved By: William J. Luksemburg 29-Jan-2008 14:44

OPR Results **EPA Method 1613**

Matrix:	Aqueous	QC Batch No.:	9906	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	27-Jan-08	Date Analyzed DB-5:	29-Jan-08	Date Analyzed DB-225:	NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits		Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	9.57	6.7 - 15.8	IS	13C-2,3,7,8-TCDD	89.2	25 - 164	
1,2,3,7,8-PeCDD	50.0	48.6	35 - 71		13C-1,2,3,7,8-PeCDD	80.6	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	45.8	35 - 82		13C-1,2,3,4,7,8-HxCDD	89.6	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	46.7	38 - 67		13C-1,2,3,6,7,8-HxCDD	87.3	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	47.0	32 - 81		13C-1,2,3,4,6,7,8-HpCDD	91.5	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	45.3	35 - 70		13C-OCDD	73.9	17 - 157	
OCDD	100	95.0	78 - 144		13C-2,3,7,8-TCDF	93.6	24 - 169	
2,3,7,8-TCDF	10.0	8.78	7.5 - 15.8		13C-1,2,3,7,8-PeCDF	79.3	24 - 185	
1,2,3,7,8-PeCDF	50.0	45.0	40 - 67		13C-2,3,4,7,8-PeCDF	78.5	21 - 178	
2,3,4,7,8-PeCDF	50.0	45.9	34 - 80		13C-1,2,3,4,7,8-HxCDF	79.6	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	46.7	36 - 67		13C-1,2,3,6,7,8-HxCDF	82.1	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	46.4	42 - 65		13C-2,3,4,6,7,8-HxCDF	81.7	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	46.5	35 - 78		13C-1,2,3,7,8,9-HxCDF	88.5	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	45.4	39 - 65		13C-1,2,3,4,6,7,8-HpCDF	80.1	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	45.1	41 - 61		13C-1,2,3,4,7,8,9-HpCDF	86.5	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	44.9	39 - 69		13C-OCDF	79.2	17 - 157	
OCDF	100	91.4	63 - 170	CRS	37Cl-2,3,7,8-TCDD	82.9	35 - 197	

Analyst: MAS

Approved By: William J. Luksemburg 29-Jan-2008 14:44

Sample ID: **IRA2026-01** **EPA Method 1613**

Client Data		Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30192-001	Date Received:	24-Jan-08
Project:	IRA2026	Sample Size:	1.01 L	QC Batch No.:	9906	Date Extracted:	27-Jan-08
Date Collected:	22-Jan-08			Date Analyzed DB-5:	29-Jan-08	Date Analyzed DB-225:	NA
Time Collected:	1030						

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.000000723		
1,2,3,7,8-PeCDD	ND	0.00000146		
1,2,3,4,7,8-HxCDD	0.00000125			J
1,2,3,6,7,8-HxCDD	ND		0.00000122	
1,2,3,7,8,9-HxCDD	ND		0.00000138	
1,2,3,4,6,7,8-HpCDD	0.0000365			
OCDD	0.000456			
2,3,7,8-TCDF	ND	0.000000462		
1,2,3,7,8-PeCDF	ND	0.00000110		
2,3,4,7,8-PeCDF	ND	0.00000115		
1,2,3,4,7,8-HxCDF	ND	0.000000890		
1,2,3,6,7,8-HxCDF	ND	0.000000932		
2,3,4,6,7,8-HxCDF	ND	0.000000969		
1,2,3,7,8,9-HxCDF	ND	0.00000123		
1,2,3,4,6,7,8-HpCDF	0.00000350			J
1,2,3,4,7,8,9-HpCDF	ND	0.00000129		
OCDF	0.00000729			J

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	73.8	25 - 164	
	13C-1,2,3,7,8-PeCDD	66.2	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	70.5	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	70.5	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	69.4	23 - 140	
	13C-OCDD	56.0	17 - 157	
	13C-2,3,7,8-TCDF	77.4	24 - 169	
	13C-1,2,3,7,8-PeCDF	61.6	24 - 185	
	13C-2,3,4,7,8-PeCDF	63.5	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	65.2	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	66.3	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	65.9	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	70.2	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	62.3	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	66.1	26 - 138	
	13C-OCDF	58.7	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	86.7	35 - 197	

Totals

Total TCDD	ND	0.00000116	
Total PeCDD	ND		0.00000134
Total HxCDD	0.00000653		0.0000117
Total HpCDD	0.0000991		
Total TCDF	ND	0.000000686	
Total PeCDF	ND	0.00000195	
Total HxCDF	0.00000275		0.00000333
Total HpCDF	0.00000755		

Footnotes

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

Analyst: MAS

Approved By: William J. Luksemburg 30-Jan-2008 10:06

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
H	**The signal-to-noise ratio is greater than 10:1.**
I	**Chemical Interference**
J	**The amount detected is below the Lower Calibration Limit of the instrument.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.**
EMPC	**Estimated Maximum Possible Concentration**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2026

30192
0.1°C

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak

RECEIVING LABORATORY:

Vista Analytical Laboratory- SUB
1104 Windfield Way
El Dorado Hills, CA 95762
Phone :(916) 673-1520
Fax: (916) 673-0106
Project Location: California
Receipt Temperature: 0.1 °C Ice: (Y) N

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2026-01	**Water**		Sampled: **01/22/08 10:30**	**ph=7.6, temp=47.7**
1613-Dioxin-HR-Alta	ug/l	01/31/08	01/29/08 10:30	J flags,17 congeners,no TEQ,ug/L,sub=Vista
Level 4 Data Package - Out	N/A	01/31/08	02/19/08 10:30	Boeing
Containers Supplied:				
1 L Amber (Y)	1 L Amber (Z)			

Released By - 1/23/08 1700 Date/Time

Received By FedEx 1/23/08 1700 Date/Time

Released By Date/Time

Received By Bethna L Benedict 1/24/08 0955 Date/Time

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 30192 TAT 7

Samples Arrival:	**Date/Time** 1/24/08 0858	**Initials:** YBLB	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 1/24/08 1351	**Initials:** VBLB	**Location:** WR-2 **Shelf/Rack:** B-4

Delivered By:	(FedEx)	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	(Ice)	Blue Ice	Dry Ice	None		
Temp °C 0.1	**Time:** 0905	**Thermometer ID:** IR-1				

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill / Trk # 7983 5858 3013	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?		COC	Sample Container	(None)	
Shipping Container	Vista	(Client)	Retain	(Return)	Dispose

Comments:

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2026 801232 1

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak

RECEIVING LABORATORY:

Weck Laboratories, Inc-SUB
14859 E. Clark Avenue
City of Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634
Project Location: California
Receipt Temperature: 18.7 °C Ice: (Y) / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2026-01	**Water**		Sampled: **01/22/08 10:30**	**ph=7.6, temp=47.7**
Level 4 + EDD-OUT	N/A	01/31/08	02/19/08 10:30	Excel EDD email to pm,Include Std logs for Lvl IV
Level 4 Data Package - Wec	N/A	01/31/08	02/19/08 10:30	
Mercury - 245.1, Diss -OUT	mg/l	01/31/08	02/19/08 10:30	Out to Weck Level 4 Boeing, permit, J flags
Mercury - 245.1-OUT	mg/l	01/31/08	02/19/08 10:30	Out to Weck Level 4 Boeing, permit, J flags

Containers Supplied:
125 mL Poly w/HNO3 (AE) 125 mL Poly (AF)

Released By 1/23/08 0805
Date/Time

Released By 1/23/08 1105
Date/Time

Received By 1/23/08 0805
Date/Time

Received By James Gimzer
Date/Time 1/23/08 1105

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

14859 E. Clark Ave., Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634
info@wecklabs.com www.wecklabs.com

CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Joseph Doak

Phone: (949) 261-1022
Fax: (949) 260-3297

Report Date: 01/29/08 15:45
Received Date: 01/23/08 11:05
Turn Around: Normal

Work Order #: 8012321

Client Project: IRA2026

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Joseph Doak :

Enclosed are the results of analyses for samples received 01/23/08 11:05 with the Chain of Custody document. The samples were received in good condition. The samples were received at 18.2 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Kim G Tu

Project Manager

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012321
Project ID: IRA2026

Date Received: 01/23/08 11:05
Date Reported: 01/29/08 15:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IRA2026-01	Client		8012321-01	Water	01/22/08 10:30

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012321
Project ID: IRA2026

Date Received: 01/23/08 11:05
Date Reported: 01/29/08 15:45

IRA2026-01 8012321-01 (Water) Date Sampled: 01/22/08 10:30

Metals by EPA 200 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed		Data Qualifiers
Mercury, Dissolved	ND	0.050	ug/l	0.20	1	EPA 245.1	W8A0913	01/25/08	01/28/08	jlp	
Mercury, Total	ND	0.050	ug/l	0.20	1	EPA 245.1	W8A0913	01/25/08	01/28/08	jlp	

Weck Laboratories, Inc
Kim G Tu, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012321
Project ID: IRA2026

Date Received: 01/23/08 11:05
Date Reported: 01/29/08 15:45

QUALITY CONTROL SECTION

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012321
Project ID: IRA2026

Date Received: 01/23/08 11:05
Date Reported: 01/29/08 15:45

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W8A0913 - EPA 245.1										
Blank (W8A0913-BLK1)				Analyzed: 01/28/08						
Mercury, Dissolved	ND	0.20	ug/l							
Mercury, Total	ND	0.050	ug/l							
LCS (W8A0913-BS1)				Analyzed: 01/28/08						
Mercury, Dissolved	0.967	0.20	ug/l	1.00		97	85-115			
Mercury, Total	0.967	0.050	ug/l	1.00		97	85-115			
Matrix Spike (W8A0913-MS1)	**Source: 8012328-01**			Analyzed: 01/28/08						
Mercury, Dissolved	1.01	0.20	ug/l	1.00	ND	101	70-130			
Mercury, Total	1.01	0.050	ug/l	1.00	ND	101	70-130			
Matrix Spike (W8A0913-MS2)	**Source: 8012328-02**			Analyzed: 01/28/08						
Mercury, Dissolved	0.978	0.20	ug/l	1.00	ND	98	70-130			
Mercury, Total	0.978	0.050	ug/l	1.00	ND	98	70-130			
Matrix Spike Dup (W8A0913-MSD1)	**Source: 8012328-01**			Analyzed: 01/28/08						
Mercury, Dissolved	0.992	0.20	ug/l	1.00	ND	99	70-130	2	20	
Mercury, Total	0.992	0.050	ug/l	1.00	ND	99	70-130	2	20	
Matrix Spike Dup (W8A0913-MSD2)	**Source: 8012328-02**			Analyzed: 01/28/08						
Mercury, Dissolved	1.01	0.20	ug/l	1.00	ND	101	70-130	3	20	
Mercury, Total	1.01	0.050	ug/l	1.00	ND	101	70-130	3	20	

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012321
Project ID: IRA2026

Date Received: 01/23/08 11:05
Date Reported: 01/29/08 15:45

Notes and Definitions

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

TRUESDAIL LABORATORIES, INC.
EXCELLENCE IN INDEPENDENT TESTING

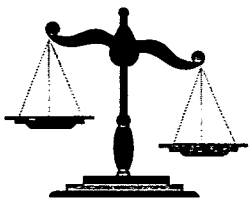
ESTABLISHED 1931

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

TestAmerica - Irvine

Laboratory Number: 972906

Project Name: IRA2026
Project Number: IRA2026



Prepared for:

Joseph Doak
TestAmerica - Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614

Prepared by:

Truesdail Laboratories, Inc.
Tustin, CA 92780

February 8, 2008

TestAmerica - Irvine

Laboratory Number: 972906

Project Name: IRA2026
Project Number: IRA2026

Prepared for:

Joseph Doak
TestAmerica - Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614

Prepared by:

Truesdail Laboratories, Inc.
Tustin, CA 92780

February 8, 2008

Table of Contents

TLI Laboratory Level IV Data Package

Laboratory Number: 972906

Project Name: IRA2026

Total Number of Pages: 72

Section 1.0

REPORTS

Samples Cross Reference

Case Narrative

Results Summary
Sample Analytical Results
QA/QC reports
Qualifier Codes and Definitions

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

February 8, 2008

Client: TestAmerica - Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614

Attention: Joseph Doak

Project Name: IRA2026
Project Number: IRA2026

Date Received: 1/23/08
Truesdail Project: 972906

Samples Cross-reference

Truesdail ID	*Client ID*	*Matrix*	*Date Sampled*	*Time Sampled*	*Analysis Requested*
972906-1	IRA2026-01	Water	01/22/08	1030	Hydrazines by EPA 8315M

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

K. R. P. Iyer
K.R.P. Iyer
Quality Control/Quality Assurance Officer

Xuan Huong Dang
Project Manager

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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14201 FRANKLIN AVENUE
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(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

February 8, 2008

Client: TestAmerica - Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614

Attention: Joseph Doak

Project Name: IRA2026
Project Number: IRA2026

Date Received: 01/23/08
Truesdail Project: 972906

Case Narrative

Sample Receipt The sample was received at 4 °C and in good condition. It was kept in a refrigerator until analysis. Thereafter, it is being kept in ambient storage for an additional 2 months before disposal. Any anomalies would be noted in the "Comments" section.

Analysis The analysis was performed as requested on the chain-of-custody.

Quality Control The analytical results for each batch of samples performed include a minimum of one set of laboratory control sample/laboratory control sample duplicate (LCS/LCSD), one matrix spike (MS) and a reagent blank (Method blank). Any exceptions or problems would be noted in the "Comments" section.

Comments Matrix spike and matrix spike duplicate were done on sample 972906-1 (IRA2026-01) as the method requirement per batch of 20 samples.

All quality assurance requirements set forth by the method specification and all quality control recoveries were within the laboratory acceptance limits. No anomalies or nonconformance events occurred during the course of analysis.

The results are quantitated down to the MDL level.

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

K.R.P. Iyer
Quality Control/Quality Assurance Officer

Xuan Huong Dang
Project Manager

TRUESDAIL LABORATORIES, INC.
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Established 1931

14201 FRANKLIN AVENUE · TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462 · www.truesdail.com

Client: **TestAmerica Analytical-Irvine**
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Attention: **Joseph Doak**
Sample: Water / 1 Sample
Project Name: **IRA2026-01**
P.O. Number: **IRA0404**
Method Number: **8315 (Modified)**
Investigation: **Hydrazines**

REPORT

Laboratory No: 972906
Report Date: February 8, 2008
Sampling Date: January 22, 2008
Receiving Date: January 23, 2008
Extraction Date: January 25, 2008
Analysis Date: January 25, 2008
Units: µg/L
Reported By: JAM

Analytical Results

Sample ID	Sample Descript	Sample Amount (mL)	Dilution Factor	Monomethyl Hydrazine	u-Dimethyl Hydrazine	Hydrazine	Qualifier Codes
707192-MB	Method Blank	100	1	ND	ND	ND	None
972906	IRA2026-01	100	1	ND	ND	ND	None
MDL				0.56	0.32	0.15	
PQL				5.0	5.0	1.00	
Sample Reporting Limits				5.0	5.0	1.00	

Note: Results based on detector #1 (UV=365nm) data.

Xuan Dang, Project Manager
Analytical Services, Truesdail Laboratories, Inc.

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING

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Client: TestAmerica Analytical-Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Client Contact: Joseph Doak
Sample: Water / 1 Sample
Sample ID: IRA2026-01
P.O. Number: IRA0404
Method Number: 8315 (Modified)
Investigation: Hydrazines
Run Batch No.: Extraction: 4252; Analysis: 595

QC Lab. No.: 707192
Project Lab. No.: 972906
Spiked Sample ID: 972906
Report Date: February 8, 2008
Sampling Date: January 22, 2008
Receiving Date: January 23, 2008
Extraction Date: January 25, 2008
Analysis Date: January 25, 2008
Reported By: JAM

Quality Control/Quality Assurance Calibration Report

ICV

Parameter	Theoretical Value (ug/L)	Measured Value (ug/L)	Percent Recovery	Control Limits	Flag
Monomethyl Hydrazine	25.0	24.1	96.5	85-115	PASS
u-Dimethyl Hydrazine	25.0	23.6	94.6	85-115	PASS
Hydrazine	5.0	5.12	102	85-115	PASS

QCS

Parameter	Theoretical Value (ug/L)	Measured Value (ug/L)	Percent Recovery	Control Limits	Flag
Monomethyl Hydrazine	50.0	46.5	93.1	85-115	PASS
u-Dimethyl Hydrazine	50.0	50.6	101	85-115	PASS
Hydrazine	10.0	9.89	98.9	85-115	PASS

Quality Control/Quality Assurance Spikes Report

LCS/LCSD

Parameter	Spiked Conc. ug/L	Recovered Concentration LCS	LCSD	MB	Percent Recovery (%) LCS	LCSD	LCS/LCSD RPD	Flag	Control Limits %D	% Rec.
Monomethyl Hydrazine	50.0	42.8	48.6	0.0	85.5	97.2	12.7%	PASS	20	70-130
u-Dimethyl Hydrazine	50.0	41.3	46.4	0.0	82.7	92.9	11.6%	PASS	20	70-130
Hydrazine	10.0	10.5	10.2	0.0	105	102	3.42%	PASS	20	70-130

MS/MSD

Recovered Concentration MS	MSD	Sample	Percent Recovery (%) MS	MSD	MS/MSD RPD	Flag	Accuracy Control Limits %D	% Rec.
40.7	43.5	0.00	81.4	87.0	6.61%	PASS	20	11-134
37.5	44.4	0.00	74.9	88.8	17.0%	PASS	20	42-109
7.79	8.66	0.00	77.9	86.6	10.5%	PASS	20	37-128

Note: Results based on detector #1 (UV=365nm) data.

Xuan Dang, Project Manager
Analytical Services, Truesdail Laboratories, Inc.

TRUESDAIL LABORATORIES, INC.
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Client: **TestAmerica Analytical-Irvine**
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Attention: **Joseph Doak**
Project Name: **IRA2026-01**
Method Number: **8315 (Modified)**
Investigation: **Hydrazines**

Laboratory No: 972906
Report Date: February 8, 2008
Sampling Date: January 22, 2008
Receiving Date: January 23, 2008
Analysis Date: January 25, 2008
Reported By: JAM

Qualifier Codes and Definitions

Code	***Definition***
FPS	Force Peak Start: Peak start needs to be adjusted to the baseline
FPE	Force Peak End: Peak end needs to be adjusted to the baseline
SP	Split Peak: Background or co-eluting peaks need to be split.
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
ND	Not Detected: Analyte is not detected at or above the method detection limit.
N/A	Not Applicable
ICV	Initial Calibration Verification: First source calibration standard run at a mid-level spike prior to samples.
QCS	Quality Control Standard: Second source calibration standard run at a mid-level spike after all samples.
MB	Method Blank: Reagent water extracted and run with each batch of 20 samples to demonstrate that all analytes are not detected from the extraction process.
LCS (D)	Laboratory Control Spike: Second source standard spiked into blank matrix and extracted and run with each batch of 20 samples (run in duplicate).
MS (D)	Matrix Spike: Second source standard spiked into sample matrix and extracted and run with each batch of 20 samples (run in duplicate).
RPD	Relative Percent Difference: A calculated value of the deviation between the spikes and spike duplicates to measure precision.
J	J-flags: Any result found between the MDL and the PQL will be reported with a "J" attached.
Flag	Pass if within Control Limits; otherwise "Fail"

Section 2.0

SAMPLE CHECK-IN RECORDS

Chain of Custody

Sample Integrity and Analysis Discrepancy Form

Internal Chain of Custody

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2026

972906

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak

RECEIVING LABORATORY:

Truesdail Laboratories-SUB
14201 Franklin Avenue
Tustin, CA 92680
Phone :(714) 730-6239
Fax: (714) 730-6462
Project Location: California
Receipt Temperature: _____ °C Ice: Y / N

Rec'd 01/23/08
s21b 972906

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2026-01	**Water**		Sampled: **01/22/08 10:30**	**ph=7.6, temp=47.7**
Hydrazine-OUT	%	01/31/08	01/25/08 10:30	Truesdail-Monomethylhydrazine, J flags, 72hr HT!!!
Level 4 Data Package	N/A	01/31/08	02/19/08 10:30	Include Std logs
Containers Supplied:				
1 L Amber (AG)	1 L Amber (AH)			

ALERT !!
Level IV QC

For Sample Conditions
See Form Attached

Released By 1/23/08 0720 Date/Time
Received By TAT 1/23/08 0720 Date/Time
Released By TAT 1/23/08 0755 Date/Time
Received By A. NAVARRA/TLI 1/23/08 07:55am Date/Time

008

NPDES - 3653

TRUESDAIL LABORATORIES, INC.

Sample Integrity & Analysis Discrepancy Form

Client: Test America **Lab #** 972906

Date Delivered: 01/23/08 **Time:** 07:55 **By:** ☐Mail ☐Field Service ☑Client

1.	Was a Chain of Custody received and signed?	☑Yes	☐No	☐N/A
2.	Does Customer require an acknowledgement of the COC?	☐Yes	☐No	☑N/A
3.	Are there any special requirements or notes on the COC?	☐Yes	☐No	☑N/A
4.	If a letter was sent with the COC, does it match the COC?	☐Yes	☐No	☑N/A
5.	Were all requested analyses understood and acceptable?	☑Yes	☐No	☐N/A
6.	Were samples received in a chilled condition? Temperature (if yes)? 4 °C	☑Yes	☐No	☐N/A
7.	Were samples received intact (i.e. broken bottles, leaks, air bubbles, etc..)? ALERT !! Level IV QC	☑Yes	☐No	☐N/A
8.	Were sample custody seals intact?	☐Yes	☐No	☑N/A
9.	Does the number of samples received agree with COC?	☑Yes	☐No	☐N/A
10.	Did sample labels correspond with the client ID's?	☑Yes	☐No	☐N/A
11.	Did sample labels indicate proper preservation? Preserved (if yes) by: ☐**Truesdail** ☐Client	☐Yes	☐No	☑N/A
12.	Were samples pH checked? pH = 4	☑Yes	☐No	☐N/A
13.	Were all analyses within holding time at time of receipt? If not, notify Project Manager.	☑Yes	☐No	☐N/A
14.	Have Project due dates been checked and accepted? Turn Around Time (TAT): ☐ **RUSH** ☑ Std	☑Yes	☐No	☐N/A

15. **Sample Matrix:** ☐Liquid ☐Drinking Water ☐Ground Water ☐Waste Water ☐Sludge ☐Soil ☐Wipe ☐Paint ☐Solid ☑Other Water

16. Comments: _____

17. Sample Check-In completed by **Truesdail** Log-In/Receiving: L. Shabunina

ALERT !! Level IV QC

C:\My Documents\Discrp.FormBlank.doc

Internal Chain of Custody Logbook

Exhibit 4

Lab Number: 972906

Client Name: Test America

Storage Temperature: 4°C

Bottle I.D.	Analysis Done	Date Out	Time Out	Date In	Time In	Amount Taken (g or ml)	Printed Name	Signature
				1/23/08	8:30		Luda	[signature]
	Hydrazine	1-23-08	2pm	1-23-08	3:30pm	300ml	Jonathan Moo[illegible]	[signature]

Storage Date	Shelf No. For Storage	Printed Name	Initials

Discharge Date	Printed Name	Initials

Bottle I.D.	Analysis Done	Date Out	Time Out	Date In	Time In	Amount Taken (g or ml)	Printed Name	Signature

Storage Date	Shelf No. For Storage	Printed Name	Initials

Discharge Date	Printed Name	Initials

Bottle I.D.	Analysis Done	Date Out	Time Out	Date In	Time In	Amount Taken (g or ml)	Printed Name	Signature

Storage Date	Shelf No. For Storage	Printed Name	Initials

Discharge Date	Printed Name	Initials

Bottle I.D.	Analysis Done	Date Out	Time Out	Date In	Time In	Amount Taken (g or ml)	Printed Name	Signature

Storage Date	Shelf No. For Storage	Printed Name	Initials

Discharge Date	Printed Name	Initials

Section 3.0

Data Package

QC Batch 707192

Cross Reference Table
Calibration Data Retention Time Window
Sample Raw Data
Extraction Chronicle
Extraction Sample Log
Organic Standard Preparation Logbook
Daily Sample Log
Sample Queue
Peak Responses
Multipoint Calibration
Samples and QC chromatograms

Truesdail Laboratories, Inc.

Client: TestAmerica Analytical-Irvine
Laboratory Number: 972906
Batch QA/QC Number: 707192
Instrument Batch #: 595
Extraction Batch #: 4252

Cross-Reference of field sample number to laboratory sample number & Sample queue description

#	Name	Description	File Name	DF
1	MP BLANK 1	Mobile Phase blank consisting of 50:50 water:acetonitrile	JA082501	1
2	707192-Std 1	Hydrazine standard #1 with a spike amount of MMH:UDMH:Hydrazine=5:5:1ug/L	JA082502	1
3	707192-Std 2	Hydrazine standard #2 with a spike amount of MMH:UDMH:Hydrazine=10:10:2ug/L	JA082503	1
4	707192-Std 3	Hydrazine standard #3 with a spike amount of MMH:UDMH:Hydrazine=25:25:5ug/L	JA082504	1
5	707192-Std 4	Hydrazine standard #4 with a spike amount of MMH:UDMH:Hydrazine=50:50:10ug/L	JA082505	1
6	707192-Std 5	Hydrazine standard #5 with a spike amount of MMH:UDMH:Hydrazine100:100:20ug/L	JA082506	1
7	ICV @ 25ppb	Initial Calibration verification using the Hydrazines standard #3	JA082507	1
8	707192-LCS	Lab control spike with a spike amount of MMH:UDMH:Hydrazine= 50:50:10 ug/L	JA082508	1
9	707192-LCSD	Lab control spike duplicate with a spike amount of MMH:UDMH:Hydrazine= 50:50:10 ug/L	JA082509	1
10	707192-MB	Method blank of the extraction batch # 4252	JA082510	1
11	972906	IRA2026-01	JA082511	1
12	972906-MS	IRA2026-01 with a spike amount of MMH:UDMH:Hydrazine= 50:50:10 ug/L	JA082512	1
13	972906-MSD	IRA2026-01 with a spike amount of MMH:UDMH:Hydrazine= 50:50:10 ug/L	JA082513	1
14	707192-QCS	QCS 2nd source with a spike amount of MMH:UDMH:Hydrazine= 50:50:10 ug/L	JA082514	1
15	MP BLANK 2	Mobile Phase blank consisting of 50:50 water:acetonitrile	JA082515	1

Truesdail Laboratories, Inc. **Calibration Data Retention Time Windows**

QC Report No.	707192	**Date Prepared:**	January 7, 2008
Laboratory No.	972906	**Date Extracted:**	January 25, 2008
Extrt. Batch No:	4252	**Date Analyzed:**	January 25, 2008
Intr. Batch No.:	595	**Date Reported:**	February 8, 2008
Matrix:	Water	**Analyst**	JAM

Calibration Data

Standard Preparation Information

Lab ID: WO08012501 **Exp. Date:** 2/1/08		**Concentration, ug/L**				
Analytes	**Conc. (ug/mL)**	**Std #1**	**Std #2**	**Std #3**	**Std #4**	**Std #5**
Monomethyl Hydrazine	100	5.00	10.0	25.0	50.0	100
Unsymmetrical Dimethyl Hydrazine	100	5.00	10.0	25.0	50.0	100
Hydrazine	20.0	1.00	2.00	5.00	10.0	20.0

Calibration Curve Information

			Response, Area				
Analytes	**R^2**	**RF % RSD**	**Std #1**	**Std #2**	**Std #3**	**Std #4**	**Std #5**
Monomethyl Hydrazine	0.9985	3.96%	9361	17337	45879	85844	184591
Unsymmetrical Dimethyl Hydrazine	0.9978	5.16%	5648	11721	31344	58006	127387
Hydrazine	0.9965	8.63%	2705	5258	16519	27239	56625
Acceptance Limit:		20%					

Retention Time Windows (min)

Detectors	**Analytes**	**Std#1**	**Std#2**	**Std#3**	**Std#4**	**Std#5**	**ICV**	**QCS**	**Avg. RT**	**Width**
UV#1 365 nm	**MMH**	6.992	7.017	7.050	7.192	7.050	7.208	6.967	**7.068**	**0.285**
	UDMH	12.367	12.367	12.375	12.442	12.375	12.458	12.325	**12.387**	**0.140**
	Hydrazine	17.992	18.033	18.042	18.008	17.967	18.050	18.050	**18.020**	**0.096**
UV#2 322 nm	**MMH**	7.025	7.083	7.100	7.250	7.108	7.267	7.025	**7.123**	**0.296**
	UDMH	12.400	12.425	12.450	12.500	12.433	12.517	12.383	**12.444**	**0.148**
	Hydrazine	18.108	18.100	18.083	18.083	18.042	18.117	18.083	**18.088**	**0.073**

Retention Time Windows

Parameter	**MMH**		**UDMH**		**Hydrazine**	
	UV #1	**UV #2**	**UV #1**	**UV #2**	**UV #1**	**UV #2**
Upper	7.353	7.419	12.527	12.592	18.117	18.161
Lower	6.783	6.827	12.247	12.296	17.924	18.015

ICV - Initial Calibration Verification
CCV - Continuous Calibration Verification
RT - Retention Time
%D - Percent Difference

Formulas:

RF % RSD = 100% * Stdev(Response Factor) / Average(Response Factor)

Response Factor = Concentration / Response

R^2 = (Covar(Concentration, Response) / (Stdevp(Concentration) * Stdevp(Response)))^2

Truesdail Laboratories, Inc. **Sample Raw Data**

Laboratory No.:	972906	**Date Sampled:**	January 22, 2008
QC Report No:	707192	**Date Received:**	January 23, 2008
Client:	TestAmerica Analytical-Irvine	**Date Extracted:**	January 25, 2008
Extrt. Batch No:	4252	**Date Analyzed:**	January 25, 2008
Intr. Batch No.:	595	**Date Reported:**	February 8, 2008
Matrix/Samples:	Water / 1 Sample	**Analyst**	JAM

Sample Information

Sample ID	Volume (mL)		DF	Date & Time Analyzed	Chromatography File ID
	Initial	Final			
707192-MB	100	5	1	1/25/08 15:24	JA082510
972906	100	5	1	1/25/08 15:50	JA082511
972906-MS	100	5	1	1/25/08 16:15	JA082512
972906-MSD	100	5	1	1/25/08 16:41	JA082513

Retention Time

Sample ID	MMH		UDMH		Hydrazine	
	UV #1	UV #2	UV #1	UV #2	UV #1	UV #2
707192-MB	ND	ND	ND	ND	ND	ND
972906	ND	ND	ND	ND	ND	ND
972906-MS	6.933	7.000	12.308	12.367	18.000	18.083
972906-MSD	6.875	6.942	12.275	12.325	17.992	18.100

DF = Dilution Factor
RT = Retention Time
ND = Not Detected

EXTRACTION CHRONICLE

Method #:	**8315M**	***Ext. Chemist:***	**Jon M.**
Matrix:	**Liquid / Water**	***Spiked by:***	**Jon M.**

Extraction Information

Ext. Batch #:	4252	*pH:*	5	*Ext. Solvt:*	DCM
Date Extracted:	1/24/08	*Start Time:*	3:00 PM	*Lot ID:*	47064
Date Finished:	1/25/08	*Stop Time:*	NA	*Final Solvt:*	Acetonitrile
Ext. Method:	Orbital Shaker@200rpm	*Method #:*	8315M	*Lot ID:*	CU659

Spike Information

Matrix Spike:	Hydrazine Standard 1st Source	*Matrix Spike:*	Hydrazine Standard 2nd Source
Standard ID:	WO08012303	*Standard ID:*	WO08012304
Conc. (ug/mL)	100/100/20 (MMH/UDMH/Hyd.)	*Conc. (ug/mL):*	100/100/20 (MMH/UDMH/Hyd.)
Exp. Date:	1/31/08	*Exp. Date:*	1/31/08

1st. Source(Aldrich)
2nd. Source (Chem Service)

Sample Information

Sample ID	*Client*	*Sample Date*	*Date Received*	*Sample (mL)*	*Standard Source*	*Matrix Spike (uL)*	*Final Vol. (mL)*
707192-MB	Method Blank	1/24/08	1/24/08	100			5
707192-Std 1	QC-Cal	1/24/08	1/24/08	100	1st	5	5
707192-Std 2	QC-Cal	1/24/08	1/24/08	100	1st	10	5
707192-Std 3	QC-Cal	1/24/08	1/24/08	100	1st	25	5
707192-Std 4	QC-Cal	1/24/08	1/24/08	100	1st	50	5
707192-Std 5	QC-Cal	1/24/08	1/24/08	100	1st	100	5
707192-LCS	QC	1/24/08	1/24/08	100	2nd	50	5
707192-LCSD	QC	1/24/08	1/24/08	100	2nd	50	5
972906	TestAmerica-Irvine	1/22/08	1/23/08	100			5
972906-MS	TestAmerica-Irvine	1/22/08	1/23/08	100	2nd	50	5
972906-MSD	TestAmerica-Irvine	1/22/08	1/23/08	100	2nd	50	5
707192-QCS	QC	1/24/08	1/24/08	100	2nd	50	5

Truesdail Laboratories Inc.
EXTRACTION SAMPLE LOG

METHOD # 8315M

BATCH # 4252

Matrix (DW, WW, S, or other)*: WATER / LIQUID

Start Date: 1-24-08
Finish Date: 1-25-08

HYDRAZINES.

LAB. ID. #	CLIENT	INIT. VOL./WEIGHT	FINAL VOL.	SURROG.(✓)	LCS/MS (✓)
707192-MB	Method Blank	100 mL	5 mL	NA	
-Std 1	QC-CAL	↓	↓	↓	5 mL 1st
- 2	↓				10
- 3					25
- 4					50
- 5	↓				100 ↓
-LCS	QC				50 mL 2nd
↓ -LCSD	↓				↓
972906	Test America-Irvine				
972906-MS	↓				50 mL 2nd
↓ -MSD	↓				↓
707192-QCS	QC	↓	↓	↓	↓

EXTRACTION SOLVENTS. CHECK WHAT APPLIES AND INDICATE MANUFACTURER/LOT ID.

- [x] $MeCl_2$ Manuf./Lot ID.: 47064
- [ ] Acetone Manuf./Lot ID.:
- [x] Other ACN CU659
- [ ] Hexane Manuf./Lot ID.:
- [ ] Ether Manuf./Lot ID.:

LIST SURROGATE(S) NAME(S), LCS/MS NAME, AND ID NUMBERS:

1st SOURCE ALDRICH W008012303 e 100/100/20 ug/ml EXP. 1-31-08

2nd SOURCE CHEM SERVICE W008012304 e 100/100/20 ug/ml EXP. 1-13-08 JAN

*DW=Drinking Water; WW=Waste Water; S=Solid/Soil

EXTRACTION CHEMIST (PRINT NAME): [signature]

RUESDAIL LABORATORIES INC.

ORGANIC STANDARD PREPARATION LOGBOOK

STANDARD ID.	COMPOUND	LAB ID.	INI. CONC.	AMT. USED	FINAL VOL.	FINAL CONC.
S00012301	Hydrazines 1st Source					
DATE PREP.: 1-23-08	MMH	08 31151	0.866 g/mL	46.2 µL	8 mL	5,000 ng/mL
	UDMH	08 31152	0.791 g/mL	50 µL	↓	5,000 ↓
ANALYST: JAM	Hydrazine	08 31150	1.02 g/mL	7.84 mL	↓	1,000 ↓
EXP. DATE: 3-23-08						
SOLVENT: H2O				JAM 1-23-08		
SOLV. LOT ID: —						
Aldrich						

STANDARD ID.	COMPOUND	LAB ID.	INI. CONC.	AMT. USED	FINAL VOL.	FINAL CONC.
S00012302	Hydrazines 2nd Source					
DATE PREP.: 1-23-08	MMH	08 11153	0.866 g/mL	46.2 mL	8 mL	5,000 ng/mL
	UDMH	08 11157	0.791 ↓	50.6 ↓	↓	5,000 ↓
ANALYST: JAM	Hydrazine	08 11156	1.021 ↓	7.84 ↓	↓	1,000 ↓
EXP. DATE: 3-23-08						
SOLVENT: H2O				JAM 1-23-08	--	
SOLV. LOT ID: —						
CHEM SERVICE						

TRUESDAIL LABORATORIES INC.

ORGANIC STANDARD PREPARATION LOGBOOK

STANDARD ID.	COMPOUND	LAB ID.	INI. CONC.	AMT. USED	FINAL VOL.	FINAL CONC.
W0080123 03	Hydrazides 1st Source	S008012301	5000 5000 1000 mg/mL	200 µL	10 mL	100 100 20 mg/mL
DATE PREP.: 1-23-08						
ANALYST: JAM						
EXP. DATE: 1-31-08			JAM			
SOLVENT: H2O			1-23-08			
SOLV. LOT ID: —						
Aldrich						

STANDARD ID.	COMPOUND	LAB ID.	INI. CONC.	AMT. USED	FINAL VOL.	FINAL CONC.
W0080123 04	Hydrazide 2nd Source	S008012302	5000 5000 1000 mg/mL	200 µL	10 mL	100 100 20 mg/mL
DATE PREP.: 1-23-08						
ANALYST: JAM						
EXP. DATE: 1-31-08			JAM			
SOLVENT: H2O			1-23-08			
SOLV. LOT ID: —						
CHEM SERVICE						

Truesdail Laboratories , Inc.

Shimadzu HPLC #1

DAILY SAMPLE LOG

Date Analyzed: 1-25-08

~~0315~~ M
Hydrazines
Water

Start Time: _____

Stop Time: _____

Inst. Batch No.: 585

Sample ID	Dil. Factor	Method No.	Notes (see below)*
MP Blank 1	1	JA082501	Inst. Blank
707192-STD 1		2	W0080125O1 @ 5 ppb
2		3	10
3		4	25
4		5	50
5		6	100
ICV @ 25ppb		7	STD #3 @ 25 ppb
707192-LCS		8	QC-W0080125O2 @ 50ppb
-LCSD		9	↓
-MB		10	Method Blank Liquid
972906		11	IDA2026-01
972906-MS		12	IDA2026-01 MS @ 50ppb
-MSD		13	MSD @ 50ppb
707192-QCS		14	QCS-2nd source @ 50 ppb
MP Blank 2		15	

1-25-08 JAM

Daily Instrument Maintenance Log

1ST SOURCE ALDRICH W0080123O9 JMM @ 100, 100, 20 ug/ml EXP 1-31-08

2ND SOURCE CHEM SERVICE W0080123O4 @ 100, 100, 20 ug/ml EXP 1-31-08

Analyst (Print Name): JAM

*Enter what applies: Client, Standard ID., Quality Control (LCS/MS)

BASELINE 810 METHOD REPORT

Printed: 1-FEB-2008 06:40

EPA8315M,ODS COL,SHIMADZU LC/UV

Sample Queue

Queue Parameters

File Path: C:\MAX\DATA1\8315M
Starting Index: 1
Raw Sample Weight: 1.000
Volume of Extract: 1.000

Stripchart Parameters

Scaling: Use saved regions
Peak Labels: Names, retention times
Regions: 2
Options: baselines, starts/ends, maxima
x-Axis limits: 0.0-12288
y-Axis limits: 0.001000-0.008000

Sample Queue Table

#	Name	Type	Source	File Name	Index	Inj.Volume	Amount	Dilution
1	MP BLANK 1	UNKN	DISK	JA082501	1			
2	707192-Std 1	STND	DISK	JA082502	2			
3	707192-Std 2	STND	DISK	JA082503	3			
4	707192-Std 3	STND	DISK	JA082504	4			
5	707192-Std 4	STND	DISK	JA082505	5			
6	707192-Std 5	STND	DISK	JA082506	6			
7	ICV @ 25 ppb	UNKN	DISK	JA082507	7			
8	707192-LCS	UNKN	DISK	JA082508	8			
9	707192-LCSD	UNKN	DISK	JA082509	9			
10	707192-MB	UNKN	DISK	JA082510	10			
11	972906	UNKN	DISK	JA082511	11			
12	972906 MS	UNKN	DISK	JA082512	12			
13	972906 MSD	UNKN	DISK	JA082513	13			
14	707192-QCS	UNKN	DISK	JA082514	14			
15	MP BLANK 2	UNKN	DISK	JA082515	15			

Standard Concentrations

Component	707192-Std 1	707192-Std 2	707192-Std 3	707192-Std 4	707192-Std 5
MMH	5.000E+00	1.000E+01	2.500E+01	5.000E+01	1.000E+02
*MMH	5.000E+00	1.000E+01	2.500E+01	5.000E+01	1.000E+02
UDMH	5.000E+00	1.000E+01	2.500E+01	5.000E+01	1.000E+02
*UDMH	5.000E+00	1.000E+01	2.500E+01	5.000E+01	1.000E+02
Hydrazine	1.000E+00	2.000E+00	5.000E+00	1.000E+01	2.000E+01
*Hydrazine	1.000E+00	2.000E+00	5.000E+00	1.000E+01	2.000E+01

Concentration
x 10²
0.00
0.20
0.40
0.60
0.80
1.00
1.20
0.00
0.50
1.00
1.50
2.00
x 10⁵
MMH Peak Response

MMH Calibration Report

Printed: 1-FEB-2008 6:40:24

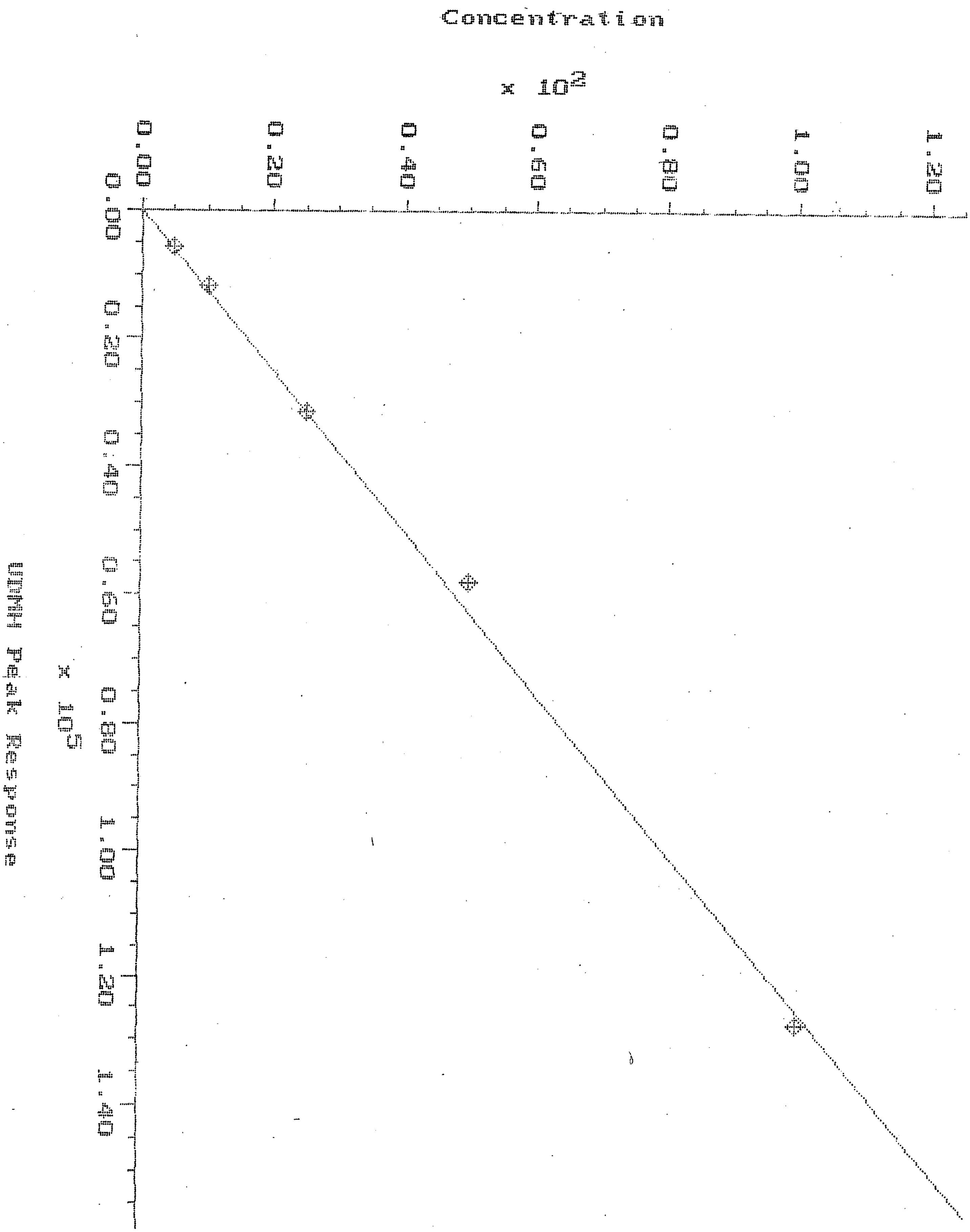
Quant Basis: Area
Curve Type: Linear
Y-axis Label: Concentration

Rejection Tolerance: None
Weighting: None

Internal Standard: None
Forced Through Origin: Yes

Equation: Conc = 5.489440E-04 * R

Sample	File Name	Valid	Concentration	Response	Calc'd Concentration	% Deviation	Response Factor
707192-Std 1	JA082502	Y	5.000000E+00	9.3607178E+03	5.138510E+00	-2.70E+00	5.341471E-04
707192-Std 2	JA082503	Y	1.000000E+01	1.7337400E+04	9.517262E+00	5.07E+00	5.767877E-04
707192-Std 3	JA082504	Y	2.500000E+01	4.5878992E+04	2.518500E+01	-7.35E-01	5.449117E-04
707192-Std 4	JA082505	Y	5.000000E+01	8.5844250E+04	4.712369E+01	6.10E+00	5.824502E-04
707192-Std 5	JA082506	Y	1.000000E+02	1.8459072E+05	1.013300E+02	-1.31E+00	5.417390E-04


Concentration
x 10^2
0.00
0.20
0.40
0.60
0.80
1.00
1.20
UNMH Peak Response
x 10^5
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40

UDMH Calibration Report

Printed: 1-FEB-2008 6:40:32

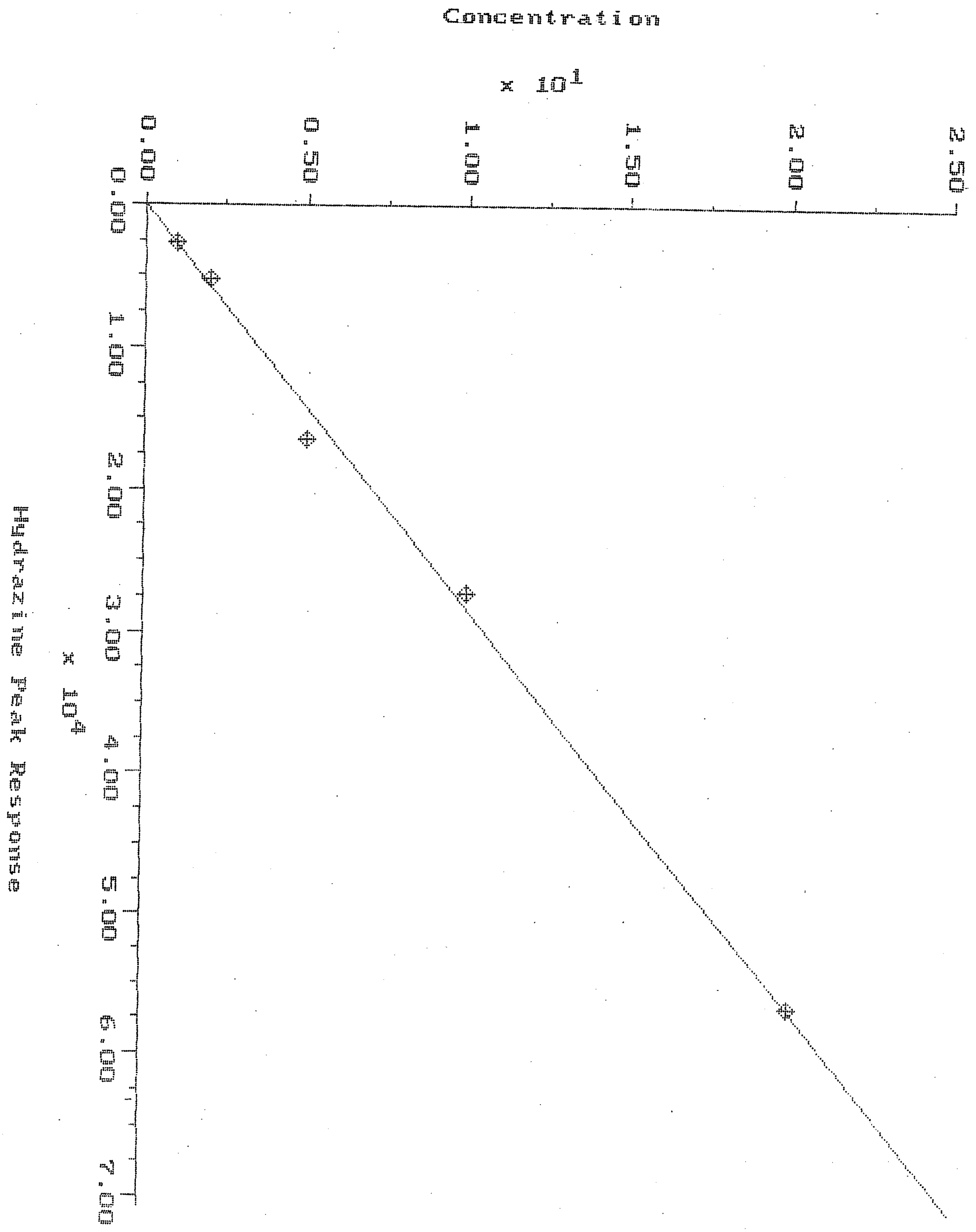
Quant Basis: Area
Curve Type: Linear
Y-axis Label: Concentration

Rejection Tolerance: None
Weighting: None

Internal Standard: None
Forced Through Origin: Yes

Equation: Conc = 7.986946E-04 * R

Sample	File Name	Valid	Concentration	Response	Calc'd Concentration	% Deviation	Response Factor
707192-Std 1	JA082502	Y	5.000000E+00	5.6484565E+03	4.511392E+00	1.08E+01	8.851976E-04
707192-Std 2	JA082503	Y	1.000000E+01	1.1721188E+04	9.361650E+00	6.82E+00	8.531558E-04
707192-Std 3	JA082504	Y	2.500000E+01	3.1344367E+04	2.503458E+01	-1.38E-01	7.975915E-04
707192-Std 4	JA082505	Y	5.000000E+01	5.8006066E+04	4.632913E+01	7.92E+00	8.619788E-04
707192-Std 5	JA082506	Y	1.000000E+02	1.2738715E+05	1.017434E+02	-1.71E+00	7.850085E-04


Concentration
x 10^1
0.00
0.50
1.00
1.50
2.00
2.50
Hydrazine Peak Response
x 10^4
0.00
1.00
2.00
3.00
4.00
5.00
6.00
7.00

Hydrazine Calibration Report

Printed: 1-FEB-2008 6:40:40

Quant Basis: Area
Curve Type: Linear
Y-axis Label: Concentration

Rejection Tolerance: None
Weighting: None

Internal Standard: None
Forced Through Origin: Yes

Equation: Conc = 3.525920E-04 * R

Sample	File Name	Valid	Concentration	Response	Calc'd Concentration	% Deviation	Response Factor
707192-Std 1	JA082502	Y	1.000000E+00	2.7050249E+03	9.537701E-01	4.85E+00	3.696824E-04
707192-Std 2	JA082503	Y	2.000000E+00	5.2581362E+03	1.853977E+00	7.88E+00	3.803629E-04
707192-Std 3	JA082504	Y	5.000000E+00	1.6519074E+04	5.824493E+00	-1.42E+01	3.026804E-04
707192-Std 4	JA082505	Y	1.000000E+01	2.7239312E+04	9.604363E+00	4.12E+00	3.671165E-04
707192-Std 5	JA082506	Y	2.000000E+01	5.6625113E+04	1.996556E+01	1.72E-01	3.532002E-04

BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:00:11

SAMPLE: MP BLANK 1
#1 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 10:12
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: UNKN
Instrument: Shimadzu 6A
Filename: JA082501
Index: 1

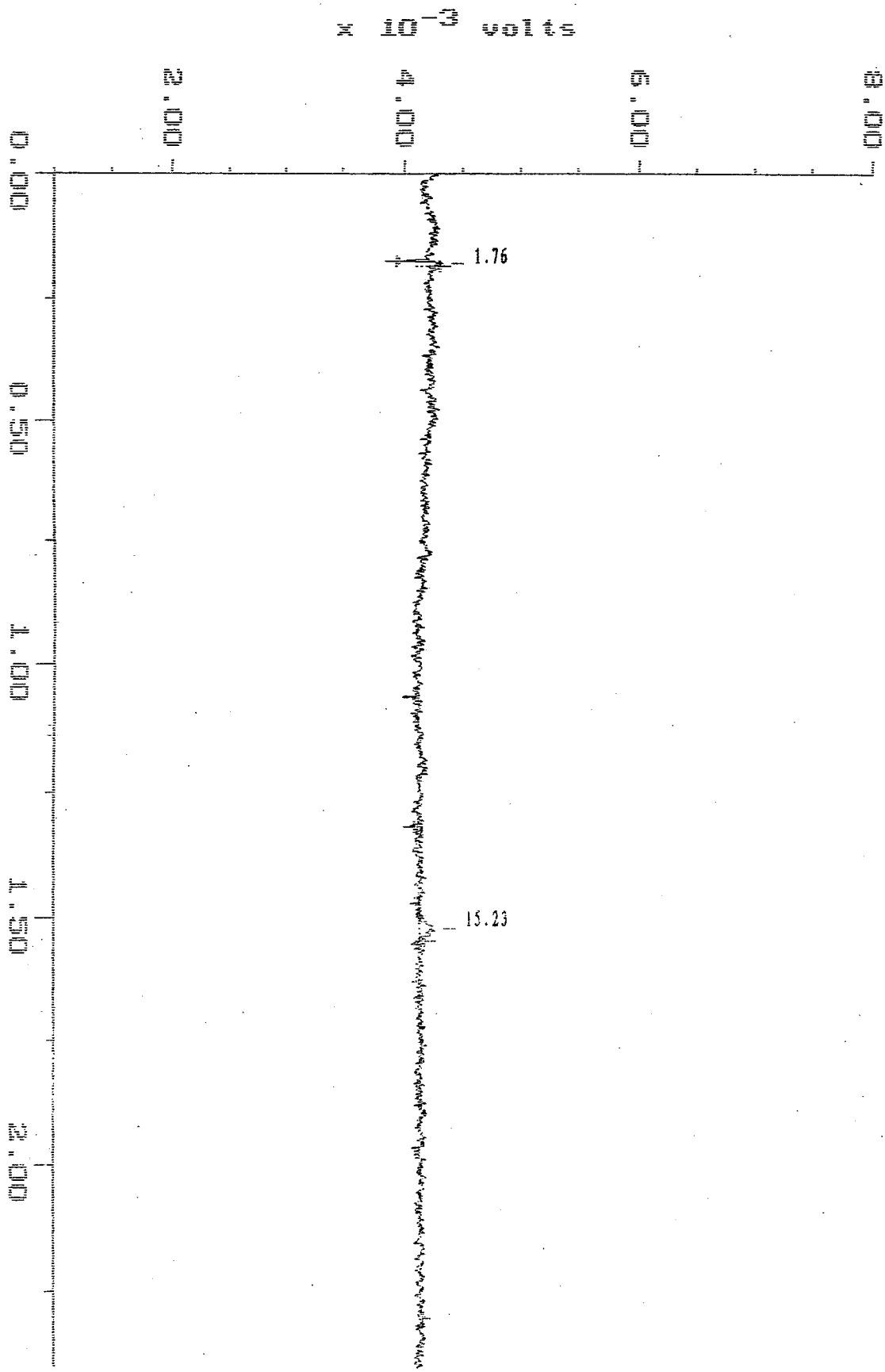
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			1.758	709	
2			15.225	-782	
TOTAL				1491	0.0000

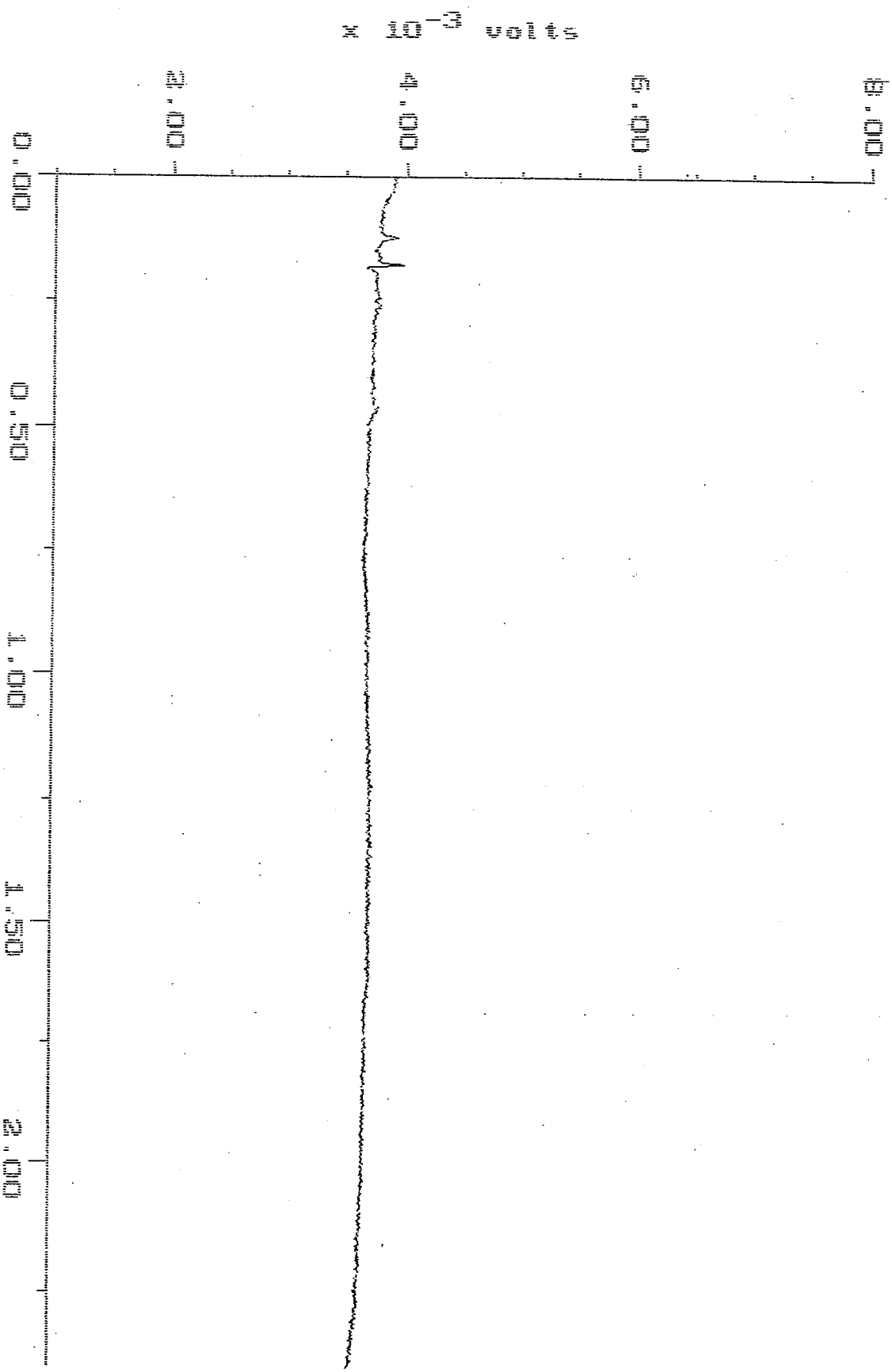
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
TOTAL				0	0.0000

Sample: MP BLANK 1 Channel: UV #1 365 Filename: JA082501
Acquired: 25-JAN-108 10:12 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: MP BLANK 1 Channel: *UV #2 322 Filename: JA082501
Acquired: 25-JAN-108 10:12 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:00:48

SAMPLE: 707192-Std 1
#2 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 10:38
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: STND
Instrument: Shimadzu 6A
Filename: JA082502
Index: 2

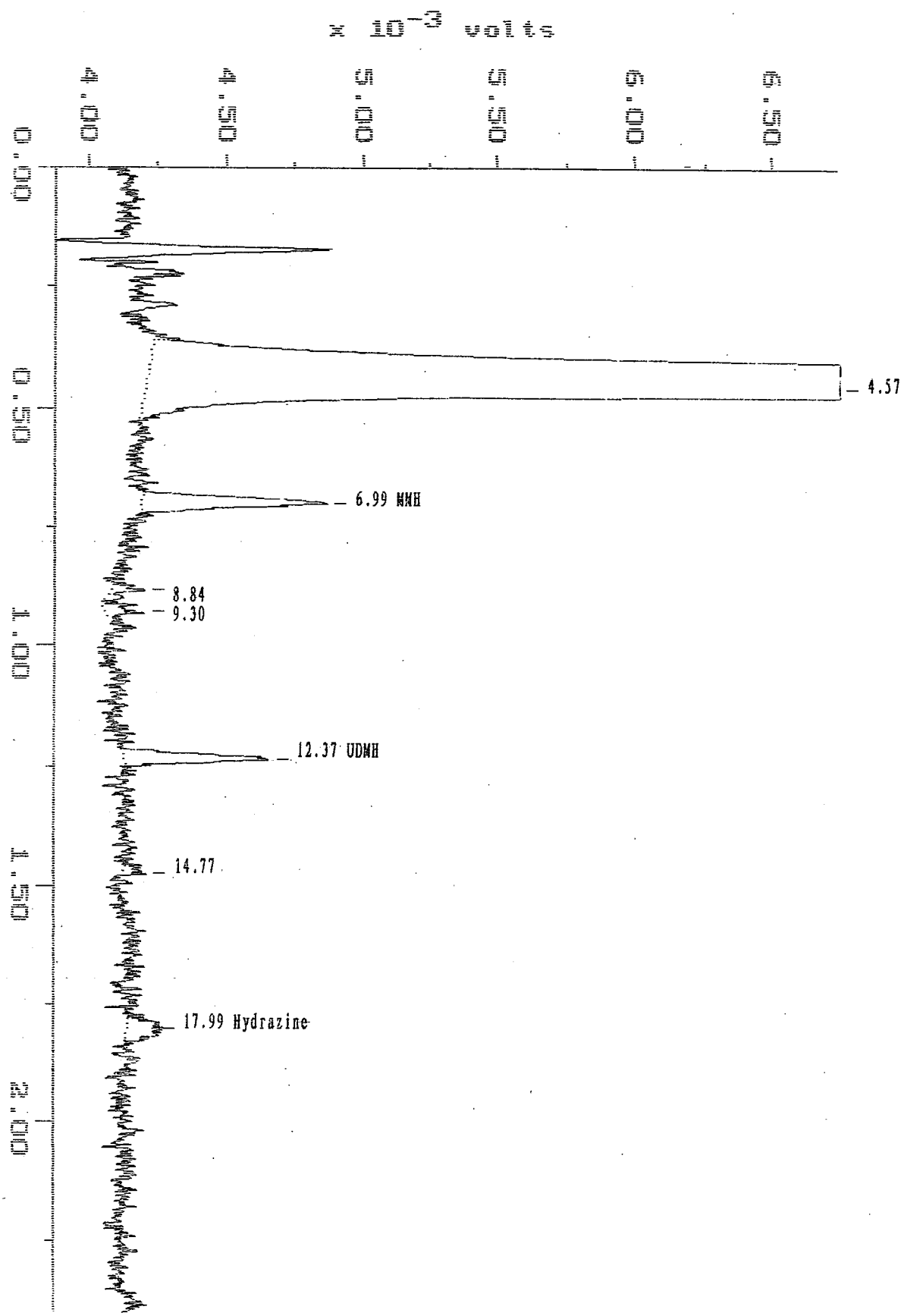
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.567	599374	
2	1	MMH	6.992	9361	5.0000
3			8.842	1187	
4			9.300	1295	
5	3	UDMH	12.367	5648	5.0000
6			14.767	743	
7	5	Hydrazine	17.992	2705	1.0000
TOTAL				620313	11.0000

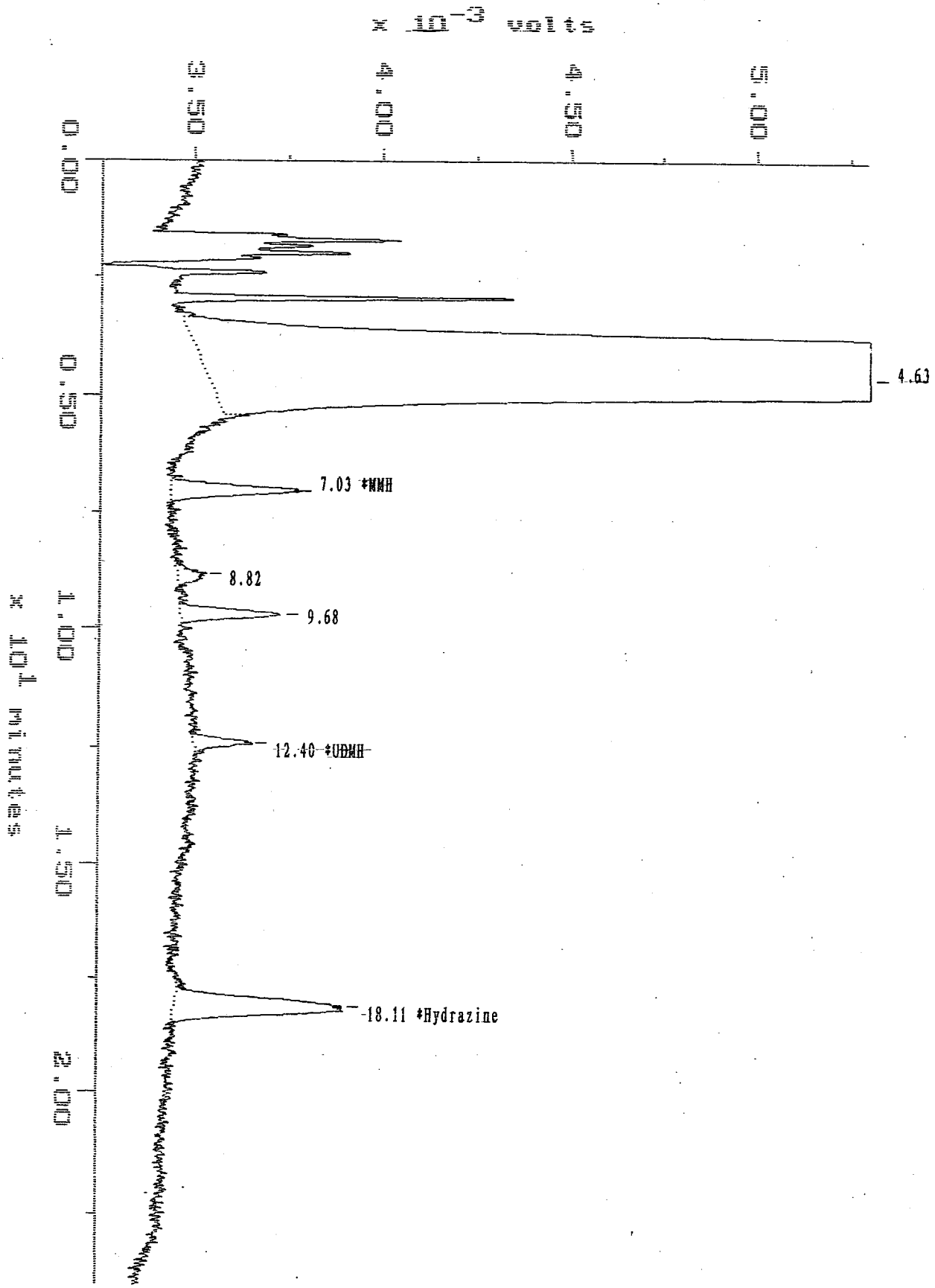
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.625	4133421	
2	2	*MMH	7.025	4611	5.0000
3			8.817	987	
4			9.675	3319	
5	4	*UDMH	12.400	1658	5.0000
6	6	*Hydrazine	18.108	10677	1.0000
TOTAL				4154673	11.0000

Sample: 707192-Std 1 Channel: UV #1 365 Filename: JA082502
Acquired: 25-JAN-108 10:38 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: 707192-Std 1 Channel: *UV #2 322 Filename: JA082502
Acquired: 25-JAN-108 10:38 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:01:26

SAMPLE: 707192-Std 2
#3 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 11:03
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: STND
Instrument: Shimadzu 6A
Filename: JA082503
Index: 3

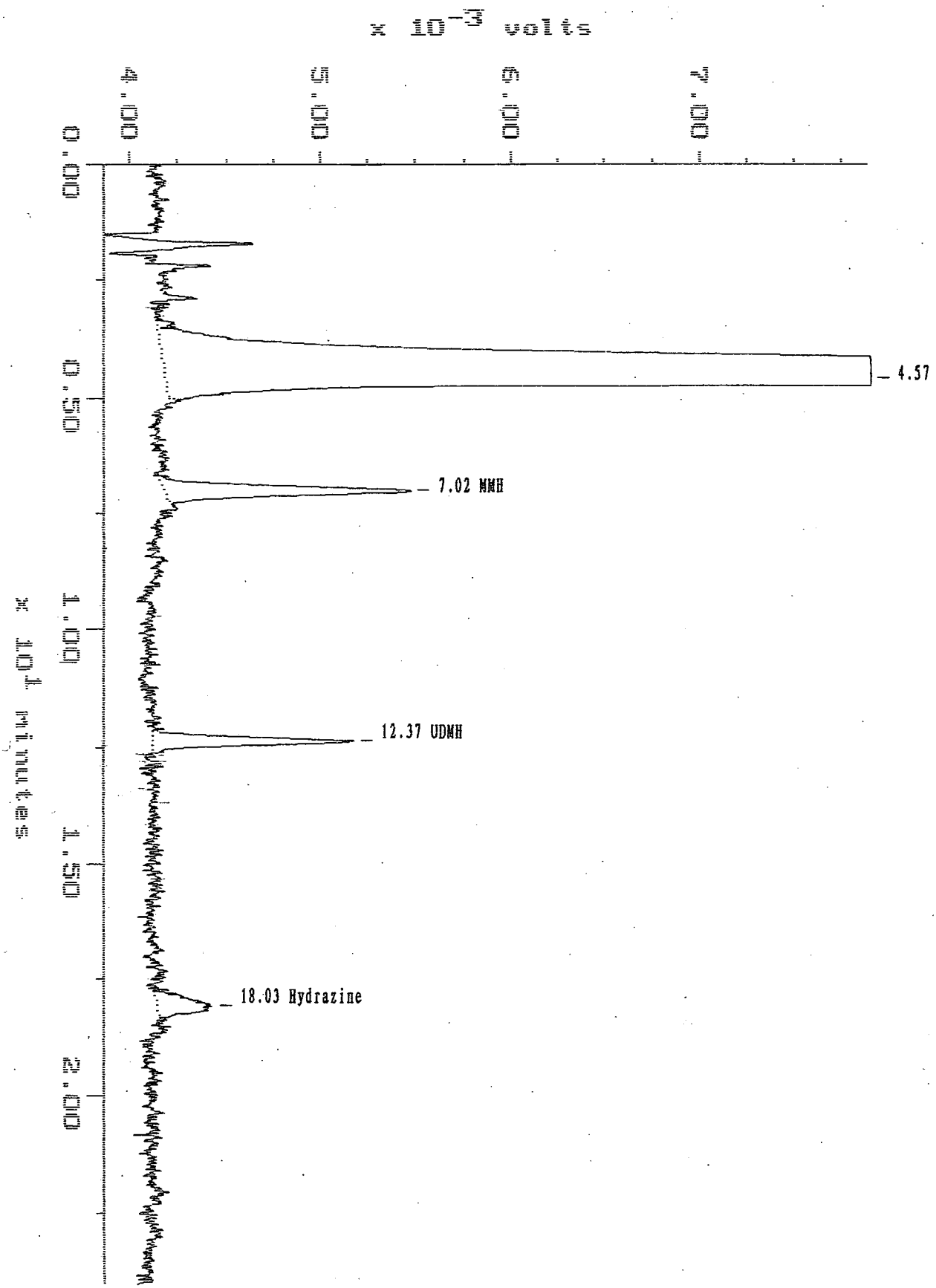
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.567	558538	
2	1	MMH	7.017	17337	10.0000
3	3	UDMH	12.367	11721	10.0000
4	5	Hydrazine	18.033	5258	2.0000
TOTAL				592854	22.0000

DETECTOR: *UV #2 322

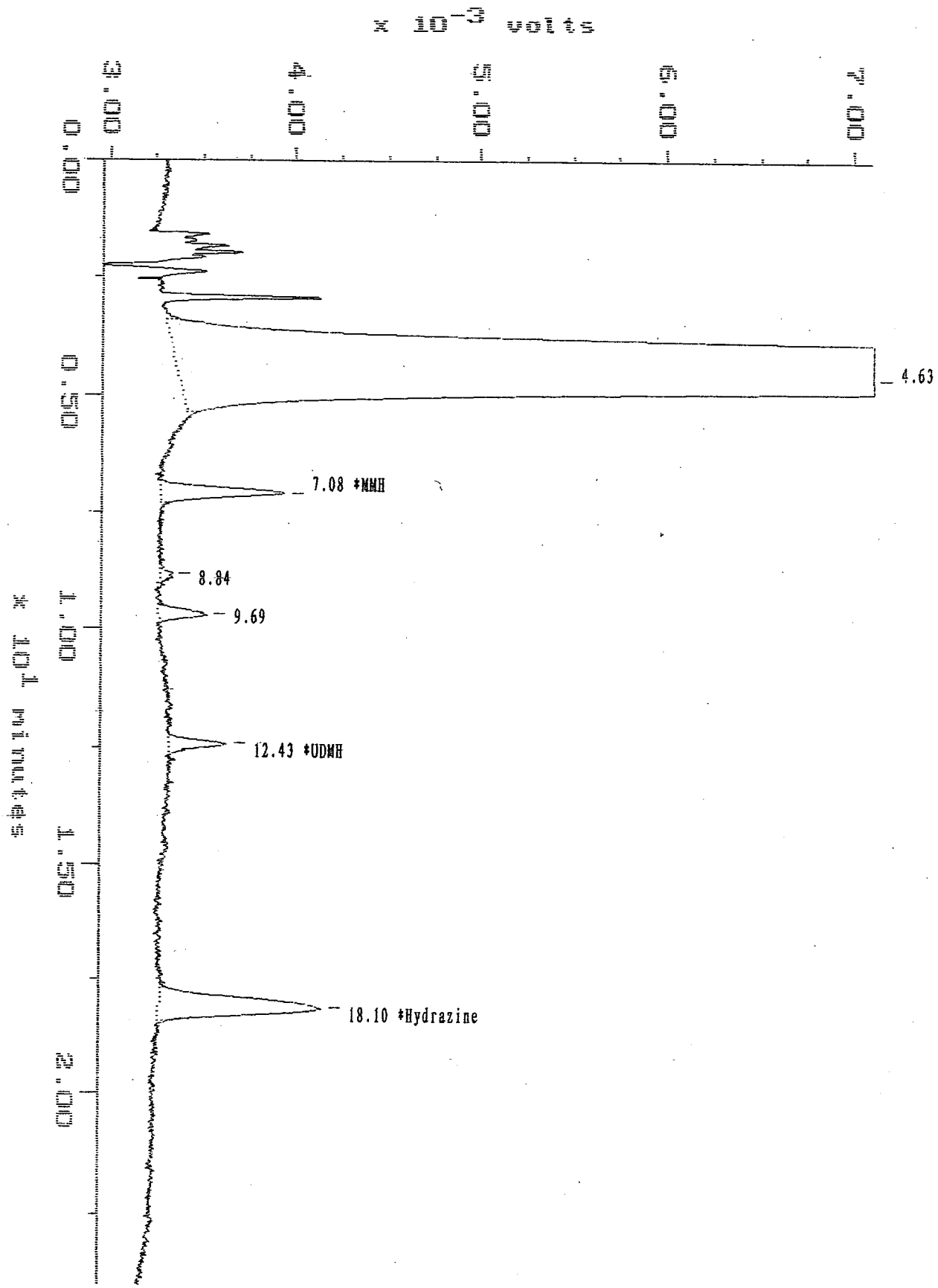
PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.625	3818745	
2	2	*MMH	7.083	8609	10.0000
3			8.842	887	
4			9.692	3015	
5	4	*UDMH	12.425	3328	10.0000
6	6	*Hydrazine	18.100	20498	2.0000
TOTAL				3855082	22.0000

Sample: 707192-Std 2 Channel: UV #1 365 Filename: JA082503
Acquired: 25-JAN-108 11:03 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: 707192-Std 2 Channel: *UV #2 322
Acquired: 25-JAN-108 11:03 Method: C:\MAX\DATA1\HYD-595

Filename: JA082503
Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:02:04

SAMPLE: 707192-Std 3
#4 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 11:29
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: STND
Instrument: Shimadzu 6A
Filename: JA082504
Index: 4

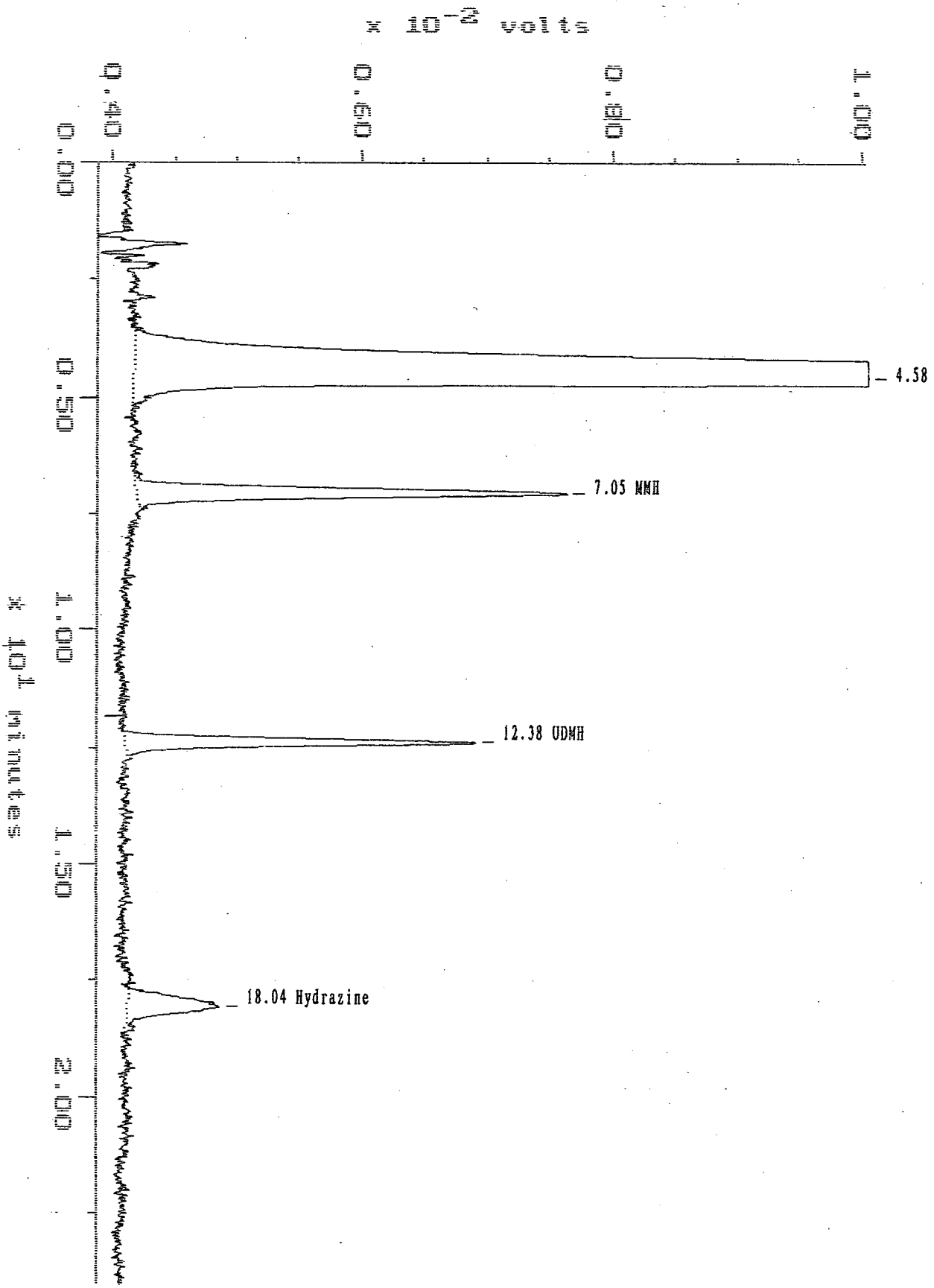
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.575	602168	
2	1	MMH	7.050	45879	25.0000
3	3	UDMH	12.375	31344	25.0000
4	5	Hydrazine	18.042	16519	5.0000
TOTAL				695911	55.0000

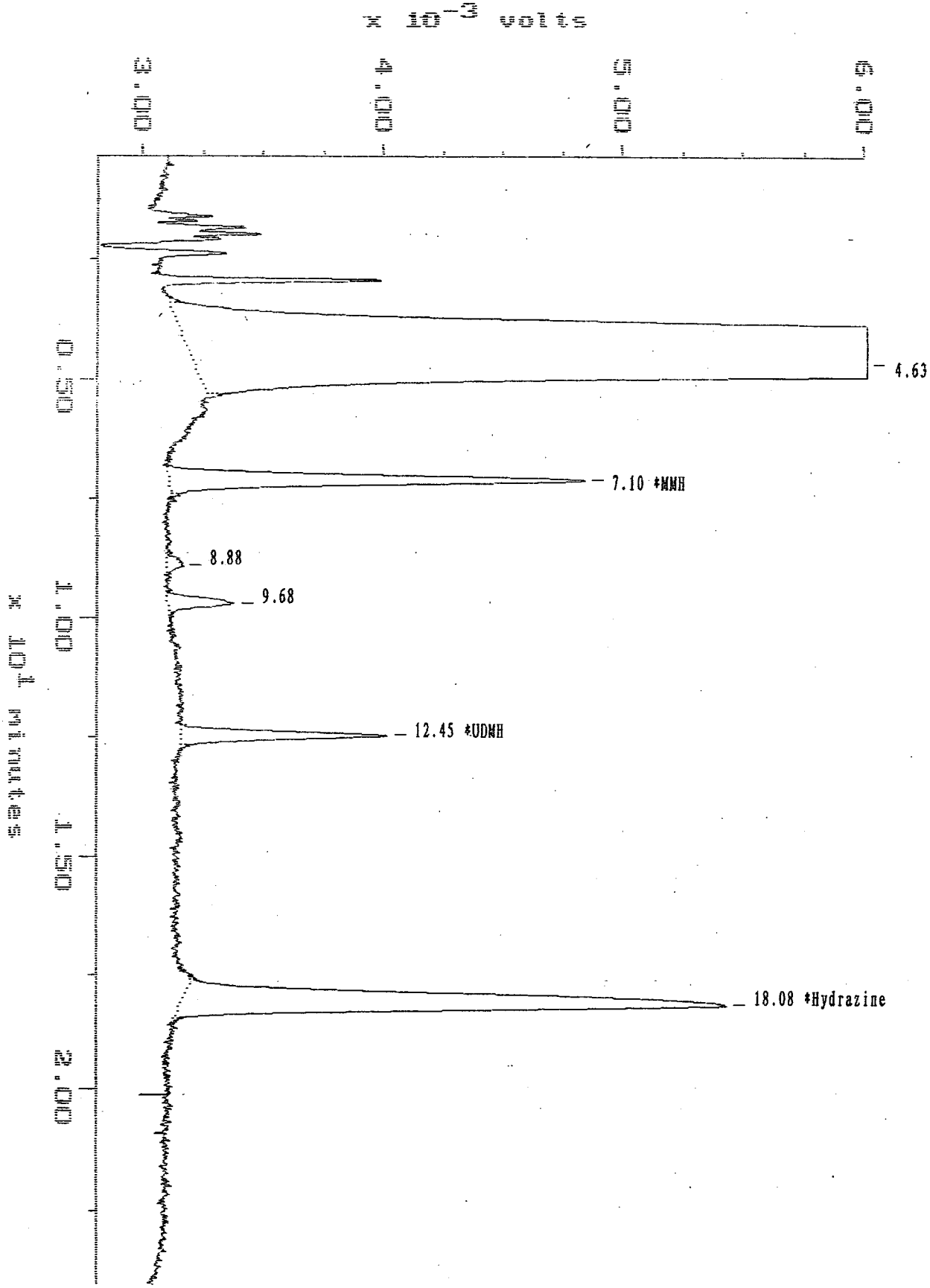
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.633	4117252	
2	2	*MMH	7.100	23657	25.0000
3			8.883	883	
4			9.675	3389	
5	4	*UDMH	12.450	9270	25.0000
6	6	*Hydrazine	18.083	53048	5.0000
TOTAL				4207499	55.0000

Sample: 707192-Std 3 Channel: UV #1 365 Filename: JA082504
Acquired: 25-JAN-108 11:29 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: 707192-Std 3 Channel: *UV #2 322 Filename: JA082504
Acquired: 25-JAN-108 11:29 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:02:41

SAMPLE: 707192-Std 4
#5 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 13:14
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: STND
Instrument: Shimadzu 6A
Filename: JA082505
Index: 5

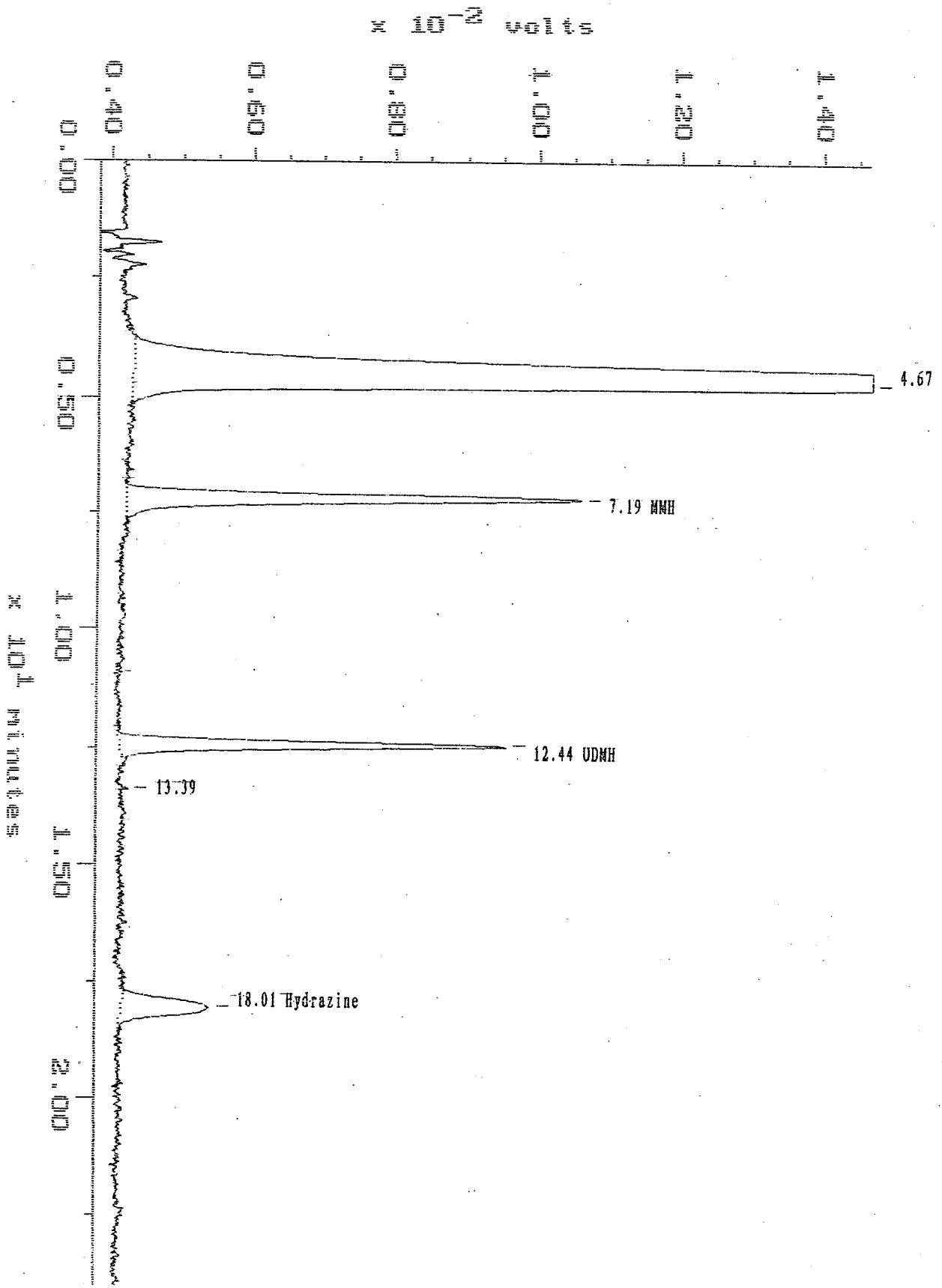
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.667	552133	
2	1	MMH	7.192	85844	50.0000
3	3	UDMH	12.442	58006	50.0000
4			13.392	13	
5	5	Hydrazine	18.008	27239	10.0000
TOTAL				723236	110.0000

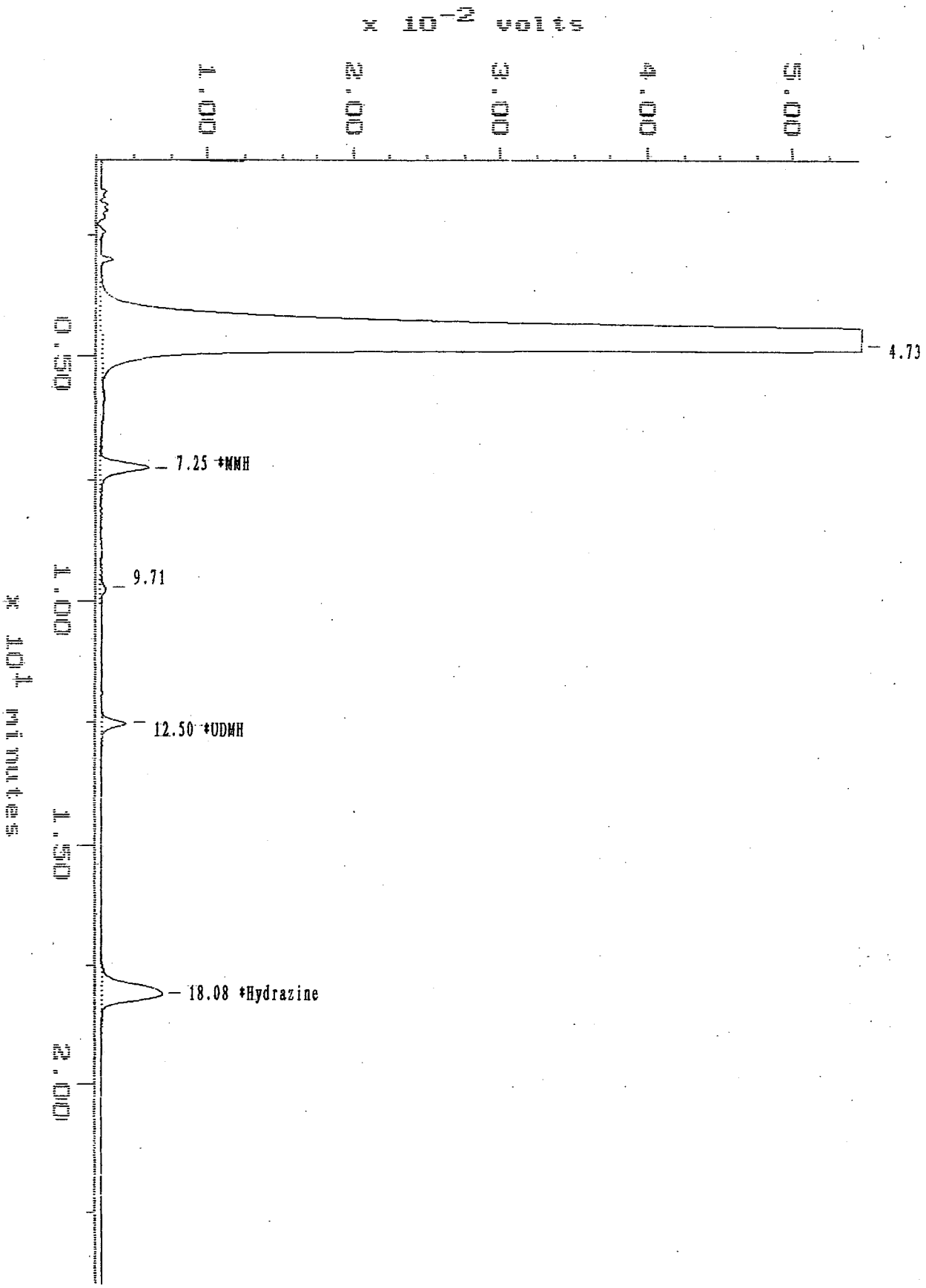
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.733	3799970	
2	2	*MMH	7.250	43602	50.0000
3			9.708	3166	
4	4	*UDMH	12.500	17279	50.0000
5	6	*Hydrazine	18.083	95994	10.0000
TOTAL				3960012	110.0000

Sample: 707192-Std 4 Channel: UV #1 365 Filename: JA082505
Acquired: 25-JAN-108 13:14 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: 707192-Std 4 Channel: *UV #2 322 Filename: JA082505
Acquired: 25-JAN-108 13:14 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:03:19

SAMPLE: 707192-Std 5
#6 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 13:40
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: STND
Instrument: Shimadzu 6A
Filename: JA082506
Index: 6

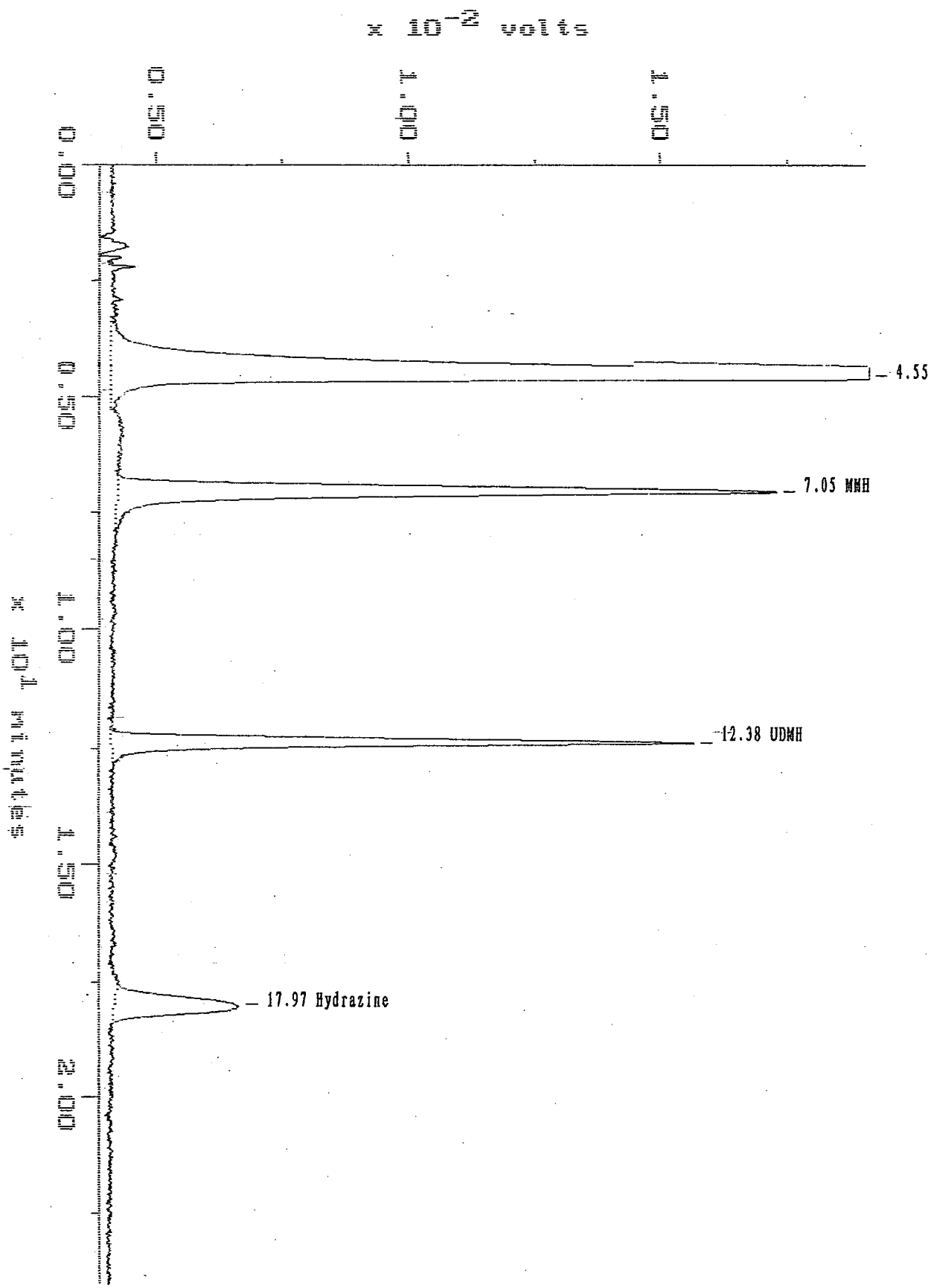
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.550	579421	
2	1	MMH	7.050	184591	100.0000
3	3	UDMH	12.375	127387	100.0000
4	5	Hydrazine	17.967	56625	20.0000
TOTAL				948024	220.0000

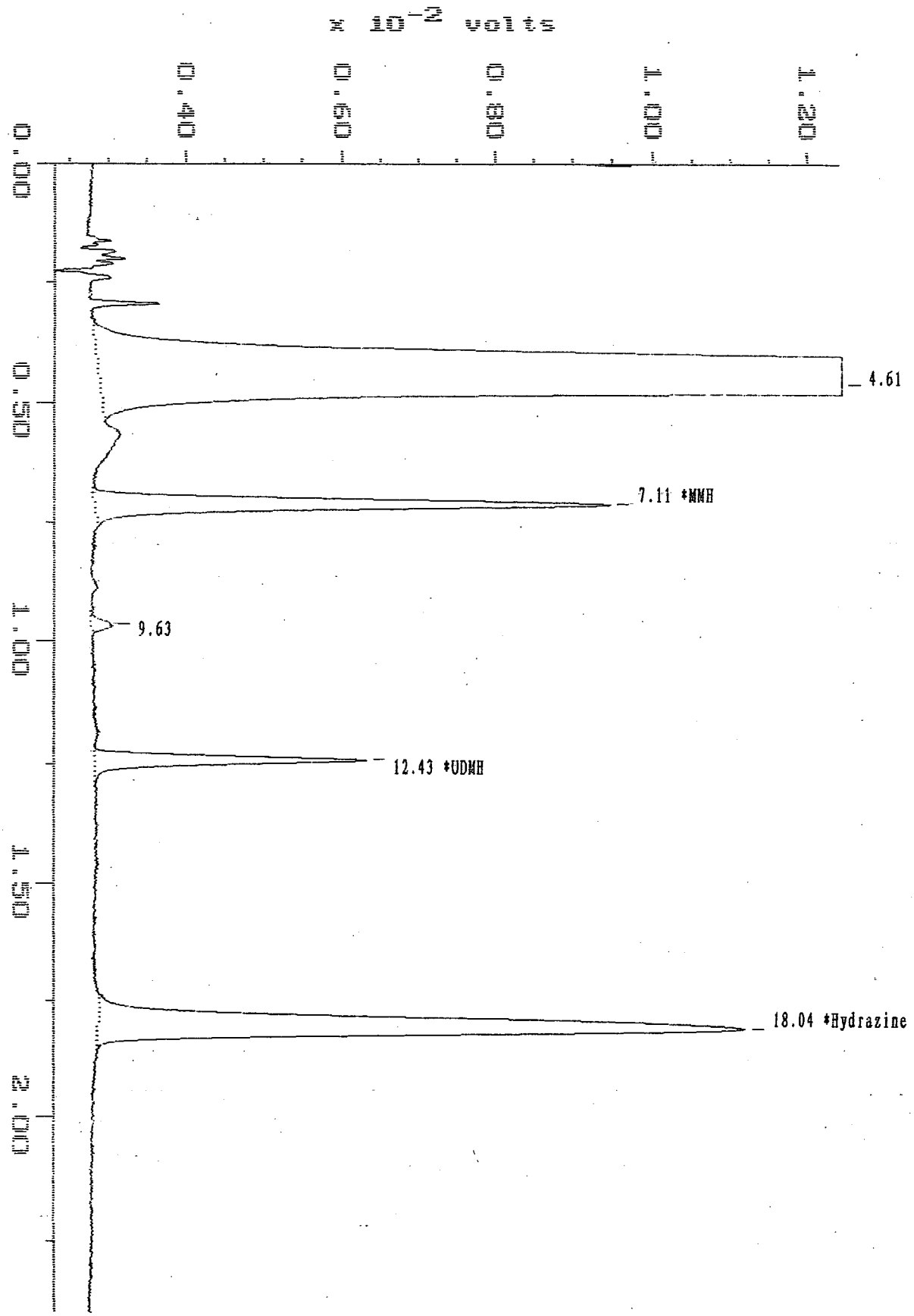
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.608	3887670	
2	2	*MMH	7.108	91286	100.0000
3			9.633	3121	
4	4	*UDMH	12.433	38143	100.0000
5	6	*Hydrazine	18.042	196942	20.0000
TOTAL				4217162	220.0000

Sample: 707192-Std 5 Channel: UV #1 365 Filename: JA082506
Acquired: 25-JAN-108 13:40 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: 707192-Std 5 Channel: *UV #2 322 Filename: JA082506
Acquired: 25-JAN-108 13:40 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:03:58

SAMPLE: ICV @ 25 ppb
#7 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 14:08
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: UNKN
Instrument: Shimadzu 6A
Filename: JA082507
Index: 7

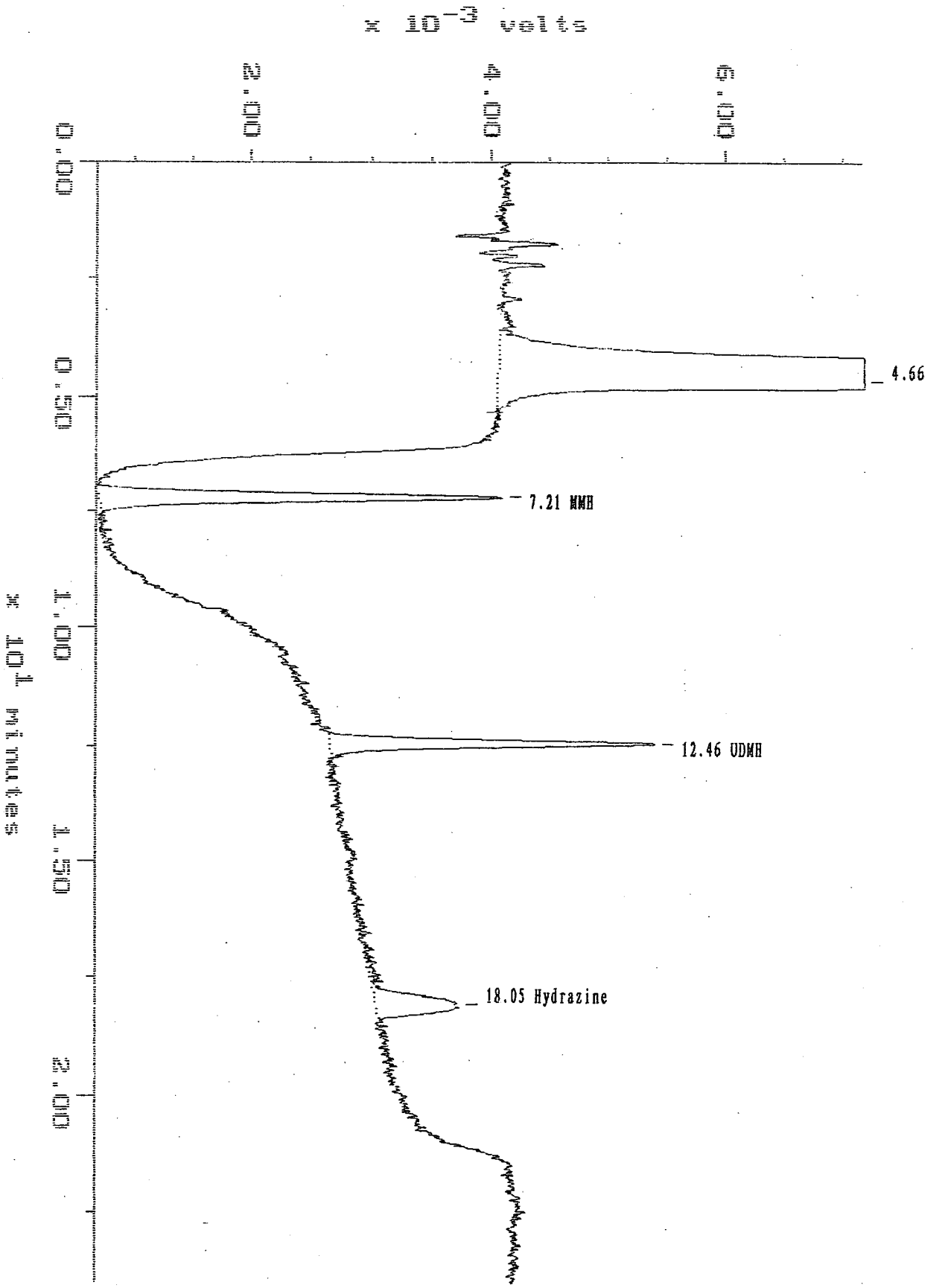
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.658	586787	
2	1	MMH	7.208	43968	24.1362
3	3	UDMH	12.458	29598	23.6401
4	5	Hydrazine	18.050	14514	5.1175
TOTAL				674868	52.8937

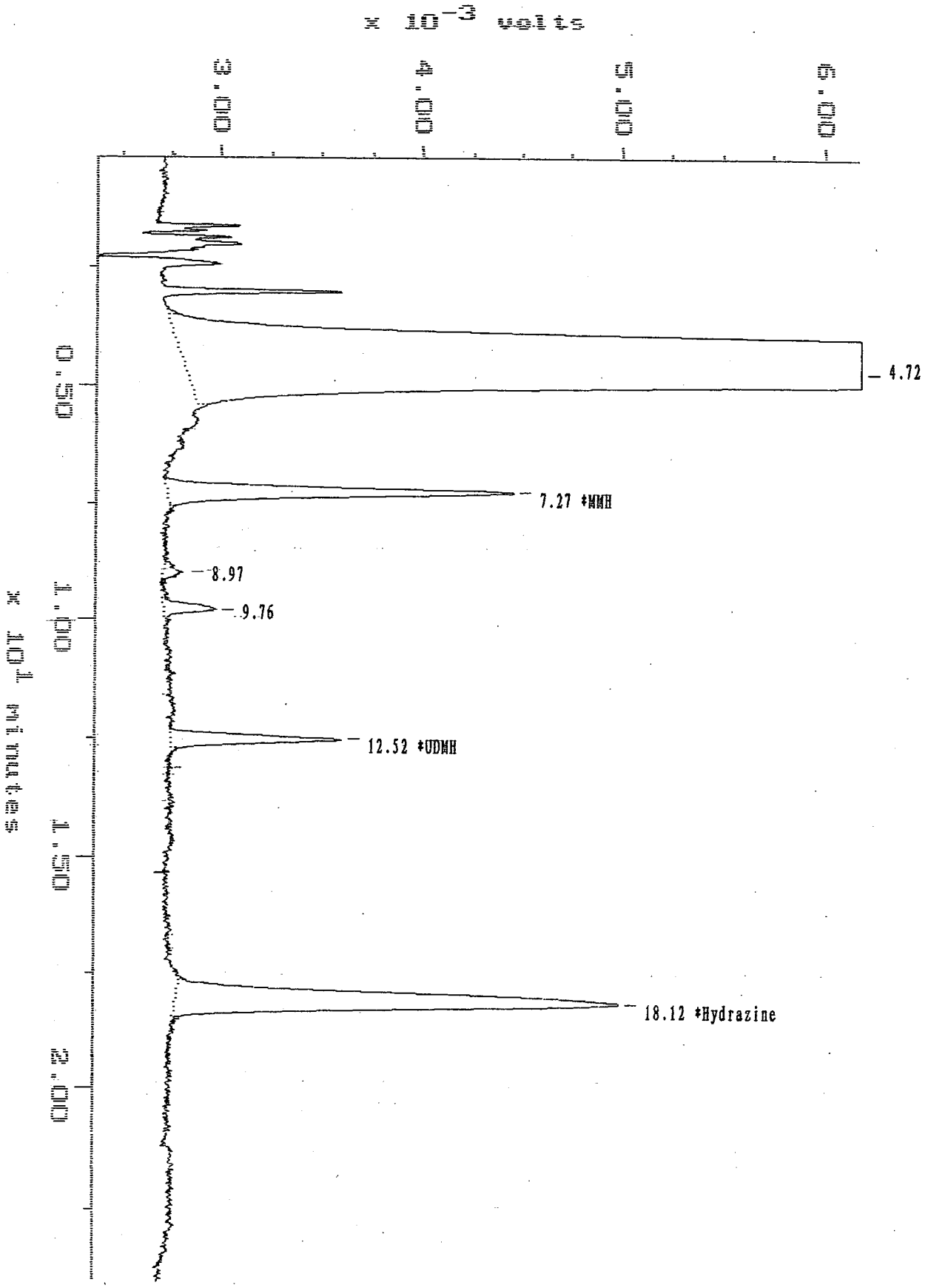
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.717	3972647	
2	2	*MMH	7.267	22885	25.2390
3			8.967	992	
4			9.758	2853	
5	4	*UDMH	12.517	9196	24.5710
6	6	*Hydrazine	18.117	51015	5.1817
TOTAL				4059588	54.9917

Sample: ICV @ 25 ppb Channel: UV #1 365 Filename: JA082507
Acquired: 25-JAN-108 14:08 Method: C:\MAX\DATA1\HYD-595 Operator: JAN



Sample: ICV @ 25 ppb Channel: *UV #2 322 Filename: JA082507
Acquired: 25-JAN-108 14:08 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:04:36

SAMPLE: 707192-LCS
#8 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 14:33
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAN

Type: UNKN
Instrument: Shimadzu 6A
Filename: JA082508
Index: 8

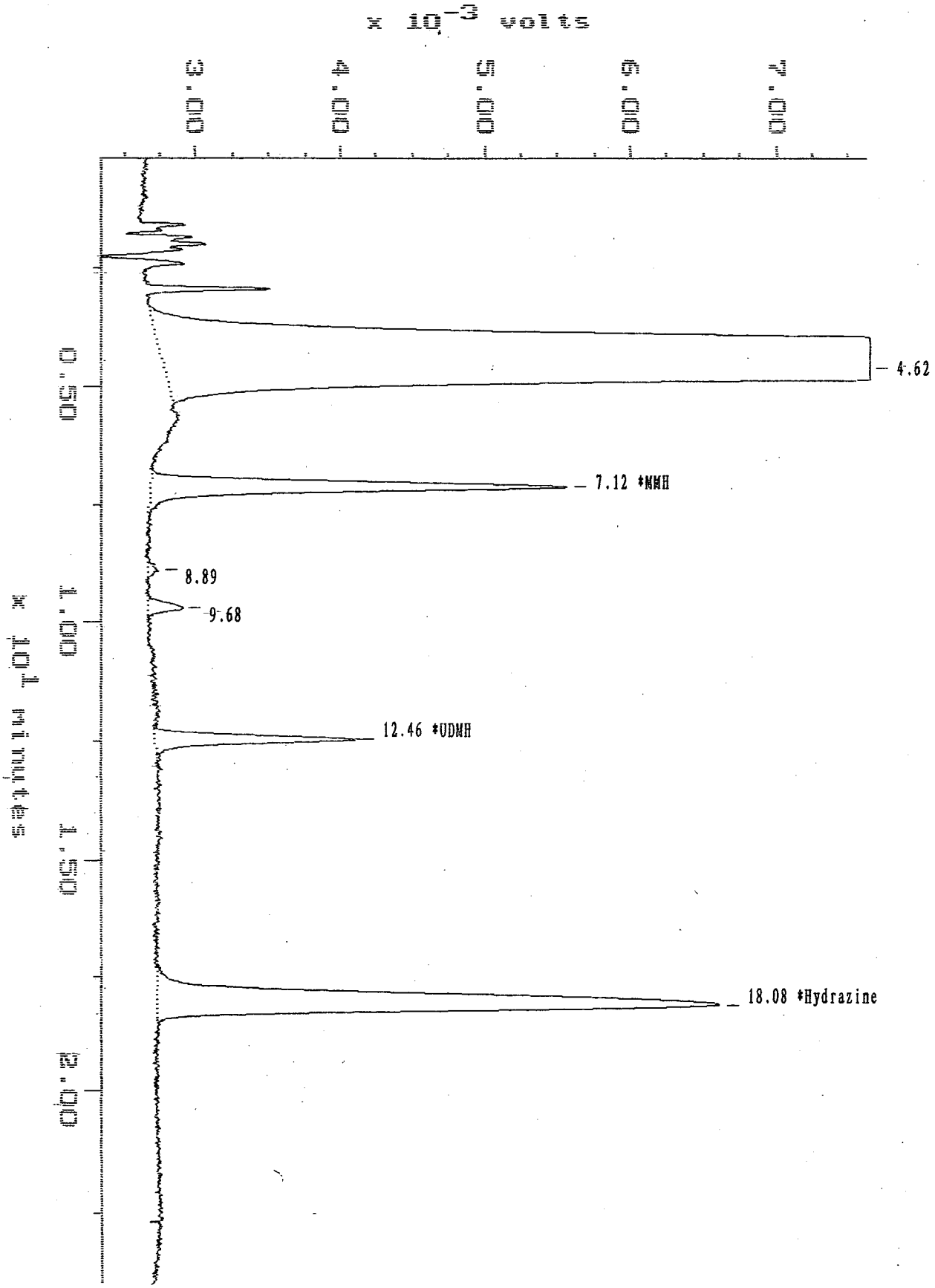
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.550	534566	
2	1	MMH	7.058	77890	42.7575
3	3	UDMH	12.400	51757	41.3379
4	5	Hydrazine	17.992	29842	10.5220
TOTAL				714055	94.6174

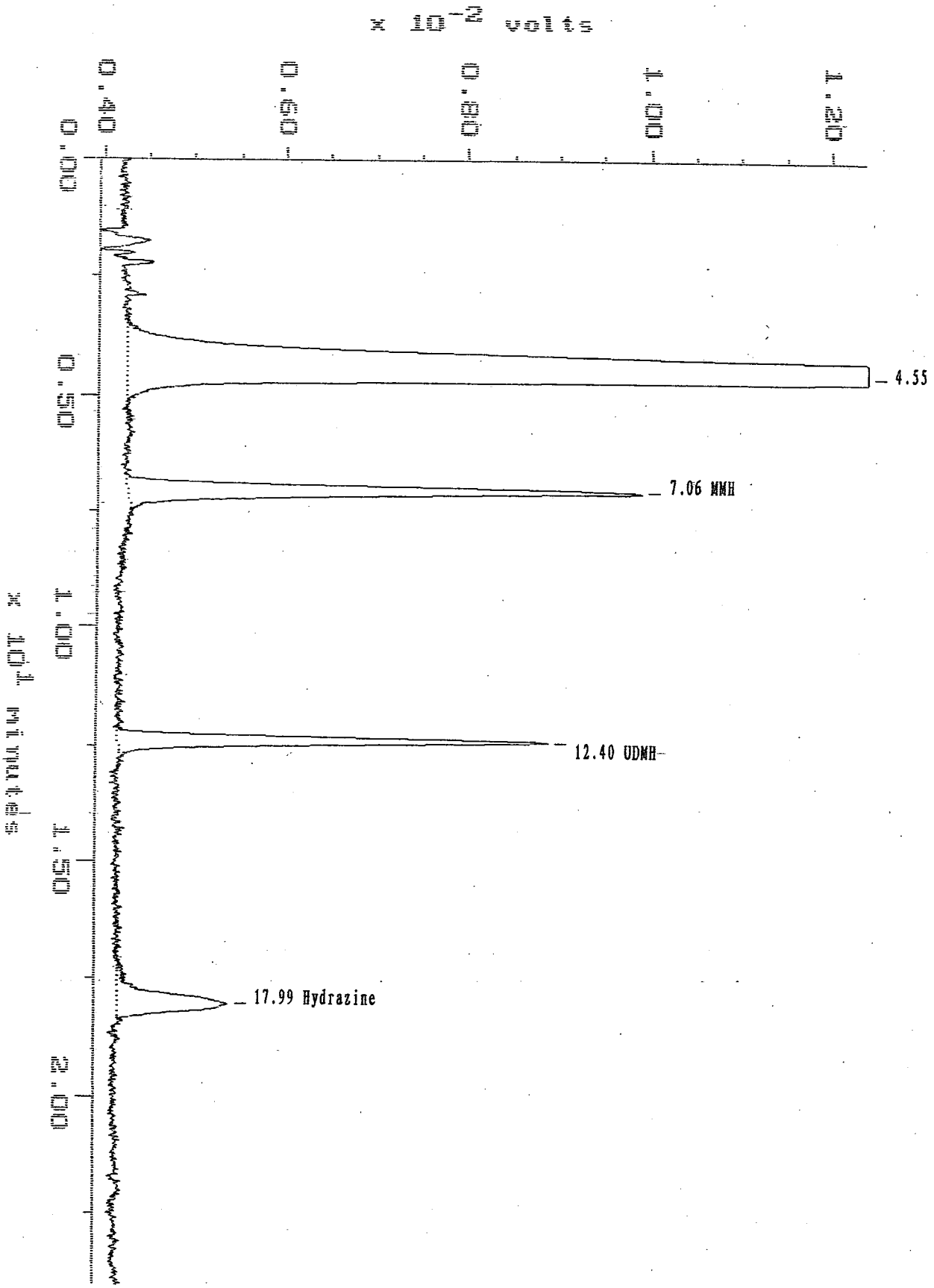
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.617	3774523	
2	2	*MMH	7.117	40760	44.9522
3			8.892	607	
4			9.683	2875	
5	4	*UDMH	12.458	15692	41.9272
6	6	*Hydrazine	18.075	91943	9.3389
TOTAL				3926401	96.2184

Sample: 707192-LCS Channel: *UV #2 322 Filename: JA082508
Acquired: 25-JAN-108 14:33 Method: C:\WAX\DATA1\HYD-595 Operator: JAH



Sample: 707192-LCS Channel: UV #1 365 Filename: JA082508
Acquired: 25-JAN-108 14:33 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:05:13

SAMPLE: 707192-LCSD
#9 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 14:59
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: UNKN
Instrument: Shimadzu 6A
Filename: JA082509
Index: 9

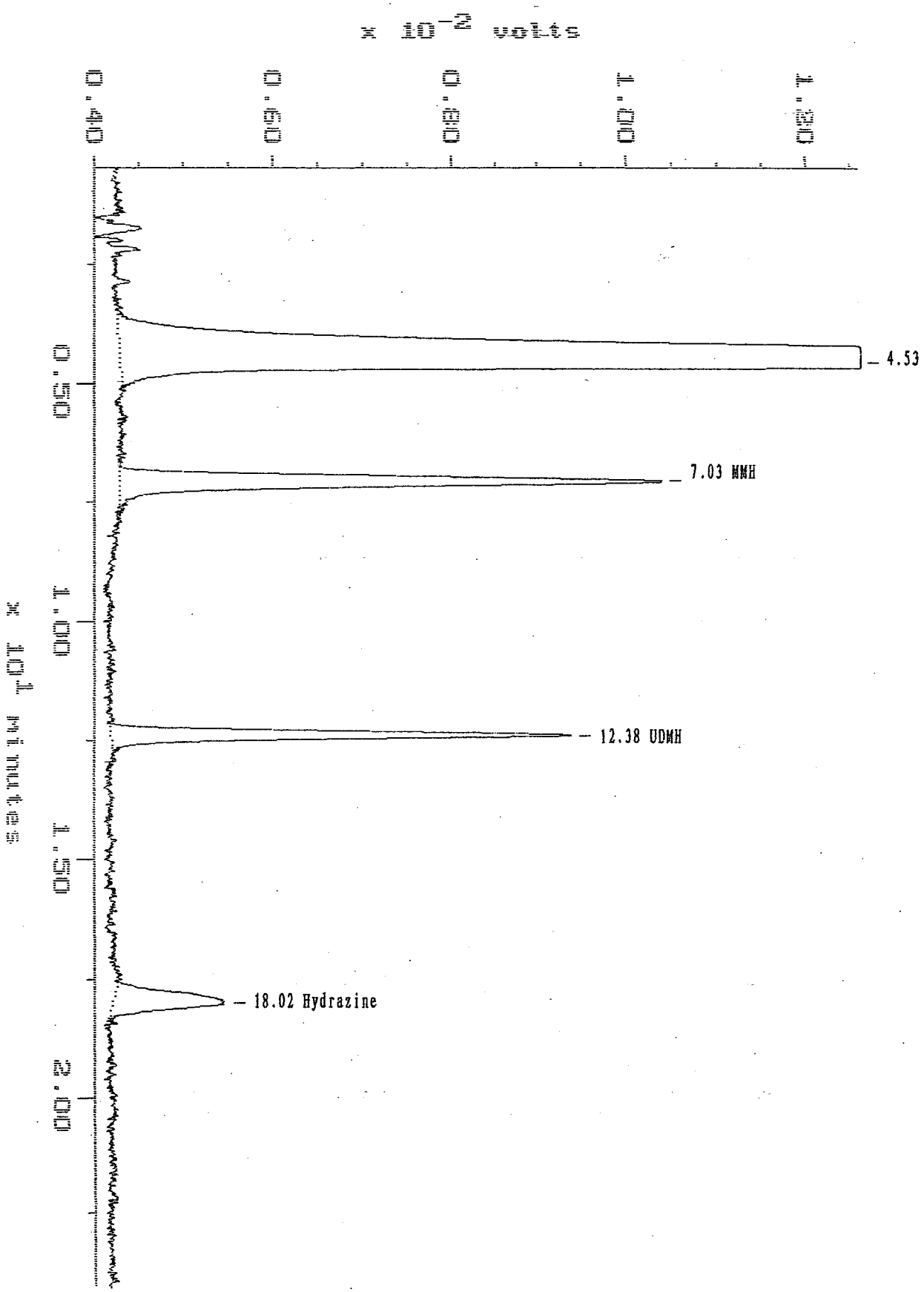
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.533	646168	
2	1	MMH	7.033	88497	48.5800
3	3	UDMH	12.383	58134	46.4314
4	5	Hydrazine	18.017	28837	10.1677
TOTAL				821636	105.1791

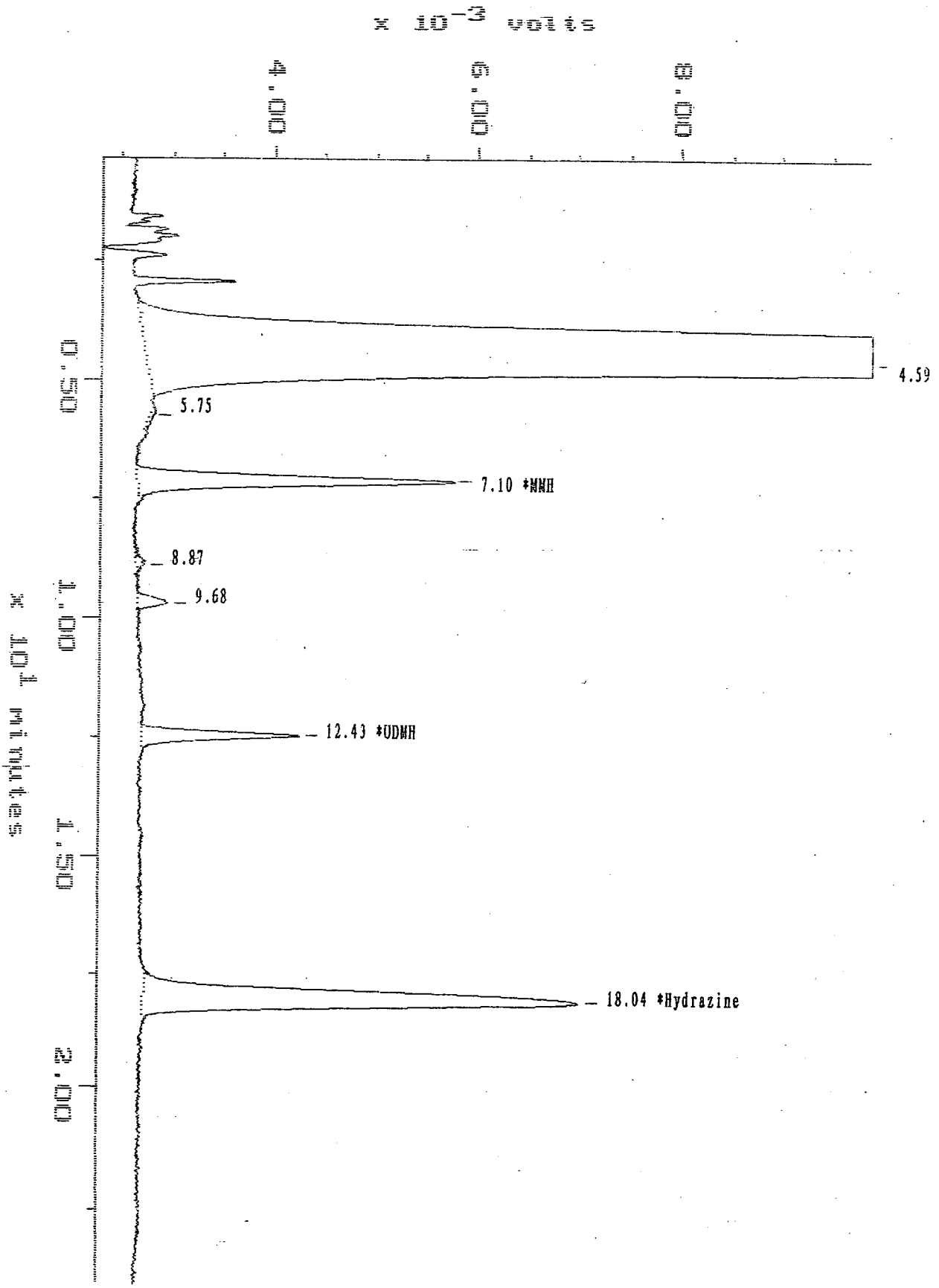
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.592	4404441	
2			5.750	999	
3	2	*MMH	7.100	44599	49.1857
4			8.867	1060	
5			9.675	3413	
6	4	*UDMH	12.433	17232	46.0416
7	6	*Hydrazine	18.042	100598	10.2180
TOTAL				4572341	105.4453

Sample: 707192-LCSD Channel: UV #1 365 Filename: JA082509
Acquired: 25-JAN-108 14:59 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: 707192-LCSD Channel: *UV #2 322
Acquired: 25-JAN-108 14:59 Method: C:\MAX\DATA1\HYD-595
Filename: JA082509
Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:05:51

SAMPLE: 707192-MB
#10 in Method: EPA8315M,ODS COL,SHIMADZU_LC/UV
Acquired: 25-JAN-2008 15:24
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: UNKN
Instrument: Shimadzu 6A
Filename: JA082510
Index: 10

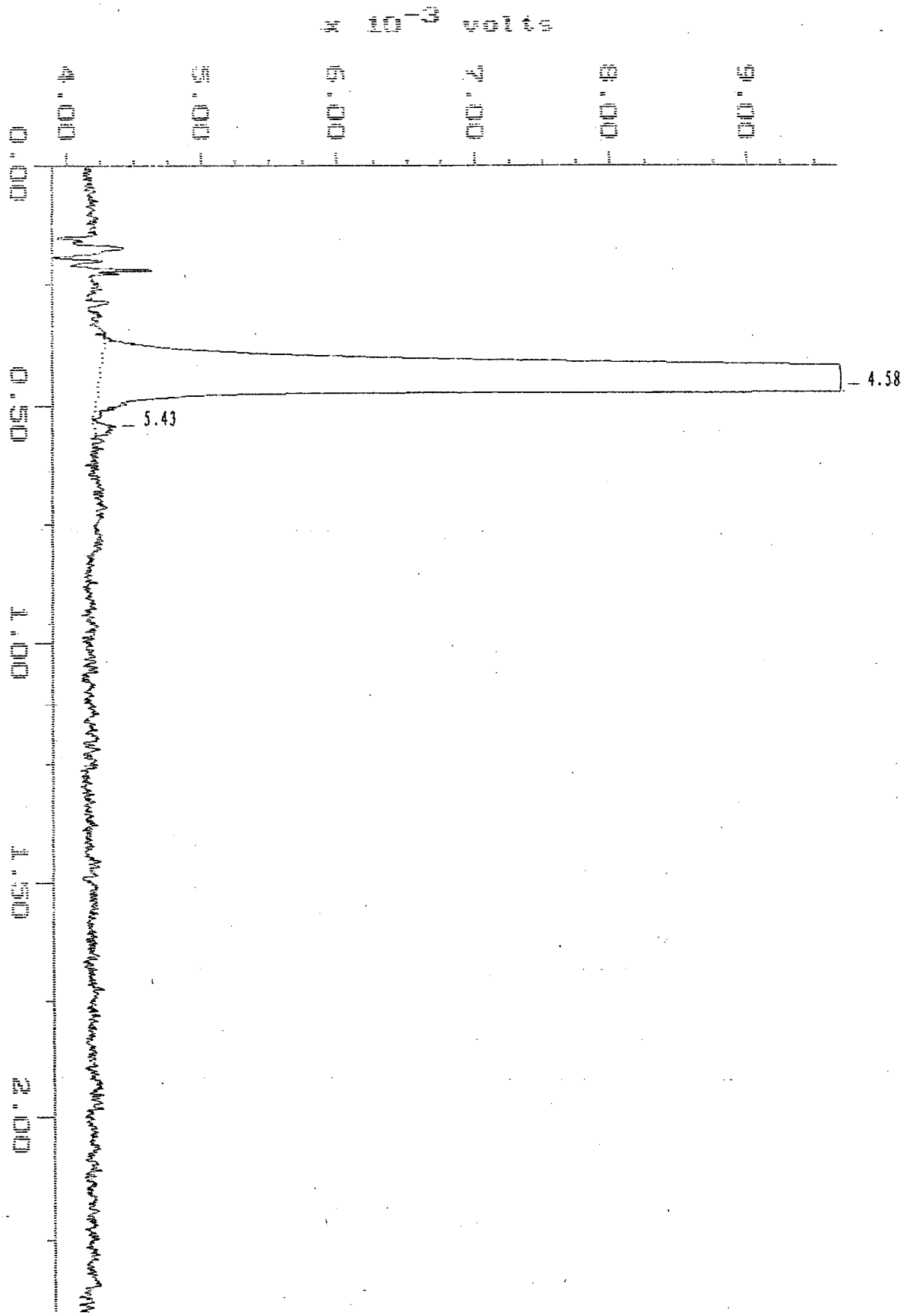
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.575	592718	
2			5.425	1571	
TOTAL				594289	0.0000

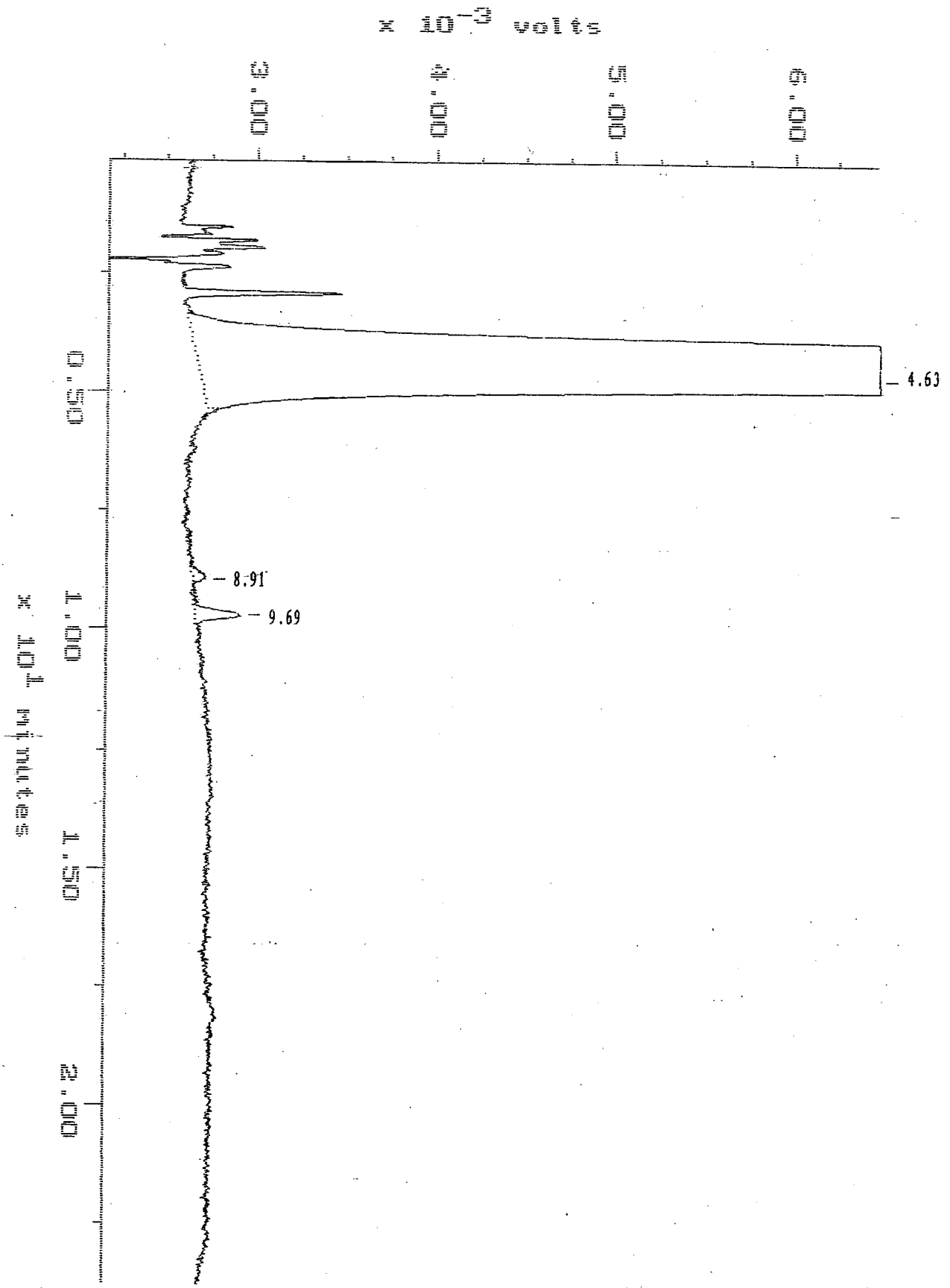
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.633	4037856	
2			8.908	794	
3			9.692	2890	
TOTAL				4041540	0.0000

Sample: 707192-MB Channel: UV #1 365 Filename: JA082510
Acquired: 25-JAN-108 15:24 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: 707192-MB Channel: *UV #2 322 Filename: JA082510
Acquired: 25-JAN-108 15:24 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:06:29

SAMPLE: 972906 Type: UNKN
#11 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV Instrument: Shimadzu 6A
Acquired: 25-JAN-2008 15:50 Filename: JA082511
Rate: 2.0 points/sec Index: 11
Duration: 24.000 minutes
Operator: JAM

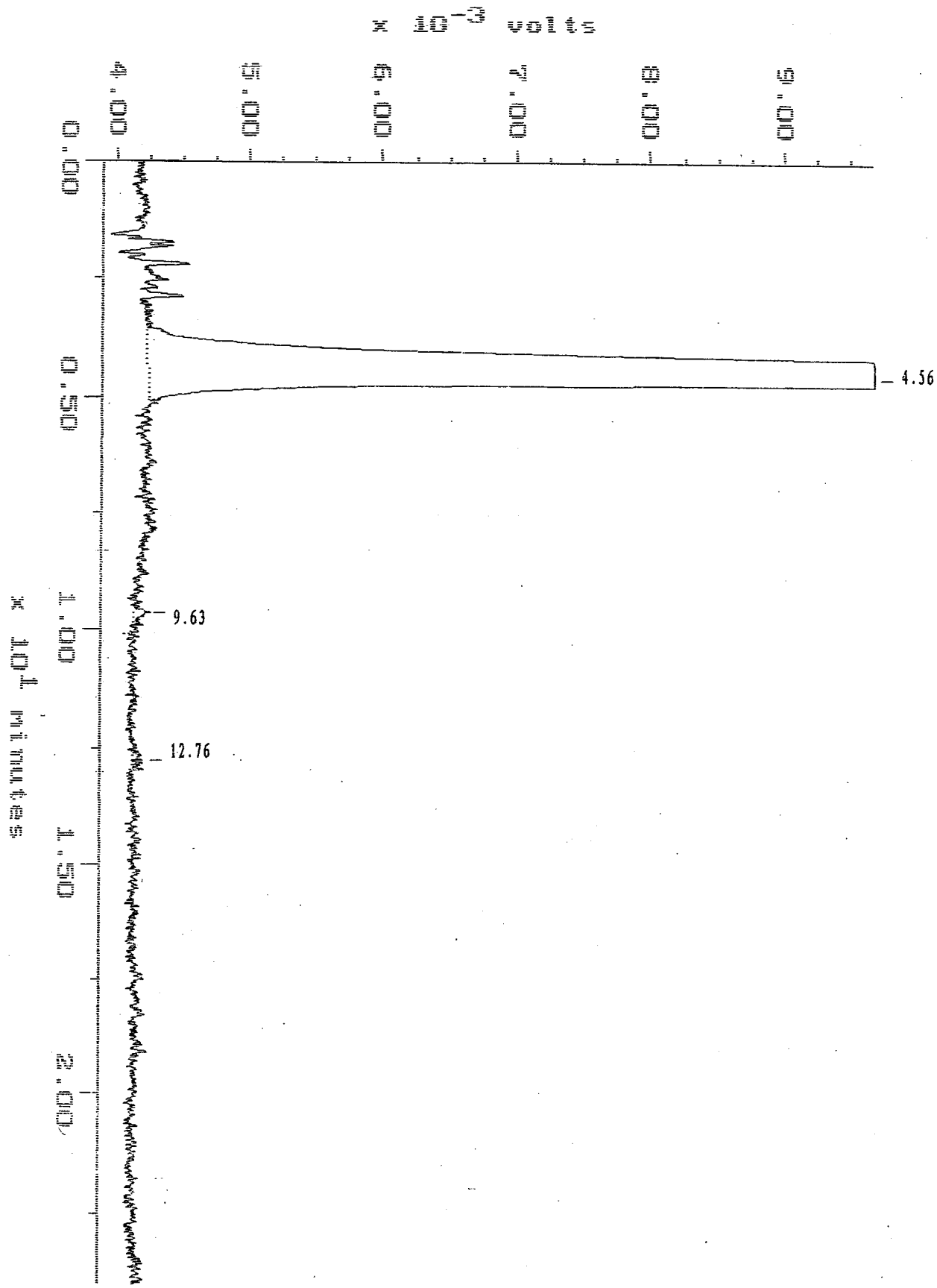
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.358	604689	
2			9.625	1244	
3			12.758	980	
TOTAL				606913	0.0000

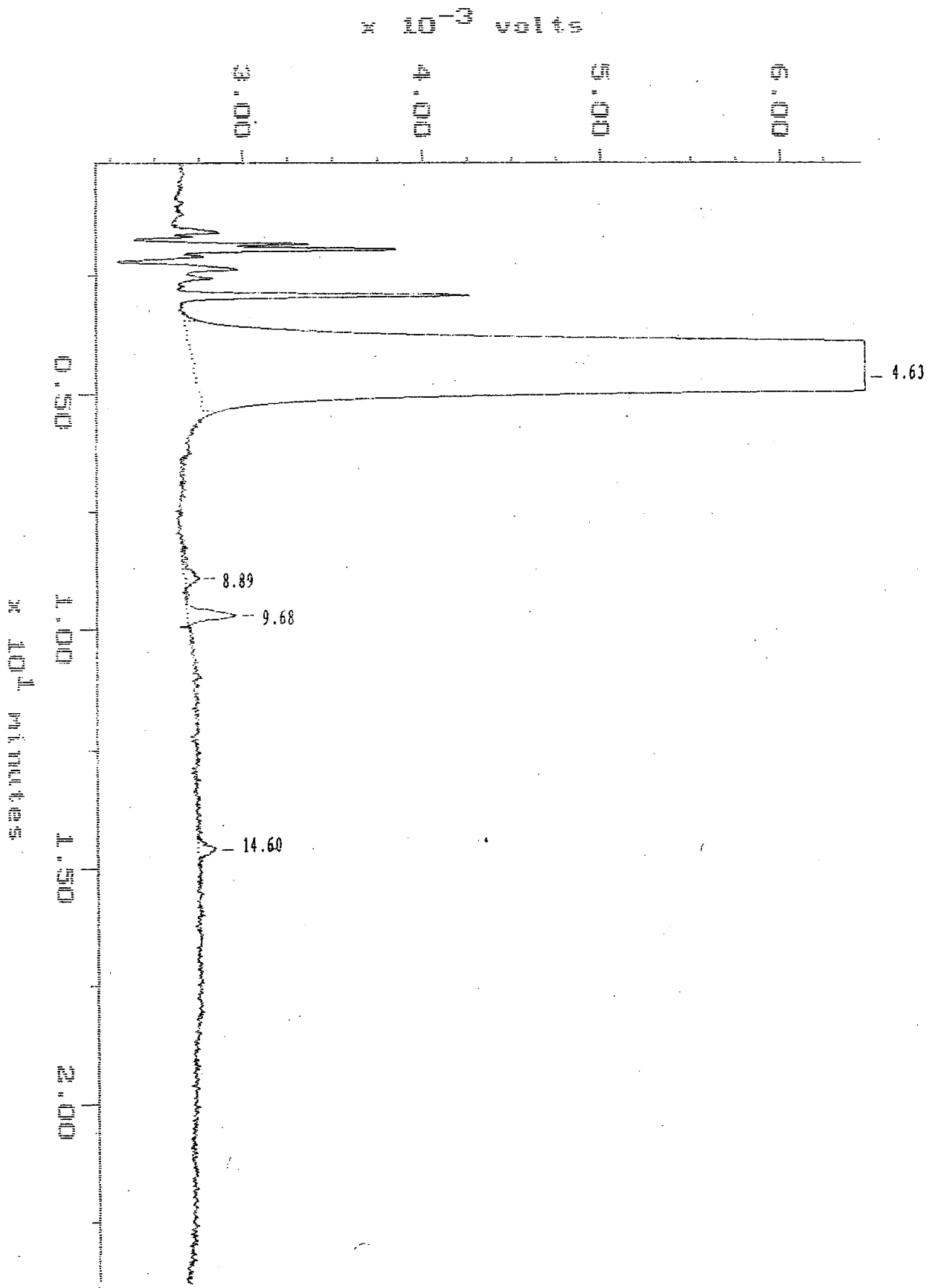
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.625	4132543	
2			8.892	1158	
3			9.675	3155	
4			14.600	1136	
TOTAL				4137992	0.0000

Sample: 972906 Channel: UV #1 365 Filename: JA082511
Acquired: 25-JAN-108 15:50 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: 972906 Channel: *UV #2 322 Filename: JA082511
Acquired: 25-JAN-108 15:50 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:07:07

SAMPLE: 972906 MS
#12 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 16:15
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: UNKN
Instrument: Shimadzu 6A
Filename: JA082512
Index: 12

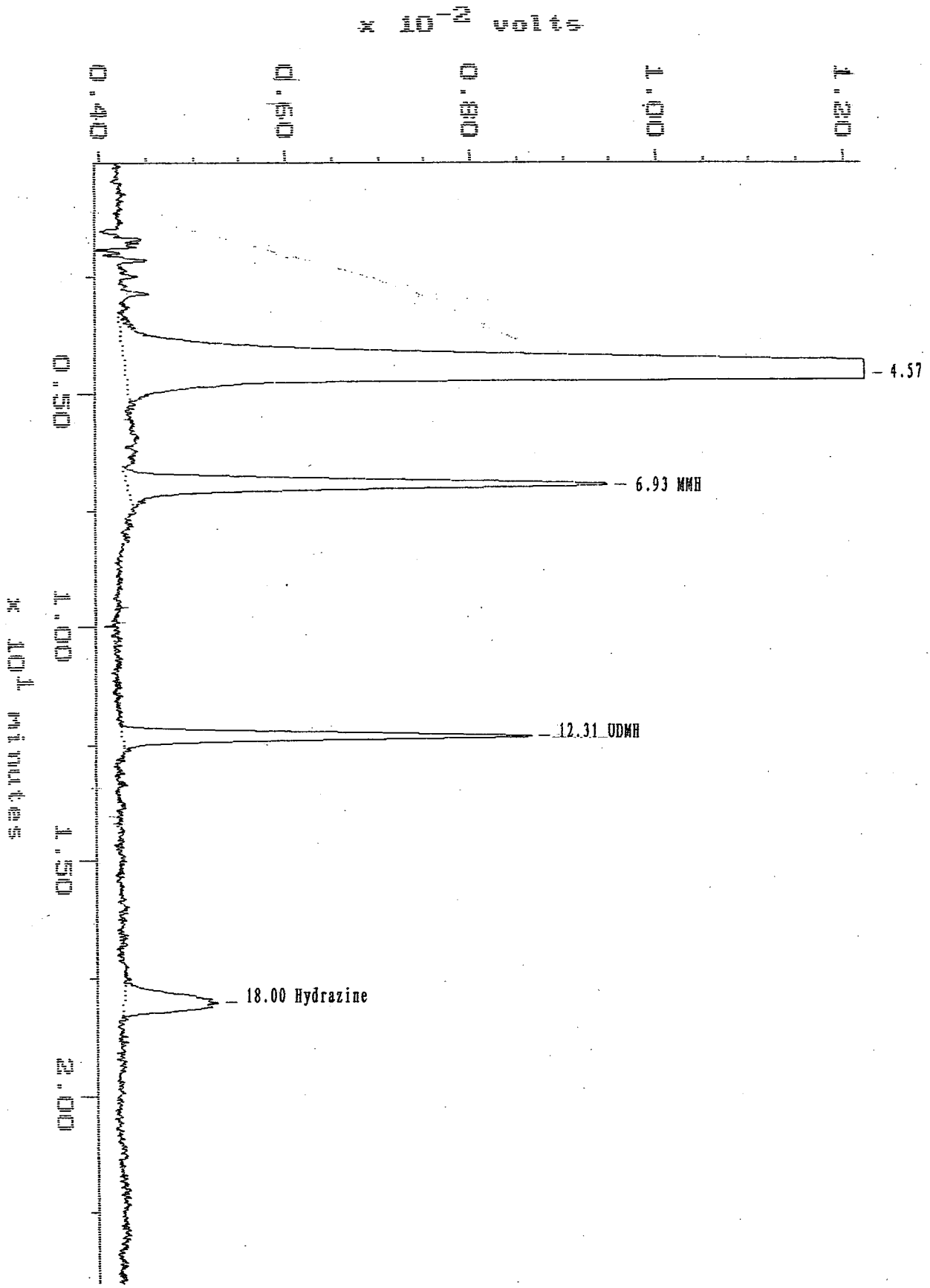
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.567	540760	
2	1	MMH	6.933	74133	40.6946
3	3	UDMH	12.308	46896	37.4553
4	5	Hydrazine	18.000	22097	7.7911
TOTAL				683885	85.9410

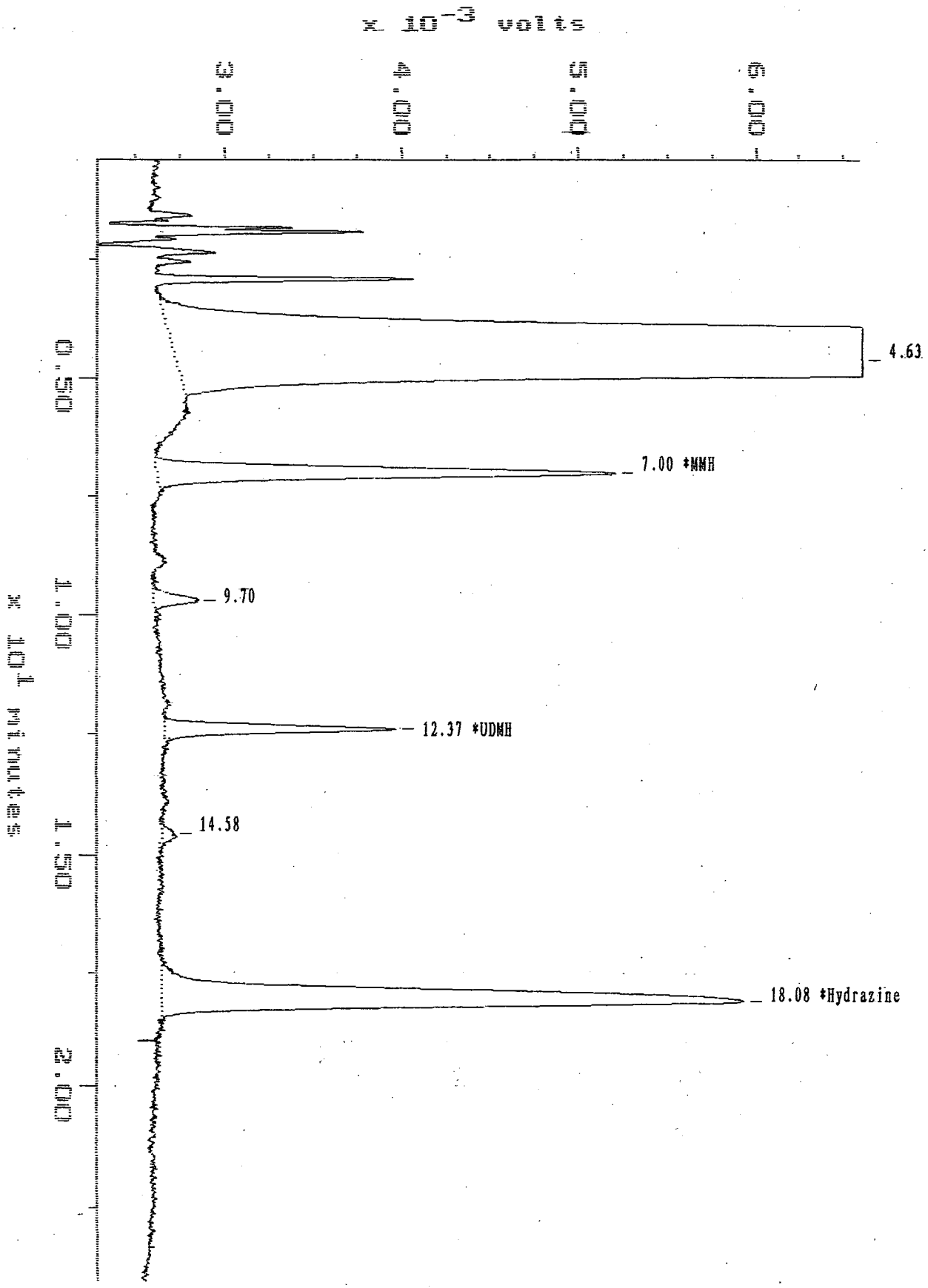
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.625	3669399	
2	2	*MMH	7.000	36015	39.7187
3			9.700	3271	
4	4	*UDMH	12.367	14523	38.8053
5			14.575	992	
6	6	*Hydrazine	18.083	79343	8.0591
TOTAL				3803543	86.5831

Sample: 972906 MS Channel: UV #1 365 Filename: JA082512
Acquired: 25-JAN-108 16:15 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: 972906 MS Channel: *UV #2 322 Filename: JA082512
Acquired: 25-JAN-108 16:15 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:07:46

SAMPLE: 972906 MSD
#13 in Method: EPA8315M;ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 16:41
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: UNKN
Instrument: Shimadzu 6A
Filename: JA082513
Index: 13

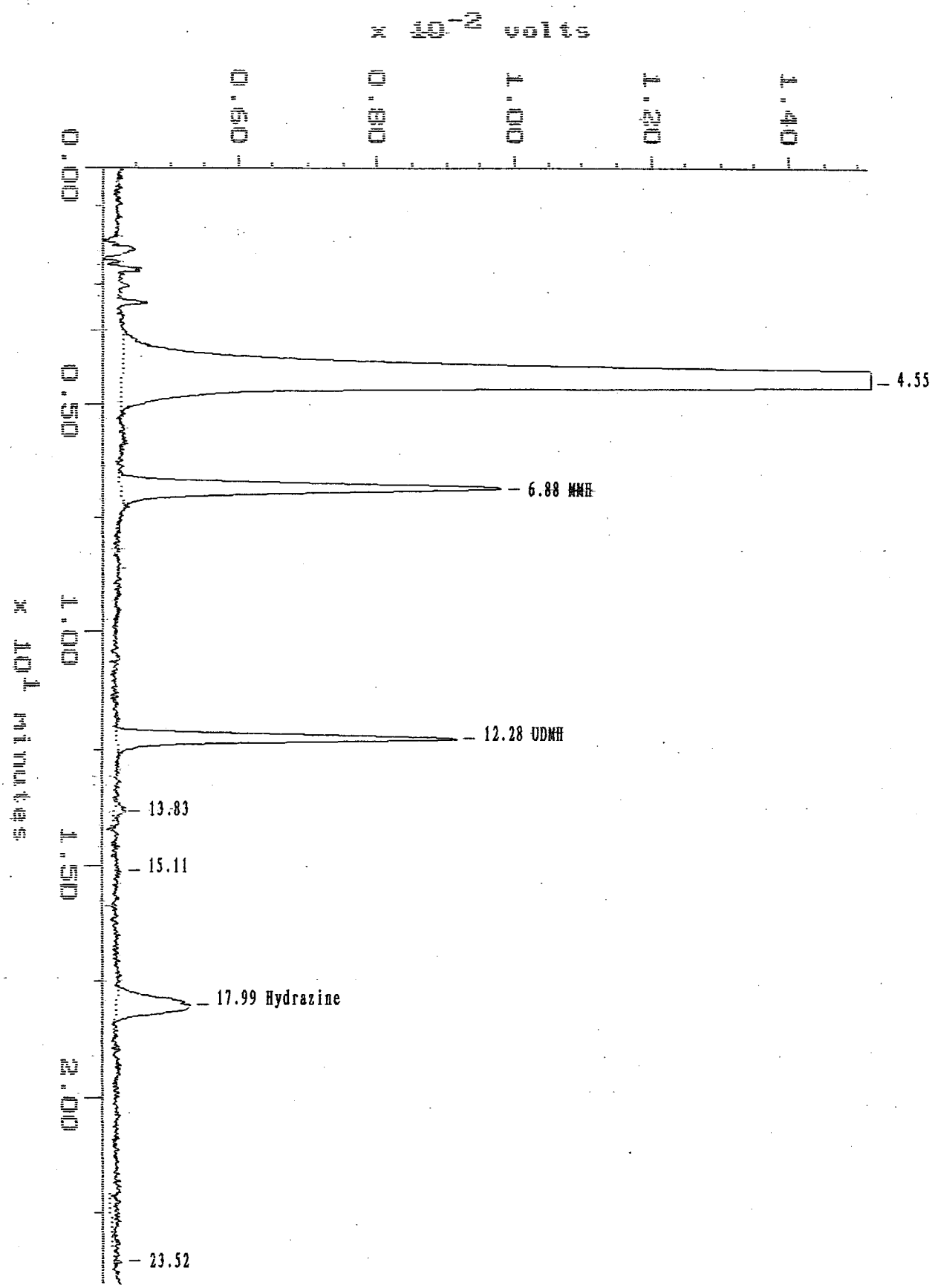
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.550	585500	
2	1	MMH	6.875	79202	43.4777
3	3	UDMH	12.275	55618	44.4215
4			13.833	2600	
5			15.108	694	
6	5	Hydrazine	17.992	24557	8.6587
7			23.517	3823	
TOTAL				751994	96.5579

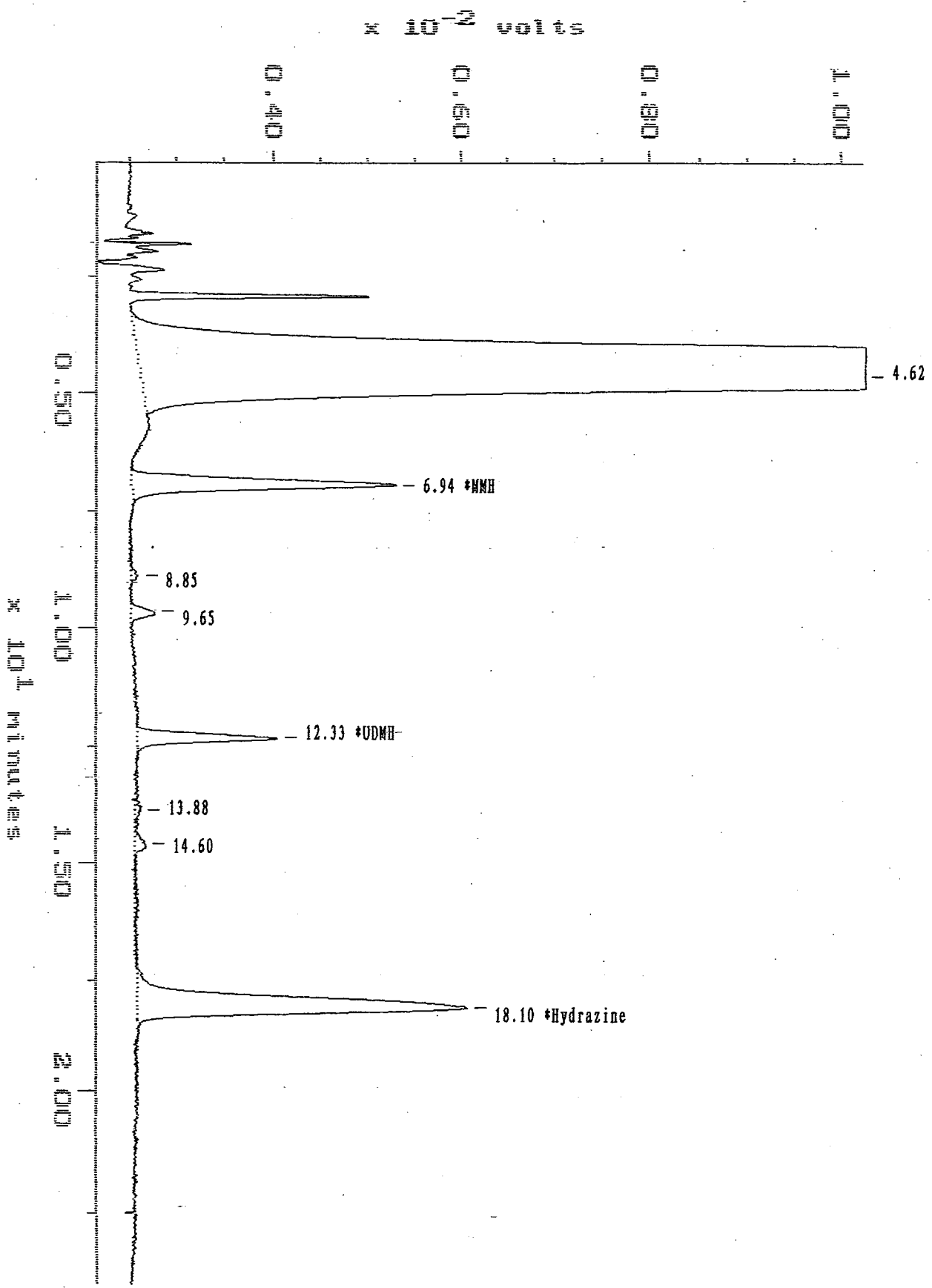
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.617	3985634	
2	2	*MMH	6.942	40100	44.2242
3			8.850	1005	
4			9.650	3276	
5	4	*UDMH	12.325	16565	44.2596
6			13.875	491	
7			14.600	1558	
8	6	*Hydrazine	18.100	83558	8.4872
TOTAL				4132187	96.9710

Sample: 972906 MSD Channel: UV #1 365 Filename: JA082513
Acquired: 25-JAN-108 16:41 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: 972906 MSD Channel: *UV #2 322 Filename: JA082513
Acquired: 25-JAN-108 16:41 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:08:25

SAMPLE: 707192-QCS
#14 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 17:06
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: UNKN
Instrument: Shimadzu 6A
Filename: JA082514
Index: 14

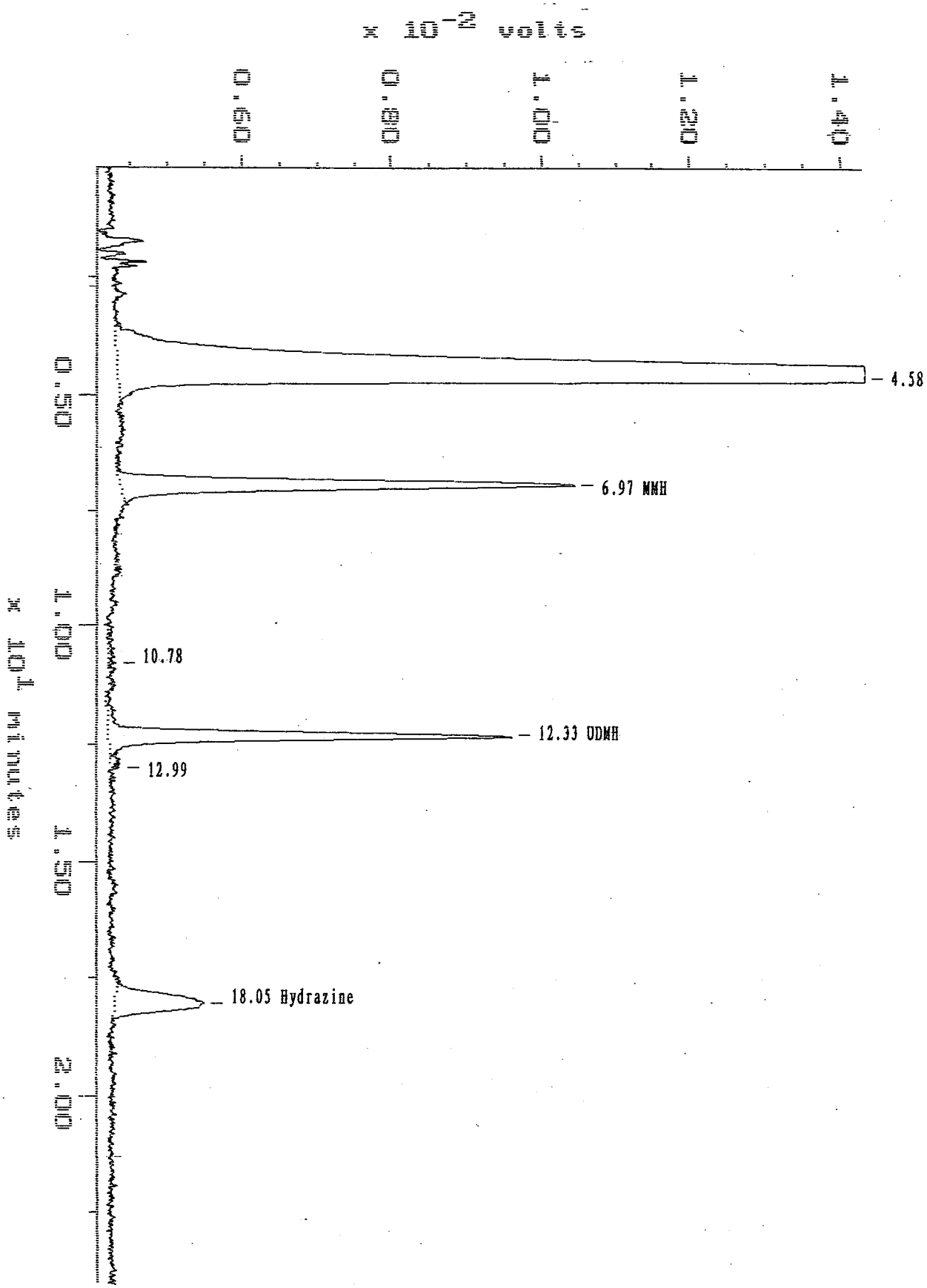
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.583	499206	
2	1	MMH	6.967	84791	46.5456
3			10.775	1990	
4	3	UDMH	12.325	63413	50.6480
5			12.992	1457	
6	5	Hydrazine	18.050	28062	9.8945
TOTAL				678920	107.0880

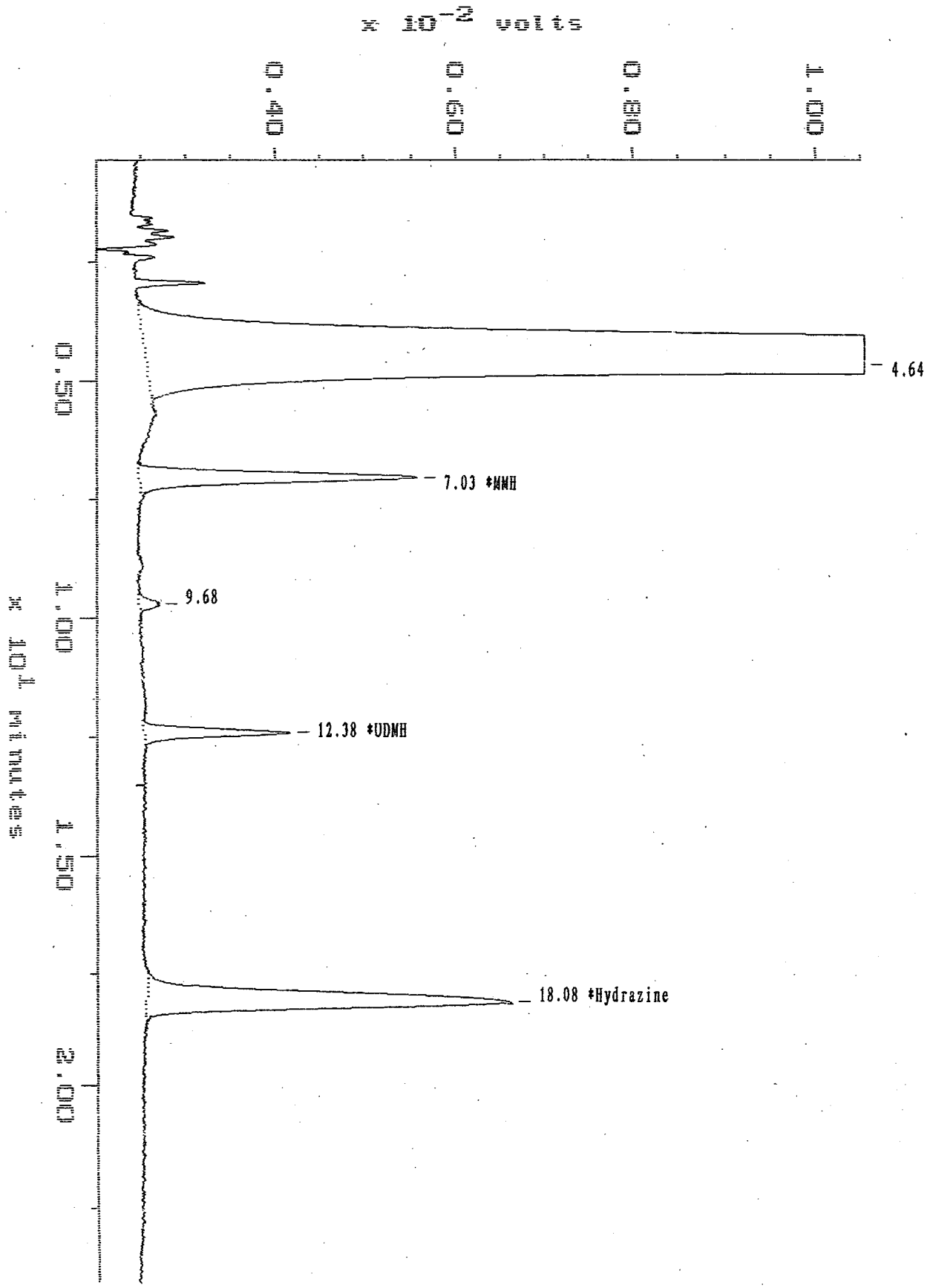
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			4.642	3391187	
2	2	*MMH	7.025	43066	47.4953
3			9.675	2960	
4	4	*UDMH	12.383	17735	47.3860
5	6	*Hydrazine	18.083	96094	9.7605
TOTAL				3551041	104.6418

Sample: 707192-QCS Channel: UV #1 365 Filename: JA082514
Acquired: 25-JAN-108 17:06 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: 707192-QCS Channel: *UV #2 322 Filename: JA082514
Acquired: 25-JAN-108 17:06 Method: C:\MAX\DATA1\HYD-595 Operator: JAN



BASELINE 810 CUSTOM REPORT

Printed: 1-FEB-2008 7:09:04

SAMPLE: MP BLANK 2
#15 in Method: EPA8315M,ODS COL,SHIMADZU LC/UV
Acquired: 25-JAN-2008 17:32
Rate: 2.0 points/sec
Duration: 24.000 minutes
Operator: JAM

Type: UNKN
Instrument: Shimadzu 6A
Filename: JA082515
Index: 15

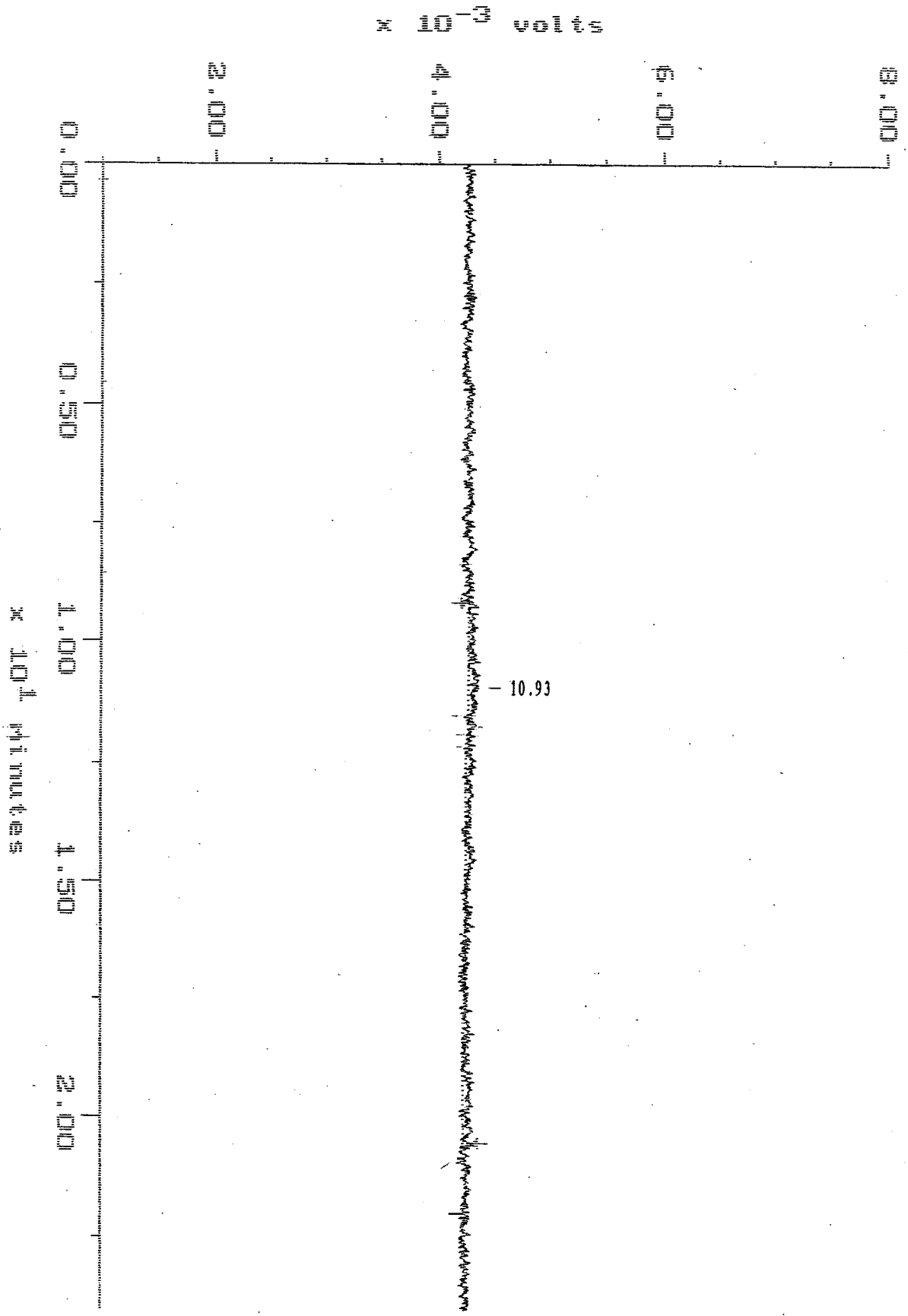
DETECTOR: UV #1 365

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
1			10.933	5063	
TOTAL				5063	0.0000

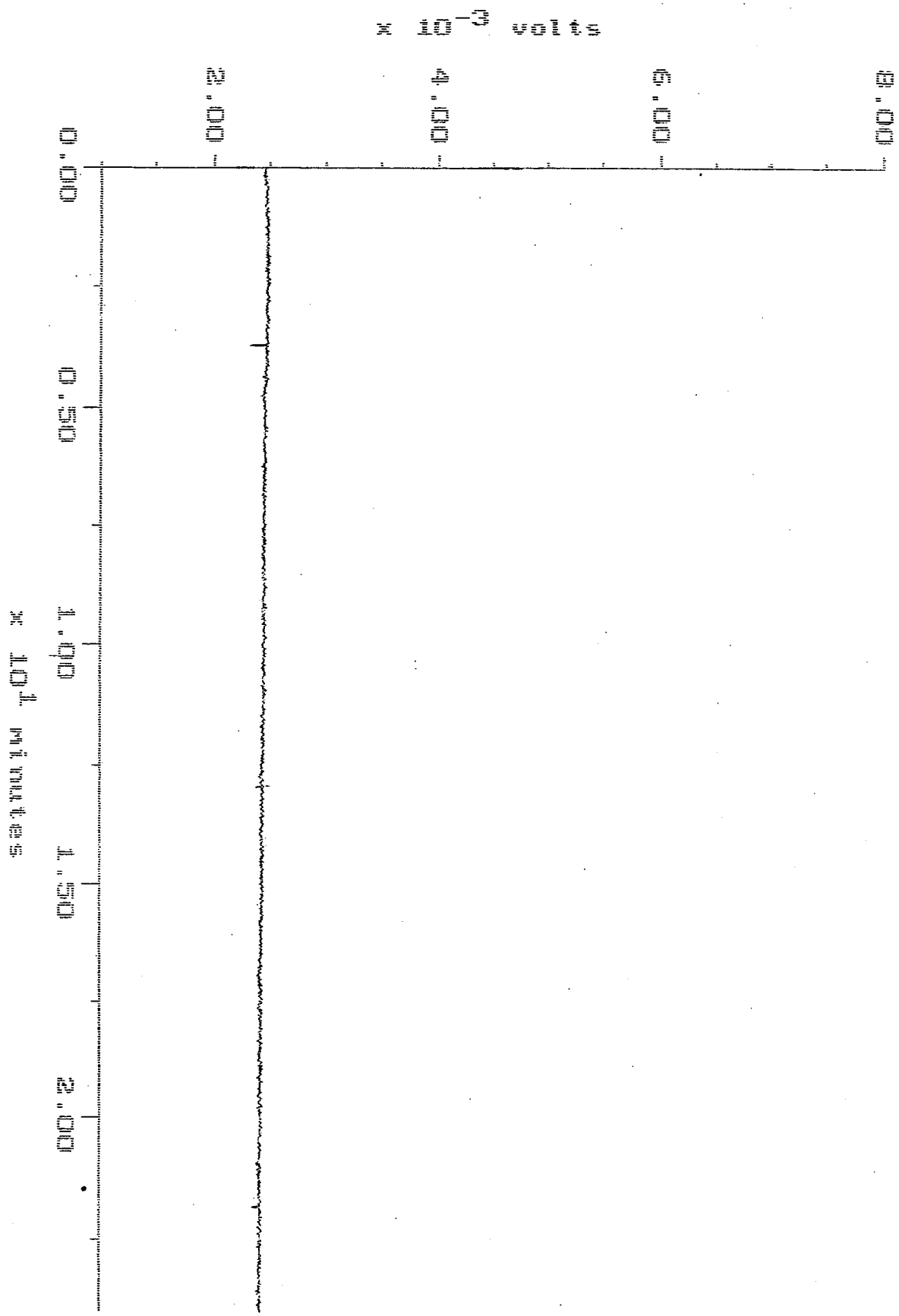
DETECTOR: *UV #2 322

PK#	ID#	Component Name	Retention Time (minutes)	Peak Area	Sample Conc. (ug/L)
TOTAL				0	0.0000

Sample: MP BLANK 2 Channel: UV #1 365 Filename: JA082515
Acquired: 25-JAN-108 17:32 Method: C:\MAX\DATA1\HYD-595 Operator: JAM



Sample: MP BLANK 2 Channel: *UV #2 322 Filename: JA082515
Acquired: 25-JAN-108 17:32 Method: C:\MAX\DATA1\RYD-595 Operator: JAM



APPENDIX G

Section 95

Outfall 014, February 3, 2008

MEC^{X} Data Validation Reports

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IRB0155

Prepared by

MEC^X, LLC
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title:	Boeing SSFL NPDES
Contract Task Order:	1261.100D.00
Sample Delivery Group:	IRB0155
Project Manager:	B. Kelly
Matrix:	Water
QC Level:	IV
No. of Samples:	1
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 014	IRB0155-01	30225-001, 973191, 8020451	Water	02/03/08 1120	180.1, 200.7, 200.8, 245.1, 405.1, 1613, 8315M

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at TestAmerica-Irvine above the temperature limits; however, the samples had insufficient time to cool in transit. The sample was received at Truesdail within the temperature limits of 4°C ±2°C. The sample was received marginally below the temperature limit at Weck and Vists; however, the sample was not noted to be damaged or frozen. According to the case narrative for this SDG, the sample was received intact at all laboratories. The remaining COCs were appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered to TestAmerica-Irvine, Truesdail, and Weck, custody seals were not required. Custody seals were intact upon arrival at Vista. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: E. Wessling
Date Reviewed: April 7, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review* (8/02).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.

- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.

    - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was not analyzed prior to the initial calibration sequence or at the beginning of each analytical sequence; however, the first and last eluting congeners and isomer specificity compounds were added to the midpoint of the initial calibration and to the continuing calibration standards. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.

    - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.

- Calibration: Calibration criteria were met.

    - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq$20% for the 16 native compounds (calibration by isotope dilution) and $\leq$35% for the one native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.

    - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.

- Blanks: OCDD was reported in the method blank at 0.00000899µ/L; however, the concentration of OCDD in the sample exceeded five times the amount in the method blank

and required no qualifications. The method blank had no other target compound detects above the EDL.

- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

- Internal Standards Performance: The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.

- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.

- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating any sample detects and a representative number of blank spike concentrations. The laboratory calculated and reported compound-specific detection limits. Any detects below the laboratory lower calibration level were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Any EMPC value was qualified as an estimated nondetect, "UJ." Nondetects are valid to the estimated detection limit (EDL).

B. EPA METHODS 200.7, 200.8, 245.1—Metals and Mercury

Reviewed By: P. Meeks
Date Reviewed: March 26, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 200.7, 200.8, and 245.1,* and the *National Functional Guidelines for Inorganic Data Review* (2/94).

- Holding Times: The analytical holding times, 6 months for metals and 28 days for mercury, were met.

- Tuning: The mass calibration and resolution checks criteria were met. All tuning solution %RSDs were ≤5%, and all masses of interest were calibrated to ≤ 0.1 amu and ≤0.9 amu at 10% peak height.

- Calibration: Calibration criteria were met. Mercury initial calibration r^2 values were ≥0.995 and all initial and continuing calibration recoveries were within 90-110% for the ICP-MS metals and 85-115% for mercury. All CRI/CRA and check standard recoveries were within the control limits of 70-130%

- Blanks: There were no applicable detects in the method blanks or CCBs.

- Interference Check Samples: ICSA/B analyses were performed in association with all analyses except total antimony. Recoveries were within the method-established control limits. Most analytes were reported in the ICSA solutions. No 6010 analytes required qualification as the concentrations of the interferents were not significant. For the 6020 analytes, the reviewer was not able to ascertain if the detections were indicative of matrix interference.

- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established QC limits.

- Laboratory Duplicates: No laboratory duplicate analyses were performed.

- Matrix Spike/Matrix Spike Duplicate: A matrix spike analysis was performed on the sample in this SDG for the total 6010 analytes. All recoveries were within the laboratory-established control limits. Evaluation of mercury method accuracy was based on LCS results.

- Serial Dilution: No serial dilution analyses were performed.

- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. The bracketing CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.

- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. Detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

C. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks
Date Reviewed: March 31, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Methods 180.1, 405.1, 8315M,* and the *National Functional Guidelines for Inorganic Data Review* (2/94).

- Holding Times: Analytical holding times, 48 hours for turbidity and BOD, were met. The hydrazine aliquot was derivitized within three days of collection and analyzed within three days of derivitization.

- Calibration: Calibration criteria were met. The hydrazine r^2 were ≥0.995 and the ICV and QCS recoveries were within 90-110%. The turbidity check standard recoveries were acceptable. Calibration is not applicable to BOD.

- Blanks: Turbidity was detected in the method blank but not at a concentration sufficient to qualify the site sample. Method blanks had no other detects.

- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs were within laboratory-established QC limits. The LCS is not applicable to turbidity.

- Laboratory Duplicates: No laboratory duplicate analyses were performed for the sample in this SDG.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. For the applicable methods, method accuracy was evaluated based on the LCS results.

- Sample Result Verification: Review is not applicable at a Level V validation. . Detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the reporting limit.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

Sample ID:	IRB0155-01 Outfall 014			EPA Method 1613

Client Data		Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30239-001	Date Received:	5-Feb-08
Project:	IRB0155	Sample Size:	0.996 L	QC Batch No.:	9953	Date Extracted:	15-Feb-08
Date Collected:	3-Feb-08			Date Analyzed DB-5:	19-Feb-08	Date Analyzed DB-225:	NA
Time Collected:	1120						

	Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers
U	2,3,7,8-TCDD	ND	0.000000493		
U	1,2,3,7,8-PeCDD	ND	0.000000930		
J DNQ	1,2,3,4,7,8-HxCDD	0.00000179			J
J DNQ	1,2,3,6,7,8-HxCDD	0.00000293			J
J DNQ	1,2,3,7,8,9-HxCDD	0.00000252			J
	1,2,3,4,6,7,8-HpCDD	0.0000970			
	OCDD	0.00147			B
U	2,3,7,8-TCDF	ND	0.00000120		
U	1,2,3,7,8-PeCDF	ND	0.00000121		
U	2,3,4,7,8-PeCDF	ND	0.00000144		
J DNQ	1,2,3,4,7,8-HxCDF	0.00000217			J
J DNQ	1,2,3,6,7,8-HxCDF	0.00000123			J
J DNQ	2,3,4,6,7,8-HxCDF	0.00000136			J
U	1,2,3,7,8,9-HxCDF	ND	0.00000134		
J DNQ	1,2,3,4,6,7,8-HpCDF	0.0000207			J
J DNQ	1,2,3,4,7,8,9-HpCDF	0.00000266			J
	OCDF	0.0000752			

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	82.6	25 - 164	
	13C-1,2,3,7,8-PeCDD	75.4	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	74.2	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	76.3	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	73.6	23 - 140	
	13C-OCDD	61.5	17 - 157	
	13C-2,3,7,8-TCDF	91.7	24 - 169	
	13C-1,2,3,7,8-PeCDF	78.7	24 - 185	
	13C-2,3,4,7,8-PeCDF	77.4	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	69.8	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	70.6	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	71.1	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	74.5	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	66.8	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	70.0	26 - 138	
	13C-OCDF	62.4	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	86.5	35 - 197	

Totals			
Total TCDD	0.00000219		0.00000311
U Total PeCDD	ND	0.00000239	
Total HxCDD	0.0000246		
Total HpCDD	0.000380		
U Total TCDF	ND		0.00000241
Total PeCDF	0.00000123		
Total HxCDF	0.0000189		
Total HpCDF	0.0000689		

Footnotes

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

Analyst: MAS Level IV

Approved By: William J. Luksemburg 22-Feb-2008 15:51

NPDES - 3728

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	**17**	1	02/04/08	02/04/08	
Boron U	EPA 200.7	8B04079	0.020	0.050	ND	1	02/04/08	02/04/08	
Calcium	EPA 200.7	8B04079	0.050	0.10	**5.6**	1	02/04/08	02/04/08	
Magnesium	EPA 200.7	8B04079	0.012	0.020	**0.77**	1	02/04/08	02/04/08	

LEVEL IV

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Sampled: 02/03/08
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METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
Antimony J/DNQ	EPA 200.8	8B04080	0.20	2.0	**1.4**	1	02/04/08	02/05/08	J
Arsenic U	EPA 200.7	8B04079	7.0	10	ND	1	02/04/08	02/04/08	
Beryllium ↓	EPA 200.7	8B04079	0.90	2.0	ND	1	02/04/08	02/04/08	
Cadmium J/DNQ	EPA 200.8	8B04080	0.11	1.0	**0.85**	1	02/04/08	02/04/08	J
Chromium U	EPA 200.7	8B04079	2.0	5.0	ND	1	02/04/08	02/04/08	
Copper J/DNQ	EPA 200.8	8B04080	0.75	2.0	**1.7**	1	02/04/08	02/04/08	J
Lead	EPA 200.8	8B04080	0.30	1.0	**1.1**	1	02/04/08	02/04/08	
Nickel U	EPA 200.7	8B04079	2.0	10	ND	1	02/04/08	02/04/08	
Selenium	EPA 200.8	8B04080	0.30	2.0	ND	1	02/04/08	02/04/08	
Silver	EPA 200.8	8B04080	0.30	1.0	ND	1	02/04/08	02/04/08	
Thallium ↓	EPA 200.8	8B04080	0.20	1.0	ND	1	02/04/08	02/04/08	
Zinc	EPA 200.8	8B04080	2.5	20	**31**	1	02/04/08	02/04/08	

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Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: mg/l									
Boron J	EPA 200.7-Diss	8B04145	0.020	0.050	ND	1	02/04/08	02/05/08	
Calcium	EPA 200.7-Diss	8B04145	0.050	0.10	**5.3**	1	02/04/08	02/05/08	
Magnesium	EPA 200.7-Diss	8B04145	0.012	0.020	**0.65**	1	02/04/08	02/05/08	
Hardness (as CaCO3)	SM2340B	8B04145	1.0	1.0	**16**	1	02/04/08	02/05/08	

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Sampled: 02/03/08
Received: 02/03/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
Antimony J/DNQ	EPA 200.8-Diss	8B05112	0.20	2.0	**1.3**	1	02/05/08	02/05/08	J
Arsenic U	EPA 200.7-Diss	8B04145	7.0	10	ND	1	02/04/08	02/05/08	
Beryllium ↓	EPA 200.7-Diss	8B04145	0.90	2.0	ND	1	02/04/08	02/05/08	
Cadmium J/DNQ	EPA 200.8-Diss	8B05112	0.11	1.0	**0.65**	1	02/05/08	02/05/08	J
Chromium U	EPA 200.7-Diss	8B04145	2.0	5.0	ND	1	02/04/08	02/05/08	
Copper J/DNQ	EPA 200.8-Diss	8B05112	0.75	2.0	**1.0**	1	02/05/08	02/05/08	J
Lead ↓	EPA 200.8-Diss	8B05112	0.30	1.0	**0.39**	1	02/05/08	02/05/08	J
Nickel U	EPA 200.7-Diss	8B04145	2.0	10	ND	1	02/04/08	02/05/08	
Selenium	EPA 200.8-Diss	8B05112	0.30	2.0	ND	1	02/05/08	02/05/08	
Silver	EPA 200.8-Diss	8B05112	0.30	1.0	ND	1	02/05/08	02/05/08	
Thallium ↓	EPA 200.8-Diss	8B05112	0.20	1.0	ND	1	02/05/08	02/05/08	
Zinc	EPA 200.8-Diss	8B05112	2.5	20	**22**	1	02/05/08	02/05/08	

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Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8B0147	0.050	0.20	ND	1	02/05/08	02/07/08	
Mercury, Total	EPA 245.1	W8B0147	0.050	0.20	ND	1	02/05/08	02/07/08	

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Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8B12074	1.3	4.8	ND	1	02/12/08	02/12/08	
Ammonia-N (Distilled)	EPA 350.2	8B07098	0.30	0.50	ND	1	02/07/08	02/08/08	
Biochemical Oxygen Demand	EPA 405.1	8B04070	0.59	2.0	**1.9**	1	02/04/08	02/09/08	J
Chloride	EPA 300.0	8B04043	0.25	0.50	**4.1**	1	02/04/08	02/04/08	
Total Cyanide	EPA 335.2	8B04112	0.0022	0.0050	ND	1	02/04/08	02/04/08	
Fluoride	EPA 340.2	8B05105	0.014	0.10	**0.69**	1	02/05/08	02/05/08	
Nitrate-N	EPA 300.0	8B04043	0.060	0.11	**0.92**	1	02/04/08	02/04/08	
Nitrite-N	EPA 300.0	8B04043	0.090	0.15	ND	1	02/04/08	02/04/08	
Nitrate/Nitrite-N	EPA 300.0	8B04043	0.15	0.26	**0.99**	1	02/04/08	02/04/08	
Sulfate	EPA 300.0	8B04043	0.20	0.50	**4.8**	1	02/04/08	02/04/08	
Total Dissolved Solids	SM2540C	8B07123	10	10	**89**	1	02/07/08	02/07/08	
Total Suspended Solids	EPA 160.2	8B05134	10	10	ND	1	02/05/08	02/05/08	

* Analysis not validated

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Attention: Bronwyn Kelly

Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: NTU									
Turbidity	EPA 180.1	8B04067	0.040	1.0	**13**	1	02/04/08	02/04/08	

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TRUESDAIL LABORATORIES, INC.
EXCELLENCE IN INDEPENDENT TESTING

Established 1931

14201 FRANKLIN AVENUE · TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462 · www.truesdail.com

Client: TestAmerica Analytical-Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Attention: Joseph Doak
Sample: Water / 1 Sample
Project Name: IRB0155
P.O. Number: IRB0155
Method Number: 8315 (Modified)
Investigation: Hydrazines

REPORT

Laboratory No: 973191
Report Date: February 19, 2008
Sampling Date: February 3, 2008
Receiving Date: February 4, 2008
Extraction Date: February 5, 2008
Analysis Date: February 6, 2008
Units: µg/L
Reported By: JS

Analytical Results

Sample ID	Sample Descript	Sample Amount (mL)	Dilution Factor	Monomethyl Hydrazine	u-Dimethyl Hydrazine	Hydrazine	Qualifier Codes
707223-MB	* Method Blank	100	1	ND	ND	ND	None
973191 Outfall 014	IRB0155-01	100	1	U ND	U ND	U ND	None
MDL				0.56	0.32	0.15	
PQL				5.0	5.0	1.00	
Sample Reporting Limits				5.0	5.0	1.00	

* Analysis not validated

LEVEL IV

Note: Results based on detector #1 (UV=365nm) data.

Xuan Dang, Project Manager
Analytical Services, Truesdail Laboratories, Inc.

APPENDIX G

Section 96

Outfall 014, February 3, 2008

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project: APTF Outfall 014 - Annual

Sampled: 02/03/08
Received: 02/03/08
Issued: 03/07/08 13:06

NELAP #01108CA California ELAP#1197 CSDLAC #10256

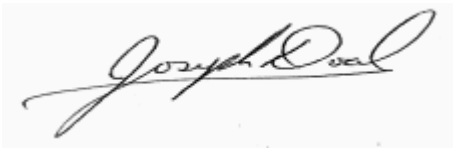
The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
IRB0155-01	Outfall 014	Water
IRB0155-02	Trip Blank	Water

Reviewed By:



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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
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Attention: Bronwyn Kelly

Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water)									
Reporting Units: mg/l									
EFH (C13 - C22)	EPA 8015B	8B04063	0.095	0.48	ND	0.952	02/04/08	02/05/08	
Surrogate: n-Octacosane (40-125%)					*61 %*				

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Attention: Bronwyn Kelly

Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									**P1**
Reporting Units: ug/l									
GRO (C4 - C12)	EPA 8015 Mod.	8B07041	25	100	ND	1	02/07/08	02/07/08	
Surrogate: 4-BFB (FID) (65-140%)					*108 %*				

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Project ID: APTF Outfall 014 - Annual

Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

VOLATILE ORGANICS by GCMS SIM

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B-SIM	8B04013	1.0	2.0	ND	1	02/04/08	02/04/08	
Surrogate: Dibromofluoromethane (80-120%)					*99 %*				

TestAmerica Irvine

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
1,1,1-Trichloroethane	EPA 624	8B04024	0.30	0.50	ND	1	02/04/08	02/05/08	
1,2,3-Trichloropropane	EPA 624	8B04024	0.40	1.0	ND	1	02/04/08	02/05/08	
1,1,2,2-Tetrachloroethane	EPA 624	8B04024	0.24	0.50	ND	1	02/04/08	02/05/08	
1,2-Dibromoethane (EDB)	EPA 624	8B04024	0.40	0.50	ND	1	02/04/08	02/05/08	
1,1,2-Trichloroethane	EPA 624	8B04024	0.30	0.50	ND	1	02/04/08	02/05/08	
Di-isopropyl Ether (DIPE)	EPA 624	8B04024	0.25	0.50	ND	1	02/04/08	02/05/08	
1,1-Dichloroethane	EPA 624	8B04024	0.27	0.50	ND	1	02/04/08	02/05/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8B04024	0.32	0.50	ND	1	02/04/08	02/05/08	
1,1-Dichloroethene	EPA 624	8B04024	0.42	0.50	ND	1	02/04/08	02/05/08	
tert-Butanol (TBA)	EPA 624	8B04024	4.9	10	ND	1	02/04/08	02/05/08	
1,2-Dichloroethane	EPA 624	8B04024	0.28	0.50	ND	1	02/04/08	02/05/08	
1,2-Dichlorobenzene	EPA 624	8B04024	0.32	0.50	ND	1	02/04/08	02/05/08	
1,2-Dichloropropane	EPA 624	8B04024	0.35	0.50	ND	1	02/04/08	02/05/08	
1,3-Dichlorobenzene	EPA 624	8B04024	0.35	0.50	ND	1	02/04/08	02/05/08	
1,4-Dichlorobenzene	EPA 624	8B04024	0.37	0.50	ND	1	02/04/08	02/05/08	
Benzene	EPA 624	8B04024	0.28	0.50	ND	1	02/04/08	02/05/08	
Bromodichloromethane	EPA 624	8B04024	0.30	0.50	ND	1	02/04/08	02/05/08	
Bromoform	EPA 624	8B04024	0.40	0.50	ND	1	02/04/08	02/05/08	
Bromomethane	EPA 624	8B04024	0.42	1.0	ND	1	02/04/08	02/05/08	
Carbon tetrachloride	EPA 624	8B04024	0.28	0.50	ND	1	02/04/08	02/05/08	
Chlorobenzene	EPA 624	8B04024	0.36	0.50	ND	1	02/04/08	02/05/08	
Chloroethane	EPA 624	8B04024	0.40	1.0	ND	1	02/04/08	02/05/08	
Chloroform	EPA 624	8B04024	0.33	0.50	ND	1	02/04/08	02/05/08	
Chloromethane	EPA 624	8B04024	0.40	0.50	ND	1	02/04/08	02/05/08	
cis-1,3-Dichloropropene	EPA 624	8B04024	0.22	0.50	ND	1	02/04/08	02/05/08	
Dibromochloromethane	EPA 624	8B04024	0.28	0.50	ND	1	02/04/08	02/05/08	
Ethylbenzene	EPA 624	8B04024	0.25	0.50	ND	1	02/04/08	02/05/08	
Methylene chloride	EPA 624	8B04024	0.95	1.0	ND	1	02/04/08	02/05/08	
Tetrachloroethene	EPA 624	8B04024	0.32	0.50	ND	1	02/04/08	02/05/08	
Toluene	EPA 624	8B04024	0.36	0.50	ND	1	02/04/08	02/05/08	
trans-1,2-Dichloroethene	EPA 624	8B04024	0.27	0.50	ND	1	02/04/08	02/05/08	
trans-1,3-Dichloropropene	EPA 624	8B04024	0.32	0.50	ND	1	02/04/08	02/05/08	
Trichloroethene	EPA 624	8B04024	0.26	0.50	ND	1	02/04/08	02/05/08	
Trichlorofluoromethane	EPA 624	8B04024	0.34	0.50	ND	1	02/04/08	02/05/08	
Trichlorotrifluoroethane (Freon 113)	EPA 624	8B04024	0.50	5.0	ND	1	02/04/08	02/05/08	
Vinyl chloride	EPA 624	8B04024	0.30	0.50	ND	1	02/04/08	02/05/08	
Xylenes, Total	EPA 624	8B04024	0.90	1.5	ND	1	02/04/08	02/05/08	
Surrogate: Dibromofluoromethane (80-120%)					*114 %*				
Surrogate: Toluene-d8 (80-120%)					*103 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*89 %*				

TestAmerica Irvine

Joseph Doak
Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-02 (Trip Blank - Water)									
Reporting Units: ug/l									
1,1,1-Trichloroethane	EPA 624	8B04024	0.30	0.50	ND	1	02/04/08	02/05/08	
1,2,3-Trichloropropane	EPA 624	8B04024	0.40	1.0	ND	1	02/04/08	02/05/08	
1,1,2,2-Tetrachloroethane	EPA 624	8B04024	0.24	0.50	ND	1	02/04/08	02/05/08	
1,2-Dibromoethane (EDB)	EPA 624	8B04024	0.40	0.50	ND	1	02/04/08	02/05/08	
1,1,2-Trichloroethane	EPA 624	8B04024	0.30	0.50	ND	1	02/04/08	02/05/08	
Di-isopropyl Ether (DIPE)	EPA 624	8B04024	0.25	0.50	ND	1	02/04/08	02/05/08	
1,1-Dichloroethane	EPA 624	8B04024	0.27	0.50	ND	1	02/04/08	02/05/08	
Methyl-tert-butyl Ether (MTBE)	EPA 624	8B04024	0.32	0.50	ND	1	02/04/08	02/05/08	
1,1-Dichloroethene	EPA 624	8B04024	0.42	0.50	ND	1	02/04/08	02/05/08	
tert-Butanol (TBA)	EPA 624	8B04024	4.9	10	ND	1	02/04/08	02/05/08	
1,2-Dichloroethane	EPA 624	8B04024	0.28	0.50	ND	1	02/04/08	02/05/08	
1,2-Dichlorobenzene	EPA 624	8B04024	0.32	0.50	ND	1	02/04/08	02/05/08	
1,2-Dichloropropane	EPA 624	8B04024	0.35	0.50	ND	1	02/04/08	02/05/08	
1,3-Dichlorobenzene	EPA 624	8B04024	0.35	0.50	ND	1	02/04/08	02/05/08	
1,4-Dichlorobenzene	EPA 624	8B04024	0.37	0.50	ND	1	02/04/08	02/05/08	
Benzene	EPA 624	8B04024	0.28	0.50	ND	1	02/04/08	02/05/08	
Bromodichloromethane	EPA 624	8B04024	0.30	0.50	ND	1	02/04/08	02/05/08	
Bromoform	EPA 624	8B04024	0.40	0.50	ND	1	02/04/08	02/05/08	
Bromomethane	EPA 624	8B04024	0.42	1.0	ND	1	02/04/08	02/05/08	
Carbon tetrachloride	EPA 624	8B04024	0.28	0.50	ND	1	02/04/08	02/05/08	
Chlorobenzene	EPA 624	8B04024	0.36	0.50	ND	1	02/04/08	02/05/08	
Chloroethane	EPA 624	8B04024	0.40	1.0	ND	1	02/04/08	02/05/08	
Chloroform	EPA 624	8B04024	0.33	0.50	ND	1	02/04/08	02/05/08	
Chloromethane	EPA 624	8B04024	0.40	0.50	ND	1	02/04/08	02/05/08	
cis-1,3-Dichloropropene	EPA 624	8B04024	0.22	0.50	ND	1	02/04/08	02/05/08	
Dibromochloromethane	EPA 624	8B04024	0.28	0.50	ND	1	02/04/08	02/05/08	
Ethylbenzene	EPA 624	8B04024	0.25	0.50	ND	1	02/04/08	02/05/08	
Methylene chloride	EPA 624	8B04024	0.95	1.0	ND	1	02/04/08	02/05/08	
Tetrachloroethene	EPA 624	8B04024	0.32	0.50	ND	1	02/04/08	02/05/08	
Toluene	EPA 624	8B04024	0.36	0.50	ND	1	02/04/08	02/05/08	
trans-1,2-Dichloroethene	EPA 624	8B04024	0.27	0.50	ND	1	02/04/08	02/05/08	
trans-1,3-Dichloropropene	EPA 624	8B04024	0.32	0.50	ND	1	02/04/08	02/05/08	
Trichloroethene	EPA 624	8B04024	0.26	0.50	ND	1	02/04/08	02/05/08	
Trichlorofluoromethane	EPA 624	8B04024	0.34	0.50	ND	1	02/04/08	02/05/08	
Trichlorotrifluoroethane (Freon 113)	EPA 624	8B04024	0.50	5.0	ND	1	02/04/08	02/05/08	
Vinyl chloride	EPA 624	8B04024	0.30	0.50	ND	1	02/04/08	02/05/08	
Xylenes, Total	EPA 624	8B04024	0.90	1.5	ND	1	02/04/08	02/05/08	
Surrogate: Dibromofluoromethane (80-120%)					*113 %*				
Surrogate: Toluene-d8 (80-120%)					*103 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*92 %*				

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MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

PURGEABLES-- GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water)									
Reporting Units: ug/l									
Acrolein	EPA 624	8B04024	4.0	5.0	ND	1	02/04/08	02/05/08	
Acrylonitrile	EPA 624	8B04024	0.70	2.0	ND	1	02/04/08	02/05/08	
2-Chloroethyl vinyl ether	EPA 624	8B04024	1.8	5.0	ND	1	02/04/08	02/05/08	
Surrogate: Dibromofluoromethane (80-120%)					*114 %*				
Surrogate: Toluene-d8 (80-120%)					*103 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*89 %*				
Sample ID: IRB0155-02 (Trip Blank - Water)									
Reporting Units: ug/l									
Acrolein	EPA 624	8B04024	4.0	5.0	ND	1	02/04/08	02/05/08	
Acrylonitrile	EPA 624	8B04024	0.70	2.0	ND	1	02/04/08	02/05/08	
2-Chloroethyl vinyl ether	EPA 624	8B04024	1.8	5.0	ND	1	02/04/08	02/05/08	
Surrogate: Dibromofluoromethane (80-120%)					*113 %*				
Surrogate: Toluene-d8 (80-120%)					*103 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)					*92 %*				

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Sampled: 02/03/08
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ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water)									
Reporting Units: ug/l									
Acenaphthene	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
Acenaphthylene	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
Aniline	EPA 625	8B05091	2.4	9.4	ND	0.943	02/05/08	02/09/08	
Anthracene	EPA 625	8B05091	1.9	9.4	ND	0.943	02/05/08	02/09/08	
Benzidine	EPA 625	8B05091	8.0	19	ND	0.943	02/05/08	02/13/08	
Benzoic acid	EPA 625	8B05091	9.4	19	ND	0.943	02/05/08	02/09/08	
Benzo(a)anthracene	EPA 625	8B05091	1.9	9.4	ND	0.943	02/05/08	02/09/08	
Benzo(b)fluoranthene	EPA 625	8B05091	1.9	9.4	ND	0.943	02/05/08	02/09/08	
Benzo(k)fluoranthene	EPA 625	8B05091	2.4	9.4	ND	0.943	02/05/08	02/09/08	
Benzo(g,h,i)perylene	EPA 625	8B05091	3.8	9.4	ND	0.943	02/05/08	02/09/08	
Benzo(a)pyrene	EPA 625	8B05091	1.9	9.4	ND	0.943	02/05/08	02/09/08	
Benzyl alcohol	EPA 625	8B05091	2.4	19	ND	0.943	02/05/08	02/09/08	
Bis(2-chloroethoxy)methane	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
Bis(2-chloroethyl)ether	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
Bis(2-chloroisopropyl)ether	EPA 625	8B05091	2.4	9.4	ND	0.943	02/05/08	02/09/08	
Bis(2-ethylhexyl)phthalate	EPA 625	8B05091	3.8	47	ND	0.943	02/05/08	02/09/08	
4-Bromophenyl phenyl ether	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
Butyl benzyl phthalate	EPA 625	8B05091	3.8	19	ND	0.943	02/05/08	02/09/08	
4-Chloroaniline	EPA 625	8B05091	1.9	9.4	ND	0.943	02/05/08	02/09/08	
2-Chloronaphthalene	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
4-Chloro-3-methylphenol	EPA 625	8B05091	2.4	19	ND	0.943	02/05/08	02/09/08	
2-Chlorophenol	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
4-Chlorophenyl phenyl ether	EPA 625	8B05091	2.4	9.4	ND	0.943	02/05/08	02/09/08	
Chrysene	EPA 625	8B05091	2.4	9.4	ND	0.943	02/05/08	02/09/08	
Dibenz(a,h)anthracene	EPA 625	8B05091	2.8	19	ND	0.943	02/05/08	02/09/08	
Dibenzofuran	EPA 625	8B05091	3.8	9.4	ND	0.943	02/05/08	02/09/08	
Di-n-butyl phthalate	EPA 625	8B05091	2.8	19	ND	0.943	02/05/08	02/09/08	
1,3-Dichlorobenzene	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
1,4-Dichlorobenzene	EPA 625	8B05091	2.4	9.4	ND	0.943	02/05/08	02/09/08	
1,2-Dichlorobenzene	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
3,3-Dichlorobenzidine	EPA 625	8B05091	2.8	19	ND	0.943	02/05/08	02/09/08	
2,4-Dichlorophenol	EPA 625	8B05091	3.3	9.4	ND	0.943	02/05/08	02/09/08	
Diethyl phthalate	EPA 625	8B05091	3.3	9.4	ND	0.943	02/05/08	02/09/08	
2,4-Dimethylphenol	EPA 625	8B05091	3.3	19	ND	0.943	02/05/08	02/09/08	
Dimethyl phthalate	EPA 625	8B05091	1.9	9.4	ND	0.943	02/05/08	02/09/08	
4,6-Dinitro-2-methylphenol	EPA 625	8B05091	3.8	19	ND	0.943	02/05/08	02/09/08	
2,4-Dinitrophenol	EPA 625	8B05091	7.5	19	ND	0.943	02/05/08	02/13/08	
2,4-Dinitrotoluene	EPA 625	8B05091	3.3	9.4	ND	0.943	02/05/08	02/09/08	
2,6-Dinitrotoluene	EPA 625	8B05091	1.9	9.4	ND	0.943	02/05/08	02/09/08	
Di-n-octyl phthalate	EPA 625	8B05091	3.3	19	ND	0.943	02/05/08	02/09/08	
Fluoranthene	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	

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Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
Fluorene	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
Hexachlorobenzene	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
Hexachlorobutadiene	EPA 625	8B05091	3.8	9.4	ND	0.943	02/05/08	02/09/08	
Hexachlorocyclopentadiene	EPA 625	8B05091	4.7	19	ND	0.943	02/05/08	02/09/08	
Hexachloroethane	EPA 625	8B05091	3.3	9.4	ND	0.943	02/05/08	02/09/08	
Indeno(1,2,3-cd)pyrene	EPA 625	8B05091	3.3	19	ND	0.943	02/05/08	02/09/08	
Isophorone	EPA 625	8B05091	2.4	9.4	ND	0.943	02/05/08	02/09/08	
2-Methylnaphthalene	EPA 625	8B05091	1.9	9.4	ND	0.943	02/05/08	02/09/08	
2-Methylphenol	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
4-Methylphenol	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
Naphthalene	EPA 625	8B05091	2.8	9.4	ND	0.943	02/05/08	02/09/08	
2-Nitroaniline	EPA 625	8B05091	1.9	19	ND	0.943	02/05/08	02/09/08	
3-Nitroaniline	EPA 625	8B05091	2.8	19	ND	0.943	02/05/08	02/09/08	
4-Nitroaniline	EPA 625	8B05091	3.8	19	ND	0.943	02/05/08	02/09/08	
Nitrobenzene	EPA 625	8B05091	2.4	19	ND	0.943	02/05/08	02/09/08	
2-Nitrophenol	EPA 625	8B05091	3.3	9.4	ND	0.943	02/05/08	02/09/08	
4-Nitrophenol	EPA 625	8B05091	5.2	19	ND	0.943	02/05/08	02/09/08	
N-Nitrosodiphenylamine	EPA 625	8B05091	1.9	9.4	ND	0.943	02/05/08	02/09/08	
N-Nitroso-di-n-propylamine	EPA 625	8B05091	3.3	9.4	ND	0.943	02/05/08	02/09/08	
Pentachlorophenol	EPA 625	8B05091	3.3	19	ND	0.943	02/05/08	02/09/08	
Phenanthrene	EPA 625	8B05091	3.3	9.4	ND	0.943	02/05/08	02/09/08	
Phenol	EPA 625	8B05091	1.9	9.4	ND	0.943	02/05/08	02/09/08	
Pyrene	EPA 625	8B05091	3.8	9.4	ND	0.943	02/05/08	02/09/08	
1,2,4-Trichlorobenzene	EPA 625	8B05091	2.4	9.4	ND	0.943	02/05/08	02/09/08	
2,4,5-Trichlorophenol	EPA 625	8B05091	2.8	19	ND	0.943	02/05/08	02/09/08	
2,4,6-Trichlorophenol	EPA 625	8B05091	4.2	19	ND	0.943	02/05/08	02/09/08	
1,2-Diphenylhydrazine/Azobenzene	EPA 625	8B05091	2.4	19	ND	0.943	02/05/08	02/09/08	
N-Nitrosodimethylamine	EPA 625	8B05091	2.4	19	ND	0.943	02/05/08	02/09/08	
Surrogate: 2-Fluorophenol (30-120%)					*62 %*				
Surrogate: Phenol-d6 (35-120%)					*67 %*				
Surrogate: 2,4,6-Tribromophenol (40-120%)					*79 %*				
Surrogate: Nitrobenzene-d5 (45-120%)					*71 %*				
Surrogate: 2-Fluorobiphenyl (50-120%)					*68 %*				
Surrogate: Terphenyl-d14 (50-125%)					*87 %*				

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Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
Aldrin	EPA 608	8B05099	0.0014	0.0048	ND	0.952	02/05/08	02/06/08	
alpha-BHC	EPA 608	8B05099	0.0024	0.0048	ND	0.952	02/05/08	02/06/08	
beta-BHC	EPA 608	8B05099	0.0038	0.0095	ND	0.952	02/05/08	02/06/08	
delta-BHC	EPA 608	8B05099	0.0033	0.0048	ND	0.952	02/05/08	02/06/08	
gamma-BHC (Lindane)	EPA 608	8B05099	0.0029	0.0095	ND	0.952	02/05/08	02/06/08	
Chlordane	EPA 608	8B05099	0.029	0.095	ND	0.952	02/05/08	02/06/08	
4,4'-DDD	EPA 608	8B05099	0.0019	0.0048	ND	0.952	02/05/08	02/06/08	
4,4'-DDE	EPA 608	8B05099	0.0029	0.0048	ND	0.952	02/05/08	02/06/08	
4,4'-DDT	EPA 608	8B05099	0.0038	0.0095	ND	0.952	02/05/08	02/06/08	
Dieldrin	EPA 608	8B05099	0.0019	0.0048	ND	0.952	02/05/08	02/06/08	
Endosulfan I	EPA 608	8B05099	0.0019	0.0048	ND	0.952	02/05/08	02/06/08	
Endosulfan II	EPA 608	8B05099	0.0029	0.0048	ND	0.952	02/05/08	02/06/08	
Endosulfan sulfate	EPA 608	8B05099	0.0029	0.0095	ND	0.952	02/05/08	02/06/08	
Endrin	EPA 608	8B05099	0.0019	0.0048	ND	0.952	02/05/08	02/06/08	
Endrin aldehyde	EPA 608	8B05099	0.0019	0.0095	ND	0.952	02/05/08	02/06/08	
Endrin ketone	EPA 608	8B05099	0.0029	0.0095	ND	0.952	02/05/08	02/06/08	
Heptachlor	EPA 608	8B05099	0.0029	0.0095	ND	0.952	02/05/08	02/06/08	
Heptachlor epoxide	EPA 608	8B05099	0.0024	0.0048	ND	0.952	02/05/08	02/06/08	
Methoxychlor	EPA 608	8B05099	0.0033	0.0048	ND	0.952	02/05/08	02/06/08	
Toxaphene	EPA 608	8B05099	0.067	0.095	ND	0.952	02/05/08	02/06/08	
Surrogate: Decachlorobiphenyl (45-120%)					*82 %*				
Surrogate: Tetrachloro-m-xylene (35-115%)					*74 %*				

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TOTAL PCBS (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
Aroclor 1016	EPA 608	8B05099	0.43	0.48	ND	0.952	02/05/08	02/07/08	
Aroclor 1221	EPA 608	8B05099	0.24	0.48	ND	0.952	02/05/08	02/07/08	
Aroclor 1232	EPA 608	8B05099	0.24	0.48	ND	0.952	02/05/08	02/07/08	
Aroclor 1242	EPA 608	8B05099	0.24	0.48	ND	0.952	02/05/08	02/07/08	
Aroclor 1248	EPA 608	8B05099	0.24	0.48	ND	0.952	02/05/08	02/07/08	
Aroclor 1254	EPA 608	8B05099	0.24	0.48	ND	0.952	02/05/08	02/07/08	
Aroclor 1260	EPA 608	8B05099	0.29	0.48	ND	0.952	02/05/08	02/07/08	
Surrogate: Decachlorobiphenyl (45-120%)					*91 %*				

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METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	**17**	1	02/04/08	02/04/08	
Boron	EPA 200.7	8B04079	0.020	0.050	ND	1	02/04/08	02/04/08	
Calcium	EPA 200.7	8B04079	0.050	0.10	**5.6**	1	02/04/08	02/04/08	
Magnesium	EPA 200.7	8B04079	0.012	0.020	**0.77**	1	02/04/08	02/04/08	

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METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
Antimony	EPA 200.8	8B04080	0.20	2.0	**1.4**	1	02/04/08	02/05/08	J
Arsenic	EPA 200.7	8B04079	7.0	10	ND	1	02/04/08	02/04/08	
Beryllium	EPA 200.7	8B04079	0.90	2.0	ND	1	02/04/08	02/04/08	
Cadmium	EPA 200.8	8B04080	0.11	1.0	**0.85**	1	02/04/08	02/04/08	J
Chromium	EPA 200.7	8B04079	2.0	5.0	ND	1	02/04/08	02/04/08	
Copper	EPA 200.8	8B04080	0.75	2.0	**1.7**	1	02/04/08	02/04/08	J
Lead	EPA 200.8	8B04080	0.30	1.0	**1.1**	1	02/04/08	02/04/08	
Nickel	EPA 200.7	8B04079	2.0	10	ND	1	02/04/08	02/04/08	
Selenium	EPA 200.8	8B04080	0.30	2.0	ND	1	02/04/08	02/04/08	
Silver	EPA 200.8	8B04080	0.30	1.0	ND	1	02/04/08	02/04/08	
Thallium	EPA 200.8	8B04080	0.20	1.0	ND	1	02/04/08	02/04/08	
Zinc	EPA 200.8	8B04080	2.5	20	**31**	1	02/04/08	02/04/08	

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DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: mg/l									
Boron	EPA 200.7-Diss	8B04145	0.020	0.050	ND	1	02/04/08	02/05/08	
Calcium	EPA 200.7-Diss	8B04145	0.050	0.10	**5.3**	1	02/04/08	02/05/08	
Magnesium	EPA 200.7-Diss	8B04145	0.012	0.020	**0.65**	1	02/04/08	02/05/08	
Hardness (as CaCO3)	SM2340B	8B04145	1.0	1.0	**16**	1	02/04/08	02/05/08	

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DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	8B05112	0.20	2.0	**1.3**	1	02/05/08	02/05/08	J
Arsenic	EPA 200.7-Diss	8B04145	7.0	10	ND	1	02/04/08	02/05/08	
Beryllium	EPA 200.7-Diss	8B04145	0.90	2.0	ND	1	02/04/08	02/05/08	
Cadmium	EPA 200.8-Diss	8B05112	0.11	1.0	**0.65**	1	02/05/08	02/05/08	J
Chromium	EPA 200.7-Diss	8B04145	2.0	5.0	ND	1	02/04/08	02/05/08	
Copper	EPA 200.8-Diss	8B05112	0.75	2.0	**1.0**	1	02/05/08	02/05/08	J
Lead	EPA 200.8-Diss	8B05112	0.30	1.0	**0.39**	1	02/05/08	02/05/08	J
Nickel	EPA 200.7-Diss	8B04145	2.0	10	ND	1	02/04/08	02/05/08	
Selenium	EPA 200.8-Diss	8B05112	0.30	2.0	ND	1	02/05/08	02/05/08	
Silver	EPA 200.8-Diss	8B05112	0.30	1.0	ND	1	02/05/08	02/05/08	
Thallium	EPA 200.8-Diss	8B05112	0.20	1.0	ND	1	02/05/08	02/05/08	
Zinc	EPA 200.8-Diss	8B05112	2.5	20	**22**	1	02/05/08	02/05/08	

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8B12074	1.3	4.8	ND	1	02/12/08	02/12/08	
Ammonia-N (Distilled)	EPA 350.2	8B07098	0.30	0.50	ND	1	02/07/08	02/08/08	
Biochemical Oxygen Demand	EPA 405.1	8B04070	0.59	2.0	**1.9**	1	02/04/08	02/09/08	J
Chloride	EPA 300.0	8B04043	0.25	0.50	**4.1**	1	02/04/08	02/04/08	
Total Cyanide	EPA 335.2	8B04112	0.0022	0.0050	ND	1	02/04/08	02/04/08	
Fluoride	EPA 340.2	8B05105	0.014	0.10	**0.69**	1	02/05/08	02/05/08	
Nitrate-N	EPA 300.0	8B04043	0.060	0.11	**0.92**	1	02/04/08	02/04/08	
Nitrite-N	EPA 300.0	8B04043	0.090	0.15	ND	1	02/04/08	02/04/08	
Nitrate/Nitrite-N	EPA 300.0	8B04043	0.15	0.26	**0.99**	1	02/04/08	02/04/08	
Sulfate	EPA 300.0	8B04043	0.20	0.50	**4.8**	1	02/04/08	02/04/08	
Total Dissolved Solids	SM2540C	8B07123	10	10	**89**	1	02/07/08	02/07/08	
Total Suspended Solids	EPA 160.2	8B05134	10	10	ND	1	02/05/08	02/05/08	

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ml/l/hr									
Total Settleable Solids	EPA 160.5	8B04066	0.10	0.10	ND	1	02/04/08	02/04/08	

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: NTU									
Turbidity	EPA 180.1	8B04067	0.040	1.0	**13**	1	02/04/08	02/04/08	

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	8B12073	1.5	4.0	ND	1	02/12/08	02/12/08	

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Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0155-01 (Outfall 014 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8B0147	0.050	0.20	ND	1	02/05/08	02/07/08	
Mercury, Total	EPA 245.1	W8B0147	0.050	0.20	ND	1	02/05/08	02/07/08	

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Received: 02/03/08

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 014 (IRB0155-01) - Water					
EPA 160.5	2	02/03/2008 11:20	02/03/2008 18:30	02/04/2008 09:00	02/04/2008 09:00
EPA 180.1	2	02/03/2008 11:20	02/03/2008 18:30	02/04/2008 09:00	02/04/2008 09:00
EPA 300.0	2	02/03/2008 11:20	02/03/2008 18:30	02/04/2008 05:00	02/04/2008 08:25
EPA 405.1	2	02/03/2008 11:20	02/03/2008 18:30	02/04/2008 16:00	02/09/2008 13:30
EPA 624	3	02/03/2008 11:20	02/03/2008 18:30	02/04/2008 00:00	02/05/2008 03:39
Sample ID: Trip Blank (IRB0155-02) - Water					
EPA 624	3	02/03/2008 11:20	02/03/2008 18:30	02/04/2008 00:00	02/05/2008 03:10

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METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04063 Extracted: 02/04/08											
Blank Analyzed: 02/05/2008 (8B04063-BLK1)											
EFH (C13 - C22)	ND	0.50	0.10	mg/l							
Surrogate: n-Octacosane	*0.138*			*mg/l*	*0.200*		*69*	*40-125*			
LCS Analyzed: 02/05/2008 (8B04063-BS1)											**MNR1**
EFH (C13 - C40)	0.573	0.50	0.10	mg/l	0.750		76	40-115			
Surrogate: n-Octacosane	*0.141*			*mg/l*	*0.200*		*70*	*40-125*			
LCS Dup Analyzed: 02/05/2008 (8B04063-BSD1)											
EFH (C13 - C40)	0.660	0.50	0.10	mg/l	0.750		88	40-115	14	25	
Surrogate: n-Octacosane	*0.152*			*mg/l*	*0.200*		*76*	*40-125*			

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METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B07041 Extracted: 02/07/08											
Blank Analyzed: 02/07/2008 (8B07041-BLK1)											
GRO (C4 - C12)	ND	100	25	ug/l							
Surrogate: 4-BFB (FID)	*11.5*			*ug/l*	*10.0*		*115*	*65-140*			
LCS Analyzed: 02/07/2008 (8B07041-BS1)											
GRO (C4 - C12)	801	100	25	ug/l	800		100	80-120			
Surrogate: 4-BFB (FID)	*19.0*			*ug/l*	*10.0*		*190*	*65-140*			*ZX*
Matrix Spike Analyzed: 02/07/2008 (8B07041-MS1)						**Source: IRB0223-05**					
GRO (C4 - C12)	237	100	25	ug/l	220	ND	108	65-140			
Surrogate: 4-BFB (FID)	*14.0*			*ug/l*	*10.0*		*140*	*65-140*			
Matrix Spike Dup Analyzed: 02/07/2008 (8B07041-MSD1)						**Source: IRB0223-05**					
GRO (C4 - C12)	242	100	25	ug/l	220	ND	110	65-140	2	20	
Surrogate: 4-BFB (FID)	*13.8*			*ug/l*	*10.0*		*138*	*65-140*			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS by GCMS SIM

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04013 Extracted: 02/04/08											
Blank Analyzed: 02/04/2008 (8B04013-BLK1)											
1,4-Dioxane	ND	2.0	1.0	ug/l							
Surrogate: Dibromofluoromethane	*0.980*			*ug/l*	*1.00*		*98*	*80-120*			
LCS Analyzed: 02/04/2008 (8B04013-BS1)											
1,4-Dioxane	8.78	2.0	1.0	ug/l	10.0		88	70-125			
Surrogate: Dibromofluoromethane	*0.970*			*ug/l*	*1.00*		*97*	*80-120*			
Matrix Spike Analyzed: 02/04/2008 (8B04013-MS1)						**Source: IRA2967-02**					
1,4-Dioxane	9.74	2.0	1.0	ug/l	10.0	1.95	78	70-130			
Surrogate: Dibromofluoromethane	*1.02*			*ug/l*	*1.00*		*102*	*80-120*			
Matrix Spike Dup Analyzed: 02/04/2008 (8B04013-MSD1)						**Source: IRA2967-02**					
1,4-Dioxane	10.7	2.0	1.0	ug/l	10.0	1.95	88	70-130	9	30	
Surrogate: Dibromofluoromethane	*1.01*			*ug/l*	*1.00*		*101*	*80-120*			

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Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04024 Extracted: 02/04/08											
Blank Analyzed: 02/04/2008 (8B04024-BLK1)											
1,1,1-Trichloroethane	ND	0.50	0.30	ug/l							
1,2,3-Trichloropropane	ND	1.0	0.40	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	0.24	ug/l							
1,2-Dibromoethane (EDB)	ND	0.50	0.40	ug/l							
1,1,2-Trichloroethane	ND	0.50	0.30	ug/l							
Di-isopropyl Ether (DIPE)	ND	0.50	0.25	ug/l							
1,1-Dichloroethane	ND	0.50	0.27	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	0.50	0.32	ug/l							
1,1-Dichloroethene	ND	0.50	0.42	ug/l							
tert-Butanol (TBA)	ND	10	4.9	ug/l							
1,2-Dichloroethane	ND	0.50	0.28	ug/l							
1,2-Dichlorobenzene	ND	0.50	0.32	ug/l							
1,2-Dichloropropane	ND	0.50	0.35	ug/l							
1,3-Dichlorobenzene	ND	0.50	0.35	ug/l							
1,4-Dichlorobenzene	ND	0.50	0.37	ug/l							
Benzene	ND	0.50	0.28	ug/l							
Bromodichloromethane	ND	0.50	0.30	ug/l							
Bromoform	ND	0.50	0.40	ug/l							
Bromomethane	ND	1.0	0.42	ug/l							
Carbon tetrachloride	ND	0.50	0.28	ug/l							
Chlorobenzene	ND	0.50	0.36	ug/l							
Chloroethane	ND	1.0	0.40	ug/l							
Chloroform	ND	0.50	0.33	ug/l							
Chloromethane	ND	0.50	0.40	ug/l							
cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l							
Dibromochloromethane	ND	0.50	0.28	ug/l							
Ethylbenzene	ND	0.50	0.25	ug/l							
Methylene chloride	ND	1.0	0.95	ug/l							
Tetrachloroethene	ND	0.50	0.32	ug/l							
Toluene	ND	0.50	0.36	ug/l							
trans-1,2-Dichloroethene	ND	0.50	0.27	ug/l							
trans-1,3-Dichloropropene	ND	0.50	0.32	ug/l							
Trichloroethene	ND	0.50	0.26	ug/l							
Trichlorofluoromethane	ND	0.50	0.34	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	0.50	ug/l							

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PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04024 Extracted: 02/04/08											
Blank Analyzed: 02/04/2008 (8B04024-BLK1)											
Vinyl chloride	ND	0.50	0.30	ug/l							
Xylenes, Total	ND	1.5	0.90	ug/l							
Surrogate: Dibromofluoromethane	*27.5*			*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: Toluene-d8	*25.7*			*ug/l*	*25.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.1*			*ug/l*	*25.0*		*92*	*80-120*			
LCS Analyzed: 02/04/2008 (8B04024-BS1)											
1,1,1-Trichloroethane	29.2	0.50	0.30	ug/l	25.0		117	65-135			
1,2,3-Trichloropropane	24.8	1.0	0.40	ug/l	25.0		99	60-130			
1,1,2,2-Tetrachloroethane	26.4	0.50	0.24	ug/l	25.0		106	55-130			
1,2-Dibromoethane (EDB)	23.8	0.50	0.40	ug/l	25.0		95	75-125			
1,1,2-Trichloroethane	25.0	0.50	0.30	ug/l	25.0		100	70-125			
Di-isopropyl Ether (DIPE)	30.4	0.50	0.25	ug/l	25.0		121	60-135			
1,1-Dichloroethane	28.6	0.50	0.27	ug/l	25.0		114	70-125			
Methyl-tert-butyl Ether (MTBE)	26.3	0.50	0.32	ug/l	25.0		105	60-135			
1,1-Dichloroethene	24.7	0.50	0.42	ug/l	25.0		99	70-125			
tert-Butanol (TBA)	124	10	4.9	ug/l	125		99	70-135			
1,2-Dichloroethane	25.7	0.50	0.28	ug/l	25.0		103	60-140			
1,2-Dichlorobenzene	25.3	0.50	0.32	ug/l	25.0		101	75-120			
1,2-Dichloropropane	25.1	0.50	0.35	ug/l	25.0		100	70-125			
1,3-Dichlorobenzene	25.0	0.50	0.35	ug/l	25.0		100	75-120			
1,4-Dichlorobenzene	23.2	0.50	0.37	ug/l	25.0		93	75-120			
Benzene	24.7	0.50	0.28	ug/l	25.0		99	70-120			
Bromodichloromethane	28.2	0.50	0.30	ug/l	25.0		113	70-135			
Bromoform	21.2	0.50	0.40	ug/l	25.0		85	55-130			
Bromomethane	29.0	1.0	0.42	ug/l	25.0		116	65-140			
Carbon tetrachloride	27.1	0.50	0.28	ug/l	25.0		109	65-140			
Chlorobenzene	23.6	0.50	0.36	ug/l	25.0		94	75-120			
Chloroethane	29.2	1.0	0.40	ug/l	25.0		117	60-140			
Chloroform	29.1	0.50	0.33	ug/l	25.0		116	70-130			
Chloromethane	29.7	0.50	0.40	ug/l	25.0		119	50-140			
cis-1,3-Dichloropropene	22.6	0.50	0.22	ug/l	25.0		90	75-125			
Dibromochloromethane	23.8	0.50	0.28	ug/l	25.0		95	70-140			
Ethylbenzene	25.8	0.50	0.25	ug/l	25.0		103	75-125			
Methylene chloride	27.1	1.0	0.95	ug/l	25.0		108	55-130			
Tetrachloroethene	21.4	0.50	0.32	ug/l	25.0		86	70-125			

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04024 Extracted: 02/04/08											
LCS Analyzed: 02/04/2008 (8B04024-BS1)											
Toluene	24.6	0.50	0.36	ug/l	25.0		99	70-120			
trans-1,2-Dichloroethene	28.2	0.50	0.27	ug/l	25.0		113	70-125			
trans-1,3-Dichloropropene	22.6	0.50	0.32	ug/l	25.0		91	70-125			
Trichloroethene	22.9	0.50	0.26	ug/l	25.0		92	70-125			
Trichlorofluoromethane	33.5	0.50	0.34	ug/l	25.0		134	65-145			
Vinyl chloride	29.4	0.50	0.30	ug/l	25.0		118	55-135			
Xylenes, Total	73.8	1.5	0.90	ug/l	75.0		98	70-125			
Surrogate: Dibromofluoromethane	*28.5*			*ug/l*	*25.0*		*114*	*80-120*			
Surrogate: Toluene-d8	*25.3*			*ug/l*	*25.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.8*			*ug/l*	*25.0*		*103*	*80-120*			
Matrix Spike Analyzed: 02/04/2008 (8B04024-MS1)						**Source: IRA3076-01**					
1,1,1-Trichloroethane	28.3	0.50	0.30	ug/l	25.0	ND	113	65-140			
1,2,3-Trichloropropane	26.0	1.0	0.40	ug/l	25.0	ND	104	55-135			
1,1,2,2-Tetrachloroethane	27.7	0.50	0.24	ug/l	25.0	ND	111	55-135			
1,2-Dibromoethane (EDB)	23.8	0.50	0.40	ug/l	25.0	ND	95	70-130			
1,1,2-Trichloroethane	25.0	0.50	0.30	ug/l	25.0	ND	100	65-130			
Di-isopropyl Ether (DIPE)	30.1	0.50	0.25	ug/l	25.0	ND	120	60-140			
1,1-Dichloroethane	27.4	0.50	0.27	ug/l	25.0	ND	109	65-130			
Methyl-tert-butyl Ether (MTBE)	36.3	0.50	0.32	ug/l	25.0	8.75	110	55-145			
1,1-Dichloroethene	23.1	0.50	0.42	ug/l	25.0	ND	92	60-130			
tert-Butanol (TBA)	142	10	4.9	ug/l	125	15.5	101	65-140			
1,2-Dichloroethane	25.4	0.50	0.28	ug/l	25.0	ND	101	60-140			
1,2-Dichlorobenzene	25.0	0.50	0.32	ug/l	25.0	ND	100	75-125			
1,2-Dichloropropane	24.4	0.50	0.35	ug/l	25.0	ND	98	65-130			
1,3-Dichlorobenzene	24.4	0.50	0.35	ug/l	25.0	ND	98	75-125			
1,4-Dichlorobenzene	22.4	0.50	0.37	ug/l	25.0	ND	90	75-125			
Benzene	24.2	0.50	0.28	ug/l	25.0	ND	97	65-125			
Bromodichloromethane	27.7	0.50	0.30	ug/l	25.0	ND	111	70-135			
Bromoform	21.5	0.50	0.40	ug/l	25.0	ND	86	55-135			
Bromomethane	26.2	1.0	0.42	ug/l	25.0	ND	105	55-145			
Carbon tetrachloride	27.2	0.50	0.28	ug/l	25.0	ND	109	65-140			
Chlorobenzene	22.8	0.50	0.36	ug/l	25.0	ND	91	75-125			
Chloroethane	27.2	1.0	0.40	ug/l	25.0	ND	109	55-140			
Chloroform	28.4	0.50	0.33	ug/l	25.0	ND	114	65-135			
Chloromethane	24.5	0.50	0.40	ug/l	25.0	ND	98	45-145			

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04024 Extracted: 02/04/08											
Matrix Spike Analyzed: 02/04/2008 (8B04024-MS1)						**Source: IRA3076-01**					
cis-1,3-Dichloropropene	22.2	0.50	0.22	ug/l	25.0	ND	89	70-130			
Dibromochloromethane	24.2	0.50	0.28	ug/l	25.0	ND	97	65-140			
Ethylbenzene	25.2	0.50	0.25	ug/l	25.0	ND	101	65-130			
Methylene chloride	25.8	1.0	0.95	ug/l	25.0	ND	103	50-135			
Tetrachloroethene	20.5	0.50	0.32	ug/l	25.0	ND	82	65-130			
Toluene	24.1	0.50	0.36	ug/l	25.0	ND	96	70-125			
trans-1,2-Dichloroethene	26.9	0.50	0.27	ug/l	25.0	ND	107	65-130			
trans-1,3-Dichloropropene	21.9	0.50	0.32	ug/l	25.0	ND	88	65-135			
Trichloroethene	22.5	0.50	0.26	ug/l	25.0	ND	90	65-125			
Trichlorofluoromethane	33.0	0.50	0.34	ug/l	25.0	ND	132	60-145			
Vinyl chloride	26.4	0.50	0.30	ug/l	25.0	ND	106	45-140			
Xylenes, Total	72.5	1.5	0.90	ug/l	75.0	ND	97	60-130			
Surrogate: Dibromofluoromethane	*28.7*			*ug/l*	*25.0*		*115*	*80-120*			
Surrogate: Toluene-d8	*25.3*			*ug/l*	*25.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.6*			*ug/l*	*25.0*		*102*	*80-120*			
Matrix Spike Dup Analyzed: 02/04/2008 (8B04024-MSD1)						**Source: IRA3076-01**					
1,1,1-Trichloroethane	28.2	0.50	0.30	ug/l	25.0	ND	113	65-140	0	20	
1,2,3-Trichloropropane	23.8	1.0	0.40	ug/l	25.0	ND	95	55-135	9	30	
1,1,2,2-Tetrachloroethane	25.6	0.50	0.24	ug/l	25.0	ND	103	55-135	8	30	
1,2-Dibromoethane (EDB)	22.2	0.50	0.40	ug/l	25.0	ND	89	70-130	7	25	
1,1,2-Trichloroethane	23.7	0.50	0.30	ug/l	25.0	ND	95	65-130	5	25	
Di-isopropyl Ether (DIPE)	29.7	0.50	0.25	ug/l	25.0	ND	119	60-140	1	25	
1,1-Dichloroethane	27.2	0.50	0.27	ug/l	25.0	ND	109	65-130	1	20	
Methyl-tert-butyl Ether (MTBE)	34.3	0.50	0.32	ug/l	25.0	8.75	102	55-145	6	25	
1,1-Dichloroethene	23.7	0.50	0.42	ug/l	25.0	ND	95	60-130	3	20	
tert-Butanol (TBA)	125	10	4.9	ug/l	125	15.5	88	65-140	13	25	
1,2-Dichloroethane	23.9	0.50	0.28	ug/l	25.0	ND	96	60-140	6	20	
1,2-Dichlorobenzene	23.8	0.50	0.32	ug/l	25.0	ND	95	75-125	5	20	
1,2-Dichloropropane	24.1	0.50	0.35	ug/l	25.0	ND	97	65-130	1	20	
1,3-Dichlorobenzene	23.9	0.50	0.35	ug/l	25.0	ND	95	75-125	2	20	
1,4-Dichlorobenzene	22.2	0.50	0.37	ug/l	25.0	ND	89	75-125	1	20	
Benzene	23.7	0.50	0.28	ug/l	25.0	ND	95	65-125	2	20	
Bromodichloromethane	27.1	0.50	0.30	ug/l	25.0	ND	108	70-135	2	20	
Bromoform	19.8	0.50	0.40	ug/l	25.0	ND	79	55-135	8	25	
Bromomethane	26.7	1.0	0.42	ug/l	25.0	ND	107	55-145	2	25	

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04024 Extracted: 02/04/08											
Matrix Spike Dup Analyzed: 02/04/2008 (8B04024-MSD1)						**Source: IRA3076-01**					
Carbon tetrachloride	26.2	0.50	0.28	ug/l	25.0	ND	105	65-140	4	25	
Chlorobenzene	22.4	0.50	0.36	ug/l	25.0	ND	89	75-125	2	20	
Chloroethane	27.8	1.0	0.40	ug/l	25.0	ND	111	55-140	2	25	
Chloroform	28.1	0.50	0.33	ug/l	25.0	ND	112	65-135	1	20	
Chloromethane	26.4	0.50	0.40	ug/l	25.0	ND	105	45-145	7	25	
cis-1,3-Dichloropropene	21.1	0.50	0.22	ug/l	25.0	ND	84	70-130	5	20	
Dibromochloromethane	22.6	0.50	0.28	ug/l	25.0	ND	91	65-140	7	25	
Ethylbenzene	24.7	0.50	0.25	ug/l	25.0	ND	99	65-130	2	20	
Methylene chloride	24.8	1.0	0.95	ug/l	25.0	ND	99	50-135	4	20	
Tetrachloroethene	20.6	0.50	0.32	ug/l	25.0	ND	82	65-130	0	20	
Toluene	23.6	0.50	0.36	ug/l	25.0	ND	94	70-125	2	20	
trans-1,2-Dichloroethene	27.1	0.50	0.27	ug/l	25.0	ND	108	65-130	1	20	
trans-1,3-Dichloropropene	20.8	0.50	0.32	ug/l	25.0	ND	83	65-135	5	25	
Trichloroethene	22.0	0.50	0.26	ug/l	25.0	ND	88	65-125	2	20	
Trichlorofluoromethane	31.5	0.50	0.34	ug/l	25.0	ND	126	60-145	5	25	
Vinyl chloride	26.5	0.50	0.30	ug/l	25.0	ND	106	45-140	0	30	
Xylenes, Total	71.3	1.5	0.90	ug/l	75.0	ND	95	60-130	2	20	
Surrogate: Dibromofluoromethane	*28.6*			*ug/l*	*25.0*		*115*	*80-120*			
Surrogate: Toluene-d8	*25.1*			*ug/l*	*25.0*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.2*			*ug/l*	*25.0*		*101*	*80-120*			

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Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04024 Extracted: 02/04/08											
Blank Analyzed: 02/04/2008 (8B04024-BLK1)											
Acrolein	ND	5.0	4.0	ug/l							
Acrylonitrile	ND	2.0	0.70	ug/l							
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l							
Surrogate: Dibromofluoromethane	*27.5*			*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: Toluene-d8	*25.7*			*ug/l*	*25.0*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.1*			*ug/l*	*25.0*		*92*	*80-120*			
LCS Analyzed: 02/04/2008 (8B04024-BS1)											
2-Chloroethyl vinyl ether	28.5	5.0	1.8	ug/l	25.0		114	25-170			
Surrogate: Dibromofluoromethane	*28.5*			*ug/l*	*25.0*		*114*	*80-120*			
Surrogate: Toluene-d8	*25.3*			*ug/l*	*25.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.8*			*ug/l*	*25.0*		*103*	*80-120*			
Matrix Spike Analyzed: 02/04/2008 (8B04024-MS1)						**Source: IRA3076-01**					
2-Chloroethyl vinyl ether	28.5	5.0	1.8	ug/l	25.0	ND	114	25-170			
Surrogate: Dibromofluoromethane	*28.7*			*ug/l*	*25.0*		*115*	*80-120*			
Surrogate: Toluene-d8	*25.3*			*ug/l*	*25.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.6*			*ug/l*	*25.0*		*102*	*80-120*			
Matrix Spike Dup Analyzed: 02/04/2008 (8B04024-MSD1)						**Source: IRA3076-01**					
2-Chloroethyl vinyl ether	26.6	5.0	1.8	ug/l	25.0	ND	107	25-170	7	25	
Surrogate: Dibromofluoromethane	*28.6*			*ug/l*	*25.0*		*115*	*80-120*			
Surrogate: Toluene-d8	*25.1*			*ug/l*	*25.0*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.2*			*ug/l*	*25.0*		*101*	*80-120*			

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Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05091 Extracted: 02/05/08											
Blank Analyzed: 02/07/2008 (8B05091-BLK1)											
Acenaphthene	ND	10	3.0	ug/l							
Acenaphthylene	ND	10	3.0	ug/l							
Aniline	ND	10	2.5	ug/l							
Anthracene	ND	10	2.0	ug/l							
Benzidine	ND	20	8.5	ug/l							
Benzoic acid	ND	20	10	ug/l							
Benzo(a)anthracene	ND	10	2.0	ug/l							
Benzo(b)fluoranthene	ND	10	2.0	ug/l							
Benzo(k)fluoranthene	ND	10	2.5	ug/l							
Benzo(g,h,i)perylene	ND	10	4.0	ug/l							
Benzo(a)pyrene	ND	10	2.0	ug/l							
Benzyl alcohol	ND	20	2.5	ug/l							
Bis(2-chloroethoxy)methane	ND	10	3.0	ug/l							
Bis(2-chloroethyl)ether	ND	10	3.0	ug/l							
Bis(2-chloroisopropyl)ether	ND	10	2.5	ug/l							
Bis(2-ethylhexyl)phthalate	ND	50	4.0	ug/l							
4-Bromophenyl phenyl ether	ND	10	3.0	ug/l							
Butyl benzyl phthalate	ND	20	4.0	ug/l							
4-Chloroaniline	ND	10	2.0	ug/l							
2-Chloronaphthalene	ND	10	3.0	ug/l							
4-Chloro-3-methylphenol	ND	20	2.5	ug/l							
2-Chlorophenol	ND	10	3.0	ug/l							
4-Chlorophenyl phenyl ether	ND	10	2.5	ug/l							
Chrysene	ND	10	2.5	ug/l							
Dibenz(a,h)anthracene	ND	20	3.0	ug/l							
Dibenzofuran	ND	10	4.0	ug/l							
Di-n-butyl phthalate	ND	20	3.0	ug/l							
1,3-Dichlorobenzene	ND	10	3.0	ug/l							
1,4-Dichlorobenzene	ND	10	2.5	ug/l							
1,2-Dichlorobenzene	ND	10	3.0	ug/l							
3,3-Dichlorobenzidine	ND	20	3.0	ug/l							
2,4-Dichlorophenol	ND	10	3.5	ug/l							
Diethyl phthalate	ND	10	3.5	ug/l							
2,4-Dimethylphenol	ND	20	3.5	ug/l							
Dimethyl phthalate	ND	10	2.0	ug/l							

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METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05091 Extracted: 02/05/08											
Blank Analyzed: 02/07/2008 (8B05091-BLK1)											
4,6-Dinitro-2-methylphenol	ND	20	4.0	ug/l							
2,4-Dinitrophenol	ND	20	8.0	ug/l							
2,4-Dinitrotoluene	ND	10	3.5	ug/l							
2,6-Dinitrotoluene	ND	10	2.0	ug/l							
Di-n-octyl phthalate	ND	20	3.5	ug/l							
Fluoranthene	ND	10	3.0	ug/l							
Fluorene	ND	10	3.0	ug/l							
Hexachlorobenzene	ND	10	3.0	ug/l							
Hexachlorobutadiene	ND	10	4.0	ug/l							
Hexachlorocyclopentadiene	ND	20	5.0	ug/l							
Hexachloroethane	ND	10	3.5	ug/l							
Indeno(1,2,3-cd)pyrene	ND	20	3.5	ug/l							
Isophorone	ND	10	2.5	ug/l							
2-Methylnaphthalene	ND	10	2.0	ug/l							
2-Methylphenol	ND	10	3.0	ug/l							
4-Methylphenol	ND	10	3.0	ug/l							
Naphthalene	ND	10	3.0	ug/l							
2-Nitroaniline	ND	20	2.0	ug/l							
3-Nitroaniline	ND	20	3.0	ug/l							
4-Nitroaniline	ND	20	4.0	ug/l							
Nitrobenzene	ND	20	2.5	ug/l							
2-Nitrophenol	ND	10	3.5	ug/l							
4-Nitrophenol	ND	20	5.5	ug/l							
N-Nitrosodiphenylamine	ND	10	2.0	ug/l							
N-Nitroso-di-n-propylamine	ND	10	3.5	ug/l							
Pentachlorophenol	ND	20	3.5	ug/l							
Phenanthrene	ND	10	3.5	ug/l							
Phenol	ND	10	2.0	ug/l							
Pyrene	ND	10	4.0	ug/l							
1,2,4-Trichlorobenzene	ND	10	2.5	ug/l							
2,4,5-Trichlorophenol	ND	20	3.0	ug/l							
2,4,6-Trichlorophenol	ND	20	4.5	ug/l							
1,2-Diphenylhydrazine/Azobenzene	ND	20	2.5	ug/l							
N-Nitrosodimethylamine	ND	20	2.5	ug/l							
Surrogate: 2-Fluorophenol	*159*			*ug/l*	*200*		*80*	*30-120*			

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ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05091 Extracted: 02/05/08											
Blank Analyzed: 02/07/2008 (8B05091-BLK1)											
Surrogate: Phenol-d6	*173*			*ug/l*	*200*		*87*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*140*			*ug/l*	*200*		*70*	*40-120*			
Surrogate: Nitrobenzene-d5	*80.9*			*ug/l*	*100*		*81*	*45-120*			
Surrogate: 2-Fluorobiphenyl	*87.5*			*ug/l*	*100*		*87*	*50-120*			
Surrogate: Terphenyl-d14	*95.5*			*ug/l*	*100*		*96*	*50-125*			
LCS Analyzed: 02/07/2008 (8B05091-BS1)											**MNR1**
Acenaphthene	93.1	10	3.0	ug/l	100		93	60-120			
Acenaphthylene	103	10	3.0	ug/l	100		103	60-120			
Aniline	88.6	10	2.5	ug/l	100		89	35-120			
Anthracene	89.8	10	2.0	ug/l	100		90	65-120			
Benzidine	158	20	8.5	ug/l	100		158	30-160			
Benzoic acid	63.0	20	10	ug/l	100		63	25-120			
Benzo(a)anthracene	94.2	10	2.0	ug/l	100		94	65-120			
Benzo(b)fluoranthene	83.1	10	2.0	ug/l	100		83	55-125			
Benzo(k)fluoranthene	92.3	10	2.5	ug/l	100		92	50-125			
Benzo(g,h,i)perylene	82.1	10	4.0	ug/l	100		82	45-135			
Benzo(a)pyrene	91.8	10	2.0	ug/l	100		92	55-130			
Benzyl alcohol	95.9	20	2.5	ug/l	100		96	50-120			
Bis(2-chloroethoxy)methane	89.2	10	3.0	ug/l	100		89	55-120			
Bis(2-chloroethyl)ether	81.7	10	3.0	ug/l	100		82	50-120			
Bis(2-chloroisopropyl)ether	93.5	10	2.5	ug/l	100		94	45-120			
Bis(2-ethylhexyl)phthalate	108	50	4.0	ug/l	100		108	65-130			
4-Bromophenyl phenyl ether	78.2	10	3.0	ug/l	100		78	60-120			
Butyl benzyl phthalate	104	20	4.0	ug/l	100		104	55-130			
4-Chloroaniline	94.2	10	2.0	ug/l	100		94	55-120			
2-Chloronaphthalene	91.1	10	3.0	ug/l	100		91	60-120			
4-Chloro-3-methylphenol	93.3	20	2.5	ug/l	100		93	60-120			
2-Chlorophenol	84.0	10	3.0	ug/l	100		84	45-120			
4-Chlorophenyl phenyl ether	91.6	10	2.5	ug/l	100		92	65-120			
Chrysene	92.8	10	2.5	ug/l	100		93	65-120			
Dibenz(a,h)anthracene	84.9	20	3.0	ug/l	100		85	50-135			
Dibenzofuran	94.8	10	4.0	ug/l	100		95	65-120			
Di-n-butyl phthalate	87.4	20	3.0	ug/l	100		87	60-125			
1,3-Dichlorobenzene	79.0	10	3.0	ug/l	100		79	35-120			
1,4-Dichlorobenzene	81.6	10	2.5	ug/l	100		82	35-120			

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METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05091 Extracted: 02/05/08											
LCS Analyzed: 02/07/2008 (8B05091-BS1)											**MNR1**
1,2-Dichlorobenzene	83.5	10	3.0	ug/l	100		83	40-120			
3,3-Dichlorobenzidine	89.6	20	3.0	ug/l	100		90	45-135			
2,4-Dichlorophenol	91.2	10	3.5	ug/l	100		91	55-120			
Diethyl phthalate	96.1	10	3.5	ug/l	100		96	55-120			
2,4-Dimethylphenol	75.1	20	3.5	ug/l	100		75	40-120			
Dimethyl phthalate	92.9	10	2.0	ug/l	100		93	30-120			
4,6-Dinitro-2-methylphenol	74.4	20	4.0	ug/l	100		74	45-120			
2,4-Dinitrophenol	77.9	20	8.0	ug/l	100		78	40-120			
2,4-Dinitrotoluene	103	10	3.5	ug/l	100		103	65-120			
2,6-Dinitrotoluene	98.1	10	2.0	ug/l	100		98	65-120			
Di-n-octyl phthalate	92.5	20	3.5	ug/l	100		92	65-135			
Fluoranthene	90.7	10	3.0	ug/l	100		91	60-120			
Fluorene	96.9	10	3.0	ug/l	100		97	65-120			
Hexachlorobenzene	77.4	10	3.0	ug/l	100		77	60-120			
Hexachlorobutadiene	78.3	10	4.0	ug/l	100		78	40-120			
Hexachlorocyclopentadiene	90.8	20	5.0	ug/l	100		91	25-120			
Hexachloroethane	78.4	10	3.5	ug/l	100		78	35-120			
Indeno(1,2,3-cd)pyrene	83.3	20	3.5	ug/l	100		83	45-135			
Isophorone	88.9	10	2.5	ug/l	100		89	50-120			
2-Methylnaphthalene	90.1	10	2.0	ug/l	100		90	55-120			
2-Methylphenol	85.6	10	3.0	ug/l	100		86	50-120			
4-Methylphenol	85.2	10	3.0	ug/l	100		85	50-120			
Naphthalene	88.1	10	3.0	ug/l	100		88	55-120			
2-Nitroaniline	102	20	2.0	ug/l	100		102	65-120			
3-Nitroaniline	102	20	3.0	ug/l	100		102	60-120			
4-Nitroaniline	102	20	4.0	ug/l	100		102	55-125			
Nitrobenzene	93.7	20	2.5	ug/l	100		94	55-120			
2-Nitrophenol	92.5	10	3.5	ug/l	100		92	50-120			
4-Nitrophenol	88.3	20	5.5	ug/l	100		88	45-120			
N-Nitrosodiphenylamine	87.8	10	2.0	ug/l	100		88	60-120			
N-Nitroso-di-n-propylamine	86.7	10	3.5	ug/l	100		87	45-120			
Pentachlorophenol	70.3	20	3.5	ug/l	100		70	50-120			
Phenanthrene	86.9	10	3.5	ug/l	100		87	65-120			
Phenol	83.7	10	2.0	ug/l	100		84	40-120			
Pyrene	108	10	4.0	ug/l	100		108	55-125			

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ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05091 Extracted: 02/05/08											
LCS Analyzed: 02/07/2008 (8B05091-BS1)											**MNR1**
1,2,4-Trichlorobenzene	83.3	10	2.5	ug/l	100		83	45-120			
2,4,5-Trichlorophenol	94.0	20	3.0	ug/l	100		94	55-120			
2,4,6-Trichlorophenol	90.1	20	4.5	ug/l	100		90	55-120			
1,2-Diphenylhydrazine/Azobenzene	98.6	20	2.5	ug/l	100		99	60-120			
N-Nitrosodimethylamine	98.5	20	2.5	ug/l	100		98	45-120			
Surrogate: 2-Fluorophenol	*165*			*ug/l*	*200*		*82*	*30-120*			
Surrogate: Phenol-d6	*166*			*ug/l*	*200*		*83*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*141*			*ug/l*	*200*		*71*	*40-120*			
Surrogate: Nitrobenzene-d5	*85.5*			*ug/l*	*100*		*86*	*45-120*			
Surrogate: 2-Fluorobiphenyl	*86.0*			*ug/l*	*100*		*86*	*50-120*			
Surrogate: Terphenyl-d14	*93.9*			*ug/l*	*100*		*94*	*50-125*			
LCS Dup Analyzed: 02/07/2008 (8B05091-BSD1)											
Acenaphthene	96.0	10	3.0	ug/l	100		96	60-120	3	20	
Acenaphthylene	103	10	3.0	ug/l	100		103	60-120	1	20	
Aniline	94.6	10	2.5	ug/l	100		95	35-120	7	30	
Anthracene	91.8	10	2.0	ug/l	100		92	65-120	2	20	
Benzidine	148	20	8.5	ug/l	100		148	30-160	6	35	
Benzoic acid	44.2	20	10	ug/l	100		44	25-120	35	30	*R-7*
Benzo(a)anthracene	97.1	10	2.0	ug/l	100		97	65-120	3	20	
Benzo(b)fluoranthene	88.1	10	2.0	ug/l	100		88	55-125	6	25	
Benzo(k)fluoranthene	94.4	10	2.5	ug/l	100		94	50-125	2	20	
Benzo(g,h,i)perylene	84.5	10	4.0	ug/l	100		84	45-135	3	25	
Benzo(a)pyrene	95.4	10	2.0	ug/l	100		95	55-130	4	25	
Benzyl alcohol	97.8	20	2.5	ug/l	100		98	50-120	2	20	
Bis(2-chloroethoxy)methane	90.0	10	3.0	ug/l	100		90	55-120	1	20	
Bis(2-chloroethyl)ether	83.0	10	3.0	ug/l	100		83	50-120	2	20	
Bis(2-chloroisopropyl)ether	95.3	10	2.5	ug/l	100		95	45-120	2	20	
Bis(2-ethylhexyl)phthalate	102	50	4.0	ug/l	100		102	65-130	6	20	
4-Bromophenyl phenyl ether	82.2	10	3.0	ug/l	100		82	60-120	5	25	
Butyl benzyl phthalate	107	20	4.0	ug/l	100		107	55-130	3	20	
4-Chloroaniline	99.2	10	2.0	ug/l	100		99	55-120	5	25	
2-Chloronaphthalene	93.2	10	3.0	ug/l	100		93	60-120	2	20	
4-Chloro-3-methylphenol	98.3	20	2.5	ug/l	100		98	60-120	5	25	
2-Chlorophenol	83.9	10	3.0	ug/l	100		84	45-120	0	25	
4-Chlorophenyl phenyl ether	91.8	10	2.5	ug/l	100		92	65-120	0	20	

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Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05091 Extracted: 02/05/08											
LCS Dup Analyzed: 02/07/2008 (8B05091-BSD1)											
Chrysene	93.8	10	2.5	ug/l	100		94	65-120	1	20	
Dibenz(a,h)anthracene	87.6	20	3.0	ug/l	100		88	50-135	3	25	
Dibenzofuran	95.4	10	4.0	ug/l	100		95	65-120	1	20	
Di-n-butyl phthalate	87.2	20	3.0	ug/l	100		87	60-125	0	20	
1,3-Dichlorobenzene	74.7	10	3.0	ug/l	100		75	35-120	6	25	
1,4-Dichlorobenzene	79.2	10	2.5	ug/l	100		79	35-120	3	25	
1,2-Dichlorobenzene	80.5	10	3.0	ug/l	100		81	40-120	4	25	
3,3-Dichlorobenzidine	98.0	20	3.0	ug/l	100		98	45-135	9	25	
2,4-Dichlorophenol	92.8	10	3.5	ug/l	100		93	55-120	2	20	
Diethyl phthalate	93.5	10	3.5	ug/l	100		93	55-120	3	30	
2,4-Dimethylphenol	80.3	20	3.5	ug/l	100		80	40-120	7	25	
Dimethyl phthalate	91.9	10	2.0	ug/l	100		92	30-120	1	30	
4,6-Dinitro-2-methylphenol	80.7	20	4.0	ug/l	100		81	45-120	8	25	
2,4-Dinitrophenol	82.9	20	8.0	ug/l	100		83	40-120	6	25	
2,4-Dinitrotoluene	100	10	3.5	ug/l	100		100	65-120	3	20	
2,6-Dinitrotoluene	97.2	10	2.0	ug/l	100		97	65-120	1	20	
Di-n-octyl phthalate	91.2	20	3.5	ug/l	100		91	65-135	1	20	
Fluoranthene	89.4	10	3.0	ug/l	100		89	60-120	1	20	
Fluorene	96.6	10	3.0	ug/l	100		97	65-120	0	20	
Hexachlorobenzene	80.2	10	3.0	ug/l	100		80	60-120	4	20	
Hexachlorobutadiene	78.0	10	4.0	ug/l	100		78	40-120	0	25	
Hexachlorocyclopentadiene	94.7	20	5.0	ug/l	100		95	25-120	4	30	
Hexachloroethane	73.2	10	3.5	ug/l	100		73	35-120	7	25	
Indeno(1,2,3-cd)pyrene	84.3	20	3.5	ug/l	100		84	45-135	1	25	
Isophorone	89.1	10	2.5	ug/l	100		89	50-120	0	20	
2-Methylnaphthalene	88.9	10	2.0	ug/l	100		89	55-120	1	20	
2-Methylphenol	86.5	10	3.0	ug/l	100		86	50-120	1	20	
4-Methylphenol	86.3	10	3.0	ug/l	100		86	50-120	1	20	
Naphthalene	89.0	10	3.0	ug/l	100		89	55-120	1	20	
2-Nitroaniline	104	20	2.0	ug/l	100		104	65-120	2	20	
3-Nitroaniline	102	20	3.0	ug/l	100		102	60-120	1	25	
4-Nitroaniline	102	20	4.0	ug/l	100		102	55-125	1	20	
Nitrobenzene	91.6	20	2.5	ug/l	100		92	55-120	2	25	
2-Nitrophenol	91.6	10	3.5	ug/l	100		92	50-120	1	25	
4-Nitrophenol	84.8	20	5.5	ug/l	100		85	45-120	4	30	

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Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

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METHOD BLANK/QC DATA

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05091 Extracted: 02/05/08											
LCS Dup Analyzed: 02/07/2008 (8B05091-BSD1)											
N-Nitrosodiphenylamine	93.0	10	2.0	ug/l	100		93	60-120	6	20	
N-Nitroso-di-n-propylamine	88.3	10	3.5	ug/l	100		88	45-120	2	20	
Pentachlorophenol	68.6	20	3.5	ug/l	100		69	50-120	2	25	
Phenanthrene	88.3	10	3.5	ug/l	100		88	65-120	2	20	
Phenol	82.2	10	2.0	ug/l	100		82	40-120	2	25	
Pyrene	111	10	4.0	ug/l	100		111	55-125	3	25	
1,2,4-Trichlorobenzene	85.5	10	2.5	ug/l	100		86	45-120	3	20	
2,4,5-Trichlorophenol	93.9	20	3.0	ug/l	100		94	55-120	0	30	
2,4,6-Trichlorophenol	95.4	20	4.5	ug/l	100		95	55-120	6	30	
1,2-Diphenylhydrazine/Azobenzene	98.4	20	2.5	ug/l	100		98	60-120	0	25	
N-Nitrosodimethylamine	95.7	20	2.5	ug/l	100		96	45-120	3	20	
Surrogate: 2-Fluorophenol	*161*			*ug/l*	*200*		*81*	*30-120*			
Surrogate: Phenol-d6	*166*			*ug/l*	*200*		*83*	*35-120*			
Surrogate: 2,4,6-Tribromophenol	*150*			*ug/l*	*200*		*75*	*40-120*			
Surrogate: Nitrobenzene-d5	*87.4*			*ug/l*	*100*		*87*	*45-120*			
Surrogate: 2-Fluorobiphenyl	*90.9*			*ug/l*	*100*		*91*	*50-120*			
Surrogate: Terphenyl-d14	*102*			*ug/l*	*100*		*102*	*50-125*			

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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05099 Extracted: 02/05/08											
Blank Analyzed: 02/06/2008 (8B05099-BLK1)											
Aldrin	ND	0.0050	0.0015	ug/l							
alpha-BHC	ND	0.0050	0.0025	ug/l							
beta-BHC	ND	0.010	0.0040	ug/l							
delta-BHC	ND	0.0050	0.0035	ug/l							
gamma-BHC (Lindane)	ND	0.010	0.0030	ug/l							
Chlordane	ND	0.10	0.030	ug/l							
4,4'-DDD	ND	0.0050	0.0020	ug/l							
4,4'-DDE	ND	0.0050	0.0030	ug/l							
4,4'-DDT	ND	0.010	0.0040	ug/l							
Dieldrin	ND	0.0050	0.0020	ug/l							
Endosulfan I	ND	0.0050	0.0020	ug/l							
Endosulfan II	ND	0.0050	0.0030	ug/l							
Endosulfan sulfate	ND	0.010	0.0030	ug/l							
Endrin	ND	0.0050	0.0020	ug/l							
Endrin aldehyde	ND	0.010	0.0020	ug/l							
Endrin ketone	ND	0.010	0.0030	ug/l							
Heptachlor	ND	0.010	0.0030	ug/l							
Heptachlor epoxide	ND	0.0050	0.0025	ug/l							
Methoxychlor	ND	0.0050	0.0035	ug/l							
Toxaphene	ND	0.10	0.070	ug/l							
Surrogate: Decachlorobiphenyl	*0.419*			*ug/l*	*0.500*		*84*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.419*			*ug/l*	*0.500*		*84*	*35-115*			
LCS Analyzed: 02/07/2008 (8B05099-BS1)											**MNR1**
Aldrin	0.417	0.0050	0.0015	ug/l	0.500		83	40-115			
alpha-BHC	0.404	0.0050	0.0025	ug/l	0.500		81	45-115			
beta-BHC	0.419	0.010	0.0040	ug/l	0.500		84	55-115			
delta-BHC	0.453	0.0050	0.0035	ug/l	0.500		91	55-115			
gamma-BHC (Lindane)	0.433	0.010	0.0030	ug/l	0.500		87	45-115			
4,4'-DDD	0.496	0.0050	0.0020	ug/l	0.500		99	55-120			
4,4'-DDE	0.488	0.0050	0.0030	ug/l	0.500		98	50-120			
4,4'-DDT	0.491	0.010	0.0040	ug/l	0.500		98	55-120			
Dieldrin	0.455	0.0050	0.0020	ug/l	0.500		91	55-115			
Endosulfan I	0.464	0.0050	0.0020	ug/l	0.500		93	55-115			
Endosulfan II	0.439	0.0050	0.0030	ug/l	0.500		88	55-120			
Endosulfan sulfate	0.506	0.010	0.0030	ug/l	0.500		101	60-120			

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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05099 Extracted: 02/05/08											
LCS Analyzed: 02/07/2008 (8B05099-BS1)											**MNR1**
Endrin	0.511	0.0050	0.0020	ug/l	0.500		102	55-115			
Endrin aldehyde	0.483	0.010	0.0020	ug/l	0.500		97	50-120			
Endrin ketone	0.520	0.010	0.0030	ug/l	0.500		104	55-120			
Heptachlor	0.406	0.010	0.0030	ug/l	0.500		81	45-115			
Heptachlor epoxide	0.442	0.0050	0.0025	ug/l	0.500		88	55-115			
Methoxychlor	0.508	0.0050	0.0035	ug/l	0.500		102	60-120			
Surrogate: Decachlorobiphenyl	*0.436*			*ug/l*	*0.500*		*87*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.414*			*ug/l*	*0.500*		*83*	*35-115*			
LCS Dup Analyzed: 02/07/2008 (8B05099-BSD1)											
Aldrin	0.381	0.0050	0.0015	ug/l	0.500		76	40-115	9	30	
alpha-BHC	0.386	0.0050	0.0025	ug/l	0.500		77	45-115	5	30	
beta-BHC	0.398	0.010	0.0040	ug/l	0.500		80	55-115	5	30	
delta-BHC	0.409	0.0050	0.0035	ug/l	0.500		82	55-115	10	30	
gamma-BHC (Lindane)	0.408	0.010	0.0030	ug/l	0.500		82	45-115	6	30	
4,4'-DDD	0.455	0.0050	0.0020	ug/l	0.500		91	55-120	9	30	
4,4'-DDE	0.444	0.0050	0.0030	ug/l	0.500		89	50-120	9	30	
4,4'-DDT	0.451	0.010	0.0040	ug/l	0.500		90	55-120	9	30	
Dieldrin	0.421	0.0050	0.0020	ug/l	0.500		84	55-115	8	30	
Endosulfan I	0.430	0.0050	0.0020	ug/l	0.500		86	55-115	8	30	
Endosulfan II	0.406	0.0050	0.0030	ug/l	0.500		81	55-120	8	30	
Endosulfan sulfate	0.463	0.010	0.0030	ug/l	0.500		93	60-120	9	30	
Endrin	0.471	0.0050	0.0020	ug/l	0.500		94	55-115	8	30	
Endrin aldehyde	0.442	0.010	0.0020	ug/l	0.500		88	50-120	9	30	
Endrin ketone	0.477	0.010	0.0030	ug/l	0.500		95	55-120	8	30	
Heptachlor	0.373	0.010	0.0030	ug/l	0.500		75	45-115	8	30	
Heptachlor epoxide	0.410	0.0050	0.0025	ug/l	0.500		82	55-115	8	30	
Methoxychlor	0.458	0.0050	0.0035	ug/l	0.500		92	60-120	11	30	
Surrogate: Decachlorobiphenyl	*0.403*			*ug/l*	*0.500*		*81*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.382*			*ug/l*	*0.500*		*76*	*35-115*			

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METHOD BLANK/QC DATA

TOTAL PCBS (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05099 Extracted: 02/05/08											
Blank Analyzed: 02/06/2008 (8B05099-BLK1)											
Aroclor 1016	ND	0.50	0.45	ug/l							
Aroclor 1221	ND	0.50	0.25	ug/l							
Aroclor 1232	ND	0.50	0.25	ug/l							
Aroclor 1242	ND	0.50	0.25	ug/l							
Aroclor 1248	ND	0.50	0.25	ug/l							
Aroclor 1254	ND	0.50	0.25	ug/l							
Aroclor 1260	ND	0.50	0.30	ug/l							
Surrogate: Decachlorobiphenyl	*0.420*			*ug/l*	*0.500*		*84*	*45-120*			
LCS Analyzed: 02/06/2008 (8B05099-BS2)											**MNR1**
Aroclor 1016	3.28	0.50	0.45	ug/l	4.00		82	50-115			
Aroclor 1260	3.60	0.50	0.30	ug/l	4.00		90	60-120			
Surrogate: Decachlorobiphenyl	*0.440*			*ug/l*	*0.500*		*88*	*45-120*			
LCS Dup Analyzed: 02/06/2008 (8B05099-BSD2)											
Aroclor 1016	3.13	0.50	0.45	ug/l	4.00		78	50-115	5	30	
Aroclor 1260	3.56	0.50	0.30	ug/l	4.00		89	60-120	1	25	
Surrogate: Decachlorobiphenyl	*0.435*			*ug/l*	*0.500*		*87*	*45-120*			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04079 Extracted: 02/04/08											
Blank Analyzed: 02/04/2008 (8B04079-BLK1)											
Arsenic	ND	10	7.0	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	ND	0.050	0.020	mg/l							
Calcium	ND	0.10	0.050	mg/l							
Chromium	ND	5.0	2.0	ug/l							
Magnesium	ND	0.020	0.012	mg/l							
Nickel	ND	10	2.0	ug/l							
LCS Analyzed: 02/04/2008 (8B04079-BS1)											
Arsenic	504	10	7.0	ug/l	500		101	85-115			
Beryllium	510	2.0	0.90	ug/l	500		102	85-115			
Boron	0.514	0.050	0.020	mg/l	0.500		103	85-115			
Calcium	2.65	0.10	0.050	mg/l	2.50		106	85-115			
Chromium	517	5.0	2.0	ug/l	500		103	85-115			
Magnesium	2.63	0.020	0.012	mg/l	2.50		105	85-115			
Nickel	513	10	2.0	ug/l	500		103	85-115			
Matrix Spike Analyzed: 02/04/2008 (8B04079-MS1)						**Source: IRB0153-01**					
Arsenic	496	10	7.0	ug/l	500	ND	99	70-130			
Beryllium	503	2.0	0.90	ug/l	500	ND	101	70-130			
Boron	0.503	0.050	0.020	mg/l	0.500	ND	101	70-130			
Calcium	53.7	0.10	0.050	mg/l	2.50	52.8	38	70-130			*MHA*
Chromium	502	5.0	2.0	ug/l	500	2.15	100	70-130			
Magnesium	9.71	0.020	0.012	mg/l	2.50	7.62	84	70-130			
Nickel	495	10	2.0	ug/l	500	ND	99	70-130			
Matrix Spike Analyzed: 02/04/2008 (8B04079-MS2)						**Source: IRB0155-01**					
Arsenic	509	10	7.0	ug/l	500	ND	102	70-130			
Beryllium	515	2.0	0.90	ug/l	500	ND	103	70-130			
Boron	0.503	0.050	0.020	mg/l	0.500	ND	101	70-130			
Calcium	8.02	0.10	0.050	mg/l	2.50	5.65	95	70-130			
Chromium	522	5.0	2.0	ug/l	500	ND	104	70-130			
Magnesium	3.33	0.020	0.012	mg/l	2.50	0.768	102	70-130			
Nickel	515	10	2.0	ug/l	500	ND	103	70-130			

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METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04079 Extracted: 02/04/08											
Matrix Spike Dup Analyzed: 02/04/2008 (8B04079-MSD1)						**Source: IRB0153-01**					
Arsenic	506	10	7.0	ug/l	500	ND	101	70-130	2	20	
Beryllium	516	2.0	0.90	ug/l	500	ND	103	70-130	3	20	
Boron	0.499	0.050	0.020	mg/l	0.500	ND	100	70-130	1	20	
Calcium	53.2	0.10	0.050	mg/l	2.50	52.8	19	70-130	1	20	*MHA*
Chromium	512	5.0	2.0	ug/l	500	2.15	102	70-130	2	20	
Magnesium	9.64	0.020	0.012	mg/l	2.50	7.62	81	70-130	1	20	
Nickel	507	10	2.0	ug/l	500	ND	101	70-130	2	20	
Batch: 8B04080 Extracted: 02/04/08											
Blank Analyzed: 02/04/2008-02/05/2008 (8B04080-BLK1)											
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.30	ug/l							
Thallium	ND	1.0	0.20	ug/l							
Zinc	ND	20	2.5	ug/l							
LCS Analyzed: 02/04/2008-02/05/2008 (8B04080-BS1)											
Antimony	84.2	2.0	0.20	ug/l	80.0		105	85-115			
Cadmium	83.7	1.0	0.11	ug/l	80.0		105	85-115			
Copper	83.0	2.0	0.75	ug/l	80.0		104	85-115			
Lead	83.3	1.0	0.30	ug/l	80.0		104	85-115			
Selenium	82.5	2.0	0.30	ug/l	80.0		103	85-115			
Silver	83.1	1.0	0.30	ug/l	80.0		104	85-115			
Thallium	83.4	1.0	0.20	ug/l	80.0		104	85-115			
Zinc	81.2	20	2.5	ug/l	80.0		101	85-115			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04080 Extracted: 02/04/08											
Matrix Spike Analyzed: 02/04/2008-02/05/2008 (8B04080-MS1)						**Source: IRB0150-01**					
Antimony	82.0	2.0	0.20	ug/l	80.0	0.423	102	70-130			
Cadmium	80.7	1.0	0.11	ug/l	80.0	0.208	101	70-130			
Copper	78.5	2.0	0.75	ug/l	80.0	1.69	96	70-130			
Lead	76.9	1.0	0.30	ug/l	80.0	0.512	96	70-130			
Selenium	75.1	2.0	0.30	ug/l	80.0	ND	94	70-130			
Silver	78.5	1.0	0.30	ug/l	80.0	ND	98	70-130			
Thallium	79.0	1.0	0.20	ug/l	80.0	ND	99	70-130			
Zinc	79.4	20	2.5	ug/l	80.0	6.33	91	70-130			
Matrix Spike Analyzed: 02/04/2008-02/05/2008 (8B04080-MS2)						**Source: IRB0152-01**					
Antimony	80.5	2.0	0.20	ug/l	80.0	1.58	99	70-130			
Cadmium	79.1	1.0	0.11	ug/l	80.0	0.164	99	70-130			
Copper	82.5	2.0	0.75	ug/l	80.0	4.75	97	70-130			
Lead	84.1	1.0	0.30	ug/l	80.0	6.01	98	70-130			
Selenium	75.5	2.0	0.30	ug/l	80.0	ND	94	70-130			
Silver	78.1	1.0	0.30	ug/l	80.0	ND	98	70-130			
Thallium	80.7	1.0	0.20	ug/l	80.0	ND	101	70-130			
Zinc	90.5	20	2.5	ug/l	80.0	14.4	95	70-130			
Matrix Spike Dup Analyzed: 02/04/2008-02/05/2008 (8B04080-MSD1)						**Source: IRB0150-01**					
Antimony	83.6	2.0	0.20	ug/l	80.0	0.423	104	70-130	2	20	
Cadmium	81.2	1.0	0.11	ug/l	80.0	0.208	101	70-130	1	20	
Copper	79.1	2.0	0.75	ug/l	80.0	1.69	97	70-130	1	20	
Lead	78.6	1.0	0.30	ug/l	80.0	0.512	98	70-130	2	20	
Selenium	76.6	2.0	0.30	ug/l	80.0	ND	96	70-130	2	20	
Silver	79.3	1.0	0.30	ug/l	80.0	ND	99	70-130	1	20	
Thallium	80.1	1.0	0.20	ug/l	80.0	ND	100	70-130	1	20	
Zinc	80.4	20	2.5	ug/l	80.0	6.33	93	70-130	1	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04145 Extracted: 02/04/08											
Blank Analyzed: 02/05/2008 (8B04145-BLK1)											
Arsenic	ND	10	7.0	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	ND	0.050	0.020	mg/l							
Calcium	ND	0.10	0.050	mg/l							
Chromium	ND	5.0	2.0	ug/l							
Magnesium	ND	0.020	0.012	mg/l							
Nickel	ND	10	2.0	ug/l							
Hardness (as CaCO3)	ND	1.0	1.0	mg/l							
LCS Analyzed: 02/05/2008 (8B04145-BS1)											
Arsenic	1000	10	7.0	ug/l	1000		100	85-115			
Beryllium	981	2.0	0.90	ug/l	1000		98	85-115			
Boron	0.966	0.050	0.020	mg/l	1.00		97	85-115			
Calcium	1.09	0.10	0.050	mg/l	1.00		109	85-115			
Chromium	995	5.0	2.0	ug/l	1000		100	85-115			
Magnesium	1.04	0.020	0.012	mg/l	1.00		104	85-115			
Nickel	1020	10	2.0	ug/l	1000		102	85-115			
Matrix Spike Analyzed: 02/05/2008 (8B04145-MS1)						**Source: IRB0146-01**					
Arsenic	1020	10	7.0	ug/l	1000	ND	102	70-130			
Beryllium	997	2.0	0.90	ug/l	1000	ND	100	70-130			
Boron	1.02	0.050	0.020	mg/l	1.00	0.0451	97	70-130			
Calcium	28.3	0.10	0.050	mg/l	1.00	28.0	23	70-130			*MHA*
Chromium	1010	5.0	2.0	ug/l	1000	ND	101	70-130			
Magnesium	9.21	0.020	0.012	mg/l	1.00	8.60	61	70-130			*MHA*
Nickel	1020	10	2.0	ug/l	1000	ND	102	70-130			
Matrix Spike Dup Analyzed: 02/05/2008 (8B04145-MSD1)						**Source: IRB0146-01**					
Arsenic	1020	10	7.0	ug/l	1000	ND	102	70-130	0	20	
Beryllium	996	2.0	0.90	ug/l	1000	ND	100	70-130	0	20	
Boron	1.05	0.050	0.020	mg/l	1.00	0.0451	100	70-130	3	20	
Calcium	28.1	0.10	0.050	mg/l	1.00	28.0	6	70-130	1	20	*MHA*
Chromium	1010	5.0	2.0	ug/l	1000	ND	101	70-130	1	20	
Magnesium	9.33	0.020	0.012	mg/l	1.00	8.60	72	70-130	1	20	*MHA*
Nickel	1030	10	2.0	ug/l	1000	ND	103	70-130	1	20	

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Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05112 Extracted: 02/05/08											
Blank Analyzed: 02/05/2008 (8B05112-BLK1)											
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.30	ug/l							
Thallium	ND	1.0	0.20	ug/l							
Zinc	ND	20	2.5	ug/l							
LCS Analyzed: 02/05/2008 (8B05112-BS1)											
Antimony	80.4	2.0	0.20	ug/l	80.0		100	85-115			
Cadmium	80.6	1.0	0.11	ug/l	80.0		101	85-115			
Copper	83.3	2.0	0.75	ug/l	80.0		104	85-115			
Lead	83.7	1.0	0.30	ug/l	80.0		105	85-115			
Selenium	82.1	2.0	0.30	ug/l	80.0		103	85-115			
Silver	82.0	1.0	0.30	ug/l	80.0		102	85-115			
Thallium	82.4	1.0	0.20	ug/l	80.0		103	85-115			
Zinc	83.3	20	2.5	ug/l	80.0		104	85-115			
Matrix Spike Analyzed: 02/05/2008 (8B05112-MS1)						**Source: IRB0146-01**					
Antimony	79.9	2.0	0.20	ug/l	80.0	0.473	99	70-130			
Cadmium	78.6	1.0	0.11	ug/l	80.0	0.130	98	70-130			
Copper	80.8	2.0	0.75	ug/l	80.0	2.50	98	70-130			
Lead	77.8	1.0	0.30	ug/l	80.0	0.385	97	70-130			
Selenium	78.1	2.0	0.30	ug/l	80.0	ND	98	70-130			
Silver	79.1	1.0	0.30	ug/l	80.0	ND	99	70-130			
Thallium	80.0	1.0	0.20	ug/l	80.0	ND	100	70-130			
Zinc	81.4	20	2.5	ug/l	80.0	6.07	94	70-130			

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Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B05112 Extracted: 02/05/08											
Matrix Spike Dup Analyzed: 02/05/2008 (8B05112-MSD1)						**Source: IRB0146-01**					
Antimony	81.9	2.0	0.20	ug/l	80.0	0.473	102	70-130	3	20	
Cadmium	80.3	1.0	0.11	ug/l	80.0	0.130	100	70-130	2	20	
Copper	82.1	2.0	0.75	ug/l	80.0	2.50	100	70-130	2	20	
Lead	78.4	1.0	0.30	ug/l	80.0	0.385	98	70-130	1	20	
Selenium	79.0	2.0	0.30	ug/l	80.0	ND	99	70-130	1	20	
Silver	80.7	1.0	0.30	ug/l	80.0	ND	101	70-130	2	20	
Thallium	80.9	1.0	0.20	ug/l	80.0	ND	101	70-130	1	20	
Zinc	82.3	20	2.5	ug/l	80.0	6.07	95	70-130	1	20	

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04043 Extracted: 02/04/08											
Blank Analyzed: 02/04/2008 (8B04043-BLK1)											
Chloride	ND	0.50	0.25	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	0.15	0.090	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 02/04/2008 (8B04043-BS1)											
Chloride	5.33	0.50	0.25	mg/l	5.00		107	90-110			
Nitrate-N	1.19	0.11	0.060	mg/l	1.13		106	90-110			
Nitrite-N	1.65	0.15	0.090	mg/l	1.52		109	90-110			
Sulfate	10.6	0.50	0.20	mg/l	10.0		106	90-110			*M-3*
Matrix Spike Analyzed: 02/04/2008 (8B04043-MS1)						**Source: IRB0146-01**					
Chloride	27.0	0.50	0.25	mg/l	5.00	21.6	109	80-120			
Nitrate-N	3.59	0.11	0.060	mg/l	1.13	2.36	109	80-120			
Nitrite-N	1.77	0.15	0.090	mg/l	1.52	ND	116	80-120			
Matrix Spike Analyzed: 02/04/2008 (8B04043-MS2)						**Source: IRB0156-01**					
Chloride	27.7	0.50	0.25	mg/l	5.00	22.9	96	80-120			
Nitrate-N	2.90	0.11	0.060	mg/l	1.13	1.73	103	80-120			
Nitrite-N	1.59	0.15	0.090	mg/l	1.52	ND	105	80-120			
Matrix Spike Dup Analyzed: 02/04/2008 (8B04043-MSD1)						**Source: IRB0146-01**					
Chloride	27.2	0.50	0.25	mg/l	5.00	21.6	112	80-120	1	20	
Nitrate-N	3.64	0.11	0.060	mg/l	1.13	2.36	113	80-120	1	20	
Nitrite-N	1.81	0.15	0.090	mg/l	1.52	ND	119	80-120	2	20	

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04067 Extracted: 02/04/08											
Blank Analyzed: 02/04/2008 (8B04067-BLK1)											
Turbidity	0.120	1.0	0.040	NTU							*J*
Duplicate Analyzed: 02/04/2008 (8B04067-DUP1)						**Source: IRB0158-01**					
Turbidity	3.31	1.0	0.040	NTU		3.24			2	20	
Batch: 8B04070 Extracted: 02/04/08											
Blank Analyzed: 02/09/2008 (8B04070-BLK1)											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 02/09/2008 (8B04070-BS1)											
Biochemical Oxygen Demand	218	100	30	mg/l	198		110	85-115			
LCS Dup Analyzed: 02/09/2008 (8B04070-BSD1)											
Biochemical Oxygen Demand	218	100	30	mg/l	198		110	85-115	0	20	
Batch: 8B04112 Extracted: 02/04/08											
Blank Analyzed: 02/04/2008 (8B04112-BLK1)											
Total Cyanide	ND	0.0050	0.0022	mg/l							
LCS Analyzed: 02/04/2008 (8B04112-BS1)											
Total Cyanide	0.184	0.0050	0.0022	mg/l	0.200		92	90-110			
Matrix Spike Analyzed: 02/04/2008 (8B04112-MS1)						**Source: IRA3072-06**					
Total Cyanide	0.189	0.0050	0.0022	mg/l	0.200	ND	94	70-115			

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04112 Extracted: 02/04/08											
Matrix Spike Dup Analyzed: 02/04/2008 (8B04112-MSD1)						**Source: IRA3072-06**					
Total Cyanide	0.189	0.0050	0.0022	mg/l	0.200	ND	95	70-115	0	15	
Batch: 8B05105 Extracted: 02/05/08											
Blank Analyzed: 02/05/2008 (8B05105-BLK1)											
Fluoride	0.0340	0.10	0.014	mg/l							*J*
LCS Analyzed: 02/05/2008 (8B05105-BS1)											
Fluoride	1.08	0.10	0.014	mg/l	1.00		108	90-110			
Matrix Spike Analyzed: 02/05/2008 (8B05105-MS1)						**Source: IRA3062-01**					
Fluoride	2.16	0.10	0.014	mg/l	2.00	0.227	97	80-120			
Matrix Spike Dup Analyzed: 02/05/2008 (8B05105-MSD1)						**Source: IRA3062-01**					
Fluoride	2.23	0.10	0.014	mg/l	2.00	0.227	100	80-120	3	20	
Batch: 8B05134 Extracted: 02/05/08											
Blank Analyzed: 02/05/2008 (8B05134-BLK1)											
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 02/05/2008 (8B05134-BS1)											
Total Suspended Solids	967	10	10	mg/l	1000		97	85-115			
Duplicate Analyzed: 02/05/2008 (8B05134-DUP1)						**Source: IRB0193-02**					
Total Suspended Solids	ND	10	10	mg/l		ND				10	

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B07098 Extracted: 02/07/08											
Blank Analyzed: 02/08/2008 (8B07098-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 02/08/2008 (8B07098-BS1)											
Ammonia-N (Distilled)	10.4	0.50	0.30	mg/l	10.0		104	80-115			
Matrix Spike Analyzed: 02/08/2008 (8B07098-MS1)						**Source: IRB0146-01**					
Ammonia-N (Distilled)	10.1	0.50	0.30	mg/l	10.0	ND	101	70-120			
Matrix Spike Dup Analyzed: 02/08/2008 (8B07098-MSD1)						**Source: IRB0146-01**					
Ammonia-N (Distilled)	9.80	0.50	0.30	mg/l	10.0	ND	98	70-120	3	15	
Batch: 8B07123 Extracted: 02/07/08											
Blank Analyzed: 02/07/2008 (8B07123-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 02/07/2008 (8B07123-BS1)											
Total Dissolved Solids	988	10	10	mg/l	1000		99	90-110			
Duplicate Analyzed: 02/07/2008 (8B07123-DUP1)						**Source: IRB0153-01**					
Total Dissolved Solids	266	10	10	mg/l		258			3	10	
Batch: 8B12073 Extracted: 02/12/08											
Blank Analyzed: 02/12/2008 (8B12073-BLK1)											
Perchlorate	ND	4.0	1.5	ug/l							

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B12073 Extracted: 02/12/08											
LCS Analyzed: 02/12/2008 (8B12073-BS1)											
Perchlorate	55.4	4.0	1.5	ug/l	50.0		111	85-115			
Matrix Spike Analyzed: 02/12/2008 (8B12073-MS1)						**Source: IRB0150-01**					
Perchlorate	50.5	4.0	1.5	ug/l	50.0	ND	101	80-120			
Matrix Spike Dup Analyzed: 02/12/2008 (8B12073-MSD1)						**Source: IRB0150-01**					
Perchlorate	50.8	4.0	1.5	ug/l	50.0	ND	102	80-120	1	20	
Batch: 8B12074 Extracted: 02/12/08											
Blank Analyzed: 02/12/2008 (8B12074-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
LCS Analyzed: 02/12/2008 (8B12074-BS1)											**MNR1**
Hexane Extractable Material (Oil & Grease)	20.0	5.0	1.4	mg/l	20.2		99	78-114			
LCS Dup Analyzed: 02/12/2008 (8B12074-BSD1)											
Hexane Extractable Material (Oil & Grease)	18.5	5.0	1.4	mg/l	20.2		92	78-114	8	11	

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Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: W8B0147 Extracted: 02/05/08											
Blank Analyzed: 02/07/2008 (W8B0147-BLK1)											
Mercury, Dissolved	ND	0.20	0.050	ug/l							
Mercury, Total	ND	0.20	0.050	ug/l							
LCS Analyzed: 02/07/2008 (W8B0147-BS1)											
Mercury, Dissolved	1.04	0.20	0.050	ug/l	1.00		104	85-115			
Mercury, Total	1.04	0.20	0.050	ug/l	1.00		104	85-115			
Matrix Spike Analyzed: 02/07/2008 (W8B0147-MS1)						**Source: 8020444-01**					
Mercury, Dissolved	1.04	0.20	0.050	ug/l	1.00	ND	104	70-130			
Mercury, Total	1.04	0.20	0.050	ug/l	1.00	ND	104	70-130			
Matrix Spike Analyzed: 02/07/2008 (W8B0147-MS2)						**Source: 8020445-01**					
Mercury, Dissolved	1.04	0.20	0.050	ug/l	1.00	ND	104	70-130			
Mercury, Total	1.04	0.20	0.050	ug/l	1.00	ND	104	70-130			
Matrix Spike Dup Analyzed: 02/07/2008 (W8B0147-MSD1)						**Source: 8020444-01**					
Mercury, Dissolved	1.05	0.20	0.050	ug/l	1.00	ND	105	70-130	1	20	
Mercury, Total	1.05	0.20	0.050	ug/l	1.00	ND	105	70-130	1	20	
Matrix Spike Dup Analyzed: 02/07/2008 (W8B0147-MSD2)						**Source: 8020445-01**					
Mercury, Dissolved	1.06	0.20	0.050	ug/l	1.00	ND	106	70-130	2	20	
Mercury, Total	1.06	0.20	0.050	ug/l	1.00	ND	106	70-130	2	20	

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Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IRB0155-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	0.38	4.8	15
IRB0155-01	624-Boeing 012/013/014 DT, LOW	1,2-Dibromoethane (EDB)	ug/l	0	0.50	50
IRB0155-01	624-Boeing 012/013/014 DT, LOW	tert-Butanol (TBA)	ug/l	0	10	12
IRB0155-01	625+NDMA+Hydrazine	Naphthalene	ug/l	0	9.4	21
IRB0155-01	8260B-SIM 1,4-Dioxane	1,4-Dioxane	ug/l	0	2.0	3
IRB0155-01	Ammonia-N, Titr (350.2) w/dist	Ammonia-N (Distilled)	mg/l	0.28	0.50	10
IRB0155-01	Boron-200.7	Boron	mg/l	0.010	0.050	1
IRB0155-01	Cadmium-200.8	Cadmium	ug/l	0.85	1.0	3.1
IRB0155-01	Chloride - 300.0	Chloride	mg/l	4.13	0.50	150
IRB0155-01	Copper-200.8	Copper	ug/l	1.66	2.0	14
IRB0155-01	Fluoride - 340.2	Fluoride	mg/l	0.69	0.10	1.6
IRB0155-01	Hg_w 245.1	Mercury, Total	ug/l	0.027	0.20	0.2
IRB0155-01	Lead-200.8	Lead	ug/l	1.08	1.0	5.2
IRB0155-01	Nitrate-N, 300.0	Nitrate-N	mg/l	0.92	0.11	8
IRB0155-01	Nitrite-N, 300.0	Nitrite-N	mg/l	0.070	0.15	1
IRB0155-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	0.99	0.26	8
IRB0155-01	Perchlorate 314.0-DEFAULT	Perchlorate	ug/l	0	4.0	6
IRB0155-01	Selenium-200.8	Selenium	ug/l	0.027	2.0	5
IRB0155-01	Settleable Solids	Total Settleable Solids	ml/l/hr	0	0.10	0.3
IRB0155-01	Sulfate-300.0	Sulfate	mg/l	4.77	0.50	300
IRB0155-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	89	10	950
IRB0155-01	TSS - EPA 160.2	Total Suspended Solids	mg/l	4.00	10	45
IRB0155-01	Zinc-200.8	Zinc	ug/l	31	20	160

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IRB0155-02	624-Boeing 012/013/014 DT, LOW	1,2-Dibromoethane (EDB)	ug/l	0	0.50	50
IRB0155-02	624-Boeing 012/013/014 DT, LOW	tert-Butanol (TBA)	ug/l	0	10	12

TestAmerica Irvine

Joseph Doak
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

DATA QUALIFIERS AND DEFINITIONS

J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
P1	Sample received and analyzed without chemical preservation.
R-7	LFB/LFBD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For 1,2-Diphenylhydrazine:

The result for 1,2-Diphenylhydrazine is based upon the reading of its breakdown product, Azobenzene.

For GRO (C4-C12):

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

TestAmerica Irvine

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Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 1664A	Water		
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 335.2	Water	X	X
EPA 340.2	Water	X	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B-SIM	Water		
SM2340B	Water	X	X
SM2540C	Water	X	

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Aquatic Testing Laboratories-SUB *California Cert #1775*
4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-Acute 96hr
Samples: IRB0155-01

Truesdail Laboratories-SUB *California Cert #1237*
14201 Franklin Avenue - Tustin, CA 92680

Analysis Performed: Hydrazine
Samples: IRB0155-01

TestAmerica Irvine

Joseph Doak
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-Pasadena/Boeing
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: APTF Outfall 014 - Annual
Report Number: IRB0155

Sampled: 02/03/08
Received: 02/03/08

Vista Analytical *NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413*

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta
Samples: IRB0155-01

Weck Laboratories, Inc

14859 E. Clark Avenue - City of Industry, CA 91745

Method Performed: EPA 245.1
Samples: IRB0155-01

TestAmerica Irvine

Joseph Doak
Project Manager

Test America Version 12/20/07 IRB0155 **CHAIN OF CUSTODY FORM** IRB015 Page 1 of 2

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Avenue. Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Annual Outfall 014** APTF Test Stand
Project Manager: Bronwyn Kelly Sampler: [illegible]	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Oil & Grease (1664-HEM)	8015 - gas	8015 - diesel/jet fuel	TRPH = Total Rec. Petroleum Hydrocarbons (8015)	1,4-Dioxane (8260B)	BOD_5 (20 degrees C)	625 (Naphthalene +NDMA analysis + SVOCs) + PP	Ammonia-N (350.2)	Cl^-, SO_4, F, NO_3+NO_2-N Perchlorate	Nitrate-N, Nitrite-N
Outfall 014	W	1L Amber	1	2-3-09 11:20	HCl	1A	X									
Outfall 014 Dup	W	1L Amber	1		HCl	1B	X									
Outfall 014	W	VOAs	1		HCl	2A		X								
Outfall 014 Dup	W	VOAs	2		HCl	2B, 2C		X								
Outfall 014	W	1L Amber	1		None	3A			X							
Outfall 014 Dup	W	1L Amber	1		None	3B			X							
Outfall 014	W	1L Amber	1		HCl	4A				X						
Outfall 014 Dup	W	1L Amber	1		HCl	4B				X						
Outfall 014	W	VOAs	1		HCl	5A					X					
Outfall 014 Dup	W	VOAs	2		HCl	5B, 5C					X					
Outfall 014	W	1L Poly	1		None	6						X				
Outfall 014	W	1L Amber	1		None	7A							X			
Outfall 014 Dup	W	1L Amber	1		None	7B							X			
Outfall 014	W	500 ml Poly	1		H_2SO_4	8								X		
Outfall 014	W	500 ml Poly	2		None	9A, 9B									X	
Outfall 014	W	500 ml Poly	1	2-3-09 11:20	None	10										X

ANALYSIS REQUIRED

Field readings:
Temp = 8.1 C = 46 F
pH = 7.3
Time of readings = 11:20

Comments

Relinquished By	Date/Time:	Received By	Date/Time:
[signature] 2-3-09	1605	[signature]	2/3/08 1605
[signature]	Date/Time:	Received By	Date/Time:
[signature] 2/3/08	1830		
Relinquished By	Date/Time:	Received By	Date/Time:
		[signature]	2/3/08 1830

Turn around Time: (check)
24 Hours _____ 5 Days _____
48 Hours _____ 10 Days _____
72 Hours _____ Normal X

Sample Integrity: (check)
Intact X On Ice: 7.9/5.0

NPDES - 3794

Test America Version 12/20/07

CHAIN OF CUSTODY FORM

Client Name/Address:
MWH-Arcadia
618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Test America Contact: Joseph Doak

Project Manager: Bronwyn Kelly

Sampler: R. Brown

Project:
Boeing-SSFL NPDES
Annual Outfall 014
APTF Test Stand

Phone Number:
(626) 568-6691
Fax Number:
(626) 568-6515

ANALYSIS REQUIRED

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Turbidity, TDS, TSS	Settleable Solids	624 (EDB, 1,2,3-TCP, MTBE, DIPE, TBA) + PP	VOCs 624, xylenes +A+A+2CVE	Total Recoverable Metals, Cd, Se, Zn, B, Cu, Pb, Hg + PP Hardness as $CaCO_3$	Total Dissolved Metals, Cd, Se, Zn, B, Cu, Pb, Hg + PP Hardness as $CaCO_3$	Cyanide	Pesticides/PCBs + PP	TCDD (and all congeners)	Acute Toxicity	Monomethyl hydrazine	Comments
Outfall 014	W	500 ml Poly	2	2-3-08 17:20	None	11A, 11B	X											
Outfall 014	W	1L Poly	1		None	12		X										
Outfall 014	W	VOAs	1		HCl	13A			X									
Outfall 014 Dup	W	VOAs	2		HCl	13B, 13C			X									
Outfall 014	W	VOAs	3		None	14A, 14B, 14C				X								
Outfall 014	W	1L Poly	2		HNO_3	15A, 15B					X							
Outfall 014	W	1L Poly	1		None	16						X						Filter w/in 24hrs of receipt at lab
Outfall 014	W	500 ml Poly	1		NaOH	17							X					
Outfall 014	W	1L Amber	2		None	18A, 18B								X				
Outfall 014	W	1L Amber	2		None	19A, 19B									X			
Outfall 014	W	1 Gal Cube	1		None	20										X		
Outfall 014	W	1L Amber	2	2-3-08 17:20	None	21A, 21B											X	
Trip Blanks	W	VOAs	3		HCl	22A, 22B, 22C			X									
Trip Blanks	W	VOAs	3		None	23A, 23B, 23C				X								

Relinquished By	Date/Time	Received By	Date/Time
[signature]	2-3-08 1605	[signature]	2/3/08 1605
[signature]	2/3/08 1830		
		[signature]	2/3/08 18:25

Turn around Time: (check)
24 Hours ____ 5 Days ____
48 Hours ____ 10 Days ____
72 Hours ____ Normal X

Sample Integrity: (check)
Intact X On Ice: 7.0/5.0

LABORATORY REPORT

Aquatic Testing Laboratories
"dedicated to providing quality aquatic toxicity testing"
4350 Transport Street, Unit 107
Ventura, CA 93003
(805) 650-0546 FAX (805) 650-0756
CA DOHS ELAP Cert. No.: 1775

Date: February 9, 2008

Client: Test America – Irvine
17461 Derian Ave., Suite 100
Irvine, CA 92614
Attn: Joseph Doak

Laboratory No.: A-08020411-001
Sample ID.: IRB0155-01 (Outfall 014)

Sample Control: The sample was received by ATL in a chilled state, within the recommended hold time and with the chain of custody record attached.

Date Sampled:	02/03/08
Date Received:	02/04/08
Temp. Received:	4°C
Chlorine (TRC):	0.0 mg/l
Date Tested:	02/04/08 to 02/08/08

Sample Analysis: The following analyses were performed on your sample:

Fathead Minnow 96hr Percent Survival Bioassay (EPA Method 2000.0).

Attached are the test data generated from the analysis of your sample.

Result Summary:

Sample ID.	Results
IRB0155-01	100% Survival (TUa = 0.0)

Quality Control: Reviewed and approved by:

Joseph A. LeMay
Laboratory Director

FATHEAD MINNOW PERCENT SURVIVAL TEST
EPA Method 2000.0

Aquatic Testing Laboratories

Lab No.: A-08020411-001
Client/ID: TestAmerica - IRB0155-01 (Outfall 014) **Start Date: 02/04/2008**

TEST SUMMARY

Species: *Pimephales promelas*.
Age: 14 (1-14) days.
Regulations: NPDES.
Test solution volume: 250 ml.
Feeding: prior to renewal at 48 hrs.
Number of replicates: 2.
Dilution water: Moderately hard reconstituted water.
Photoperiod: 16/8 hrs light/dark.

Source: In-laboratory Culture.
Test type: Static-Renewal.
Test Protocol: EPA-821-R-02-012.
Endpoints: Percent Survival at 96 hrs.
Test chamber: 600 ml beakers.
Temperature: 20 +/- 1°C.
Number of fish per chamber: 10.
QA/QC Batch No.: RT-080204.

TEST DATA

		°C	DO	pH	# Dead A	# Dead B	Analyst & Time of Readings
INITIAL	Control	20.1	8.6	7.8	0	0	[illegible]
	100%	20.1	10.0	6.9	0	0	1400
24 Hr	Control	19.3	7.8	7.5	0	0	[illegible]
	100%	19.2	7.9	7.2	0	0	1330
48 Hr	Control	19.5	7.6	7.7	0	0	[illegible]
	100%	19.6	7.3	7.3	0	0	1400
Renewal	Control	20.5	8.8	7.8	0	0	[illegible]
	100%	19.6	11.0	7.0	0	0	1400
72 Hr	Control	19.3	8.0	7.4	0	0	[illegible]
	100%	19.6	8.0	7.3	0	0	1200
96 Hr	Control	19.5	8.2	7.3	0	0	[illegible]
	100%	19.7	8.0	7.2	0	0	1300

Comments:
Sample as received: Chlorine: 0.0 mg/l; pH: 6.4; Conductivity: 86 umho; Temp: 4°C;
DO: 10.0 mg/l; Alkalinity: 36 mg/l; Hardness: 48 mg/l; NH_3-N: 0.2 mg/l.
Sample aerated moderately (approx. 500 ml/min) to raise or lower DO? Yes / (No.)
Control: Alkalinity: 64 mg/l; Hardness: 96 mg/l; Conductivity: 290 umho.
Test solution aerated (not to exceed 100 bubbles/min) to maintain DO >4.0 mg/l? Yes / (No.)
Sample used for renewal is the original sample kept at 0-6°C with minimal headspace.
Dissolved Oxygen (DO) readings in mg/l O_2.

RESULTS

Percent Survival In: Control: 100 % 100% Sample: 100 %

SUBCONTRACT ORDER

TestAmerica Irvine

IRB0155

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak

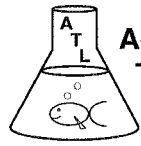
RECEIVING LABORATORY:

Aquatic Testing Laboratories-SUB
4350 Transport Street, Unit 107
Ventura, CA 93003
Phone :(805) 650-0546
Fax: (805) 650-0756
Project Location: California
Receipt Temperature: 4 °C Ice: (Y) N

Analysis	Units	Due	Expires	Comments
Sample ID: IRB0155-01	**Water**		Sampled: **02/03/08 11:20**	
Bioassay-Acute 96hr	% Survival	02/13/08	02/04/08 23:20	FH minnow, EPA/821-R02-012, Sub to AqTox Labs
Level 4 Data Package - Out	N/A	02/13/08	03/02/08 11:20	Boeing

Containers Supplied:
1 gal Poly (AJ)

Released By	Date/Time	Received By	Date/Time
	2/4/8 1110		2-4-8 705
Released By	Date/Time	Received By	Date/Time
			2-4-8 1102



Aquatic
Testing
Laboratories

REFERENCE TOXICANT DATA

FATHEAD MINNOW ACUTE
Method 2000.0
Reference Toxicant - SDS

Aquatic Testing Laboratories

QA/QC Batch No.: RT-080204

\TEST SUMMARY

Species: *Pimephales promel*as.
Age: 14 days old.
Regulations: NPDES.
Test chamber volume: 250 ml.
Feeding: Prior to renewal at 48 hrs.
Temperature: 20 +/- 1°C.
Number of replicates: 2.
Dilution water: MHSF.

Source: In-lab culture.
Test type: Static-Renewal.
Test Protocol: EPA-821-R-02-012.
Endpoints: LC50 at 96 hrs.
Test chamber: 600 ml glass beakers.
Aeration: None.
Number of organisms per chamber: 10.
Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL			24 Hr					48 Hr				
Date/Time:	2-4-8 1430			2-5-08 1330					2-6-08 1430				
Analyst:													
	°C	DO	pH	°C	DO	pH	# Dead A	# Dead B	°C	DO	pH	# Dead A	# Dead B
Control	19.8	8.4	7.4	19.1	7.9	7.5	0	0	19.4	7.2	7.6	0	0
1.0 mg/l	19.9	8.4	7.5	19.1	7.8	7.4	0	0	19.4	6.9	7.6	0	0
2.0 mg/l	19.9	8.5	7.5	19.0	7.6	7.4	0	0	19.4	6.6	7.5	0	0
4.0 mg/l	20.0	8.5	7.5	19.0	8.0	7.4	0	1	19.4	6.7	7.5	2	0
8.0 mg/l	20.0	8.6	7.5	19.1	8.0	7.4	10	10	—	—	—	—	—

	RENEWAL			72 Hr					96 Hr				
Date/Time:	2-6-08 1430			2-7-08 1200					2-8-08 1300				
Analyst:													
	°C	DO	pH	°C	DO	pH	# Dead A	# Dead B	°C	DO	pH	# Dead A	# Dead B
Control	20.3	8.9	7.8	19.4	7.5	7.7	0	0	19.2	8.0	7.5	0	0
1.0 mg/l	20.3	8.9	7.8	19.3	7.5	7.6	0	0	19.2	8.0	7.5	0	0
2.0 mg/l	20.3	8.8	7.8	19.3	7.7	7.5	0	0	19.3	8.1	7.4	0	0
4.0 mg/l	20.3	8.8	7.8	19.3	7.6	7.5	0	0	19.3	8.2	7.4	0	1
8.0 mg/l	—	—	—	—	—	—	—	—	—	—	—	—	—

Comments: Control: Alkalinity: 64 mg/l; Hardness: 96 mg/l; Conductivity: 289 umho.
SDS: Alkalinity: 64 mg/l; Hardness: 97 mg/l; Conductivity: 290 umho.

Concentration-response relationship acceptable? (see attached computer analysis):
(Yes (response curve normal)
No (dose interrupted indicated or non-normal)

Acute Fish Test-96 Hr Survival

Start Date:	2/4/2008 14:30	Test ID:	RT-080204	Sample ID:	REF-Ref Toxicant
End Date:	2/8/2008 13:00	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	SDS-Sodium dodecyl sulfate
Sample Date:	2/4/2008	Protocol:	ACUTE-EPA-821-R-02-012	Test Species:	PP-Pimephales promelas
Comments:					

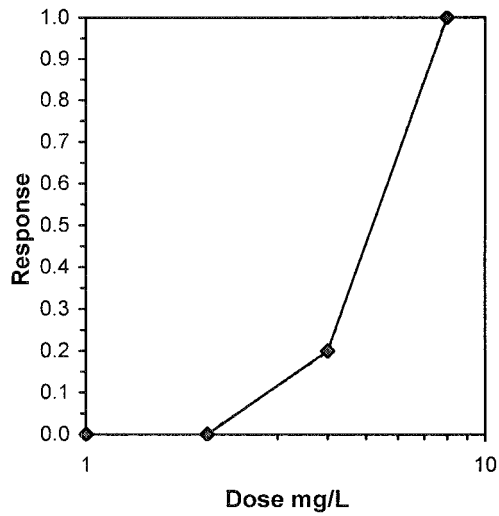
Conc-mg/L	1	2
D-Control	1.0000	1.0000
1	1.0000	1.0000
2	1.0000	1.0000
4	0.8000	0.8000
8	0.0000	0.0000

			Transform: Arcsin Square Root					Number	Total
Conc-mg/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Resp	Number
D-Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
1	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
2	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
4	0.8000	0.8000	1.1071	1.1071	1.1071	0.000	2	4	20
8	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Normality of the data set cannot be confirmed				
Equality of variance cannot be confirmed				

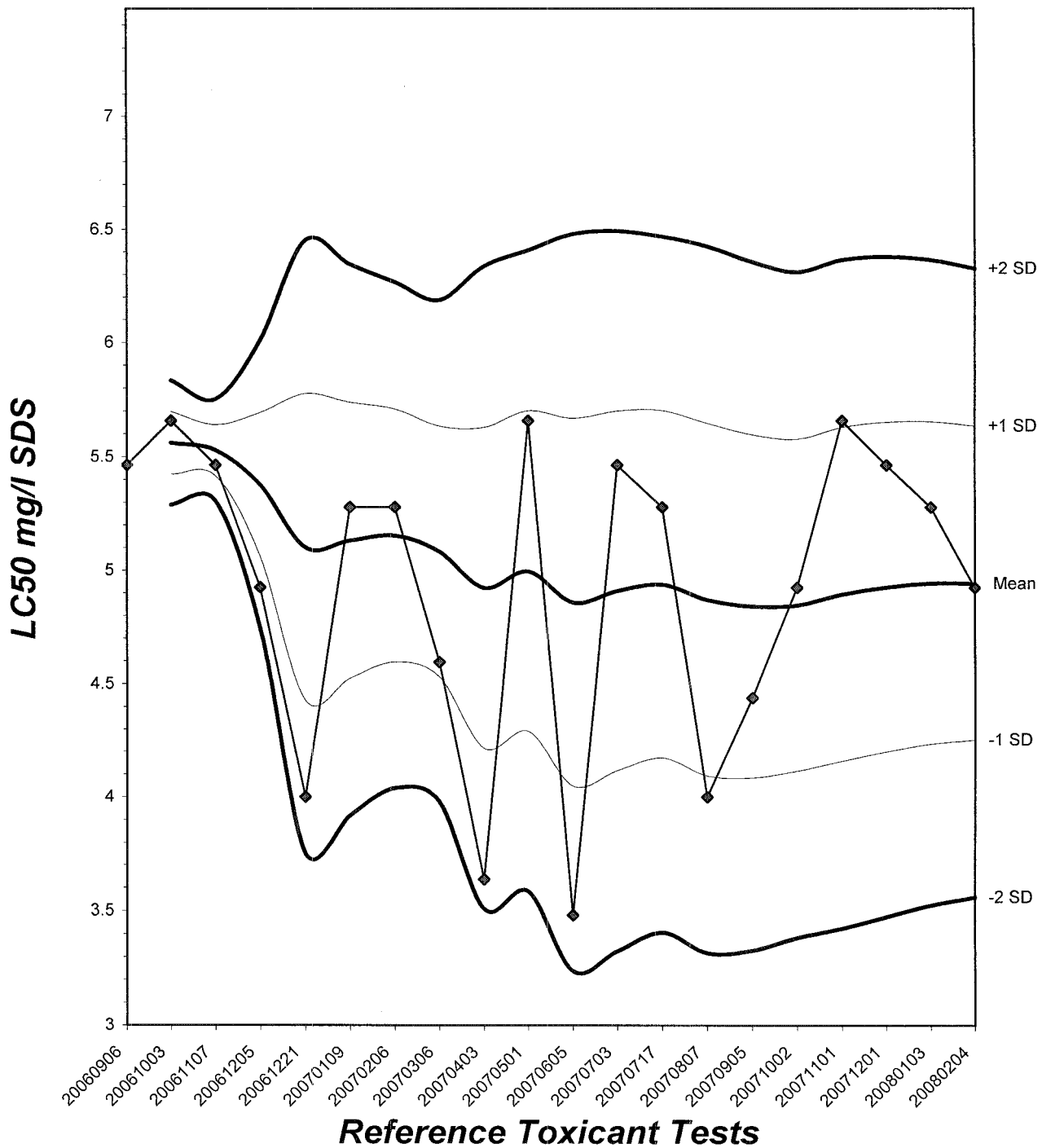
Trimmed Spearman-Karber

Trim Level	EC50	95% CL	
0.0%	4.9246	4.3503	5.5747
5.0%	5.0215	4.3576	5.7866
10.0%	5.1038	4.2923	6.0686
20.0%	5.1874	4.7084	5.7150
Auto-0.0%	4.9246	4.3503	5.5747



Fathead Minnow Acute Laboratory Control Chart

CV% = 14



TEST ORGANISM LOG

Aquatic Testing Laboratories

FATHEAD MINNOW - LARVAL
(*Pimephales promelas*)

QA/QC BATCH NO.: RT-080204

SOURCE: In-Lab Culture

DATE HATCHED: 01-21-08

APPROXIMATE QUANTITY: 400

GENERAL APPEARANCE: good

 # MORTALITIES 48 HOURS PRIOR TO TO USE IN TESTING: 0

DATE USED IN LAB: 2/4/08

AVERAGE FISH WEIGHT: 0.006 **gm**

TEST LOADING LIMITS: 0.65 gm/liter

200 ml test solution volume = 0.013 gm mean fish weight limit
250 ml test solution volume = 0.016 gm mean fish weight limit

ACCLIMATION WATER QUALITY:

Temp.: 19.8 **°C** **pH:** 7.4 **Ammonia:** <0.1 **mg/l NH_3-N**

DO: 8.4 **mg/l** **Alkalinity:** 64 **mg/l** **Hardness:** 96 **mg/l**

READINGS RECORDED BY: _____ **DATE:** 2-4-8

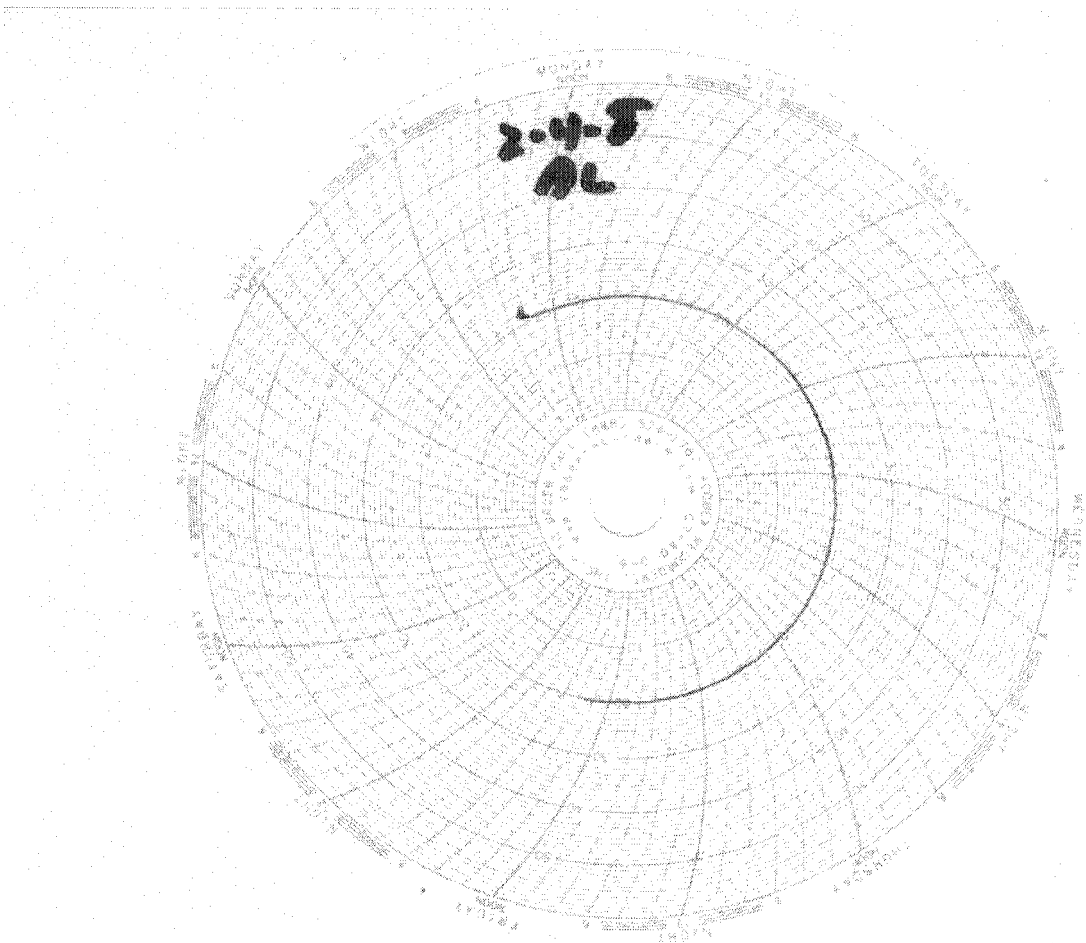
Aquatic
Testing
Laboratories

Laboratory Temperature Chart

QA/QC Batch No: RT-080202

Date Tested: 02/02/08 to 02/06/08

Acceptable Range: 20+/- 1°C



TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

Established 1931

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

February 19, 2008

Client: TestAmerica - Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614

Attention: Joseph Doak

Project Name: IRB0155

Project Number: IRB0155

Date Received: 2/4/08

Truesdail Project: 973191

Samples Cross-reference

Truesdail ID	*Client ID*	*Matrix*	*Date Sampled*	*Time Sampled*	*Analysis Requested*
973191-1	IRB0155-01	Water	02/03/08	1120	Hydrazines by EPA 8315M

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

K.R.P. Iyer
Quality Control/Quality Assurance Officer

Xuan Huong Dang
Project Manager

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

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TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462
www.truesdail.com

February 19, 2008

Client: TestAmerica - Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614
Attention: Joseph Doak

Project Name: IRB0155
Project Number: IRB0155

Date Received: 02/04/08
Truesdail Project: 973191

Case Narrative

Sample Receipt The sample was received at 4 °C and in good condition. It was kept in a refrigerator until analysis. Thereafter, it is being kept in ambient storage for an additional 2 months before disposal. Any anomalies would be noted in the "Comments" section.

Analysis The analysis was performed as requested on the chain-of-custody.

Quality Control The analytical results for each batch of samples performed include a minimum of one set of laboratory control sample/laboratory control sample duplicate (LCS/LCSD), one matrix spike (MS) and a reagent blank (Method blank). Any exceptions or problems would be noted in the "Comments" section.

Comments Matrix spike and matrix spike duplicate were done on a sample from a different TestAmerica Project, 973194-1 (IRB0147-01), as the method requirement per batch of 20 samples.

All quality assurance requirements set forth by the method specification and all quality control recoveries were within the laboratory acceptance limits. No anomalies or nonconformance events occurred during the course of analysis.

The results are quantitated down to the MDL level.

Respectfully Submitted,
TRUESDAIL LABORATORIES, INC.

K.R.P. Iyer
Quality Control/Quality Assurance Officer

Xuan Huong Dang
Project Manager

TRUESDAIL LABORATORIES, INC.
EXCELLENCE IN INDEPENDENT TESTING

Established 1931

14201 FRANKLIN AVENUE · TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462 · www.truesdail.com

004 NPDES - 3807

Client: TestAmerica Analytical-Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Attention: Joseph Doak
Sample: Water / 1 Sample
Project Name: IRB0155
P.O. Number: IRB0155
Method Number: 8315 (Modified)
Investigation: Hydrazines

REPORT

Laboratory No: 973191
Report Date: February 19, 2008
Sampling Date: February 3, 2008
Receiving Date: February 4, 2008
Extraction Date: February 5, 2008
Analysis Date: February 6, 2008
Units: µg/L
Reported By: JS

Analytical Results

Sample ID	Sample Descript	Sample Amount (mL)	Dilution Factor	Monomethyl Hydrazine	u-Dimethyl Hydrazine	Hydrazine	Qualifier Codes
707223-MB	Method Blank	100	1	ND	ND	ND	None
973191	IRB0155-01	100	1	ND	ND	ND	None
MDL				0.56	0.32	0.15	
PQL				5.0	5.0	1.00	
Sample Reporting Limits				5.0	5.0	1.00	

Note: Results based on detector #1 (UV=365nm) data.

Xuan Dang, Project Manager
Analytical Services, Truesdail Laboratories, Inc.

TRUESDAIL LABORATORIES, INC.

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Client: TestAmerica Analytical-Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Client Contact: Joseph Doak
Sample: Water / 1 Sample
Sample ID: IRB0155
P.O. Number: IRB0155
Method Number: 8315 (Modified)
Investigation: Hydrazines
Run Batch No.: Extraction: 4269; Analysis: 597

QC Lab. No.: 707223
Project Lab. No.: 973191
Spiked Sample ID: 973194
Report Date: February 19, 2008
Sampling Date: February 3, 2008
Receiving Date: February 4, 2008
Extraction Date: February 5, 2008
Analysis Date: February 6, 2008
Reported By: JS

Quality Control/Quality Assurance Calibration Report

ICV

Parameter	Theoretical Value (ug/L)	Measured Value (ug/L)	Percent Recovery	Control Limits	Flag
Monomethyl Hydrazine	25.0	28.6	115	85-115	PASS
u-Dimethyl Hydrazine	25.0	28.5	114	85-115	PASS
Hydrazine	5.0	5.21	104	85-115	PASS

QCS

Parameter	Theoretical Value (ug/L)	Measured Value (ug/L)	Percent Recovery	Control Limits	Flag
Monomethyl Hydrazine	50.0	48.8	97.6	85-115	PASS
u-Dimethyl Hydrazine	50.0	49.0	98.0	85-115	PASS
Hydrazine	10.0	9.25	92.5	85-115	PASS

Quality Control/Quality Assurance Spikes Report

LCS/LCSD

Parameter	Spiked Conc. ug/L	Recovered Concentration LCS	LCSD	MB	Percent Recovery (%) LCS	LCSD	LCS/LCSD RPD	Flag	Control Limits %D	% Rec.
Monomethyl Hydrazine	50.0	47.7	44.5	0.0	95.4	88.9	6.99%	PASS	20	70-130
u-Dimethyl Hydrazine	50.0	45.6	43.6	0.0	91.1	87.2	4.36%	PASS	20	70-130
Hydrazine	10.0	8.51	8.04	0.0	85.1	80.4	5.71%	PASS	20	70-130

MS/MSD

Recovered Concentration MS	MSD	Sample	Percent Recovery (%) MS	MSD	MS/MSD RPD	Flag	Accuracy Control Limits %D	% Rec.
36.7	36.8	0.00	73.4	73.6	0.25%	PASS	20	11-134
38.7	40.2	0.00	77.5	80.4	3.65%	PASS	20	42-109
7.61	7.87	0.00	76.1	78.7	3.38%	PASS	20	37-128

Note: Results based on detector #1 (UV=365nm) data.

Xuan Dang, Project Manager
Analytical Services, Truesdail Laboratories, Inc.

TRUESDAIL LABORATORIES, INC.
EXCELLENCE IN INDEPENDENT TESTING

Established 1931

14201 FRANKLIN AVENUE · TUSTIN, CALIFORNIA 92780-7008
(714) 730-6239 · FAX (714) 730-6462 · www.truesdail.com

Client: TestAmerica Analytical-Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Attention: Joseph Doak
Project Name: IRB0155
Method Number: 8315 (Modified)
Investigation: Hydrazines

Laboratory No: 973191
Report Date: February 19, 2008
Sampling Date: February 3, 2008
Receiving Date: February 4, 2008
Analysis Date: February 6, 2008
Reported By: JS

Qualifier Codes and Definitions

Code	Definition
FPS	Force Peak Start: Peak start needs to be adjusted to the baseline
FPE	Force Peak End: Peak end needs to be adjusted to the baseline
SP	Split Peak: Background or co-eluting peaks need to be split.
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
ND	Not Detected: Analyte is not detected at or above the method detection limit.
N/A	Not Applicable
ICV	Initial Calibration Verification: First source calibration standard run at a mid-level spike prior to samples.
QCS	Quality Control Standard: Second source calibration standard run at a mid-level spike after all samples.
MB	Method Blank: Reagent water extracted and run with each batch of 20 samples to demonstrate that all analytes are not detected from the extraction process.
LCS (D)	Laboratory Control Spike: Second source standard spiked into blank matrix and extracted and run with each batch of 20 samples (run in duplicate).
MS (D)	Matrix Spike: Second source standard spiked into sample matrix and extracted and run with each batch of 20 samples (run in duplicate).
RPD	Relative Percent Difference: A calculated value of the deviation between the spikes and spike duplicates to measure precision.
J	J-flags: Any result found between the MDL and the PQL will be reported with a "J" attached.
Flag	Pass if within Control Limits; otherwise "Fail"

Section 2.0

SAMPLE CHECK-IN RECORDS

Chain of Custody

Sample Integrity and Analysis Discrepancy Form

Internal Chain of Custody

SUBCONTRACT ORDER

TestAmerica Irvine

IRB0155

973191

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak

RECEIVING LABORATORY:

Truesdail Laboratories-SUB
14201 Franklin Avenue
Tustin, CA 92680
Phone :(714) 730-6239
Fax: (714) 730-6462
Project Location: California
Receipt Temperature: ____ °C Ice: Y / N

Rec'd 02/04/08
s22d 973191

Analysis	Units	Due	Expires	Comments
Sample ID: IRB0155-01	**Water**		Sampled: 02/03/08 11:20	
Hydrazine-OUT	%	02/13/08	02/06/08 11:20	Sub to Truesdail for Monomethylhydrazine, J flags
Level 4 Data Package	N/A	02/13/08	03/02/08 11:20	Include Std logs
Containers Supplied:				
1 L Amber (AK)	1 L Amber (AN)			

ALERT !!
Level IV QC

For Sample Conditions
See Form Attached

Released By — Date/Time 2/4/08 0700 — Received By TAI — Date/Time 02/04/08 0700

Released By TAI — Date/Time 02/04/08 0744 — Received By — Date/Time 2/4/08 7:30

Vista
Analytical Laboratory

February 23, 2008

Vista Project I.D.: 30239

Mr. Joseph Doak
Test America-Irvine, CA
17461 Derian Avenue
Suite 100
Irvine, CA 92614

Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on February 05, 2008 under your Project Name "IRB0155". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha M. Maier
Laboratory Director

ACCREDITED IN ACCORDANCE WITH nelac

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.

Section I: Sample Inventory Report

Date Received: **2/5/2008**

Vista Lab. ID	Client Sample ID
30239-001	IRB0155-01

SECTION II

Method Blank **EPA Method 1613**

Matrix: Aqueous | QC Batch No.: 9953 | Lab Sample: 0-MB001

Sample Size: 1.00 L | Date Extracted: 15-Feb-08 | Date Analyzed DB-5: 19-Feb-08 | Date Analyzed DB-225: NA

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.000000705		
1,2,3,7,8-PeCDD	ND	0.000000681		
1,2,3,4,7,8-HxCDD	ND	0.00000165		
1,2,3,6,7,8-HxCDD	ND	0.00000174		
1,2,3,7,8,9-HxCDD	ND	0.00000162		
1,2,3,4,6,7,8-HpCDD	ND	0.00000511		
OCDD	0.00000899			J
2,3,7,8-TCDF	ND	0.000000647		
1,2,3,7,8-PeCDF	ND	0.000000731		
2,3,4,7,8-PeCDF	ND	0.000000752		
1,2,3,4,7,8-HxCDF	ND	0.000000943		
1,2,3,6,7,8-HxCDF	ND	0.000000974		
2,3,4,6,7,8-HxCDF	ND	0.00000105		
1,2,3,7,8,9-HxCDF	ND	0.00000136		
1,2,3,4,6,7,8-HpCDF	ND	0.00000333		
1,2,3,4,7,8,9-HpCDF	ND	0.00000202		
OCDF	ND	0.00000591		

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	82.9	25 - 164	
	13C-1,2,3,7,8-PeCDD	75.4	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	81.7	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	83.0	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	85.6	23 - 140	
	13C-OCDD	73.4	17 - 157	
	13C-2,3,7,8-TCDF	88.8	24 - 169	
	13C-1,2,3,7,8-PeCDF	74.4	24 - 185	
	13C-2,3,4,7,8-PeCDF	77.1	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	75.8	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	77.6	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	78.0	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	81.9	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	75.7	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	82.1	26 - 138	
	13C-OCDF	76.2	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	85.1	35 - 197	

Totals

Total TCDD	ND	0.000000705
Total PeCDD	ND	0.00000122
Total HxCDD	ND	0.00000167
Total HpCDD	ND	0.00000511
Total TCDF	ND	0.000000647
Total PeCDF	ND	0.000000742
Total HxCDF	ND	0.00000107
Total HpCDF	ND	0.00000335

Footnotes

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

Analyst: MAS

Approved By: William J. Luksemburg 22-Feb-2008 15:51

OPR Results **EPA Method 1613**

Matrix:	Aqueous	QC Batch No.:	9953	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	15-Feb-08	Date Analyzed DB-5:	18-Feb-08	Date Analyzed DB-225:	NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits		Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	9.20	6.7 - 15.8	IS	13C-2,3,7,8-TCDD	85.8	25 - 164	
1,2,3,7,8-PeCDD	50.0	46.7	35 - 71		13C-1,2,3,7,8-PeCDD	77.1	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	47.0	35 - 82		13C-1,2,3,4,7,8-HxCDD	82.8	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	47.2	38 - 67		13C-1,2,3,6,7,8-HxCDD	84.0	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	47.7	32 - 81		13C-1,2,3,4,6,7,8-HpCDD	88.0	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	46.1	35 - 70		13C-OCDD	78.1	17 - 157	
OCDD	100	94.4	78 - 144		13C-2,3,7,8-TCDF	90.2	24 - 169	
2,3,7,8-TCDF	10.0	8.71	7.5 - 15.8		13C-1,2,3,7,8-PeCDF	76.3	24 - 185	
1,2,3,7,8-PeCDF	50.0	45.3	40 - 67		13C-2,3,4,7,8-PeCDF	79.4	21 - 178	
2,3,4,7,8-PeCDF	50.0	45.1	34 - 80		13C-1,2,3,4,7,8-HxCDF	78.9	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	46.8	36 - 67		13C-1,2,3,6,7,8-HxCDF	80.4	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	46.8	42 - 65		13C-2,3,4,6,7,8-HxCDF	79.1	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	47.3	35 - 78		13C-1,2,3,7,8,9-HxCDF	84.1	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	46.1	39 - 65		13C-1,2,3,4,6,7,8-HpCDF	78.2	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	46.8	41 - 61		13C-1,2,3,4,7,8,9-HpCDF	85.9	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	46.7	39 - 69		13C-OCDF	82.2	17 - 157	
OCDF	100	93.5	63 - 170	CRS	37Cl-2,3,7,8-TCDD	88.4	35 - 197	

Analyst: MAS

Approved By: William J. Luksemburg 22-Feb-2008 15:51

Sample ID: **IRB0155-01** **EPA Method 1613**

Client Data		Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30239-001	Date Received:	5-Feb-08
Project:	IRB0155	Sample Size:	0.996 L	QC Batch No.:	9953	Date Extracted:	15-Feb-08
Date Collected:	3-Feb-08			Date Analyzed DB-5:	19-Feb-08	Date Analyzed DB-225:	NA
Time Collected:	1120						

Analyte	Conc. (ug/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.000000493		
1,2,3,7,8-PeCDD	ND	0.000000930		
1,2,3,4,7,8-HxCDD	0.00000179			J
1,2,3,6,7,8-HxCDD	0.00000293			J
1,2,3,7,8,9-HxCDD	0.00000252			J
1,2,3,4,6,7,8-HpCDD	0.0000970			
OCDD	0.00147			B
2,3,7,8-TCDF	ND	0.00000120		
1,2,3,7,8-PeCDF	ND	0.00000121		
2,3,4,7,8-PeCDF	ND	0.00000144		
1,2,3,4,7,8-HxCDF	0.00000217			J
1,2,3,6,7,8-HxCDF	0.00000123			J
2,3,4,6,7,8-HxCDF	0.00000136			J
1,2,3,7,8,9-HxCDF	ND	0.00000134		
1,2,3,4,6,7,8-HpCDF	0.0000207			J
1,2,3,4,7,8,9-HpCDF	0.00000266			J
OCDF	0.0000752			

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	82.6	25 - 164	
	13C-1,2,3,7,8-PeCDD	75.4	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	74.2	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	76.3	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	73.6	23 - 140	
	13C-OCDD	61.5	17 - 157	
	13C-2,3,7,8-TCDF	91.7	24 - 169	
	13C-1,2,3,7,8-PeCDF	78.7	24 - 185	
	13C-2,3,4,7,8-PeCDF	77.4	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	69.8	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	70.6	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	71.1	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	74.5	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	66.8	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	70.0	26 - 138	
	13C-OCDF	62.4	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	86.5	35 - 197	

Totals

Total TCDD	0.00000219		0.00000311
Total PeCDD	ND	0.00000239	
Total HxCDD	0.0000246		
Total HpCDD	0.000380		
Total TCDF	ND		0.00000241
Total PeCDF	0.00000123		
Total HxCDF	0.0000189		
Total HpCDF	0.0000689		

Footnotes

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

Analyst: MAS

Approved By: William J. Luksemburg 22-Feb-2008 15:51

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
H	**The signal-to-noise ratio is greater than 10:1.**
I	**Chemical Interference**
J	**The amount detected is below the Low Calibration Limit.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.**
EMPC	**Estimated Maximum Possible Concentration**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

SUBCONTRACT ORDER

TestAmerica Irvine

IRB0155 30239

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak

RECEIVING LABORATORY: 1.4°C

Vista Analytical Laboratory- SUB
1104 Windfield Way
El Dorado Hills, CA 95762
Phone :(916) 673-1520
Fax: (916) 673-0106
Project Location: California
Receipt Temperature:_____°C Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRB0155-01	**Water**		Sampled: **02/03/08 11:20**	
1613-Dioxin-HR-Alta	ug/l	02/13/08	02/10/08 11:20	J flags,17 congeners,no TEQ,ug/L,sub=Vista
Level 4 + EDD-OUT	N/A	02/13/08	03/02/08 11:20	Excel EDD email to pm,Include Std logs for Lvl IV

Containers Supplied:

1 L Amber (AH) 1 L Amber (AI)

Released By	2/4/08 17:00 Date/Time	FedEx Received By	2/4/08 17:00 Date/Time
Released By	Date/Time	Received By	2-5-08/0929 Date/Time

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 30239 TAT Standard

Samples Arrival:	**Date/Time** 2/5/08 0929	**Initials:** YBB	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 2/6/08 1222	**Initials:** BB	**Location:** WR-2 **Shelf/Rack:** B-3

Delivered By:	(FedEx)	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	(Ice)	Blue Ice	Dry Ice	None		
Temp °C 1.4°C	**Time:** 0953	**Thermometer ID:** IR-1				

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill / Trk # 7926 4257 8964	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?	COC	Sample Container	(None)		
Shipping Container	Vista	(Client)	Retain	(Return)	Dispose

Comments:

SUBCONTRACT ORDER

TestAmerica Irvine 8020451

IRB0155

SENDING LABORATORY:

TestAmerica Irvine
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Joseph Doak

RECEIVING LABORATORY:

Weck Laboratories, Inc
14859 E. Clark Avenue
City of Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634
Project Location: California
Receipt Temperature:_____°C Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRB0155-01	**Water**		Sampled: **02/03/08 11:20**	
Level 4 Data Package - Wec	N/A	02/13/08	03/02/08 11:20	
Mercury - 245.1, Diss -OUT	mg/l	02/13/08	03/02/08 11:20	Boeing, permit, J flags/ OUT to Weck
Mercury - 245.1-OUT	mg/l	02/13/08	03/02/08 11:20	Boeing, permit, J flags/ OUT to Weck

Containers Supplied:

125 mL Poly (AL) HNO3 — 125 mL Poly w/HNO3 (AM)

Diss. Mercury is Filtered and pres.

Released By _____ Date/Time 2/4/08 1000 — Received By _____ Date/Time 2/4/08 1000

Released By _____ Date/Time 2/4/08 1345 — Received By _____ Date/Time 02/04/08 1345

NPDES - 3823

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

14859 E. Clark Ave., Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634
info@wecklabs.com www.wecklabs.com

CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Joseph Doak

Phone: (949) 261-1022
Fax: (949) 260-3297

Report Date: 02/11/08 16:20
Received Date: 02/04/08 13:45
Turn Around: Normal

Work Order #: 8020451

Client Project: IRB0155

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Joseph Doak :

Enclosed are the results of analyses for samples received 02/04/08 13:45 with the Chain of Custody document. The samples were received in good condition. The samples were received at 1.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Kim G Tu

Project Manager

Weck Laboratories, Inc.
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Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
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Irvine CA, 92614

Report ID: 8020451
Project ID: IRB0155

Date Received: 02/04/08 13:45
Date Reported: 02/11/08 16:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IRB0155-01	Client		8020451-01	Water	02/03/08 11:20

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IRB0155-01 8020451-01 (Water) Date Sampled: 02/03/08 11:20

Metals by EPA 200 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed		Data Qualifiers
Mercury, Dissolved	ND	0.050	ug/l	0.20	1	EPA 245.1	W8B0147	02/05/08	02/07/08	jlp	
Mercury, Total	ND	0.050	ug/l	0.20	1	EPA 245.1	W8B0147	02/05/08	02/07/08	jlp	

Weck Laboratories, Inc
Kim G Tu, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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QUALITY CONTROL SECTION

Weck Laboratories, Inc.
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Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W8B0147 - EPA 245.1										
Blank (W8B0147-BLK1)				Analyzed: 02/07/08						
Mercury, Dissolved	ND	0.20	ug/l							
Mercury, Total	ND	0.20	ug/l							
LCS (W8B0147-BS1)				Analyzed: 02/07/08						
Mercury, Dissolved	1.04	0.20	ug/l	1.00		104	85-115			
Mercury, Total	1.04	0.20	ug/l	1.00		104	85-115			
Matrix Spike (W8B0147-MS1)		**Source: 8020444-01**		Analyzed: 02/07/08						
Mercury, Dissolved	1.04	0.20	ug/l	1.00	ND	104	70-130			
Mercury, Total	1.04	0.20	ug/l	1.00	ND	104	70-130			
Matrix Spike (W8B0147-MS2)		**Source: 8020445-01**		Analyzed: 02/07/08						
Mercury, Dissolved	1.04	0.20	ug/l	1.00	ND	104	70-130			
Mercury, Total	1.04	0.20	ug/l	1.00	ND	104	70-130			
Matrix Spike Dup (W8B0147-MSD1)		**Source: 8020444-01**		Analyzed: 02/07/08						
Mercury, Dissolved	1.05	0.20	ug/l	1.00	ND	105	70-130	1	20	
Mercury, Total	1.05	0.20	ug/l	1.00	ND	105	70-130	1	20	
Matrix Spike Dup (W8B0147-MSD2)		**Source: 8020445-01**		Analyzed: 02/07/08						
Mercury, Dissolved	1.06	0.20	ug/l	1.00	ND	106	70-130	2	20	
Mercury, Total	1.06	0.20	ug/l	1.00	ND	106	70-130	2	20	

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Notes and Definitions

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.