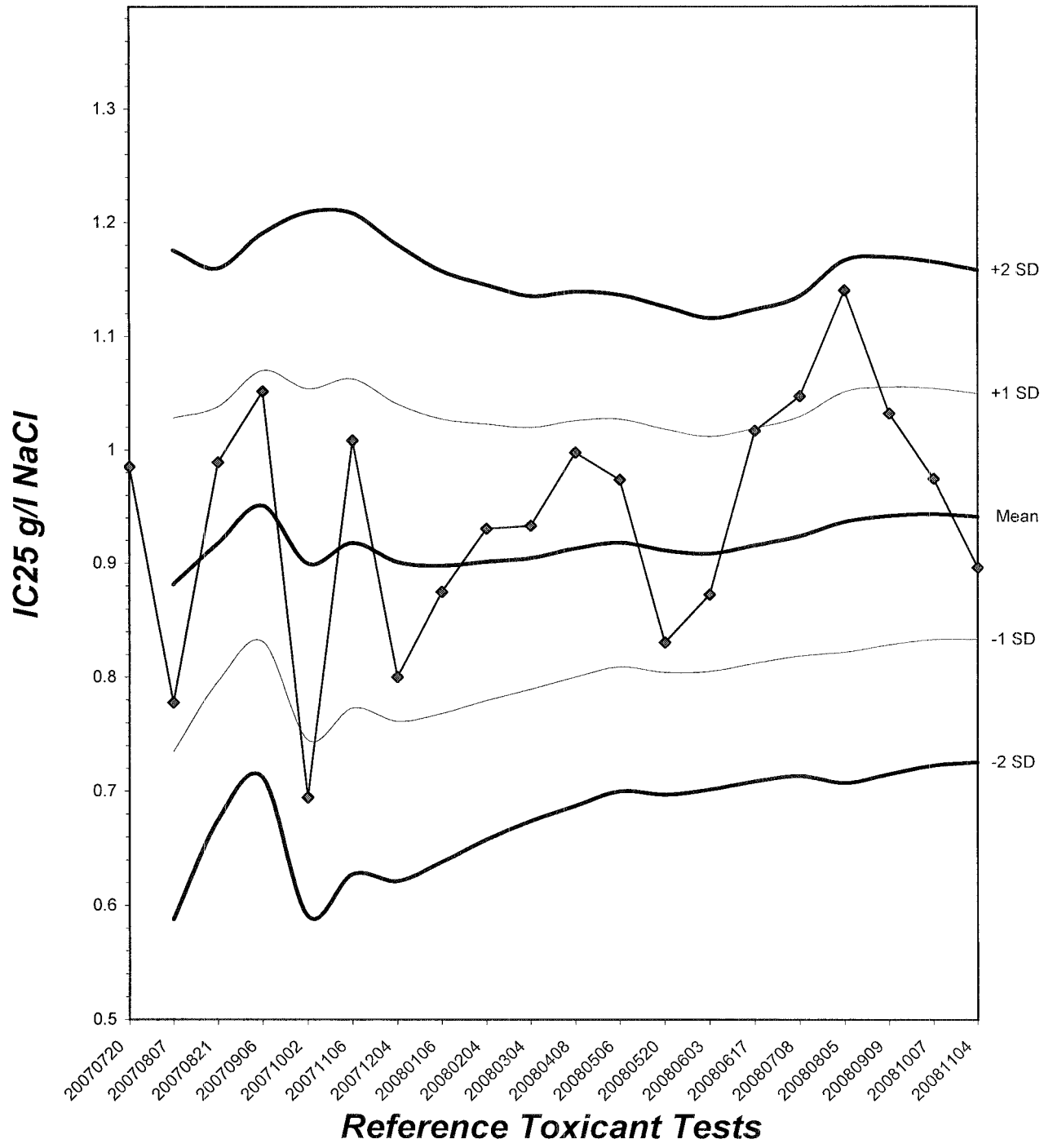
Ceriodaphnia Chronic Reproduction Laboratory Control Chart

CV% = 11.5



CERIODAPHNIA DUBIA CHRONIC BIOASSAY
Reference Toxicant - NaCl
Reproduction and Survival Raw Data Sheet

Aquatic Testing Laboratories

QA/QC No.: RT-081104

Start Date:11/04/2008

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
Control	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	0	0	4	4	0	0	0	8	10	
	4	4	2	3	2	3	0	0	4	2	3	23	10	
	5	0	0	8	7	0	6	8	7	0	0	36	10	
	6	7	8	12	0	8	12	14	0	6	8	75	10	
	7	12	10	(2)	13	12	(10)	0	10	14	12	83	10	
	Total	23	20	23	22	23	22	26	21	22	23	225	10	
0.25 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	3	0	0	0	0	0	4	0	0	7	10	
	4	2	0	4	3	4	4	3	0	(3)	2	25	10	
	5	7	8	6	8	7	0	0	7	0	6	49	10	
	6	0	12	0	0	0	6	8	12	7	14	59	10	
	7	10	(8)	12	14	14	12	14	(12)	14	(10)	90	10	
	Total	19	23	22	25	25	22	25	23	24	22	230	10	
0.5 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	3	0	0	0	0	0	0	0	4	7	10	
	4	3	0	4	4	2	3	2	2	4	0	24	10	
	5	6	7	0	0	6	0	7	8	6	6	46	10	
	6	0	0	6	7	10	6	0	0	12	14	55	10	
	7	12	14	10	14	(10)	14	13	10	0	(12)	87	10	
	Total	21	24	20	25	18	23	22	20	22	24	219	10	

Circled fourth brood not used in statistical analysis.
7th day only used if <60% of the surviving control females have produced their third brood.

CERIODAPHNIA DUBIA CHRONIC BIOASSAY
Reference Toxicant - NaCl
Reproduction and Survival Raw Data Sheet

Aquatic Testing Laboratories

QA/QC No.: RT-081104

Start Date:11/04/2008

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
1.0 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	0	0	0	(0)	(0)	0	4	4	10	
	4	3	2	2	4	3	4	3	4	2	0	27	10	
	5	0	0	6	0	0	0	6	0	0	6	18	10	
	6	6	7	10	6	5	5	7	6	7	7	66	10	
	7	0	6	0	0	10	8	0	9	10	0	43	10	
	Total	9	15	18	10	18	17	16	19	19	17	158	10	
2.0 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	0	0	0	2	0	0	0	2	10	
	4	0	2	0	0	0	0	0	2	0	0	4	10	
	5	2	0	3	3	4	2	3	0	2	2	21	10	
	6	0	2	0	0	0	2	0	2	0	0	6	10	
	7	0	0	3	2	2	0	0	0	2	2	11	10	
	Total	2	4	6	5	6	4	5	4	4	4	44	10	
4.0 g/l	1	X	X	X	X	X	X	X	X	X	X	0	0	
	2	0	0	0	0	0	0	0	0	0	0	0	0	
	3	—	—	—	—	—	—	—	—	—	—	—	—	
	4	—	—	—	—	—	—	—	—	—	—	—	—	—
	5	—	—	—	—	—	—	—	—	—	—	—	—	—
	6	—	—	—	—	—	—	—	—	—	—	—	—	—
	7	—	—	—	—	—	—	—	—	—		—	—	—
	Total	0	0	0	0	0	0	0	0	0	0	0	0	

Circled fourth brood not used in statistical analysis.
7th day only used if <60% of the surviving control females have produced their third brood.

CERIODAPHNIA DUBIA CHRONIC BIOASSAY
Reference Toxicant - NaCl
Water Chemistries Raw Data Sheet

Aquatic Testing Laboratories

QA/QC No.: RT-081104

Start Date:11/04/2008

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
Analyst Initials:															
Time of Readings:		1500	1600	1600	1600	1600	1300	1300	1400	1400	1400	1400	1500	1500	1500
Control	DO	8.0	8.5	7.3	8.7	8.6	8.6	8.9	8.5	9.1	8.3	8.8	8.1	8.7	8.6
	pH	7.6	8.0	7.5	8.0	7.8	8.0	7.7	8.0	7.7	8.0	7.7	8.0	7.9	8.0
	Temp	24.5	24.3	24.2	24.5	24.2	24.6	24.9	24.8	24.6	24.6	24.2	24.3	24.5	24.2
0.25 g/l	DO	8.0	8.5	7.3	8.6	8.6	8.5	8.9	8.4	9.1	8.2	8.9	8.0	8.6	8.5
	pH	7.6	8.0	7.5	7.9	7.8	8.0	7.7	8.0	7.7	8.0	7.7	8.0	7.9	8.1
	Temp	24.5	24.2	24.2	24.6	24.2	24.6	24.9	24.7	24.5	24.7	24.2	24.2	24.4	24.2
0.5 g/l	DO	8.0	8.6	7.4	8.8	8.6	8.5	8.9	8.6	9.1	8.4	8.8	8.2	8.6	8.4
	pH	7.6	8.0	7.5	7.9	7.8	8.0	7.8	8.0	7.8	8.0	7.7	8.0	7.9	8.1
	Temp	24.5	24.2	24.1	24.8	24.2	24.7	24.9	24.5	24.4	24.6	24.3	24.1	24.3	24.3
1.0 g/l	DO	8.0	8.5	7.5	8.8	8.5	8.6	8.9	8.5	9.0	8.4	8.9	8.1	8.5	8.4
	pH	7.7	8.0	7.5	7.9	7.9	8.0	7.8	8.0	7.8	8.1	7.8	8.0	7.9	8.1
	Temp	24.5	24.1	24.1	24.5	24.3	24.6	25.0	24.8	24.3	24.7	24.3	24.2	24.4	24.2
2.0 g/l	DO	8.0	8.6	7.6	8.7	8.5	8.7	8.9	8.8	8.9	8.3	8.9	8.1	8.4	8.6
	pH	7.7	8.1	7.5	7.9	8.0	8.0	7.9	8.0	7.9	8.1	7.8	8.1	7.9	8.1
	Temp	24.5	24.1	24.0	24.8	24.5	24.7	25.0	24.4	24.0	24.6	24.2	24.3	24.3	24.4
4.0 g/l	DO	8.0	8.6	—	—	—	—	—	—	—	—	—	—	—	—
	pH	7.7	8.1	—	—	—	—	—	—	—	—	—	—	—	—
	Temp	24.4	24.1	—	—	—	—	—	—	—	—	—	—	—	—

Dissolved Oxygen (DO) readings are in mg/l O_2; Temperature (Temp) readings are in °C.

Additional Parameters	Control			High Concentration		
	Day 1	Day 3	Day 5	Day 1	Day 3	Day 5
Conductivity (µS)	335	340	345	6470	3270	3400
Alkalinity (mg/l $CaCO_3$)	70	70	69	70	70	69
Hardness (mg/l $CaCO_3$)	97	99	100	96	98	99

Source of Neonates

Replicate:	A	B	C	D	E	F	G	H	I	J
Brood ID:	A3	B2	C1	D3	E3	F2	G1	H2	I3	J1

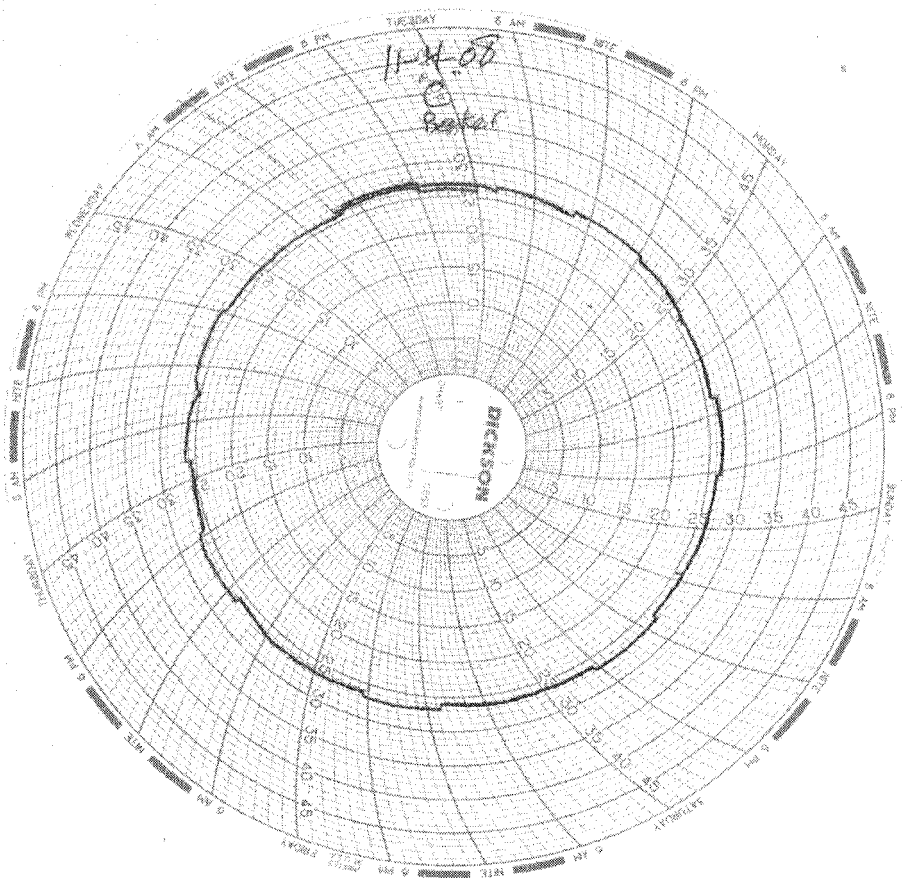
Aquatic Testing Laboratories

Test Temperature Chart

Test No: RT-081104

Date Tested: 11/04/08 to 11/11/08

Acceptable Range: 25+/- 1°C



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

REVISED

PROJECT NO. BOEING NPDES

SSFL MWH-Pasadena/Boeing

Lot #: F8L030243

Joseph Doak

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817

TESTAMERICA LABORATORIES, INC.

Sherryl Adam
Project Manager

January 28, 2009

956

Case Narrative
LOT NUMBER: **F8L030243**
REVISED

This report has been revised to include Uranium results to be reported in pCi/L per client request.

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on November 29, 2008. This sample is associated with your SSFL MWH-Pasadena/Boeing project.

The analytical results included in this report meet all applicable quality control procedure requirements.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances
Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Total Uranium by Laser Phosphorimetry
The sample results were converted from ug/L to pCi/L per client request. The conversion assumes that all of the uranium is naturally occurring.

Affected Samples:
F8L030243 (1): IRK2832-01

METHODS SUMMARY

F8L030243

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
H-3 by Distillation & LSC	EPA 906.0 MOD	
Radium-226 by GFPC	EPA 903.0 MOD	EPA 903.0
Radium-228 by GFPC	EPA 904 MOD	EPA 904
Strontium 90 by GFPC	EPA 905 MOD	
Total Uranium By Laser Ph osphorimetry	ASTM 5174-91	

References:

ASTM Annual Book Of ASTM Standards.

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

SAMPLE SUMMARY

F8L030243

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
K309X	001	IRK2832-01	11/26/08	09:15

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TestAmerica Irvine

Client Sample ID: IRK2832-01

Radiochemistry

Lab Sample ID: F8L030243-001
Work Order: K309X
Matrix: WATER

Date Collected: 11/26/08 0915
Date Received: 11/29/08 0915

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**	**Batch # 8344329**		**Yld %**
Cesium 137	-1.1	U	9.5	20.0	17	12/09/08	12/21/08
Potassium 40	-100	U	710		290	12/09/08	12/21/08
Gross Alpha/Beta EPA 900				**pCi/L**	**Batch # 8339115**		**Yld %**
Gross Alpha	**2.4**	**J**	**1.3**	3.0	**1.5**	**12/04/08**	**12/07/08**
Gross Beta	**17.3**		**2.1**	4.0	**1.2**	**12/04/08**	**12/07/08**
Radium 226 by EPA 903.0 MOD				**pCi/L**	**Batch # 8338402**		**Yld % 69**
Radium (226)	0.083	U	0.086	1.00	0.13	12/03/08	12/26/08
Radium 228 by GFPC EPA 904 MOD				**pCi/L**	**Batch # 8338404**		**Yld % 45**
Radium 228	0.52	U	0.79	1.00	1.3	12/03/08	12/24/08
TRITIUM (Distill) by EPA 906.0 MOD				**pCi/L**	**Batch # 8352094**		**Yld %**
Tritium	-90	U	160	500	290	12/17/08	12/19/08
SR-90 BY GFPC EPA-905 MOD				**pCi/L**	**Batch # 8338424**		**Yld % 68**
Strontium 90	-0.10	U	0.33	3.00	0.58	12/03/08	12/15/08
Total Uranium by KPA ASTM 5174-91				**pCi/L**	**Batch # 8345026**		**Yld %**
Total Uranium	**0.524**	**J**	**0.054**	0.693	**0.21**	**12/10/08**	**12/12/08**

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

J **Result is greater than sample detection limit but less than stated reporting limit.** 960

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F8L030243
Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date	Lab Sample ID
Radium 226 by EPA 903.0 MOD			pCi/L	Batch # 8338402		Yld % 92		F8L030000-402B
Radium (226)	0.028	U	0.042	1.00	0.071	12/03/08	12/26/08	
Radium 228 by GFPC EPA 904 MOD			pCi/L	Batch # 8338404		Yld % 62		F8L030000-404B
Radium 228	-0.09	U	0.51	1.00	0.90	12/03/08	12/24/08	
SR-90 BY GFPC EPA-905 MOD			pCi/L	Batch # 8338424		Yld % 59		F8L030000-424B
Strontium 90	-0.14	U	0.36	3.00	0.63	12/03/08	12/15/08	
Gross Alpha/Beta EPA 900			pCi/L	Batch # 8339115		Yld %		F8L040000-115B
Gross Alpha	-0.22	U	0.39	2.00	0.92	12/04/08	12/07/08	
Gross Beta	0.10	U	0.60	4.00	1.0	12/04/08	12/07/08	
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	Batch # 8344329		Yld %		F8L090000-329B
Cesium 137	-0.7	U	8.4	20.0	15	12/09/08	12/21/08	
Potassium 40	-40	U	190		220	12/09/08	12/21/08	
Total Uranium by KPA ASTM 5174-91			pCi/L	Batch # 8345026		Yld %		F8L100000-026B
Total Uranium	0.150	U	0.018	0.693	0.21	12/10/08	12/12/08	
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L	Batch # 8352094		Yld %		F8L170000-094B
Tritium	140	U	180	500	300	12/17/08	12/19/08	

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

961

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F8L030243
Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ+/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gross Alpha/Beta EPA 900			**pCi/L**	**900.0 MOD**			**F8L040000-115C**
Gross Beta	67.9	68.1	5.9	1.2		100	(72 - 117)
	Batch #:	8339115		**Analysis Date:**	12/07/08		
Gross Alpha/Beta EPA 900			**pCi/L**	**900.0 MOD**			**F8L040000-115C**
Gross Alpha	49.4	55.8	6.2	1.1		113	(72 - 138)
	Batch #:	8339115		**Analysis Date:**	12/07/08		
Gamma Cs-137 & Hits by EPA 901.1 MOD			**pCi/L**	**901.1 MOD**			**F8L090000-329C**
Americium 241	141000	138000	11000	600		98	(90 - 110)
Cesium 137	53100	51500	3000	300		97	(90 - 110)
Cobalt 60	87900	84300	4700	200		96	(90 - 110)
	Batch #:	8344329		**Analysis Date:**	12/21/08		
Total Uranium by KPA ASTM 5174-91			**pCi/L**	**5174-91**			**F8L100000-026C**
Total Uranium	27.7	29.3	3.5	0.2		106	(90 - 116)
	Batch #:	8345026		**Analysis Date:**	12/12/08		
Total Uranium by KPA ASTM 5174-91			**pCi/L**	**5174-91**			**F8L100000-026C**
Total Uranium	5.54	5.98	0.61	0.21		108	(90 - 116)
	Batch #:	8345026		**Analysis Date:**	12/12/08		
TRITIUM (Distill) by EPA 906.0 MOD			**pCi/L**	**906.0 MOD**			**F8L170000-094C**
Tritium	4840	4170	440	290		86	(77 - 110)
	Batch #:	8352094		**Analysis Date:**	12/19/08		

NOTE(S)

MDC is determined by instrument performance only

962

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID: F8L030243
Matrix: WATER

Parameter		Spike Amount	Result	Total Uncert. (2 σ+/-)	% Yld	% Rec	QC Control Limits	Precision	
							Lab Sample ID		
Radium 226 by EPA 903.0 MOD			pCi/L	903.0 MOD			F8L030000-402C		
Radium (226)		11.3	10.8	0.96	97	96	(72 - 130)		
	Spk 2	11.3	10.8	0.97	94	96	(72 - 130)	0.6	%RPD
		Batch #:	8338402		Analysis Date:		12/26/08		
Radium 228 by GFPC EPA 904 MOD			pCi/L	904 MOD			F8L030000-404C		
Radium 228		7.39	9.0	1.1	73	122	(61 - 139)		
	Spk 2	7.39	9.7	1.2	74	132	(61 - 139)	8	%RPD
		Batch #:	8338404		Analysis Date:		12/24/08		
SR-90 BY GFPC EPA-905 MOD			pCi/L	905 MOD			F8L030000-424C		
Strontium 90		7.00	7.81	0.91	67	111	(73 - 135)		
	Spk 2	7.00	8.60	0.99	62	123	(73 - 135)	10	%RPD
		Batch #:	8338424		Analysis Date:		12/15/08		

NOTE(S)

Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F8L030243
Matrix: WATER

Date Sampled: 11/26/08
Date Received: 11/29/08

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result		Total Uncert. (2 σ +/-)	% Yld	QC Sample ID Precision	
Gross Alpha/Beta EPA 900				**pCi/L**	**900.0 MOD**				**F8L030234-001**	
Gross Alpha	2.9	J	1.2		2.6	J	1.2		9	%RPD
Gross Beta	8.1		1.5		7.8		1.4		4	%RPD
	Batch #:		8339115	(Sample)	8339115		(Duplicate)			
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**	**901.1 MOD**				**F8L030234-001**	
Cesium 137	1.1	U	5.3		0.02	U	9.0		193	%RPD
Potassium 40	-100	U	3100		-100	U	1200		8	%RPD
	Batch #:		8344329	(Sample)	8344329		(Duplicate)			
TRITIUM (Distill) by EPA 906.0 MOD				**pCi/L**	**906.0 MOD**				**F8L030234-001**	
Tritium	50	U	170		80	U	170		35	%RPD
	Batch #:		8352094	(Sample)	8352094		(Duplicate)			

NOTE(S)

Data are incomplete without the case narrative.
Calculations are performed before rounding to avoid round-off error in calculated results

J Result is greater than sample detection limit but less than stated reporting limit.

964

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: F8L090116
Matrix: WATER

Date Sampled: 11/26/08 1112
Date Received: 12/09/08 0830

Parameter		Spike Amount	SPIKE Result		Total Uncert. (2 σ+/-)	Spike Yld	SAMPLE Result	Total Uncert. (2σ +/-)	QC Sample ID % Yld	%Rec		QC Control Limits
Total Uranium by KPA ASTM 5					**ug/L**		**5174-91**			**F8L090116-001**		
Total Uranium		40.0	17800	a	2100		18200	2200		-101	a	(90 - 129)
	Spk2	40.0	18100	a	2200		18200	2200		-334	a	(90 - 129)
									Precision:	2		%RPD

Batch #: 8345026 **Analysis date:** 12/12/08

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results 965

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: F8L030234
Matrix: WATER

Date Sampled: 11/26/08
Date Received: 11/29/08

Parameter	Spike Amount	Spike Result	Total Uncert. (2σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2 σ +/-)	QC Sample ID %YLD	QC Sample ID %REC	QC Control Limits
Gross Alpha/Beta EPA 900			pCi/L		900.0 MOD			F8L030234-001	
Gross Beta	67.9	82.0	6.8		8.1	1.5		109	(66 - 147)
	Batch #:	8339115		Analysis Date:		12/07/08			
Gross Alpha/Beta EPA 900			pCi/L		900.0 MOD			F8L030234-001	
Gross Alpha	49.4	40.8	5.2		2.9	1.2		77	(44 - 150)
	Batch #:	8339115		Analysis Date:		12/07/08			
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L		906.0 MOD			F8L030238-001	
Tritium	4840	4230	450		100	180		86	(47 - 150)
	Batch #:	8352094		Analysis Date:		12/19/08			

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

cur 174 **IRK2832**

SENDING LABORATORY:

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

RECEIVING LABORATORY:

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone :(314) 298-8566
Fax: (314) 298-8757
Project Location: CA - CALIFORNIA
Receipt Temperature:_____°C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: IRK2832-01	**Water**		Sampled: **11/26/08 09:15**			**Instant Nofication**
EDD + Level 4	N/A	12/09/08	12/24/08 09:15	$0.00	0%	Boeing EDD, email to pm w/ PDF report
Gamma Spec-O	mg/kg	12/09/08	11/26/09 09:15	$250.00	0%	Out St Louis, K-40 and CS-137 only, DO NOT FILTER!
Gross Alpha-O	pCi/L	12/09/08	05/25/09 09:15	$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	12/09/08	05/25/09 09:15	$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Radium, Combined-O	pCi/L	12/09/08	11/26/09 09:15	$238.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	12/09/08	11/26/09 09:15	$155.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	12/09/08	11/26/09 09:15	$80.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	12/09/08	11/26/09 09:15	$120.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!

Containers Supplied:
2.5 gal Poly (J) 500 mL Amber (K)

Now 2xLP, 2x500P
SW
12-01-08

del cur

Released By _____ Date/Time _____ Received By _____ Date/Time 11-29-08 0945

Released By _____ Date/Time _____ Received By _____ Date/Time _____

THE LEADER IN ENVIRONMENTAL TESTING

F8L030234
238
243

CONDITION UPON RECEIPT FORM

Client: TA Irvine SV 12.03.08
Quote No: ~~77635~~ 81594
COC/RFA No: Indow) 77635

174

Initiated By: SV Date: 11-29-08 Time: 0915

Shipping Information

Shipper: (FedEx) UPS DHL Courier Client Other: _____ Multiple Packages: (Y) N

Shipping # (s):*

1. 1971 4437 5515
2. 7961 4775 4360
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Sample Temperature (s):**

1. 2
2. 2
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	Y (N)	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N (N/A)	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y (N) N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	(Y) N SV 12.01.08	Sample received in proper containers?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y N ?	Was sample received broken?	13.	(Y) N N/A	Was Internal COC/Workshare received?
7.	Y N ?	Is sample volume sufficient for analysis?	14. SV 12.01.08	(Y) N (N/A)	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

IRK 2832-01, the 2.5 gal which I left on the bench Saturday has leaked - ~~probably~~ SV 12.01.08 there are 3 liters left.

IRK 2802
2832
2828
2835

Samples are not preserved - do these get filtered?

Per Sherryl, preserved the 1 sample from TA San Diego IRK2802. HNO3 lot 607054 to pH of 1.

Corrective Action:

☐ Client Contact Name: _____ Informed by: _____
☐ Sample(s) processed "as is"
☐ Sample(s) on hold until: _____ If released, notify: _____
Project Management Review: Sherryl A Adam Date: 12-08-08

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR. THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D8K290110

Project IRK2832

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.

Danielle Fougere
Project Manager

December 5, 2008

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Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on November 29, 2008. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than the Denver laboratory's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

Quality Control Summary for Lot D8K290110

Sample Receiving

The cooler temperature for the samples received on November 29, 2008 at the Denver laboratory was 0.8°C. All sample containers were received in acceptable condition.

Total Mercury –Method 245.1

Matrix spike analyses for QC batch 8336128 were performed on sample IRK2832-01, and were in control.

No anomalies were observed.

Dissolved Mercury –Method 245.1

Matrix spike analyses for QC batch 8336136 were performed on sample IRK2832-01, and were in control.

No anomalies were observed.

Quality Control Definitions of Qualifiers

Qualifier	Definition
U	Result is less than the method detection limit (MDL).
B	Organics: Method blank contamination. The associated method blank contains the target analyte at a reportable level. Inorganics: Estimated result. Result is less than the RL
J	Organics: Estimated result. Result is less than RL Inorganics: Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentrations exceed the calibration range.
p	Relative Percent Difference (RPD) is outside control limits.
*	Surrogate or Relative Percent Difference (RPD) is outside control limits.
DIL	The concentration is estimated or not reported due to dilution.
COL	More than 40% difference between the primary and confirmation detector results. The lower of the two results is reported.
CHI	More than 40% difference between the primary and confirmation detector results. The higher of the two results is reported.
L	Serial dilution of a digestate in the analytical batch indicates that physical and chemical interferences are present.
a	Spiked analyte recovery is outside stated control limits.
N	Spiked analyte recovery is outside stated control limits.
NC	The recovery and/or RPD were not calculated.
MSB	The recovery and/or RPD were not calculated because the sample amount was greater than four times the spike amount.

SUBCONTRACT ORDER

TestAmerica Irvine

IRK2832

C-8 IRK
Lm 11/29/08

SENDING LABORATORY:

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

RECEIVING LABORATORY:

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone :(303) 736-0100
Fax: (303) 431-7171
Project Location: CA - CALIFORNIA
Receipt Temperature:_____°C Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: IRK2832-01	**Water**		Sampled: **11/26/08 09:15**			**Instant Nofication**
Level 4 + EDD-OUT	N/A	12/09/08	12/24/08 09:15	$0.00	0%	Sub to Denver, transfer file EDD
Mercury - 245.1, Diss -OUT	ug/l	12/09/08	12/24/08 09:15	$36.00	0%	Denver, Boeing, J flags
Mercury - 245.1-OUT	ug/l	12/09/08	12/24/08 09:15	$36.00	0%	Denver, Boeing, permit, J flags

Containers Supplied:
1 L Poly w/HNO3 (B) 125 mL Poly (N)

Released By	Date/Time	Received By	Date/Time
[signature]	11-28-08/17:00	Lisa Miller	11/29/08 0830

TestAmerica Denver

Sample Receiving Checklist

Lot #: D8K290110 Date/Time Received: 11/29/08 0830

Company Name & Sampling Site: TA Irvine

PM to Complete This Section:	*Yes*	*No*		*Yes*	*No*
Residual chlorine check required:	☐	☐	Quarantined :	☐	☐

Quote #:

Special Instructions:

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____ _____ _____ _____ _____ _____ _____ _____

Temperatures (°C): 0.8 _____ _____ _____ _____ _____ _____ _____

N/A	*Yes*	*No*		*Initials*
☐	☒	☐	1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.	DM
	☒	☐	2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: ☒ No:____	
	☒	☐	3. Chain of custody present? If no, document on CUR.	
	☐	☒	4. Bottles broken and/or are leaking? If yes, document on CUR.	
	☐	☒	5. Multiphasic samples obvious? If yes, document on CUR.	
	☒	☐	6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.	
☐	☒	☐	7. pH of all samples checked and meet requirements? If no, document on CUR.	
	☒	☐	8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.	
	☒	☐	9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.	
☒	☐	☐	10. Were VOA samples without headspace? If no, document on CUR.	
☒	☐	☐	11. Were VOA vials preserved? Preservative ☐HCl ☐4±2°C ☐Sodium Thiosulfate ☐ Ascorbic Acid	
	☐	☒	12. Did samples require preservation with sodium thiosulfate?	
☒	☐	☐	13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.	
☒	☐	☐	14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.	
☒	☐	☐	15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.	
	☐	☒	16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☐	☒	17. Are analyses with short holding times requested?	
☒	☒		18. Was a quick Turn Around (TAT) requested?	

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TestAmerica Denver

Sample Receiving Checklist

Lot # D8K290110

Login Checks:

N/A	Yes	No		Initials
	☒	☐	19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.	
☒	☐	☐	20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.	
	☒	☐	21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?	
☐	☒	☐	22. Were special log in instructions read and followed?	
☒	☐	☐	23. Were AFCEE metals logged for refrigerated storage?	
	☒	☐	24. Were tests logged checked against the COC? Which samples were confirmed? 1	
☒	☒ (circled)	☐	25. Was a Rush form completed for quick TAT?	
☒	☐	☐	26. Was a Short Hold form completed for any short holds?	
	☐	☒	27. Were special archiving instructions indicated in the General Comments? If so, what were they?	

Labeling and Storage Checks:

				Initials
☒	☐	☐	28. Was the subcontract COC signed and sent with samples to bottle prep?	
	☒	☐	29. Were sample labels double-checked by a second person?	
☒	☐	☐	30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?	
	☒	☐	31. Did the sample ID, Date, and Time from label match what was logged?	
☒	☐	☐	32. Were stickers for special archiving instructions affixed to each box? See #27	
☒	☐	☐	33. Were AFCEE metals stored refrigerated?	

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

EXECUTIVE SUMMARY - Detection Highlights

D8K290110

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

METHODS SUMMARY

D8K290110

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Dissolved Mercury (CVAA)	MCAWW 245.1	MCAWW 245.1
Mercury (Manual Cold Vapor Technique)	MCAWW 245.1	MCAWW 245.1

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

METHOD / ANALYST SUMMARY

D8K290110

ANALYTICAL METHOD	ANALYST	ANALYST ID
MCAWW 245.1	Christopher Grisdale	9582

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

D8K290110

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
K3TLX	001	IRK2832-01	11/26/08	09:15

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D8K290110

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	MCAWW 245.1		8336128	8336053
	WATER	MCAWW 245.1		8336136	8336058

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Total Metals

Lot ID: D8K290110

Client: TestAmerica Irvine

Method: 245.1

Associated Samples: 001

Batch: 8336128

Total Metals Analysis

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: TestAmerica Irvine SDG No.: D8K290110

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: _____

Sample ID.	Lab Sample No.
IRK2832-01	D8K290110-001
IRK2832-01 MS	D8K290110-001S
IRK2832-01 MSD	D8K290110-001SD

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins Name: Janice Collins

Date: 12/4/08 Title: Metals Analyst

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	IRK2832-01
Lot/SDG Number:	D8K290110	**Lab Sample ID:**	D8K290110-001
Matrix:	WATER	**Lab WorkOrder:**	K3TLX
% Moisture:	N/A	**Date/Time Collected:**	11/26/08 09:15
Basis:	Wet	**Date/Time Received:**	11/29/08 08:30

CAS No.	Analyte	Conc.	MDL	RL	Units	Q	Method
7439-97-6	Mercury	0.027	0.027	0.20	ug/L	U	245.1

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D8K290110

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury	7.000	7.096	101.4	5.000	5.150	103.0	5.147	102.9	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D8K290110

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury				5.000	5.453	109.1			CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D8K290110

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.13694	68.5					

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D8K290110	**Lab Sample ID:**	D8L010000-128B
Matrix:	WATER	**Lab WorkOrder:**	K3VCE
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	12/01/08 13:30
QC Batch ID:	8336128	**Date/Time Analyzed:**	12/01/08 17:23
Sample Aliquot:	10 mL	**Instrument ID:**	019
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

Total Metals Analysis

-3-

BLANKS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D8K290110

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Mercury	0.027	U	0.027	U	0.027	U			0.027	U	CV

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	IRK2832-01
Lot/SDG Number:	D8K290110	**MS Lab Sample ID:**	D8K290110-001S
Matrix:	WATER	**MS Lab WorkOrder:**	K3TLX
% Moisture:	N/A	**Date/Time Collected:**	11/26/08 09:15
Basis:	Wet	**Date/Time Received:**	11/29/08 08:30
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	12/01/08 13:30
QC Batch ID:	8336128	**Date/Time Analyzed:**	12/01/08 17:30
MS Sample Aliquot:	10 mL	**Instrument ID:**	019
MS Dilution Factor:	1		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Mercury	5.00	0.027	U	5.41		108		90 - 110

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	IRK2832-01
Lot/SDG Number:	D8K290110	**MSD Lab Sample ID:**	D8K290110-001D
Matrix:	WATER	**MSD Lab WorkOrder:**	K3TLX
% Moisture:	N/A	**Date/Time Collected:**	11/26/08 09:15
Basis:	Wet	**Date/Time Received:**	11/29/08 08:30
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	12/01/08 13:30
QC Batch ID:	8336128	**Date/Time Analyzed:**	12/01/08 17:32
MSD Sample Aliquot:	10 mL	**Instrument ID:**	019
MSD Dilution Factor:	1		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Mercury	5.00	0.027	U	5.41		108		0.10		90 - 110	10

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D8K290110	**Lab Sample ID:**	D8L010000-128C
Matrix:	WATER	**Lab WorkOrder:**	K3VCE
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	12/01/08 13:30
QC Batch ID:	8336128	**Date/Time Analyzed:**	12/01/08 17:27
Sample Aliquot:	10 mL	**Instrument ID:**	019
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Mercury	5.00	5.27	105		90 - 110

Total Metals Analysis

-10-

DETECTION LIMITS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D8K290110

ICP ID Number: _____ Date: 1/23/2008

Flame AA ID Number: PE CVAA

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Mercury	253.70		0.20	0.027	CV

Comments: _____

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Total Metals Analysis

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PREPARATION LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D8K290110

Method: CV Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
IRK2832-01	12/1/2008	10.0	10.0
IRK2832-01 MS	12/1/2008	10.0	10.0
IRK2832-01 MSD	12/1/2008	10.0	10.0
MB8336128	12/1/2008	10.0	10.0
Check Sample	12/1/2008	10.0	10.0

Comments:

Total Metals Analysis

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ANALYSIS RUN LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D8K290110

Instrument ID Number: PE CVAA Method: CV

Start Date: 12/1/2008 End Date: 12/1/2008

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN			
Calib Blank 1	1.00	16:57																X												
STD1	1.00	16:58																X												
STD2	1.00	17:00																X												
STD3	1.00	17:02																X												
STD4	1.00	17:04																X												
STD5	1.00	17:05																X												
STD6	1.00	17:07																X												
CCV	1.00	17:11																X												
ICB	1.00	17:14																X												
ICV	1.00	17:16																X												
RL	1.00	17:17																X												
CCV	1.00	17:19																X												
CCB	1.00	17:21																X												
MB8336128	1.00	17:23																X												
Check Sample	1.00	17:27																X												
IRK2832-01	1.00	17:28																X												
IRK2832-01 MS	1.00	17:30																X												
IRK2832-01 MSD	1.00	17:32																X												
CCV	1.00	17:39																X												
CCB	1.00	17:40																X												

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Dissolved Metals

Lot ID: D8K290110

Client: TestAmerica Irvine

Method: 245.1

Associated Samples: 001

Batch: 8336136

Dissolved Metals Analysis

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: TestAmerica Irvine SDG No.: D8K290110

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: _____

Sample ID.	Lab Sample No.
IRK2832-01	D8K290110-001
IRK2832-01 MS	D8K290110-001S
IRK2832-01 MSD	D8K290110-001SD

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Janice Collins Name: Janice Collins

Date: 12/4/08 Title: Metals Analyst

995

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	IRK2832-01
Lot/SDG Number:	D8K290110	**Lab Sample ID:**	D8K290110-001
Matrix:	WATER	**Lab WorkOrder:**	K3TLX
% Moisture:	N/A	**Date/Time Collected:**	11/26/08 09:15
Basis:	Wet	**Date/Time Received:**	11/29/08 08:30

CAS No.	Analyte	Conc.	MDL	RL	Units	Q	Method
7439-97-6	Mercury	0.027	0.027	0.20	ug/L	U	245.1

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D8K290110

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury	7.000	7.096	101.4	5.000	5.150	103.0	5.147	102.9	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals Analysis
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D8K290110

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury				5.000	5.453	109.1	5.360	107.2	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D8K290110

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.13694	68.5					

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D8K290110	**Lab Sample ID:**	D8L010000-136B
Matrix:	WATER	**Lab WorkOrder:**	K3VC1
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	12/01/08 13:30
QC Batch ID:	8336136	**Date/Time Analyzed:**	12/01/08 17:44
Sample Aliquot:	10 mL	**Instrument ID:**	019
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

1000