Analytical Data Package Prepared For

CH2M Hill Plateau Remediation

Radiochemical Analysis By

TestAmerica Inc

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TARL

Data Package Contains 86 *Pages*

Report No.: 72621

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
W08031	I18-006	B3HDC1	J8C150411-1	NAPDH1AA	9NAPDH10	8078050
		B3HDD7	J8C150408-2	NAPC81AC	9NAPC810	8078038
		B3HDD7	J8C150408-2	NAPC81AA	9NAPC810	8078051
		B3HDD8	J8C150408-1	NAPC71AC	9NAPC710	8078038
		B3HDD8	J8C150408-1	NAPC71AA	9NAPC710	8078051
		B3HDD9	J8C150408-4	NAPDA1AA	9NAPDA10	8078050
		B3HDF0	J8C150408-5	NAPDD1AA	9NAPDD10	8078050
		B3HDF3	J8C150408-3	NAPC91AF	9NAPC910	8078031
		B3HDF3	J8C150408-3	NAPC91AA	9NAPC910	8078032
		B3HDF3	J8C150408-3	NAPC91AG	9NAPC910	8078038
		B3HDF3	J8C150408-3	NAPC91AJ	9NAPC910	8078047
		B3HDF3	J8C150408-3	NAPC91AC	9NAPC910	8078048
		B3HDF3	J8C150408-3	NAPC91AD	9NAPC910	8078051
		B3HDF3	J8C150408-3	NAPC91AE	9NAPC910	8078053
		B3HDF3	J8C150408-3	NAPC94AH	9NAPC940	8101011
		B3HDF4	J8C150408-6	NAPDE1AA	9NAPDE10	8078050
		B3HDH5	J8C160409-1	NAPF21AE	9NAPF210	8078031
		B3HDH5	J8C160409-1	NAPF21AA	9NAPF210	8078032
		B3HDH5	J8C160409-1	NAPF21AF	9NAPF210	8078038
		B3HDH5	J8C160409-1	NAPF21AG	9NAPF210	8078047
		B3HDH5	J8C160409-1	NAPF21AC	9NAPF210	8078048
		B3HDH5	J8C160409-1	NAPF21AD	9NAPF210	8078051
		B3HDH6	J8C160409-2	NAPF31AA	9NAPF310	8078050
		B3HDJ0	J8C150411-2	NAPDJ1AG	9NAPDJ10	8078031
		B3HDJ0	J8C150411-2	NAPDJ1AA	9NAPDJ10	8078032
		B3HDJ0	J8C150411-2	NAPDJ1AH	9NAPDJ10	8078038

Report No.: 72621

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
W08031	I18-006	B3HDJ0	J8C150411-2	NAPDJ1AJ	9NAPDJ10	8078042
		B3HDJ0	J8C150411-2	NAPDJ2AL	9NAPDJ20	8078047
		B3HDJ0	J8C150411-2	NAPDJ1AD	9NAPDJ10	8078048
		B3HDJ0	J8C150411-2	NAPDJ1AE	9NAPDJ10	8078051
		B3HDJ0	J8C150411-2	NAPDJ1AF	9NAPDJ10	8078053
		B3HDJ0	J8C150411-2	NAPDJ4AK	9NAPDJ40	8101011
		B3HDJ0	J8C150411-2	NAPDJ2AC	9NAPDJ20	8102010
	S18-003	B3HF98	J8C150405-4	NAPC61AA	9NAPC610	8078049
		B3HF98	J8C150405-4	NAPC64AC	9NAPC640	8101011
		B3HF99	J8C150405-2	NAPC41AA	9NAPC410	8078049
		B3HF99	J8C150405-2	NAPC44AC	9NAPC440	8101011
		B3HHC3	J8C160408-3	NAPF11AF	9NAPF110	8078042
		B3HHC3	J8C160408-3	NAPF11AD	9NAPF110	8078049
		B3HHC3	J8C160408-3	NAPF11AE	9NAPF110	8078053
		B3HHC3	J8C160408-3	NAPF12AC	9NAPF120	8084058
		B3HHC3	J8C160408-3	NAPF12AA	9NAPF120	8102010
		B3HHD7	J8C160408-1	NAPFX1AD	9NAPFX10	8078049
		B3HHD7	J8C160408-1	NAPFX2AC	9NAPFX20	8084058
		B3HHD7	J8C160408-1	NAPFX2AA	9NAPFX20	8102010
		B3HHP3	J8C160408-2	NAPF01AC	9NAPF010	8078031
		B3HHP3	J8C160408-2	NAPF01AD	9NAPF010	8078042
		B3HHP3	J8C160408-2	NAPF01AA	9NAPF010	8078054
		B3HHX2	J8C150409-1	NAPDF1AC	9NAPDF10	8078053
		B3HHX2	J8C150409-1	NAPDF2AA	9NAPDF20	8102010
		B3HJ02	J8C150405-3	NAPC51AA	9NAPC510	8078042
		B3HJ42	J8C150405-1	NAPC31AC	9NAPC310	8078045
		B3HJ42	J8C150405-1	NAPC31AD	9NAPC310	8078049
		B3HJ42	J8C150405-1	NAPC32AA	9NAPC320	8102010
	W18-003	B3HK86	J8C150410-1	NAPDG1AA	9NAPDG10	8078036
		B3HK86	J8C150410-1	NAPDG1AD	9NAPDG10	8078045
		B3HK86	J8C150410-1	NAPDG1AE	9NAPDG10	8078049
		B3HK86	J8C150410-1	NAPDG2AC	9NAPDG20	8096010

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

CH2M Hill Plateau Remediation Company
P.O. Box 1600
Mail Stop – R3-60
Richland, WA 99352

April 18, 2018

Attention: Scot Fitzgerald

SAF Number	:	S18-003, I18-006, W18-003,
Date SDG Closed	:	March 19, 2018
Number of Samples	:	Nineteen (19)
Sample Type	:	Water
SDG Number	:	W08031
Data Deliverable	:	30-Day / Summary

CASE NARRATIVE

I. Introduction

Between March 14, 2018 and March 15, 2018, nineteen samples were received at TestAmerica (TARL). Upon receipt, the samples were assigned laboratory ID numbers to correspond with the CH2M specific IDs.

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Alpha Spectroscopy
Americium 241 by method RL-ALP-003
Neptunium-237 by method RL-ALP-006
Plutonium-238, -239/240 by method RL-ALP-001
Uranium 234, 235 and 238 by method RL-ALP-004

Gas Proportional Counting
Gross Alpha by method RL-GPC-001
Gross Beta by method RL-GPC-001
Radium-228 by method RL-RA-001
Strontium by method RL-GPC-010
Alpha Scintillation Counting
Radium-226 by method RL-RA-001

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001
Iodine-129 (LL) by method RL-GAM-002
Liquid Scintillation Counting
Carbon-14 by method RL-LSC-008
Plutonium-241 by method RL-ALP-001
Selenium-79 by method RL-LSC-012
Technetium-99 by TEVA method RL-LSC-014
Tritium by method RL-LSC-005

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section. QC and sample results are reported in the same units.

V. Comments

Alpha Spectroscopy
Americium 241 by method RL-ALP-003:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Neptunium-237 by method RL-ALP-006:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Plutonium-238, -239/240 by method RL-ALP-001:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Uranium 234, 235 and 238 by method RL-ALP-004:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Gas Proportional Counting
Gross Alpha by method RL-GPC-001:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Gross Beta by method RL-GPC-001:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Radium-228 by method RL-RA-001:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Strontium by method RL-GPC-010:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Alpha Scintillation Counting
Radium-226 by method RL-RA-001:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Iodine-129 (LL) by method RL-GAM-002:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Liquid Scintillation Counting
Carbon-14 by method RL-LSC-008:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Plutonium-241 by method RL-ALP-001:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Selenium-79 by method RL-LSC-012:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Technetium-99 by TEVA method RL-LSC-014:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Tritium by method RL-LSC-005:
The matrix spike was outside acceptance criteria; however the activity detected is greater than five times the expected yield. No other analytical or quality issues were noted. Except as noted, the sample result and associated batch QC results are within contractual requirements.

We certify that this data package is in compliance with the SOW, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager (or designee) and the laboratory's client services representative as verified by their signatures on this report.

Reviewed and approved:

Digitally signed by Ashley L. Worthy
Date: 2018.04.18 16:34:58 -07'00'

Ashley L. Worthy
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in “NIST Technical Note 1297, 1994 Edition”. The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
CSU (#s) ***u_c Combined Standard Uncert.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, *u_c the combined standard uncertainty*. The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA|MDL	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-003-300 Page 1 of 1

Collector: Malcom Chunn CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: S18-003	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: CERCLA, MARCH 2018	**Logbook No.:** HNF-N-506 99/16	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol CERCLA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HJ42	N	W	MAR 14 2018	1056	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3HJ42	N	W	↓	↓	1x1-L P	9310_ALPHABETA_GPC: COMMON NAPC3	6 Months	HNO3 to pH <2

J8G50405
W08031

MRC 3/14/18

Relinquished By:	Received By:
Malcom Chunn CHPRC — M.R.C — MAR 14 2018 1245 (Print First and Last Name / Signature / Date/Time)	Frank Hall /CHPRC — MAR 14 2018 1245 (Print First and Last Name / Signature / Date/Time)
Frank Hall /CHPRC — MAR 14 2018 1430 (Print First and Last Name / Signature / Date/Time)	TIMAR Hall TARL — 3/14/18 14:30 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 2/26/2018 FSR ID = FSR58271 A-6004-842 (REV 3)

4/18/2018

REV.0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S18-003-316

Collector:	Malcom Chunn CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	S18-003	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	CERCLA, MARCH 2018	**Logbook No.:**	HNF-N-506 99/116	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	CERCLA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HF99	N	W	MAR 14 2018	0913	1x1-L P	9310_ALPHABETA_GPC: Gross Beta	6 Months	HNO3 to pH <2
B3HF99	N	W	MAR 14 2018	0913	1x500-mL P	TC99_ETVDSK_LSC: COMMON NAPC4	6 Months	HCl to pH <2

J8C150405

WO8031

Relinquished By:	Received By:
Malcom Chunn CHPRC — MR C — MAR 14 2018 1000 (Print First and Last Name / Signature / Date/Time)	Daniel Klug CHPRC — D. Klug — MAR 14 2018 1000 (Print First and Last Name / Signature / Date/Time)
Daniel Klug CHPRC — D. Klug — MAR 14 2018 1430 (Print First and Last Name / Signature / Date/Time)	Tim R Hohn TARL — 3/14/18 14:30 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-003-232 Page 1 of 1

Collector:	Kathy Turner /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	S18-003	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	CERCLA, MARCH 2018	**Logbook No.:**	HNF-N-506 -100-2	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	CERCLA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HJ02	N	W	MAR 14 2018	8922	1x1-L G/P	SRISO_SEP_PRECIP_GPC: COMMON NARC5	6 Months	HNO3 to pH <2

J8C150405
W08031

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4/18/2018

Relinquished By:	Received By:
Kathy Turner /CHPRC — Kathy Turner — MAR 14 2018 1040 (Print First and Last Name / Signature / Date/Time)	Daniel Klug CHPRC — D. Klug — MAR 14 2018 1040 (Print First and Last Name / Signature / Date/Time)
Daniel Klug CHPRC — D. Klug — MAR 14 2018 1430 (Print First and Last Name / Signature / Date/Time)	Tine R Holm THRL — 3/4/18 1430 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

REV.0

Printed On 1/15/2018 FSR ID = FSR57093 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-003-315 Page 1 of 1

Collector: Malcom Chunn CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: S18-003	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: CERCLA, MARCH 2018	**Logbook No.:** HNF-N-506 99116	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol CERCLA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HF98	N	W	MAR 14 2018	0740	1x1-L P	9310_ALPHABETA_GPC: Gross Beta	6 Months	HNO3 to pH <2
B3HF98	N		MAR 14 2018	0740	1x500-mL P	TC99_ETVDSK_LSC: COMMON NARCL	6 Months	HCl to pH <2

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J8C150405
W08031

4/18/2018

Relinquished By:	Received By:
Malcom Chunn CHPRC — Print First and Last Name; Signature; MAR 14 2018 1000 Date/Time	Daniel Klug CHPRC — Print First and Last Name; Signature; MAR 14 2018 1000 Date/Time
Daniel Klug CHPRC — Print First and Last Name; Signature; MAR 14 2018 1430 Date/Time	Tina R Holm TARL — Print First and Last Name; Signature; 3/14/18 1430 Date/Time
Print First and Last Name; Signature; Date/Time	Print First and Last Name; Signature; Date/Time
Print First and Last Name; Signature; Date/Time	Print First and Last Name; Signature; Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

REV.0

Printed On 3/12/2018 FSR ID = FSR58667 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 3/14/18 14:30 Container GM Screen Result: (Airlock) 0 cpm Initials [BJ]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [BJ]
Container Alpha Screen Result: (Airlock) 0 cpm Initials [BJ]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials [BJ]

Client: PGW SDG #: W08031 SAF #: S18-003 NA [ ]

Lot Number: 18C150405

Chain of Custody # S18-003-300; 316; 232; 315;

Shipping Container ID or Air Bill Number : _____ NA [BJ]

Samples received inside shipping container/cooler box Yes [JH] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [JH]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [JH]
3. Cooler temperature: 4.9 °C Ice NA [ ]
4. Vermiculite/packing materials is NA [JH] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [JH] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 4
7. Containers received: 1X 250 mLP 2X 500mLP 4X LP
8. Sample holding times exceeded? NA [ ] Yes [ ] No [JH]
9. Samples have: ____ tape ____ hazard labels JH custody seals JH appropriate sample labels
10. Matrix: ____ A (FLT, Wipe, Solid, Soil) JH I (Water) ____ S (Air, Niosh 7400) ____ T (Biological, Ni-63)
11. Samples:
    JH are in good condition ____ are leaking ____ are broken
    ____ have air bubbles (Only for samples requiring no head space) ____ Other ____
12. Sample pH appropriate for analysis requested Yes [JH] No [ ] NA [ ]
    (If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [JH]
14. Description of anomalies (include sample numbers): NA [JH]
15. Sample Location, Sample Collector Listed on COC? * Yes [JH] No [ ]
    *For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [JH] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: [signature] Date: 3/14/18

Client Notification needed? Yes [ ] No [JH] Date: _____
By: _____
Person contacted: _____

[JH] No action necessary; process as is

Project Manager [signature] Date 3/16/18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-067 Page 1 of 1

Collector: Malcom Chunn CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I18-006	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: AEA, MARCH 2018	**Logbook No.:** HNF-N-506 99/14	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol SURV	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HDD8	N		MAR 14 2018	0913	1x4-L G/P	GAMMA_GS: COMMON; GAMMA_GS: GW 01	6 Months	HNO3 to pH <2
B3HDD8	N		MAR 14 2018	0913	1x500-mL G/P	SE79_SEP_IE_LSC: COMMON NAPC7	6 Months	HNO3 to pH <2

J8C150408
W08031

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Relinquished By:	Received By:
Malcom Chunn CHPRC MR Ch — MAR 14 2018 1000 (Print First and Last Name / Signature / Date/Time)	Daniel Klug CHPRC D. Klug — MAR 14 2018 1000 (Print First and Last Name / Signature / Date/Time)
Daniel Klug CHPRC D. Klug — MAR 14 2018 1430 (Print First and Last Name / Signature / Date/Time)	Tim R Helm TARL — 3/14/18/14 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

REV.0

Printed On 1/15/2018 FSR ID = FSR57127 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-065 Page 1 of 1

Collector: Malcom Churm CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I18-006	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: AEA, MARCH 2018	**Logbook No.:** HNF-N-506 99/16	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol SURV	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HDD7	N	W	MAR 14 2018	0740	1x4-L G/P	GAMMA_GS: COMMON; GAMMA_GS: GW 01	6 Months	HNO3 to pH <2
B3HDD7	N	W	MAR 14 2018	0740	1x500-mL G/P	SE79_SEP_IE_LSC: COMMON NAPCB	6 Months	HNO3 to pH <2

J8150408
W08031

Relinquished By:	Signature	Date/Time	Received By:	Signature	Date/Time
Malcom Churm CHPRC	MRC	MAR 14 2018 1000	Daniel Klug CHPRC	D. KC	MAR 14 2018 1000
Daniel Klug CHPRC	D. KC	MAR 14 2018 1430	Tara R Holm TARL	[signature]	3/14/18 14:30

Matrix *
S = Soil, SE = Sediment, SO = Solid, SL = Sludge, W = Water, O = Oil, A = Air, DS = Drum Solids, DL = Drum Liquid, T = Tissue, WI = Wipe, L = Liquid, V = Vegetation, X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 3/12/2018 FSR ID = FSR58667 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-049 Page 1 of 1

Collector:	Malcom Chunn CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	I18-006	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	AEA, MARCH 2018	**Logbook No.:**	HNF-N-506 99/116	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	SURV	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HDF3	N	W	MAR 14 2018	1056	1x4-L G/P	GAMMA_GS: COMMON; GAMMA_GS: GW 01	6 Months	HNO3 to pH <2
B3HDF3	N	W			1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B3HDF3	N	W			1x1-L G/P	AMCMISO_EIE_PRECIP_AEA: COMMON; PU241_IE_LSC: COMMON; PUISO_IE_PRECIP_AEA: COMMON; UISO_PLATE_AEA: COMMON	180 Days	HNO3 to pH <2
B3HDF3	N	W			1x500-mL G/P	SE79_SEP_IE_LSC: COMMON	6 Months	HNO3 to pH <2
B3HDF3	N	W			1x500-mL P	TC99_ETVDSK_LSC: COMMON NAPC9	6 Months	HCl to pH <2

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J8C150408
W08031

Relinquished By:	Received By:
Malcom Chunn CHPRC — MRC — MAR 14 2018 1245 (Print First and Last Name / Signature / Date/Time)	Frank Hall /CHPRC — MAR 14 2018 1245 (Print First and Last Name / Signature / Date/Time)
Relinquished By: Frank Hall /CHPRC — MAR 14 2018 1430 (Print First and Last Name / Signature / Date/Time)	Received By: Tim R Holm TARL — 3/14/18 14:30 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-066 Page 1 of 1

Collector: Malcom Chunn CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I18-006	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: AEA, MARCH 2018	**Logbook No.:** HNF-N-506 99/16	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol SURV	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HDD9	N	W	MAR 14 2018	0740	1x500-mL G/P	C14_LSC: COMMON NAPDA	6 Months	None

J8C150408
L008031

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Relinquished By:	Received By:
Malcom Chunn CHPRC — Print First and Last Name; Signature: MR C; Date/Time: MAR 14 2018 1000	Daniel Klug CHPRC — Print First and Last Name; Signature: D. Klug; Date/Time: MAR 14 2018 1000
Daniel Klug CHPRC — Print First and Last Name; Signature: D. Klug; Date/Time: MAR 14 2018 1430	Tim R Holm TARL — Print First and Last Name; Signature: [illegible]; Date/Time: 3/14/18 1430
Print First and Last Name / Signature / Date/Time	Print First and Last Name / Signature / Date/Time
Print First and Last Name / Signature / Date/Time	Print First and Last Name / Signature / Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
Sl = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

REV.0

Printed On 3/12/2018 FSR ID = FSR58667 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-068 Page 1 of 1

Collector:	Malcom Chunn CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	I18-006	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	AEA, MARCH 2018	**Logbook No.:**	HNF-N-506 99/16	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	SURV	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HDF0	N	W	MAR 14 2018	0913	1x500-mL G/P	C14_LSC: COMMON NAPDD	6 Months	None

JBC150408
W08031

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4/18/2018

Relinquished By:	Received By:
MR Malcom Chunn CHPRC — Print First and Last Name; MR — Signature; MAR 14 2018 1000 — Date/Time	Daniel Klug CHPRC — Print First and Last Name; D. KL — Signature; MAR 14 2018 1600 — Date/Time
Relinquished By: Daniel Klug CHPRC — Print First and Last Name; D. KL — Signature; MAR 14 2018 1430 — Date/Time	Received By: Jim R Holm TARC — Print First and Last Name; Signature; 3/14/18 14:30 — Date/Time
Relinquished By: — Print First and Last Name; Signature; Date/Time	Received By: — Print First and Last Name; Signature; Date/Time
Relinquished By: — Print First and Last Name; Signature; Date/Time	Received By: — Print First and Last Name; Signature; Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

REV.0

Printed On 1/15/2018 FSR ID = FSR57127 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-050 Page 1 of 1

Collector: Malcom Chunn CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I18-006	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: AEA, MARCH 2018	**Logbook No.:** HNF-N-506 99/16	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol SURV	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HDF4	N		MAR 14 2018	1056	1x500-mL G/P	C14_LSC: COMMON NAPOE	6 Months	None

JBC150408
W08031

Relinquished By:	Received By:
Malcom Chunn CHPRC — Print First and Last Name; Signature; MAR 14 2018 1245 — Date/Time	Frank Hall /CHPRC — Print First and Last Name; Signature; MAR 14 2018 1245 — Date/Time
Frank Hall /CHPRC — Print First and Last Name; Signature; MAR 14 2018 1445 — Date/Time	Tina R Holm TARL — Print First and Last Name; Signature; 3/19/18 1420 — Date/Time
Print First and Last Name; Signature; Date/Time	Print First and Last Name; Signature; Date/Time
Print First and Last Name; Signature; Date/Time	Print First and Last Name; Signature; Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 2/26/2018 FSR ID = FSR58271 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 3/14/18 14:30 Container GM Screen Result: (Airlock) 0 cpm Initials [BJ]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [BJ]
Container Alpha Screen Result: (Airlock) 0 cpm Initials [BJ]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials [BJ]

Client: PGW SDG #: W08031 SAF #: I18-006 NA [ ]

Lot Number: J8C150408

Chain of Custody # I18-006-067; 065; 049; 066; 068; 050

Shipping Container ID or Air Bill Number : _____ NA [BJ]

Samples received inside shipping container/cooler box Yes [BJ] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [BJ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BJ]
3. Cooler temperature: 4.9 °C Ice NA [ ]
4. Vermiculite/packing materials is NA [BJ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [BJ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 6
7. Containers received: 7X 500mLP 1X L 4X 4LP
8. Sample holding times exceeded? NA [ ] Yes [ ] No [BJ]
9. Samples have: ____ tape ____ hazard labels BJ custody seals BJ appropriate sample labels
10. Matrix: ____ A (FLT, Wipe, Solid, Soil) BJ I (Water) ____ S (Air, Niosh 7400) ____ T (Biological, Ni-63)
11. Samples:
    BJ are in good condition ____ are leaking ____ are broken
    ____ have air bubbles (Only for samples requiring no head space) ____ Other ____
12. Sample pH appropriate for analysis requested Yes [BJ] No [ ] NA [ ]
    (If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [BJ]
14. Description of anomalies (include sample numbers): NA [BJ]
15. Sample Location, Sample Collector Listed on COC? * Yes [BJ] No [ ]
    *For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [BJ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: [signature] Date: 3/14/18

Client Notification needed? Yes [ ] No [BJ] Date:
By:
Person contacted:

[BJ] No action necessary; process as is

Project Manager [signature] Date 3/16/18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-003-371 Page 1 of 1

Collector: Juan Aguilar /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: S18-003	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: CERCLA, MARCH 2018	**Logbook No.:** HNF-N-506-98157	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol CERCLA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HHX2	N	W	3-14-18	1258	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3HHX2	N	W	3-14-18	1258	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NAPDF	6 Months	None

18C150409
1008031

Relinquished By:	Received By:
Juan Aguilar /CHPRC — MAR 14 2018 1446 (Print First and Last Name / Signature / Date/Time)	SSU #1 — MAR 14 2018 1446 (Print First and Last Name / Signature / Date/Time)
SSU-1 — MAR 15 2018 0702 (Print First and Last Name / Signature / Date/Time)	Daniel Klug CHPRC — MAR 15 2018 0702 (Print First and Last Name / Signature / Date/Time)
Daniel Klug CHPRC — MAR 15 2018 1055 (Print First and Last Name / Signature / Date/Time)	B.Jorgenson, TARL — 3-15-18/1055 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)

Matrix *
S = Soil, DS = Drum Solids
SE = Sediment, DL = Drum Liquid
SO = Solid, T = Tissue
SL = Sludge, WI = Wipe
W = Water, L = Liquid
O = Oil, V = Vegetation
A = Air, X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 2/26/2018 FSR ID = FSR58299 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 3-15-18 1055

Container GM Screen Result: (Airlock) 0 cpm Initials [BJ]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [BJ]
Container Alpha Screen Result: (Airlock) 0 cpm Initials [BJ]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials [BJ]

Client: PGW SDG #: W08031 SAF #: 518-003 NA [ ]

Lot Number: J8C150409

Chain of Custody # 518-003-371

Shipping Container ID or Air Bill Number : _____ NA [BJ]

Samples received inside shipping container/cooler/box Yes [BJ] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [BJ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BJ]
3. Cooler temperature: 5.5 °C ICE NA [ ]
4. Vermiculite/packing materials is NA [BJ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [BJ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 1
7. Containers received: 1X 250mLP 1X 4LP
8. Sample holding times exceeded? NA [ ] Yes [ ] No [BJ]
9. Samples have: ____tape ____hazard labels [BJ] custody seals [BJ] appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) [BJ] I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
    [BJ] are in good condition ____are leaking ____are broken
    ____have air bubbles (Only for samples requiring no head space) ____Other _____
12. Sample pH appropriate for analysis requested Yes [BJ] No [ ] NA [ ]
    (If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [BJ]
14. Description of anomalies (include sample numbers): NA [BJ] _____
15. Sample Location, Sample Collector Listed on COC? * Yes [BJ] No [ ]
    *For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [BJ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: BJohnson Date: 3-15-18

Client Notification needed? Yes [ ] No [SS] Date:
By:
Person contacted:

[SS] No action necessary; process as is

Project Manager Sam Cupp Date 3/16/18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W18-003-143 Page 1 of 1

Collector: Juan Aguilar /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: W18-003	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: RCRA, MARCH 2018	**Logbook No.:** HNF-N-506-98158	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol RCRA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HK86	N	W	3-15-18	0806	1x1-L G/P	903.1_RA226_LUC: COMMON	6 Months	HNO3 to pH <2
B3HK86	N	W	3-15-18	0806	1x1-L P	9310_ALPHABETA_GPC: COMMON	6 Months	HNO3 to pH <2
B3HK86	N	W	3-15-18	0806	1x1-L G/P	RAISO_SEP_GPC: COMMON NAPDG	6 Months	HNO3 to pH <2

J8C150410
W08031

Relinquished By	Received By
Juan Aguilar /CHPRC — Print First and Last Name; Signature; MAR 15 2018 0930 Date/Time	Tim Callaway /CHPRC — Print First and Last Name; Signature; MAR 15 2018 0930 Date/Time
Tim Callaway /CHPRC — Print First and Last Name; Signature; MAR 15 2018 1055 Date/Time	B.Jorgenson, TARL — Print First and Last Name; Signature; 3-15-18 1055 Date/Time
Print First and Last Name; Signature; Date/Time	Print First and Last Name; Signature; Date/Time
Print First and Last Name; Signature; Date/Time	Print First and Last Name; Signature; Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 1/15/2018 FSR ID = FSR57221 A-6004-842 (REV 3)

TestAmerica
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Sample Check-in List

Date/Time Received: 3-15-18 1055 Container GM Screen Result: (Airlock) 0 cpm Initials [BJ]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [BJ]
Container Alpha Screen Result: (Airlock) 0 cpm Initials [BJ]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials [BJ]

Client: PGW SDG #: W08031 SAF #: W18-003 NA [ ]

Lot Number: J8C150410

Chain of Custody # W18-003-143

Shipping Container ID or Air Bill Number : _____ NA [BJ]

Samples received inside shipping container/cooler/box Yes [BJ] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [BJ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BJ]
3. Cooler temperature: 5.5 °C ICE NA [ ]
4. Vermiculite/packing materials is NA [BJ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [BJ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 1
7. Containers received: 3 x LP
8. Sample holding times exceeded? NA [ ] Yes [ ] No [BJ]
9. Samples have: ____ tape ____ hazard labels [BJ] custody seals [BJ] appropriate sample labels
10. Matrix: ____ A (FLT, Wipe, Solid, Soil) [BJ] I (Water) ____ S (Air, Niosh 7400) ____ T (Biological, Ni-63)
11. Samples:
    [BJ] are in good condition ____ are leaking ____ are broken
    ____ have air bubbles (Only for samples requiring no head space) ____ Other _____
12. Sample pH appropriate for analysis requested Yes [BJ] No [ ] NA [ ]
    (If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [BJ]
14. Description of anomalies (include sample numbers): NA [BJ]
15. Sample Location, Sample Collector Listed on COC? * Yes [BJ] No [ ]
    *For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [BJ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: BJohnson Date: 3-15-18

Client Notification needed? Yes [ ] No [BJ] Date: _____
By: _____
Person contacted: _____

[BJ] No action necessary; process as is

Project Manager Sam Cupp Date 3/16/18

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I18-006-059

Collector: Juan Aguilar /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I18-006	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: AEA, MARCH 2018	**Logbook No.:** HNF-N-506 -98/58	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol SURV	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HDC1	N	W	3-15-18	0901	1x500-mL G/P	C14_LSC: COMMON NAPDH	6 Months	None

W08031
J8C150411

Relinquished By: Juan Aguilar /CHPRC — Print First and Last Name / Signature / Date/Time: MAR 15 2018 0930	Received By: Tim Callaway /CHPRC — Print First and Last Name / Signature / Date/Time: MAR 15 2018 0930	Matrix *
Relinquished By: Tim Callaway /CHPRC — Print First and Last Name / Signature / Date/Time: MAR 15 2018 1055	Received By: B.Jorgenson, TARL — Print First and Last Name / Signature / Date/Time: 3-15-18/1055	S = Soil; SE = Sediment; SO = Solid; SL = Sludge; W = Water; O = Oil; A = Air; DS = Drum Solids; DL = Drum Liquid; T = Tissue; WI = Wipe; L = Liquid; V = Vegetation; X = Other
Relinquished By: — Print First and Last Name / Signature / Date/Time	Received By: — Print First and Last Name / Signature / Date/Time	
Relinquished By: — Print First and Last Name / Signature / Date/Time	Received By: — Print First and Last Name / Signature / Date/Time	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 2/6/2018 FSR ID = FSR57361 A-6004-842 (REV 3)

4/18/2018

REV.0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I18-006-058

Collector:	Juan Aguilar /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	I18-006	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	AEA, MARCH 2018	**Logbook No.:**	HNF-N-506-98/SS	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	SURV	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HDJ0	N	W	3-15-18	0901	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3HDJ0	N	W			1x4-L G/P	GAMMA_GS: COMMON; GAMMA_GS: GW 01	6 Months	HNO3 to pH <2
B3HDJ0	N	W			1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B3HDJ0	N	W			1x1-L G/P	AMCMISO_EIE_PRECIP_AEA: COMMON; PU241_IE_LSC: COMMON; PUISO_IE_PRECIP_AEA: COMMON; UISO_PLATE_AEA: COMMON	180 Days	HNO3 to pH <2
B3HDJ0	N	W			1x500-mL G/P	SE79_SEP_IE_LSC: COMMON	6 Months	HNO3 to pH <2
B3HDJ0	N	W			1x1-L G/P	SRISO_SEP_PRECIP_GPC: COMMON	6 Months	HNO3 to pH <2
B3HDJ0	N	W	3-15-18	0901	1x500-mL P	TC99_ETVDSK_LSC: COMMON NAPDJ	6 Months	HCl to pH <2

W08031
J8C150411

Relinquished By: Juan Aguilar /CHPRC	MAR 15 2018 0930	Received By: Tim Calloway /CHPRC	MAR 15 2018 0930	Matrix *	
Print First and Last Name / Signature / Date/Time		Print First and Last Name / Signature / Date/Time		S = Soil	DS = Drum Solids
Relinquished By: Tim Calloway /CHPRC	MAR 15 2018 1655	Received By: B.Jorgenson, TARL	3-15-18 1055	SE = Sediment	DL = Drum Liquid
Print First and Last Name / Signature / Date/Time		Print First and Last Name / Signature / Date/Time		SO = Solid	T = Tissue
Relinquished By:		Received By:		SL = Sludge	WI = Wipe
Print First and Last Name / Signature / Date/Time		Print First and Last Name / Signature / Date/Time		W = Water	L = Liquid
Relinquished By:		Received By:		O = Oil	V = Vegetation
Print First and Last Name / Signature / Date/Time		Print First and Last Name / Signature / Date/Time		A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 3-15-18 1055 Container GM Screen Result: (Airlock) 0 cpm Initials [BJ]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [BJ]
Container Alpha Screen Result: (Airlock) 0 cpm Initials [BJ]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials [BJ]

Client: PGW SDG #: W08031 SAF #: I18-006 NA [ ]

Lot Number: J8C150411

Chain of Custody # I 18-006-059; 058

Shipping Container ID or Air Bill Number : _____ NA [BJ]

Samples received inside shipping container/cooler/box Yes [BJ] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [BJ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BJ]
3. Cooler temperature: 5.5 °C ICE NA [ ]
4. Vermiculite/packing materials is NA [BJ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [BJ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 3x 500 mLP; 1x 250 mLP; 2x 4 LP; 2x LP
8. Sample holding times exceeded? NA [ ] Yes [ ] No [BJ]
9. Samples have: ____ tape ____ hazard labels [BJ] custody seals [BJ] appropriate sample labels
10. Matrix: ____ A (FLT, Wipe, Solid, Soil) [BJ] I (Water) ____ S (Air, Niosh 7400) ____ T (Biological, Ni-63)
11. Samples:
    [BJ] are in good condition ____ are leaking ____ are broken
    ____ have air bubbles (Only for samples requiring no head space) ____ Other _____
12. Sample pH appropriate for analysis requested Yes [BJ] No [ ] NA [ ]
    (If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [BJ]
14. Description of anomalies (include sample numbers): NA [BJ] _____
15. Sample Location, Sample Collector Listed on COC? * Yes [BJ] No [ ]
    *For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [BJ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: BJohnson Date: 3-15-18

Client Notification needed? Yes [ ] No [SL] Date: _____
By: _____
Person contacted: _____

[SL] No action necessary; process as is

Project Manager Stan Cupp Date 3/16/18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-003-308 Page 1 of 1

Collector:	Juan Aguilar /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	S18-003	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	CERCLA, MARCH 2018	**Logbook No.:**	HNF-N-506 - 98/58	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	CERCLA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HHD7	N	W	3-15-18	1016	1x250-mL P	906.0_TRITIUM_LSC: COMMON NAPFX	6 Months	None
B3HHD7	N	W	3-15-18	1016	1x1-L P	9310_ALPHABETA_GPC: COMMON	6 Months	HNO3 to pH <2

J8C160408
W08031

Relinquished By:	Received By:	Matrix *
Juan Aguilar /CHPRC — MAR 15 2018 1150 (Print First and Last Name / Signature / Date/Time)	Tim Callaway /CHPRC — MAR 15 2018 1150 (Print First and Last Name / Signature / Date/Time)	S = Soil; SE = Sediment; SO = Solid; SL = Sludge; W = Water; O = Oil; A = Air; DS = Drum Solids; DL = Drum Liquid; T = Tissue; WI = Wipe; L = Liquid; V = Vegetation; X = Other
Tim Callaway /CHPRC — MAR 15 2018 1455 (Print First and Last Name / Signature / Date/Time)	Thor R Holm TARL — 3/15/18 1455 (Print First and Last Name / Signature / Date/Time)	
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)	
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 1/25/2018 FSR ID = FSR57360 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-003-318 Page 1 of 1

Collector: MIKE ESPARZA CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: S18-003	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: CERCLA, MARCH 2018	**Logbook No.:** HNF-N-506 99 / 17	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol CERCLA	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HHP3	N	W	MAR 15 2018	0830	1x1-L G/P	SRISO_SEP_PRECIP_GPC: COMMON	6 Months	HNO3 to pH <2
B3HHP3	N	W			1x1-L G/P	NP237_IE_PRECIP_AEA: COMMON; PUISO_IE_PRECIP_AEA: COMMON NAPFO	6 Months	HNO3 to pH <2

J8C160408
W08031

Relinquished By	Received By
Mike Esparza CHPRC — Print First and Last Name / Signature / MAR 15 2018 1130 Date/Time	Received By: Troy Bacon CHPRC — Print First and Last Name / Troy L. Bacon Signature / MAR 15 2018 1130 Date/Time
Relinquished By: Troy Bacon CHPRC — Print First and Last Name / Troy L. Bacon Signature / MAR 15 2018 1230 Date/Time	Received By: Tim Callaway /CHPRC — Print First and Last Name / Signature / MAR 15 2018 1230 Date/Time
Relinquished By: Tim Callaway /CHPRC — Print First and Last Name / Signature / MAR 15 2018 1455 Date/Time	Received By: Tine R Holm TARL — Print First and Last Name / Signature / 3/15/18 1455 Date/Time
Relinquished By: — Print First and Last Name / Signature / Date/Time	Received By: — Print First and Last Name / Signature / Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 2/26/2018 FSR ID = FSR58273 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S18-003-305

Collector:	Ivan Schaeffer /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	S18-003	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	CERCLA, MARCH 2018	**Logbook No.:**	HNF-N-506 - 98/58	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	CERCLA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HHC3	N	W	3-15-18	1232	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3HHC3	N	W	↓	↓	1x1-L P	9310_ALPHABETA_GPC: COMMON	6 Months	HNO3 to pH <2
B3HHC3	N	W	↓	↓	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B3HHC3	N	W	3-15-18	1232	1x1-L G/P	SRISO_SEP_PRECIP_GPC: COMMON NARFI	6 Months	HNO3 to pH <2

J8C160408
W08031

Relinquished By: Ivan Schaeffer /CHPRC — Print First and Last Name; Signature; MAR 15 2018 1325 Date/Time	Received By: Tim Callaway /CHPRC — Print First and Last Name; Signature; MAR 15 2018 1325 Date/Time	Matrix *
Relinquished By: Tim Callaway /CHPRC — Print First and Last Name; Signature; MAR 15 2018 1455 Date/Time	Received By: Tim R Holm TARL — Print First and Last Name; Signature; 3/15/18 1455 Date/Time	S = Soil; SE = Sediment; SO = Solid; SL = Sludge; W = Water; O = Oil; A = Air; DS = Drum Solids; DL = Drum Liquid; T = Tissue; WI = Wipe; L = Liquid; V = Vegetation; X = Other
Relinquished By: — Print First and Last Name; Signature; Date/Time	Received By: — Print First and Last Name; Signature; Date/Time	
Relinquished By: — Print First and Last Name; Signature; Date/Time	Received By: — Print First and Last Name; Signature; Date/Time	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 3/15/18 14:55 Container GM Screen Result: (Airlock) 0 cpm Initials [JH]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [JH]
Container Alpha Screen Result: (Airlock) 0 cpm Initials [JH]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials [JH]

Client: PGW SDG #: W08031 SAF #: 518-003 NA [ ]

Lot Number: J8C160408

Chain of Custody # 518-003-308; 318; 305

Shipping Container ID or Air Bill Number : _____ NA [ ]

Samples received inside shipping container/cooler/box Yes [JH] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [JH]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [JH]
3. Cooler temperature: 4 °C Ice NA [ ]
4. Vermiculite/packing materials is NA [JH] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [JH] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 3
7. Containers received: 2x250mLP; 5x LP; 1x4LP
8. Sample holding times exceeded? NA [ ] Yes [ ] No [JH]
9. Samples have: ____tape ____hazard labels JH custody seals JH appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) JH I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
    JH are in good condition ____are leaking ____are broken
    ____have air bubbles (Only for samples requiring no head space) ____Other _____
12. Sample pH appropriate for analysis requested Yes [JH] No [ ] NA [ ]
    (If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [JH]
14. Description of anomalies (include sample numbers): NA [JH]
15. Sample Location, Sample Collector Listed on COC? * Yes [JH] No [ ]
    *For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [JH] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 3/15/18

Client Notification needed? Yes [ ] No [ ] Date: _____
By: _____
Person contacted: _____

[A] No action necessary; process as is

Project Manager: Ashley Wyatt Date 3-19-18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-055 Page 1 of 1

Collector: Ivan Schaeffer /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I18-006	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: AEA, MARCH 2018	**Logbook No.:** HNF-N-506-98158	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol SURV	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HDH5	N	W	3-15-18	1232	1x4-L G/P	GAMMA_GS: COMMON; GAMMA_GS: GW 01	6 Months	HNO3 to pH <2
B3HDH5	N	W	3-15-18	1232	1x1-L G/P	AMCMISO_EIE_PRECIP_AEA: COMMON; PU241_IE_LSC: COMMON; PUISO_IE_PRECIP_AEA: COMMON; UISO_PLATE_AEA: COMMON	180 Days	HNO3 to pH <2
B3HDH5	N	W	3-15-18	1232	1x500-mL G/P	SE79_SEP_IE_LSC: COMMON NA PFL	6 Months	HNO3 to pH <2

J8C160409
W08031

Relinquished By: Ivan Schaeffer /CHPRC — Print First and Last Name; Signature; MAR 15 2018 1325 Date/Time	Received By: Tim Callaway /CHPRC — Print First and Last Name; Signature; MAR 15 2018 1325 Date/Time	Matrix *	
Relinquished By: Tim Callaway /CHPRC — Print First and Last Name; Signature; MAR 15 2018 1455 Date/Time	Received By: B.Jorgenson, TARL — Print First and Last Name; Signature; 3-15-18 1455 Date/Time	S = Soil; SE = Sediment; SO = Solid; SL = Sludge; W = Water; O = Oil; A = Air	DS = Drum Solids; DL = Drum Liquid; T = Tissue; WI = Wipe; L = Liquid; V = Vegetation; X = Other
Relinquished By: ~~Tim Callaway~~ /CHPRC — Print First and Last Name; Signature; ~~MAR 15 2018~~ 3/15/18 Date/Time	Received By: Print First and Last Name; Signature; Date/Time		
Relinquished By: Print First and Last Name; Signature; Date/Time	Received By: Print First and Last Name; Signature; Date/Time		

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 2/6/2018 FSR ID = FSR57422 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I18-006-056

Collector:	Ivan Schaeffer /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	I18-006	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	AEA, MARCH 2018	**Logbook No.:**	HNF-N-506-98/58	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	SURV	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HDH6	N	W	3-15-18	1232	1x500-mL G/P	C14_LSC: COMMON NAPF3	6 Months	None

J8C160409
WC8031

Relinquished By:	Received By:
Ivan Schaeffer /CHPRC — Print First and Last Name; Signature; MAR 15 2018 1325 Date/Time	Tim Calloway /CHPRC — Print First and Last Name; Signature; MAR 15 2018 1325 Date/Time
Tim Calloway /CHPRC — Print First and Last Name; Signature; MAR 15 2018 1455 Date/Time	Tina R Holm TARL — Print First and Last Name; Signature; 3/15/18 1455 Date/Time
Print First and Last Name; Signature; Date/Time	Print First and Last Name; Signature; Date/Time
Relinquished By: Print First and Last Name; Signature; Date/Time	Received By: Print First and Last Name; Signature; Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WI = Wipe
W = Water	L = Liquid
O = Oil	V = Vegetation
A = Air	X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

Printed On 2/6/2018 FSR ID = FSR57422 A-6004-842 (REV 3)

4/18/2018

REV.0

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 3/15/18 14:55 Container GM Screen Result: (Airlock) 0 cpm Initials [JH]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [JH]
Container Alpha Screen Result: (Airlock) 0 cpm Initials [JH]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials [JH]

Client: PGW SDG #: W08031 SAF #: 118-006 NA [ ]

Lot Number: JBC160409

Chain of Custody # 118-006-055; 056

Shipping Container ID or Air Bill Number : _____ NA [ ]

Samples received inside shipping container/cooler/box Yes [JH] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [JH]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [JH]
3. Cooler temperature: 4 °C Ice NA [ ]
4. Vermiculite/packing materials is NA [JH] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [JH] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 2x 500mLP; 1xLP; 1x4LP
8. Sample holding times exceeded? NA [ ] Yes [ ] No [JH]
9. Samples have: ____ tape ____ hazard labels JH custody seals JH appropriate sample labels
10. Matrix: ____ A (FLT, Wipe, Solid, Soil) JH I (Water) ____ S (Air, Niosh 7400) ____ T (Biological, Ni-63)
11. Samples:
    JH are in good condition ____ are leaking ____ are broken
    ____ have air bubbles (Only for samples requiring no head space) ____ Other ____
12. Sample pH appropriate for analysis requested Yes [JH] No [ ] NA [ ]
    (If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [JH]
14. Description of anomalies (include sample numbers): NA [JH]
15. Sample Location, Sample Collector Listed on COC? * Yes [JH] No [ ]
    *For documentation only. No corrective action needed.
16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [JH] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 3/15/18

Client Notification needed? Yes [ ] No [ ] Date: _____
By: _____
Person contacted: _____

[X] No action necessary; process as is

Project Manager _____ Date 3-19-18

Sample Results Summary

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Date: 18-Apr-18

Report No. : 72621

SDG No: W08031

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)		Qual	Units	Tracer Yield	MDL	CRDL	RPD
8078042 SRISO_SEP_PRECIP_GPC										
B3HDJ0										
	NAPDJ1AJ	STRONTIUM	9.96E-02	+- 6.1E-01	U	pCi/L	90%	1.09E+00	2.00E+00	
B3HHC3										
	NAPF11AF	STRONTIUM	8.08E-01	+- 7.4E-01	U	pCi/L	95%	1.13E+00	2.00E+00	
B3HHP3										
	NAPF01AD	STRONTIUM	-1.90E-01	+- 5.5E-01	U	pCi/L	92%	1.06E+00	2.00E+00	
B3HJ02										
	NAPC51AA	STRONTIUM	-1.06E-01	+- 6.4E-01	U	pCi/L	91%	1.19E+00	2.00E+00	
B3HJ02 DUP										
	NAPC51AC	STRONTIUM	-1.89E-01	+- 5.9E-01	U	pCi/L	93%	1.12E+00	2.00E+00	-56.5
8078054 NP237_LLE_PLATE_AEA										
B3HHP3										
	NAPF01AA	NP-237	-8.43E-03	+- 1.4E-01	U	pCi/L	89%	2.93E-01	1.00E+00	
B3HHP3 DUP										
	NAPF01AE	NP-237	0.00E+00	+- 1.8E-01	U	pCi/L	86%	3.37E-01	1.00E+00	-200.0
8078031 PUISO_PLATE_AEA										
B3HDF3										
	NAPC91AF	PU-238	-8.32E-03	+- 1.7E-01	U	pCi/L	79%	3.51E-01	1.00E+00	
		PU239/40	-4.16E-02	+- 1.8E-01	U	pCi/L	79%	4.62E-01	1.00E+00	
B3HDF3 DUP										
	NAPC91AK	PU-238	-2.34E-02	+- 1.6E-01	U	pCi/L	84%	3.90E-01	1.00E+00	-95.0
		PU239/40	-1.95E-02	+- 1.6E-01	U	pCi/L	84%	3.77E-01	1.00E+00	-72.4
B3HDH5										
	NAPF21AE	PU-238	-1.16E-02	+- 1.6E-01	U	pCi/L	86%	3.46E-01	1.00E+00	
		PU239/40	-3.88E-03	+- 1.6E-01	U	pCi/L	86%	3.02E-01	1.00E+00	
B3HDJ0										
	NAPDJ1AG	PU-238	-1.22E-02	+- 1.3E-01	U	pCi/L	91%	2.83E-01	1.00E+00	
		PU239/40	-3.55E-03	+- 1.3E-01	U	pCi/L	91%	4.09E-01	1.00E+00	
B3HHP3										
	NAPF01AC	PU-238	-4.11E-02	+- 1.2E-01	U	pCi/L	96%	3.52E-01	1.00E+00	
		PU239/40	-3.52E-02	+- 1.2E-01	U	pCi/L	96%	3.39E-01	1.00E+00	
8078047 UISO_PLATE_AEA										
B3HDF3										
	NAPC91AJ	U-234	2.89E+00	+- 1.0E+00		pCi/L	91%	2.79E-01	1.00E+00	
		U-235	0.00E+00	+- 1.4E-01	U	pCi/L	91%	2.59E-01	1.00E+00	
		U-238	2.12E+00	+- 8.6E-01		pCi/L	91%	2.59E-01	1.00E+00	
B3HDH5										
	NAPF21AG	U-234	1.27E+00	+- 6.8E-01		pCi/L	84%	2.92E-01	1.00E+00	

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

Sample Results Summary

Date: 18-Apr-18

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 72621 **SDG No:** W08031

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)		Qual	Units	Tracer Yield	MDL	CRDL	RPD
8078047 UISO_PLATE_AEA										
B3HDH5										
	NAPF21AG	U-235	-3.19E-03	+- 1.6E-01	U	pCi/L	84%	2.92E-01	1.00E+00	
		U-238	9.56E-01	+- 5.8E-01		pCi/L	84%	2.92E-01	1.00E+00	
B3HDJ0										
	NAPDJ2AL	U-234	1.54E+00	+- 6.7E-01		pCi/L	94%	2.44E-01	1.00E+00	
		U-235	5.68E-02	+- 1.2E-01	U	pCi/L	94%	2.44E-01	1.00E+00	
		U-238	1.17E+00	+- 5.7E-01		pCi/L	94%	2.27E-01	1.00E+00	
B3HDJ0 DUP										
	NAPDJ2AM	U-234	1.60E+00	+- 7.0E-01		pCi/L	92%	3.17E-01	1.00E+00	3.7
		U-235	-5.18E-03	+- 1.3E-01	U	pCi/L	92%	2.56E-01	1.00E+00	240.1
		U-238	1.09E+00	+- 5.7E-01		pCi/L	92%	3.01E-01	1.00E+00	7.7
8078048 AMCMISO_EIE_PLT_AEA										
B3HDF3										
	NAPC91AC	AMERICIUM 241	-1.13E-02	+- 1.4E-01	U	pCi/L	99%	3.05E-01	1.00E+00	
B3HDF3 DUP										
	NAPC92AN	AMERICIUM 241	1.39E-01	+- 2.4E-01	U	pCi/L	103%	4.04E-01	1.00E+00	235.4
B3HDH5										
	NAPF21AC	AMERICIUM 241	1.29E-01	+- 1.9E-01	U	pCi/L	100%	2.85E-01	1.00E+00	
B3HDJ0										
	NAPDJ1AD	AMERICIUM 241	-2.15E-02	+- 1.8E-01	U	pCi/L	93%	4.15E-01	1.00E+00	
8078051 GAMMA_GS										
B3HDD7										
	NAPC81AA	CO-60	2.45E+00	+- 4.8E+00	U	pCi/L		5.29E+00	2.50E+01	
		CS-134	-2.68E-01	+- 6.5E+00	U	pCi/L		6.01E+00	8.00E+01	
		CS-137	3.23E+00	+- 5.0E+00	U	pCi/L		5.63E+00	1.50E+01	
		EU-152	3.53E+00	+- 1.3E+01	U	pCi/L		1.17E+01	5.00E+01	
		EU-154	4.19E+00	+- 1.6E+01	U	pCi/L		8.03E+00	5.00E+01	
		EU-155	-3.47E+00	+- 1.2E+01	U	pCi/L		1.43E+01	5.00E+01	
		K-40	-3.77E+01	+- 5.3E+01	U	pCi/L		9.62E+01		
		SB-125	-2.89E+00	+- 1.3E+01	U	pCi/L		1.34E+01	5.00E+01	
B3HDD8										
	NAPC71AA	CO-60	-2.72E+00	+- 5.5E+00	U	pCi/L		3.91E+00	2.50E+01	
		CS-134	1.03E+00	+- 3.8E+00	U	pCi/L		3.34E+00	8.00E+01	
		CS-137	9.43E-02	+- 3.0E+00	U	pCi/L		3.17E+00	1.50E+01	
		EU-152	-4.49E+00	+- 6.1E+00	U	pCi/L		3.88E+00	5.00E+01	
		EU-154	-5.17E+00	+- 1.5E+01	U	pCi/L		2.45E+00	5.00E+01	
		EU-155	-1.20E+00	+- 2.3E+00	U	pCi/L		3.06E+00	5.00E+01	
		K-40	2.69E+01	+- 4.4E+01	U	pCi/L		4.90E+01		

TestAmerica Inc

rptTALRchSaSummary2 V5.8.5 A2002

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

Sample Results Summary

Date: 18-Apr-18

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 72621 **SDG No:** W08031

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)		Qual	Units	Tracer Yield	MDL	CRDL	RPD
8078051 GAMMA_GS										
B3HDD8										
	NAPC71AA	SB-125	5.75E+00	+- 5.6E+00	U	pCi/L		7.86E+00	5.00E+01	
B3HDD8 DUP										
	NAPC71AE	CO-60	1.93E+00	+- 4.7E+00	U	pCi/L		4.99E+00	2.50E+01	-1167.3
		CS-134	-9.33E-01	+- 3.7E+00	U	pCi/L		3.75E+00	8.00E+01	3980.7
		CS-137	-9.52E-01	+- 4.0E+00	U	pCi/L		4.11E+00	1.50E+01	-244.0
		EU-152	2.84E+00	+- 7.5E+00	U	pCi/L		6.41E+00	5.00E+01	-890.7
		EU-154	8.43E-01	+- 1.2E+01	U	pCi/L		4.56E+00	5.00E+01	-278.0
		EU-155	-6.25E-01	+- 6.5E+00	U	pCi/L		8.29E+00	5.00E+01	-62.7
		K-40	6.16E+00	+- 3.5E+01	U	pCi/L		6.19E+01		125.5
		SB-125	5.66E-01	+- 8.2E+00	U	pCi/L		9.76E+00	5.00E+01	164.2
B3HDF3										
	NAPC91AD	CO-60	1.48E+00	+- 2.1E+00	U	pCi/L		3.02E+00	2.50E+01	
		CS-134	4.55E-01	+- 2.9E+00	U	pCi/L		3.06E+00	8.00E+01	
		CS-137	-1.40E+00	+- 3.0E+00	U	pCi/L		2.99E+00	1.50E+01	
		EU-152	-2.95E+00	+- 5.9E+00	U	pCi/L		3.63E+00	5.00E+01	
		EU-154	-1.89E+00	+- 1.1E+01	U	pCi/L		2.11E+00	5.00E+01	
		EU-155	-1.92E-01	+- 2.0E+00	U	pCi/L		2.86E+00	5.00E+01	
		K-40	-5.47E+00	+- 1.7E+01	U	pCi/L		3.43E+01		
		SB-125	-3.11E+00	+- 6.2E+00	U	pCi/L		6.78E+00	5.00E+01	
B3HDH5										
	NAPF21AD	CO-60	-2.41E+00	+- 4.8E+00	U	pCi/L		3.76E+00	2.50E+01	
		CS-134	-3.51E-01	+- 4.3E+00	U	pCi/L		3.45E+00	8.00E+01	
		CS-137	1.83E-01	+- 2.9E+00	U	pCi/L		3.34E+00	1.50E+01	
		EU-152	-3.28E+00	+- 6.8E+00	U	pCi/L		4.60E+00	5.00E+01	
		EU-154	-8.86E+00	+- 1.5E+01	U	pCi/L		2.80E+00	5.00E+01	
		EU-155	-7.57E-01	+- 2.6E+00	U	pCi/L		2.56E+00	5.00E+01	
		K-40	1.98E-01	+- 2.7E+01	U	pCi/L		4.92E+01		
		SB-125	-8.79E+00	+- 8.1E+00	U	pCi/L		7.84E+00	5.00E+01	
B3HDJ0										
	NAPDJ1AE	CO-60	2.29E+00	+- 3.1E+00	U	pCi/L		4.03E+00	2.50E+01	
		CS-134	5.68E-01	+- 3.7E+00	U	pCi/L		3.52E+00	8.00E+01	
		CS-137	1.85E+00	+- 2.2E+00	U	pCi/L		3.08E+00	1.50E+01	
		EU-152	-1.29E+00	+- 5.9E+00	U	pCi/L		3.88E+00	5.00E+01	
		EU-154	-7.83E+00	+- 1.4E+01	U	pCi/L		2.45E+00	5.00E+01	
		EU-155	-4.95E-01	+- 2.3E+00	U	pCi/L		3.38E+00	5.00E+01	
		K-40	-5.96E+00	+- 2.1E+01	U	pCi/L		4.03E+01		
		SB-125	-3.21E-01	+- 6.3E+00	U	pCi/L		7.48E+00	5.00E+01	

TestAmerica Inc

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RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

Sample Results Summary

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Date: 18-Apr-18

Report No. : 72621

SDG No: W08031

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
8078051 GAMMA_GS									
8078053 I129LL_SEP_LEPS_GS									
B3HDF3									
	NAPC91AE	I129	7.18E-01 +- 4.7E-01	U	pCi/L	80%	9.77E-01	1.00E+00	
B3HDF3 DUP									
	NAPC91AP	I129	1.21E+00 +- 5.9E-01		pCi/L	71%	6.75E-01	1.00E+00	51.0
B3HDJ0									
	NAPDJ1AF	I129	7.10E+00 +- 1.3E+00		pCi/L	69%	9.37E-01	1.00E+00	
B3HHC3									
	NAPF11AE	I129	6.28E+00 +- 1.4E+00		pCi/L	76%	8.68E-01	1.00E+00	
B3HHX2									
	NAPDF1AC	I129	1.02E+00 +- 6.8E-01		pCi/L	76%	9.15E-01	1.00E+00	
8078045 9310_ALPHABETA_GPC									
B3HJ42									
	NAPC31AC	Alpha	2.95E+00 +- 1.4E+00		pCi/L	100%	1.62E+00	3.00E+00	
B3HJ42 DUP									
	NAPC31AE	Alpha	2.45E+00 +- 1.3E+00		pCi/L	100%	1.67E+00	3.00E+00	18.6
B3HK86									
	NAPDG1AD	Alpha	3.67E+00 +- 1.6E+00		pCi/L	100%	1.45E+00	3.00E+00	
8078049 9310_ALPHABETA_GPC									
B3HF98									
	NAPC61AA	Beta	4.69E+00 +- 1.3E+00		pCi/L	100%	1.51E+00	4.00E+00	
B3HF99									
	NAPC41AA	Beta	6.96E+02 +- 8.9E+01		pCi/L	100%	1.91E+00	4.00E+00	
B3HHC3									
	NAPF11AD	Beta	5.32E+02 +- 6.9E+01		pCi/L	100%	1.91E+00	4.00E+00	
B3HHD7									
	NAPFX1AD	Beta	4.76E+02 +- 5.9E+01		pCi/L	100%	1.93E+00	4.00E+00	
B3HJ42									
	NAPC31AD	Beta	3.51E+01 +- 4.8E+00		pCi/L	100%	1.73E+00	4.00E+00	
B3HJ42 DUP									
	NAPC31AF	Beta	3.84E+01 +- 5.4E+00		pCi/L	100%	1.81E+00	4.00E+00	8.8
B3HK86									
	NAPDG1AE	Beta	2.24E+02 +- 2.8E+01		pCi/L	100%	1.70E+00	4.00E+00	
8084058 9310_ALPHABETA_GPC									
B3HHC3									
	NAPF12AC	Alpha	-1.28E-01 +- 1.3E+00	U	pCi/L	100%	2.45E+00	3.00E+00	
B3HHD7									
	NAPFX2AC	Alpha	1.29E+00 +- 1.7E+00	U	pCi/L	100%	2.82E+00	3.00E+00	
8096010 RL-RA-001									

TestAmerica Inc

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RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

Sample Results Summary

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Date: 18-Apr-18

Report No. : 72621

SDG No: W08031

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
8096010 RL-RA-001									
B3HK86									
	NAPDG2AC	Ra-228	3.06E-01 +- 2.2E-01	U	pCi/L	80%	3.60E-01	1.00E+00	
B3HK86 DUP									
	NAPDG2AF	Ra-228	2.92E-01 +- 2.5E-01	U	pCi/L	80%	4.11E-01	1.00E+00	4.7
8078032 PU241_IE_LSC									
B3HDF3									
	NAPC91AA	Pu-241	-1.56E+00 +- 6.9E+00	U	pCi/L	79%	1.36E+01	2.50E+01	
B3HDF3 DUP									
	NAPC91AL	Pu-241	3.94E+00 +- 6.6E+00	U	pCi/L	84%	1.27E+01	2.50E+01	461.9
B3HDH5									
	NAPF21AA	Pu-241	-3.18E+00 +- 6.3E+00	U	pCi/L	86%	1.25E+01	2.50E+01	
B3HDJ0									
	NAPDJ1AA	Pu-241	-3.29E+00 +- 5.9E+00	U	pCi/L	91%	1.18E+01	2.50E+01	
8078038 SE79_SEP_IE_LSC									
B3HDD7									
	NAPC81AC	Se-79	2.51E+00 +- 4.8E+00	U	pCi/L	80%	1.02E+01	5.00E+01	
B3HDD8									
	NAPC71AC	Se-79	1.81E+01 +- 5.9E+00		pCi/L	74%	1.11E+01	5.00E+01	
B3HDD8 DUP									
	NAPC71AD	Se-79	1.99E+01 +- 5.5E+00		pCi/L	82%	1.00E+01	5.00E+01	9.8
B3HDF3									
	NAPC91AG	Se-79	3.45E+00 +- 4.6E+00	U	pCi/L	83%	9.75E+00	5.00E+01	
B3HDH5									
	NAPF21AF	Se-79	1.49E+01 +- 5.0E+00		pCi/L	85%	9.57E+00	5.00E+01	
B3HDJ0									
	NAPDJ1AH	Se-79	1.17E+01 +- 6.4E+00	U	pCi/L	63%	1.29E+01	5.00E+01	
8078050 C14_LSC									
B3HDC1									
	NAPDH1AA	C-14	6.81E+00 +- 9.0E+00	U	pCi/L	100%	1.77E+01	5.00E+01	
B3HDD9									
	NAPDA1AA	C-14	6.72E-01 +- 8.8E+00	U	pCi/L	100%	1.77E+01	5.00E+01	
B3HDD9 DUP									
	NAPDA1AC	C-14	-6.72E+00 +- 8.5E+00	U	pCi/L	100%	1.79E+01	5.00E+01	-244.4
B3HDF0									
	NAPDD1AA	C-14	1.96E+00 +- 8.8E+00	U	pCi/L	100%	1.78E+01	5.00E+01	
B3HDF4									
	NAPDE1AA	C-14	1.89E+00 +- 8.8E+00	U	pCi/L	100%	1.78E+01	5.00E+01	
B3HDH6									
	NAPF31AA	C-14	-1.02E+00 +- 8.7E+00	U	pCi/L	100%	1.77E+01	5.00E+01	

TestAmerica Inc

rptTALRchSaSummary2 V5.8.5 A2002

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

Sample Results Summary

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Date: 18-Apr-18

Report No. : 72621

SDG No: W08031

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
8078050 C14_LSC									
8101011 TC99_ETVDSK_LSC									
B3HDF3									
	NAPC94AH	TC-99	1.53E+02 +- 1.1E+01		pCi/L	100%	1.24E+01	5.00E+01	
B3HDF3 DUP									
	NAPC92AQ	TC-99	1.32E+02 +- 9.9E+00		pCi/L	100%	1.15E+01	1.50E+01	14.8
B3HDJ0									
	NAPDJ4AK	TC-99	1.69E+03 +- 5.2E+01		pCi/L	100%	1.17E+01	5.00E+01	
B3HF98									
	NAPC64AC	TC-99	1.31E+00 +- 5.4E+00	U	pCi/L	100%	1.16E+01	5.00E+01	
B3HF99									
	NAPC44AC	TC-99	3.43E+03 +- 9.6E+01		pCi/L	100%	1.15E+01	5.00E+01	
8102010 906.0_H3_LSC									
B3HDJ0									
	NAPDJ2AC	H-3	1.29E+03 +- 2.8E+02	N	pCi/L	100%	4.62E+02	4.00E+02	
B3HHC3									
	NAPF12AA	H-3	1.39E+03 +- 2.9E+02	N	pCi/L	100%	4.61E+02	7.00E+02	
B3HHD7									
	NAPFX2AA	H-3	2.17E+03 +- 3.3E+02	N	pCi/L	100%	4.62E+02	7.00E+02	
B3HHX2									
	NAPDF2AA	H-3	9.69E+04 +- 3.9E+03	N	pCi/L	100%	4.58E+02	7.00E+02	
B3HJ42									
	NAPC32AA	H-3	1.81E+04 +- 9.8E+02	N	pCi/L	100%	4.62E+02	7.00E+02	
B3HJ42 DUP									
	NAPC32AG	H-3	1.80E+04 +- 9.7E+02	N	pCi/L	100%	4.60E+02	7.00E+02	1.1
8078036 903.1_RA226_LUC									
B3HK86									
	NAPDG1AA	Ra-226	1.80E-01 +- 2.6E-01	U	pCi/L	80%	4.36E-01	1.00E+00	
B3HK86 DUP									
	NAPDG1AG	Ra-226	2.42E-01 +- 2.2E-01	U	pCi/L	90%	3.38E-01	1.00E+00	29.2

No. of Results: 129

RPD - Relative Percent Difference.

N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

QC Results Summary
TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Date: 18-Apr-18

Report No. : 72621 **SDG No.:** W08031

Batch Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
SRISO_SEP_PRECIP_GPC								
8078042 BLANK QC,								
NAPHE1AA	STRONTIUM	-5.77E-02 +- 6.1E-01	U	pCi/L	90%			1.13E+00
8078042 LCS,								
NAPHE1AC	STRONTIUM	1.38E+01 +- 3.5E+00		pCi/L	98%	104%	0.0	1.02E+00
NP237_LLE_PLATE_AEA								
8078054 BLANK QC,								
NAPHT1AA	NP-237	-7.39E-03 +- 1.9E-01	U	pCi/L	80%			3.65E-01
8078054 LCS,								
NAPHT1AC	NP-237	9.06E+00 +- 2.8E+00		pCi/L	82%	101%	0.0	3.12E-01
PUISO_PLATE_AEA								
8078031 BLANK QC,								
NAPG21AA	PU-238	6.57E-02 +- 1.5E-01	U	pCi/L	94%			2.94E-01
	PU239/40	-3.49E-02 +- 1.5E-01	U	pCi/L	94%			3.87E-01
8078031 LCS,								
NAPG22AC	PU239/40	5.02E+00 +- 1.4E+00		pCi/L	112%	112%	0.1	3.64E-01
UISO_PLATE_AEA								
8078047 BLANK QC,								
NAPHK1AA	U-234	-5.28E-03 +- 1.3E-01	U	pCi/L	100%			2.61E-01
	U-235	0.00E+00 +- 1.3E-01	U	pCi/L	100%			2.42E-01
	U-238	0.00E+00 +- 1.3E-01	U	pCi/L	100%			2.42E-01
8078047 LCS,								
NAPHK1AC	U-234	1.56E+01 +- 3.4E+00		pCi/L	103%	97%	0.0	2.45E-01
	U-238	1.74E+01 +- 3.7E+00		pCi/L	103%	103%	0.0	2.45E-01
AMCMISO_EIE_PLT_AEA								
8078048 BLANK QC,								
NAPHL1AA	AMERICIUM 241	3.66E-02 +- 1.4E-01	U	pCi/L	102%			3.75E-01
8078048 LCS,								
NAPHL2AC	AMERICIUM 241	2.41E+01 +- 5.2E+00		pCi/L	99%	107%	0.1	3.74E-01
GAMMA_GS								
8078051 BLANK QC,								
NAPHP1AA	CO-60	-3.59E+00 +- 6.2E+00	U	pCi/L				4.84E+00
	CS-134	3.07E+00 +- 4.8E+00	U	pCi/L				4.25E+00
	CS-137	-7.40E-01 +- 3.7E+00	U	pCi/L				3.88E+00
	EU-152	4.79E+00 +- 9.0E+00	U	pCi/L				7.63E+00
	EU-154	5.28E-01 +- 1.5E+01	U	pCi/L				5.28E+00
	EU-155	5.71E+00 +- 6.5E+00	U	pCi/L				9.89E+00
	K-40	-3.92E+01 +- 3.5E+01	U	pCi/L				6.72E+01
	SB-125	-6.98E+00 +- 9.9E+00	U	pCi/L				1.01E+01
8078051 LCS,								
NAPHP2AC	CO-60	3.83E+01 +- 4.3E+00		pCi/L		104%	0.0	4.80E+00
	CS-137	4.82E+01 +- 7.2E+00		pCi/L		98%	0.0	3.28E+00

TestAmerica Inc **Bias** - (Result/Expected)-1 as defined by ANSI N13.30.

rptSTLRchQcSummary V5.8.5 A2002 **U Qual** - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

QC Results Summary
TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Date: 18-Apr-18

Report No. : 72621 **SDG No.:** W08031

Batch Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
NAPHP2AC	EU-152	8.27E+01 +- 7.4E+00		pCi/L		109%	0.1	5.65E+00
I129LL_SEP_LEPS_GS								
8078053 BLANK QC,								
NAPHR1AA	I129	1.88E-01 +- 2.1E-01	U	pCi/L	71%			6.25E-01
8078053 LCS,								
NAPHR2AC	I129	2.26E+01 +- 3.2E+00		pCi/L	75%	119%	0.2	1.32E+00
9310_ALPHABETA_GPC								
8078045 BLANK QC,								
NAPHH1AA	Alpha	-9.73E-02 +- 4.2E-01	U	pCi/L	100%			7.98E-01
8078045 LCS,								
NAPHH1AC	Alpha	1.95E+01 +- 5.1E+00		pCi/L	100%	86%	-0.1	6.87E-01
9310_ALPHABETA_GPC								
8078049 BLANK QC,								
NAPHM1AA	Beta	1.21E+00 +- 9.5E-01	U	pCi/L	100%			1.51E+00
8078049 LCS,								
NAPHM1AC	Beta	2.47E+01 +- 3.8E+00		pCi/L	100%	110%	0.1	1.58E+00
9310_ALPHABETA_GPC								
8084058 BLANK QC,								
NAPTA1AA	Alpha	-5.45E-02 +- 4.0E-01	U	pCi/L	100%			7.67E-01
8084058 LCS,								
NAPTA1AC	Alpha	2.29E+01 +- 6.1E+00		pCi/L	100%	102%	0.0	6.77E-01
RL-RA-001								
8096010 BLANK QC,								
NAPG52AA	Ra-228	5.19E-01 +- 3.0E-01		pCi/L	85%			4.67E-01
8096010 LCS,								
NAPG52AC	Ra-228	8.54E+00 +- 1.0E+00		pCi/L	91%	87%	-0.1	3.94E-01
PU241_IE_LSC								
8078032 BLANK QC,								
NAPG31AA	Pu-241	-1.66E-01 +- 5.9E+00	U	pCi/L	94%			1.15E+01
8078032 LCS,								
NAPG31AC	Pu-241	9.31E+02 +- 5.8E+01		pCi/L	100%	82%	-0.2	1.07E+01
SE79_SEP_IE_LSC								
8078038 BLANK QC,								
NAPG91AA	Se-79	3.75E+00 +- 5.3E+00	U	pCi/L	74%			1.10E+01
C14_LSC								
8078050 MATRIX SPIKE, B3HDF0								
NAPDD1AC	C-14	4.63E+02 +- 3.3E+01		pCi/L	100%	96%	0.0	1.78E+01
8078050 BLANK QC,								
NAPHN1AA	C-14	4.28E+00 +- 8.9E+00	U	pCi/L	100%			1.77E+01
8078050 LCS,								
NAPHN1AC	C-14	4.75E+02 +- 3.2E+01		pCi/L	100%	99%	0.0	1.77E+01
TC99_ETVDSK_LSC								
8101011 MATRIX SPIKE, B3HDJ0								

TestAmerica Inc **Bias** - (Result/Expected)-1 as defined by ANSI N13.30.

rptSTLRchQcSummary V5.8.5 A2002 **U Qual** - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

QC Results Summary
TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Date: 18-Apr-18

Report No. : 72621

SDG No.: W08031

Batch Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
NAPDJ2AN	TC-99	4.47E+02 +- 8.1E+01		pCi/L	100%	83%	-0.2	1.16E+01
8101011 BLANK QC,								
NAPHJ4AA	TC-99	-3.45E-01 +- 5.2E+00	U	pCi/L	100%			1.15E+01
8101011 LCS,								
NAPHJ4AC	TC-99	9.60E+01 +- 8.8E+00		pCi/L	100%	89%	-0.1	1.18E+01
906.0_H3_LSC								
8102010 MATRIX SPIKE, B3HHX2								
NAPDF2AD	H-3	4.95E+01 +- 5.6E+03	U N	pCi/L	100%	3%	-1.0	5.40E+02
8102010 BLANK QC,								
NAPHQ2AA	H-3	9.74E+01 +- 2.2E+02	U	pCi/L	100%			4.61E+02
8102010 LCS,								
NAPHQ2AC	H-3	2.73E+03 +- 3.5E+02		pCi/L	100%	99%	0.0	4.62E+02
903.1_RA226_LUC								
8078036 BLANK QC,								
NAPG71AA	Ra-226	5.53E-02 +- 1.8E-01	U	pCi/L	83%			3.26E-01
8078036 LCS,								
NAPG71AC	Ra-226	9.10E+00 +- 2.0E+00		pCi/L	92%	91%	-0.1	4.80E-01

No. of Results: 49

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 9:01:00 AM
Lot-Sample No.:	**J8C150411-1**	**Report No. :**	72621	**Received Date:**	3/15/2018 10:55:00 AM
Client Sample ID:	**B3HDC1**	**COC No. :**	I18-006-059	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078050	C14_LSC			**Work Order:**	NAPDH1AA		**Report DB ID:**	9NAPDH10				
C-14	**6.81E+00**	U	7.6E+00	9.0E+00	1.77E+01	pCi/L	100%	*0.38*	4/13/18 12:55 a		0.075	LSC4
						8.51E+00	5.00E+01	*(1.5)*			L	

No. of Results: 1 **Comments:**

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MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 7:40:00 AM
Lot-Sample No.:	**J8C150408-2**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDD7**	**COC No. :**	I18-006-065	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078038	SE79_SEP_IE_LSC			**Work Order:**	NAPC81AC		**Report DB ID:**	9NAPC810				
Se-79	**2.51E+00**	U	4.2E+00	4.8E+00	1.02E+01	pCi/L	80%	*0.25*	4/3/18 11:03 a		0.20081	LSC4
						4.83E+00	5.00E+01	*(1.)*			L	
Batch: 8078051	GAMMA_GS			**Work Order:**	NAPC81AA		**Report DB ID:**	9NAPC810				
CO-60	**2.45E+00**	U	4.8E+00	4.8E+00	5.29E+00	pCi/L		*0.46*	4/2/18 08:58 a		2.00135	$GER12
						2.37E+00	2.50E+01	*(1.)*			L	
CS-134	**-2.68E-01**	U	6.5E+00	6.5E+00	6.01E+00	pCi/L		*-0.04*	4/2/18 08:58 a		2.00135	$GER12
						2.78E+00	8.00E+01	*-0.08*			L	
CS-137	**3.23E+00**	U	5.0E+00	5.0E+00	5.63E+00	pCi/L		*0.57*	4/2/18 08:58 a		2.00135	$GER12
						2.59E+00	1.50E+01	*(1.3)*			L	
EU-152	**3.53E+00**	U	1.3E+01	1.3E+01	1.17E+01	pCi/L		*0.3*	4/2/18 08:58 a		2.00135	$GER12
						5.34E+00	5.00E+01	*0.55*			L	
EU-154	**4.19E+00**	U	1.6E+01	1.6E+01	8.03E+00	pCi/L		*0.52*	4/2/18 08:58 a		2.00135	$GER12
						3.66E+00	5.00E+01	*0.52*			L	
EU-155	**-3.47E+00**	U	1.2E+01	1.2E+01	1.43E+01	pCi/L		*-0.24*	4/2/18 08:58 a		2.00135	$GER12
						6.50E+00	5.00E+01	*-0.59*			L	
K-40	**-3.77E+01**	U	5.3E+01	5.3E+01	9.62E+01	pCi/L		*-0.39*	4/2/18 08:58 a		2.00135	$GER12
						4.48E+01		*-(1.4)*			L	
SB-125	**-2.89E+00**	U	1.3E+01	1.3E+01	1.34E+01	pCi/L		*-0.22*	4/2/18 08:58 a		2.00135	$GER12
						6.16E+00	5.00E+01	*-0.46*			L	

No. of Results: 9 **Comments:**

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MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 9:13:00 AM
Lot-Sample No.:	**J8C150408-1**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDD8**	**COC No. :**	I18-006-067	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078038	SE79_SEP_IE_LSC			**Work Order:**	NAPC71AC		**Report DB ID:**	9NAPC710				
Se-79	**1.81E+01**		5.2E+00	5.9E+00	1.11E+01	pCi/L	74%	*(1.6)*	4/3/18 09:32 a		0.20019	LSC4
						5.26E+00	5.00E+01	*(6.1)*			L	
Batch: 8078051	GAMMA_GS			**Work Order:**	NAPC71AA		**Report DB ID:**	9NAPC710				
CO-60	**-2.72E+00**	U	5.5E+00	5.5E+00	3.91E+00	pCi/L		*-0.7*	4/2/18 08:57 a		2.00094	$GER16
						1.70E+00	2.50E+01	*-0.98*			L	
CS-134	**1.03E+00**	U	3.8E+00	3.8E+00	3.34E+00	pCi/L		*0.31*	4/2/18 08:57 a		2.00094	$GER16
						1.50E+00	8.00E+01	*0.54*			L	
CS-137	**9.43E-02**	U	3.0E+00	3.0E+00	3.17E+00	pCi/L		*0.03*	4/2/18 08:57 a		2.00094	$GER16
						1.42E+00	1.50E+01	*0.06*			L	
EU-152	**-4.49E+00**	U	6.1E+00	6.1E+00	3.88E+00	pCi/L		*-(1.2)*	4/2/18 08:57 a		2.00094	$GER16
						1.73E+00	5.00E+01	*-(1.5)*			L	
EU-154	**-5.17E+00**	U	1.5E+01	1.5E+01	2.45E+00	pCi/L		*-(2.1)*	4/2/18 08:57 a		2.00094	$GER16
						1.10E+00	5.00E+01	*-0.69*			L	
EU-155	**-1.20E+00**	U	2.3E+00	2.3E+00	3.06E+00	pCi/L		*-0.39*	4/2/18 08:57 a		2.00094	$GER16
						1.38E+00	5.00E+01	*-(1.)*			L	
K-40	**2.69E+01**	U	4.4E+01	4.4E+01	4.90E+01	pCi/L		*0.55*	4/2/18 08:57 a		2.00094	$GER16
						2.20E+01		*(1.2)*			L	
SB-125	**5.75E+00**	U	5.6E+00	5.6E+00	7.86E+00	pCi/L		*0.73*	4/2/18 08:57 a		2.00094	$GER16
						3.54E+00	5.00E+01	*(2.1)*			L	

No. of Results: 9 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.8.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

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SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 7:40:00 AM
Lot-Sample No.:	**J8C150408-4**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDD9**	**COC No. :**	I18-006-066	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078050	C14_LSC			**Work Order:**	NAPDA1AA		**Report DB ID:**	9NAPDA10				
C-14	**6.72E-01**	U	7.4E+00	8.8E+00	1.77E+01	pCi/L	100%	*0.04*	4/12/18 07:25 p		0.075	LSC4
						8.47E+00	5.00E+01	*0.15*			L	

No. of Results: 1 **Comments:**

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 9:13:00 AM
Lot-Sample No.:	**J8C150408-5**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDF0**	**COC No. :**	I18-006-068	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078050	C14_LSC			**Work Order:**	NAPDD1AA		**Report DB ID:**	9NAPDD10				
C-14	**1.96E+00**	U	7.5E+00	8.8E+00	1.78E+01	pCi/L	100%	*0.11*	4/12/18 09:37 p		0.075	LSC4
						8.52E+00	5.00E+01	*0.45*			L	

No. of Results: 1 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.8.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 10:56:00 AM
Lot-Sample No.:	**J8C150408-3**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDF3**	**COC No. :**	I18-006-049	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078031	PUISO_PLATE_AEA			**Work Order:**	NAPC91AF		**Report DB ID:**	9NAPC910				
PU-238	**-8.32E-03**	U	1.7E-01	1.7E-01	3.51E-01	pCi/L	79%	*-0.02*	3/27/18 08:32 a		0.20136	ALP39
						7.80E-02	1.00E+00	*-0.1*			L	
PU239/40	**-4.16E-02**	U	1.8E-01	1.8E-01	4.62E-01	pCi/L	79%	*-0.09*	3/27/18 08:32 a		0.20136	ALP39
						1.32E-01	1.00E+00	*-0.47*			L	
Batch: 8078032	PU241_IE_LSC			**Work Order:**	NAPC91AA		**Report DB ID:**	9NAPC910				
Pu-241	**-1.56E+00**	U	5.5E+00	6.9E+00	1.36E+01	pCi/L	79%	*-0.11*	3/30/18 01:06 p		0.20136	LSC10
						6.52E+00	2.50E+01	*-0.45*			L	
Batch: 8078038	SE79_SEP_IE_LSC			**Work Order:**	NAPC91AG		**Report DB ID:**	9NAPC910				
Se-79	**3.45E+00**	U	4.1E+00	4.6E+00	9.75E+00	pCi/L	83%	*0.35*	4/3/18 11:49 a		0.20128	LSC4
						4.63E+00	5.00E+01	*(1.5)*			L	
Batch: 8078047	UISO_PLATE_AEA			**Work Order:**	NAPC91AJ		**Report DB ID:**	9NAPC910				
U-234	**2.89E+00**		9.0E-01	1.0E+00	2.79E-01	pCi/L	91%	*(10.4)*	3/27/18 12:32 p		0.2049	ALP420
						5.92E-02	1.00E+00	*(5.6)*			L	
U-235	**0.00E+00**	U	0.0E+00	1.4E-01	2.59E-01	pCi/L	91%	*0.*	3/27/18 12:32 p		0.2049	ALP420
						5.05E-02	1.00E+00	*0.*			L	
U-238	**2.12E+00**		7.7E-01	8.6E-01	2.59E-01	pCi/L	91%	*(8.2)*	3/27/18 12:32 p		0.2049	ALP420
						5.05E-02	1.00E+00	*(4.9)*			L	
							Ratio U-234/238 = 1.4					
Batch: 8078048	AMCMISO_EIE_PLT_AEA			**Work Order:**	NAPC91AC		**Report DB ID:**	9NAPC910				
AMERICIUM 241	**-1.13E-02**	U	1.4E-01	1.4E-01	3.05E-01	pCi/L	99%	*-0.04*	3/29/18 11:49 a		0.20065	ALP41
						7.20E-02	1.00E+00	*-0.16*			L	

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 10:56:00 AM
Lot-Sample No.:	**J8C150408-3**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDF3**	**COC No. :**	I18-006-049	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078051	GAMMA_GS			**Work Order:**	NAPC91AD		**Report DB ID:**	9NAPC910				
CO-60	**1.48E+00**	U	2.1E+00	2.1E+00	3.02E+00	pCi/L		*0.49*	4/2/18 08:58 a		2.00217	$GER18
						1.28E+00	2.50E+01	*(1.4)*			L	
CS-134	**4.55E-01**	U	2.9E+00	2.9E+00	3.06E+00	pCi/L		*0.15*	4/2/18 08:58 a		2.00217	$GER18
						1.37E+00	8.00E+01	*0.31*			L	
CS-137	**-1.40E+00**	U	3.0E+00	3.0E+00	2.99E+00	pCi/L		*-0.47*	4/2/18 08:58 a		2.00217	$GER18
						1.33E+00	1.50E+01	*-0.93*			L	
EU-152	**-2.95E+00**	U	5.9E+00	5.9E+00	3.63E+00	pCi/L		*-0.81*	4/2/18 08:58 a		2.00217	$GER18
						1.60E+00	5.00E+01	*-(1.)*			L	
EU-154	**-1.89E+00**	U	1.1E+01	1.1E+01	2.11E+00	pCi/L		*-0.89*	4/2/18 08:58 a		2.00217	$GER18
						9.33E-01	5.00E+01	*-0.36*			L	
EU-155	**-1.92E-01**	U	2.0E+00	2.0E+00	2.86E+00	pCi/L		*-0.07*	4/2/18 08:58 a		2.00217	$GER18
						1.28E+00	5.00E+01	*-0.19*			L	
K-40	**-5.47E+00**	U	1.7E+01	1.7E+01	3.43E+01	pCi/L		*-0.16*	4/2/18 08:58 a		2.00217	$GER18
						1.49E+01		*-0.63*			L	
SB-125	**-3.11E+00**	U	6.2E+00	6.2E+00	6.78E+00	pCi/L		*-0.46*	4/2/18 08:58 a		2.00217	$GER18
						3.03E+00	5.00E+01	*-0.99*			L	
Batch: 8078053	I129LL_SEP_LEPS_GS			**Work Order:**	NAPC91AE		**Report DB ID:**	9NAPC910				
I129	**7.18E-01**	U	4.7E-01	4.7E-01	9.77E-01	pCi/L	80%	*0.73*	4/13/18 07:44 a		2.00004	LEP4$1
							1.00E+00	*(3.1)*			L	
Batch: 8101011	TC99_ETVDSK_LSC			**Work Order:**	NAPC94AH		**Report DB ID:**	9NAPC940				

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 10:56:00 AM
Lot-Sample No.:	**J8C150408-3**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDF3**	**COC No. :**	I18-006-049	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
TC-99	**1.53E+02**		9.6E+00	1.1E+01	1.24E+01	pCi/L	100%	*(12.3)*	4/12/18 09:51 p		0.12577	LSC10
						5.86E+00	5.00E+01	*(28.2)*			L	

No. of Results: 18 **Comments:**

4/18/2018

REV.0

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 10:56:00 AM
Lot-Sample No.:	**J8C150408-6**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDF4**	**COC No. :**	I18-006-050	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078050	C14_LSC			**Work Order:**	NAPDE1AA		**Report DB ID:**	9NAPDE10				
C-14	**1.89E+00**	U	7.5E+00	8.8E+00	1.78E+01	pCi/L	100%	*0.11*	4/12/18 11:49 p		0.075	LSC4
						8.54E+00	5.00E+01	*0.43*			L	

No. of Results: 1 **Comments:**

TestAmerica Inc
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V5.8.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 12:32:00 PM
Lot-Sample No.:	**J8C160409-1**	**Report No. :**	72621	**Received Date:**	3/15/2018 2:55:00 PM
Client Sample ID:	**B3HDH5**	**COC No. :**	I18-006-055	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078031	PUISO_PLATE_AEA			**Work Order:**	NAPF21AE		**Report DB ID:**	9NAPF210				
PU-238	**-1.16E-02**	U	1.6E-01	1.6E-01	3.46E-01	pCi/L	86%	*-0.03*	3/27/18 08:32 a		0.20096	ALP44
						8.15E-02	1.00E+00	*-0.14*			L	
PU239/40	**-3.88E-03**	U	1.6E-01	1.6E-01	3.02E-01	pCi/L	86%	*-0.01*	3/27/18 08:32 a		0.20096	ALP44
						6.18E-02	1.00E+00	*-0.05*			L	
Batch: 8078032	PU241_IE_LSC			**Work Order:**	NAPF21AA		**Report DB ID:**	9NAPF210				
Pu-241	**-3.18E+00**	U	5.0E+00	6.3E+00	1.25E+01	pCi/L	86%	*-0.26*	3/30/18 07:22 p		0.20096	LSC10
						5.99E+00	2.50E+01	*-(1.)*			L	
Batch: 8078038	SE79_SEP_IE_LSC			**Work Order:**	NAPF21AF		**Report DB ID:**	9NAPF210				
Se-79	**1.49E+01**		4.4E+00	5.0E+00	9.57E+00	pCi/L	85%	*(1.6)*	4/3/18 01:20 p		0.20077	LSC4
						4.55E+00	5.00E+01	*(5.9)*			L	
Batch: 8078047	UISO_PLATE_AEA			**Work Order:**	NAPF21AG		**Report DB ID:**	9NAPF210				
U-234	**1.27E+00**		6.4E-01	6.8E-01	2.92E-01	pCi/L	84%	*(4.4)*	3/27/18 12:33 p		0.2007	ALP437
						5.71E-02	1.00E+00	*(3.8)*			L	
U-235	**-3.19E-03**	U	1.6E-01	1.6E-01	2.92E-01	pCi/L	84%	*-0.01*	3/27/18 12:33 p		0.2007	ALP437
						5.71E-02	1.00E+00	*-0.04*			L	
U-238	**9.56E-01**		5.5E-01	5.8E-01	2.92E-01	pCi/L	84%	*(3.3)*	3/27/18 12:33 p		0.2007	ALP437
						5.71E-02	1.00E+00	*(3.3)*			L	
							Ratio U-234/238 = 1.3					
Batch: 8078048	AMCMISO_EIE_PLT_AEA			**Work Order:**	NAPF21AC		**Report DB ID:**	9NAPF210				
AMERICIUM 241	**1.29E-01**	U	1.9E-01	1.9E-01	2.85E-01	pCi/L	100%	*0.45*	3/29/18 01:58 p		0.20382	ALP41
						6.42E-02	1.00E+00	*(1.3)*			L	

TestAmerica Inc
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V5.8.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 12:32:00 PM
Lot-Sample No.:	**J8C160409-1**	**Report No. :**	72621	**Received Date:**	3/15/2018 2:55:00 PM
Client Sample ID:	**B3HDH5**	**COC No. :**	I18-006-055	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078051	GAMMA_GS			**Work Order:**	NAPF21AD		**Report DB ID:**	9NAPF210				
CO-60	**-2.41E+00**	U	4.8E+00	4.8E+00	3.76E+00	pCi/L		*-0.64*	4/2/18 08:58 a		2.0006	$GER17
						1.63E+00	2.50E+01	*-(1.)*			L	
CS-134	**-3.51E-01**	U	4.3E+00	4.3E+00	3.45E+00	pCi/L		*-0.1*	4/2/18 08:58 a		2.0006	$GER17
						1.56E+00	8.00E+01	*-0.16*			L	
CS-137	**1.83E-01**	U	2.9E+00	2.9E+00	3.34E+00	pCi/L		*0.05*	4/2/18 08:58 a		2.0006	$GER17
						1.50E+00	1.50E+01	*0.12*			L	
EU-152	**-3.28E+00**	U	6.8E+00	6.8E+00	4.60E+00	pCi/L		*-0.71*	4/2/18 08:58 a		2.0006	$GER17
						2.06E+00	5.00E+01	*-0.97*			L	
EU-154	**-8.86E+00**	U	1.5E+01	1.5E+01	2.80E+00	pCi/L		*-(3.2)*	4/2/18 08:58 a		2.0006	$GER17
						1.26E+00	5.00E+01	*-(1.2)*			L	
EU-155	**-7.57E-01**	U	2.6E+00	2.6E+00	2.56E+00	pCi/L		*-0.3*	4/2/18 08:58 a		2.0006	$GER17
						1.14E+00	5.00E+01	*-0.58*			L	
K-40	**1.98E-01**	U	2.7E+01	2.7E+01	4.92E+01	pCi/L		*0.*	4/2/18 08:58 a		2.0006	$GER17
						2.20E+01		*0.01*			L	
SB-125	**-8.79E+00**	U	8.1E+00	8.1E+00	7.84E+00	pCi/L		*-(1.1)*	4/2/18 08:58 a		2.0006	$GER17
						3.53E+00	5.00E+01	*-(2.2)*			L	

No. of Results: 16 **Comments:**

4/18/2018

REV.0

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 12:32:00 PM
Lot-Sample No.:	**J8C160409-2**	**Report No. :**	72621	**Received Date:**	3/15/2018 2:55:00 PM
Client Sample ID:	**B3HDH6**	**COC No. :**	I18-006-056	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078050	C14_LSC			**Work Order:** NAPF31AA			**Report DB ID:** 9NAPF310					
C-14	**-1.02E+00**	U	7.4E+00	8.7E+00	1.77E+01	pCi/L	100%	*-0.06*	4/13/18 02:01 a		0.075	LSC4
						8.49E+00	5.00E+01	*-0.23*			L	

No. of Results: 1 **Comments:**

4/18/2018

REV.0

TestAmerica Inc
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MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 9:01:00 AM
Lot-Sample No.:	**J8C150411-2**	**Report No. :**	72621	**Received Date:**	3/15/2018 10:55:00 AM
Client Sample ID:	**B3HDJ0**	**COC No. :**	I18-006-058	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078031	PUISO_PLATE_AEA			**Work Order:**	NAPDJ1AG		**Report DB ID:**	9NAPDJ10				
PU-238	**-1.22E-02**	U	1.3E-01	1.3E-01	2.83E-01	pCi/L	91%	*-0.04*	3/27/18 08:32 a		0.20105	ALP41
						6.98E-02	1.00E+00	*-0.19*			L	
PU239/40	**-3.55E-03**	U	1.3E-01	1.3E-01	4.09E-01	pCi/L	91%	*-0.01*	3/27/18 08:32 a		0.20105	ALP41
						1.31E-01	1.00E+00	*-0.05*			L	
Batch: 8078032	PU241_IE_LSC			**Work Order:**	NAPDJ1AA		**Report DB ID:**	9NAPDJ10				
Pu-241	**-3.29E+00**	U	4.8E+00	5.9E+00	1.18E+01	pCi/L	91%	*-0.28*	3/30/18 05:17 p		0.20105	LSC10
						5.66E+00	2.50E+01	*-(1.1)*			L	
Batch: 8078038	SE79_SEP_IE_LSC			**Work Order:**	NAPDJ1AH		**Report DB ID:**	9NAPDJ10				
Se-79	**1.17E+01**	U	5.7E+00	6.4E+00	1.29E+01	pCi/L	63%	*0.91*	4/3/18 12:34 p		0.20076	LSC4
						6.13E+00	5.00E+01	*(3.6)*			L	
Batch: 8078042	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPDJ1AJ		**Report DB ID:**	9NAPDJ10				
STRONTIUM	**9.96E-02**	U	6.1E-01	6.1E-01	1.09E+00	pCi/L	90%	*0.09*	3/28/18 08:08 a		0.50058	GPC31C
						4.88E-01	2.00E+00	*0.33*			L	
Batch: 8078047	UISO_PLATE_AEA			**Work Order:**	NAPDJ2AL		**Report DB ID:**	9NAPDJ20				
U-234	**1.54E+00**		6.2E-01	6.7E-01	2.44E-01	pCi/L	94%	*(6.3)*	3/28/18 11:20 a		0.20264	ALP211
						5.19E-02	1.00E+00	*(4.6)*			L	
U-235	**5.68E-02**	U	1.2E-01	1.2E-01	2.44E-01	pCi/L	94%	*0.23*	3/28/18 11:20 a		0.20264	ALP211
						5.19E-02	1.00E+00	*0.92*			L	
U-238	**1.17E+00**		5.4E-01	5.7E-01	2.27E-01	pCi/L	94%	*(5.2)*	3/28/18 11:20 a		0.20264	ALP211
						4.43E-02	1.00E+00	*(4.1)*			L	

Ratio U-234/238 = 1.3

TestAmerica Inc
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MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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REV.0

FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 9:01:00 AM
Lot-Sample No.:	**J8C150411-2**	**Report No. :**	72621	**Received Date:**	3/15/2018 10:55:00 AM
Client Sample ID:	**B3HDJ0**	**COC No. :**	I18-006-058	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078048	AMCMISO_EIE_PLT_AEA			**Work Order:** NAPDJ1AD		**Report DB ID:** 9NAPDJ10						
AMERICIUM 241	**-2.15E-02**	U	1.8E-01	1.8E-01	4.15E-01	pCi/L	93%	*-0.05*	3/29/18 01:58 p		0.20014	ALP40
						1.05E-01	1.00E+00	*-0.24*			L	
Batch: 8078051	GAMMA_GS			**Work Order:** NAPDJ1AE		**Report DB ID:** 9NAPDJ10						
CO-60	**2.29E+00**	U	3.1E+00	3.1E+00	4.03E+00	pCi/L		*0.57*	4/2/18 08:59 a		2.00198	$GER19
						1.76E+00	2.50E+01	*(1.5)*			L	
CS-134	**5.68E-01**	U	3.7E+00	3.7E+00	3.52E+00	pCi/L		*0.16*	4/2/18 08:59 a		2.00198	$GER19
						1.59E+00	8.00E+01	*0.3*			L	
CS-137	**1.85E+00**	U	2.2E+00	2.2E+00	3.08E+00	pCi/L		*0.6*	4/2/18 08:59 a		2.00198	$GER19
						1.37E+00	1.50E+01	*(1.7)*			L	
EU-152	**-1.29E+00**	U	5.9E+00	5.9E+00	3.88E+00	pCi/L		*-0.33*	4/2/18 08:59 a		2.00198	$GER19
						1.72E+00	5.00E+01	*-0.44*			L	
EU-154	**-7.83E+00**	U	1.4E+01	1.4E+01	2.45E+00	pCi/L		*-(3.2)*	4/2/18 08:59 a		2.00198	$GER19
						1.09E+00	5.00E+01	*-(1.1)*			L	
EU-155	**-4.95E-01**	U	2.3E+00	2.3E+00	3.38E+00	pCi/L		*-0.15*	4/2/18 08:59 a		2.00198	$GER19
						1.53E+00	5.00E+01	*-0.43*			L	
K-40	**-5.96E+00**	U	2.1E+01	2.1E+01	4.03E+01	pCi/L		*-0.15*	4/2/18 08:59 a		2.00198	$GER19
						1.77E+01		*-0.57*			L	
SB-125	**-3.21E-01**	U	6.3E+00	6.3E+00	7.48E+00	pCi/L		*-0.04*	4/2/18 08:59 a		2.00198	$GER19
						3.35E+00	5.00E+01	*-0.1*			L	
Batch: 8078053	I129LL_SEP_LEPS_GS			**Work Order:** NAPDJ1AF		**Report DB ID:** 9NAPDJ10						

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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 9:01:00 AM
Lot-Sample No.:	**J8C150411-2**	**Report No. :**	72621	**Received Date:**	3/15/2018 10:55:00 AM
Client Sample ID:	**B3HDJ0**	**COC No. :**	I18-006-058	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
I129	**7.10E+00**		1.3E+00	1.3E+00	9.37E-01	pCi/L	69%	*(7.6)*	4/13/18 10:12 a		2.00111	LEP5$1
							1.00E+00	*(10.8)*			L	
Batch: 8101011	TC99_ETVDSK_LSC			**Work Order:**	NAPDJ4AK		**Report DB ID:**	9NAPDJ40				
TC-99	**1.69E+03**		2.7E+01	5.2E+01	1.17E+01	pCi/L	100%	*(144.4)*	4/12/18 11:20 p		0.12626	LSC10
						5.55E+00	5.00E+01	*(65.7)*			L	
Batch: 8102010	906.0_H3_LSC			**Work Order:**	NAPDJ2AC		**Report DB ID:**	9NAPDJ20				
H-3	**1.29E+03**	N	2.5E+02	2.8E+02	4.62E+02	pCi/L	100%	*(2.8)*	4/12/18 04:04 p		0.00503	LSC6
						2.14E+02	4.00E+02	*(9.1)*			L	

No. of Results: 20 **Comments:**

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MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 7:40:00 AM
Lot-Sample No.:	**J8C150405-4**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HF98**	**COC No. :**	S18-003-315	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078049	9310_ALPHABETA_GPC			**Work Order:**	NAPC61AA		**Report DB ID:**	9NAPC610				
Beta	**4.69E+00**		1.1E+00	1.3E+00	1.51E+00	pCi/L	100%	*(3.1)*	3/30/18 09:06 a		0.20163	GPC27A
						7.19E-01	4.00E+00	*(7.5)*			L	
Batch: 8101011	TC99_ETVDSK_LSC			**Work Order:**	NAPC64AC		**Report DB ID:**	9NAPC640				
TC-99	**1.31E+00**	U	4.8E+00	5.4E+00	1.16E+01	pCi/L	100%	*0.11*	4/12/18 08:22 p		0.12548	LSC10
						5.50E+00	5.00E+01	*0.48*			L	

No. of Results: 2 **Comments:**

4/18/2018

REV.0

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 9:13:00 AM
Lot-Sample No.:	**J8C150405-2**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HF99**	**COC No. :**	S18-003-316	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078049	9310_ALPHABETA_GPC			**Work Order:**	NAPC41AA		**Report DB ID:**	9NAPC410				
Beta	**6.96E+02**		9.2E+00	8.9E+01	1.91E+00	pCi/L	100%	*(364.7)*	3/30/18 09:06 a		0.20004	GPC26D
						9.09E-01	4.00E+00	*(15.6)*			L	
Batch: 8101011	TC99_ETVDSK_LSC			**Work Order:**	NAPC44AC		**Report DB ID:**	9NAPC440				
TC-99	**3.43E+03**		3.8E+01	9.6E+01	1.15E+01	pCi/L	100%	*(298.)*	4/12/18 07:38 p		0.12554	LSC10
						5.45E+00	5.00E+01	*(71.6)*			L	

No. of Results: 2 **Comments:**

4/18/2018

REV.0

TestAmerica Inc
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V5.8.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 12:32:00 PM
Lot-Sample No.:	**J8C160408-3**	**Report No. :**	72621	**Received Date:**	3/15/2018 2:55:00 PM
Client Sample ID:	**B3HHC3**	**COC No. :**	S18-003-305	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078042	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPF11AF		**Report DB ID:**	9NAPF110				
STRONTIUM	**8.08E-01**	U	7.1E-01	7.4E-01	1.13E+00	pCi/L	95%	*0.71*	3/28/18 08:08 a		0.50087	GPC32A
						5.10E-01	2.00E+00	*(2.2)*			L	
Batch: 8078049	9310_ALPHABETA_GPC			**Work Order:**	NAPF11AD		**Report DB ID:**	9NAPF110				
Beta	**5.32E+02**		7.9E+00	6.9E+01	1.91E+00	pCi/L	100%	*(278.7)*	3/30/18 09:06 a		0.20104	GPC28A
						9.10E-01	4.00E+00	*(15.4)*			L	
Batch: 8078053	I129LL_SEP_LEPS_GS			**Work Order:**	NAPF11AE		**Report DB ID:**	9NAPF110				
I129	**6.28E+00**		1.4E+00	1.4E+00	8.68E-01	pCi/L	76%	*(7.2)*	4/13/18 11:54 a		2.00012	LEP4$1
							1.00E+00	*(8.8)*			L	
Batch: 8084058	9310_ALPHABETA_GPC			**Work Order:**	NAPF12AC		**Report DB ID:**	9NAPF120				
Alpha	**-1.28E-01**	U	1.3E+00	1.3E+00	2.45E+00	pCi/L	100%	*-0.05*	4/5/18 09:35 a		0.14583	GPC21B
						1.09E+00	3.00E+00	*-0.2*			L	
Batch: 8102010	906.0_H3_LSC			**Work Order:**	NAPF12AA		**Report DB ID:**	9NAPF120				
H-3	**1.39E+03**	N	2.6E+02	2.9E+02	4.61E+02	pCi/L	100%	*(3.)*	4/12/18 04:48 p		0.00502	LSC6
						2.14E+02	7.00E+02	*(9.6)*			L	

No. of Results: 5 **Comments:**

4/18/2018

REV.0

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 10:16:00 AM
Lot-Sample No.:	**J8C160408-1**	**Report No. :**	72621	**Received Date:**	3/15/2018 2:55:00 PM
Client Sample ID:	**B3HHD7**	**COC No. :**	S18-003-308	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078049	9310_ALPHABETA_GPC			**Work Order:**	NAPFX1AD		**Report DB ID:**	9NAPFX10				
Beta	**4.76E+02**		7.4E+00	5.9E+01	1.93E+00	pCi/L	100%	*(246.2)*	3/30/18 09:06 a		0.20276	GPC27C
						9.25E-01	4.00E+00	*(16.1)*			L	
Batch: 8084058	9310_ALPHABETA_GPC			**Work Order:**	NAPFX2AC		**Report DB ID:**	9NAPFX20				
Alpha	**1.29E+00**	U	1.7E+00	1.7E+00	2.82E+00	pCi/L	100%	*0.46*	4/5/18 09:35 a		0.121	GPC21A
						1.26E+00	3.00E+00	*(1.5)*			L	
Batch: 8102010	906.0_H3_LSC			**Work Order:**	NAPFX2AA		**Report DB ID:**	9NAPFX20				
H-3	**2.17E+03**	N	2.9E+02	3.3E+02	4.62E+02	pCi/L	100%	*(4.7)*	4/12/18 05:32 p		0.00503	LSC6
						2.14E+02	7.00E+02	*(13.3)*			L	

No. of Results: 3 **Comments:**

4/18/2018

REV.0

TestAmerica Inc
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MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 8:20:00 AM
Lot-Sample No.:	**J8C160408-2**	**Report No. :**	72621	**Received Date:**	3/15/2018 2:55:00 PM
Client Sample ID:	**B3HHP3**	**COC No. :**	S18-003-318	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078031	PUISO_PLATE_AEA			**Work Order:**	NAPF01AC		**Report DB ID:**	9NAPF010				
PU-238	**-4.11E-02**	U	1.2E-01	1.2E-01	3.52E-01	pCi/L	96%	*-0.12*	3/27/18 08:32 a		0.20095	ALP43
						1.06E-01	1.00E+00	*-0.66*			L	
PU239/40	**-3.52E-02**	U	1.2E-01	1.2E-01	3.39E-01	pCi/L	96%	*-0.1*	3/27/18 08:32 a		0.20095	ALP43
						9.94E-02	1.00E+00	*-0.57*			L	
Batch: 8078042	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPF01AD		**Report DB ID:**	9NAPF010				
STRONTIUM	**-1.90E-01**	U	5.5E-01	5.5E-01	1.06E+00	pCi/L	92%	*-0.18*	3/28/18 08:08 a		0.50037	GPC31D
						4.74E-01	2.00E+00	*-0.69*			L	
Batch: 8078054	NP237_LLE_PLATE_AEA			**Work Order:**	NAPF01AA		**Report DB ID:**	9NAPF010				
NP-237	**-8.43E-03**	U	1.4E-01	1.4E-01	2.93E-01	pCi/L	89%	*-0.03*	4/2/18 04:40 p		0.20066	ALP111
						6.59E-02	1.00E+00	*-0.12*			L	

No. of Results: 4 **Comments:**

4/18/2018

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TestAmerica Inc
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MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 12:58:00 PM
Lot-Sample No.:	**J8C150409-1**	**Report No. :**	72621	**Received Date:**	3/15/2018 10:55:00 AM
Client Sample ID:	**B3HHX2**	**COC No. :**	S18-003-371	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078053	I129LL_SEP_LEPS_GS			**Work Order:**	NAPDF1AC		**Report DB ID:**	9NAPDF10				
I129	**1.02E+00**		6.7E-01	6.8E-01	9.15E-01	pCi/L	76%	*(1.1)*	4/13/18 10:12 a		2.00045	LEP4$1
							1.00E+00	*(3.)*			L	
Batch: 8102010	906.0_H3_LSC			**Work Order:**	NAPDF2AA		**Report DB ID:**	9NAPDF20				
H-3	**9.69E+04**	N	1.5E+03	3.9E+03	4.58E+02	pCi/L	100%	*(211.5)*	4/12/18 02:37 p		0.00504	LSC6
						2.12E+02	7.00E+02	*(49.2)*			L	

No. of Results: 2 **Comments:**

4/18/2018

REV.0

TestAmerica Inc
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V5.8.5 A2002

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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 9:22:00 AM
Lot-Sample No.:	**J8C150405-3**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HJ02**	**COC No. :**	S18-003-232	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078042	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPC51AA		**Report DB ID:**	9NAPC510				
STRONTIUM	**-1.06E-01**	U	6.4E-01	6.4E-01	1.19E+00	pCi/L	91%	*-0.09*	3/28/18 08:08 a		0.50132	GPC31A
						5.39E-01	2.00E+00	*-0.33*			L	

No. of Results: 1 **Comments:**

TestAmerica Inc
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MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 10:56:00 AM
Lot-Sample No.:	**J8C150405-1**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HJ42**	**COC No. :**	S18-003-300	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078045	9310_ALPHABETA_GPC			**Work Order:**	NAPC31AC		**Report DB ID:**	9NAPC310				
Alpha	**2.95E+00**		1.2E+00	1.4E+00	1.62E+00	pCi/L	100%	*(1.8)*	3/30/18 01:37 p		0.20227	GPC21D
						7.10E-01	3.00E+00	*(4.1)*			L	
Batch: 8078049	9310_ALPHABETA_GPC			**Work Order:**	NAPC31AD		**Report DB ID:**	9NAPC310				
Beta	**3.51E+01**		2.2E+00	4.8E+00	1.73E+00	pCi/L	100%	*(20.3)*	3/30/18 09:06 a		0.20126	GPC26B
						8.23E-01	4.00E+00	*(14.6)*			L	
Batch: 8102010	906.0_H3_LSC			**Work Order:**	NAPC32AA		**Report DB ID:**	9NAPC320				
H-3	**1.81E+04**	N	6.7E+02	9.8E+02	4.62E+02	pCi/L	100%	*(39.3)*	4/12/18 01:09 p		0.005	LSC6
						2.14E+02	7.00E+02	*(36.9)*			L	

No. of Results: 3 **Comments:**

4/18/2018

REV.0

TestAmerica Inc
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V5.8.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 18-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 8:06:00 AM
Lot-Sample No.:	**J8C150410-1**	**Report No. :**	72621	**Received Date:**	3/15/2018 10:55:00 AM
Client Sample ID:	**B3HK86**	**COC No. :**	W18-003-143	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078036	903.1_RA226_LUC			**Work Order:**	NAPDG1AA		**Report DB ID:**	9NAPDG10				
Ra-226	**1.80E-01**	U	2.6E-01	2.6E-01	4.36E-01	pCi/L	80%	*0.41*	4/17/18 12:26 p		1.00621	ASC1HB
						1.88E-01	1.00E+00	*(1.4)*			L	
Batch: 8078045	9310_ALPHABETA_GPC			**Work Order:**	NAPDG1AD		**Report DB ID:**	9NAPDG10				
Alpha	**3.67E+00**		1.3E+00	1.6E+00	1.45E+00	pCi/L	100%	*(2.5)*	3/30/18 01:38 p		0.20269	GPC22B
						6.22E-01	3.00E+00	*(4.7)*			L	
Batch: 8078049	9310_ALPHABETA_GPC			**Work Order:**	NAPDG1AE		**Report DB ID:**	9NAPDG10				
Beta	**2.24E+02**		5.0E+00	2.8E+01	1.70E+00	pCi/L	100%	*(131.6)*	3/30/18 09:06 a		0.20139	GPC27B
						8.11E-01	4.00E+00	*(16.)*			L	
Batch: 8096010	RL-RA-001			**Work Order:**	NAPDG2AC		**Report DB ID:**	9NAPDG20				
Ra-228	**3.06E-01**	U	2.1E-01	2.2E-01	3.60E-01	pCi/L	80%	*0.85*	4/11/18 06:21 p		1.00621	GPC3C
						1.47E-01	1.00E+00	*(2.8)*			L	

No. of Results: 4 **Comments:**

4/18/2018

REV.0

TestAmerica Inc
rptSTLRchSample
V5.8.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 18-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 9:13:00 AM
Lot-Sample No.:	**J8C150408-1**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDD8 DUP**	**COC No. :**	I18-006-067	**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078038	SE79_SEP_IE_LSC			**Work Order:**	NAPC71AD	**Report DB ID:**	NAPC71DR		**Orig Sa DB ID:** 9NAPC710			
Se-79	1.99E+01		4.8E+00	5.5E+00	1.00E+01	pCi/L	82%	(2.)	4/3/18 10:18 a		0.20031	LSC4
	1.81E+01		**RPD**	**9.8**		5.00E+01		(7.3)			L	
Batch: 8078051	GAMMA_GS			**Work Order:**	NAPC71AE	**Report DB ID:**	NAPC71ER		**Orig Sa DB ID:** 9NAPC710			
CO-60	1.93E+00	U	4.7E+00	4.7E+00	4.99E+00	pCi/L		0.39	4/2/18 08:57 a		1.82823	$GER11
	-2.72E+00	U	**RPD**	**-1167.3**		2.50E+01		0.82			L	
CS-134	-9.33E-01	U	3.7E+00	3.7E+00	3.75E+00	pCi/L		-0.25	4/2/18 08:57 a		1.82823	$GER11
	1.03E+00	U	**RPD**	**3980.7**		8.00E+01		-0.51			L	
CS-137	-9.52E-01	U	4.0E+00	4.0E+00	4.11E+00	pCi/L		-0.23	4/2/18 08:57 a		1.82823	$GER11
	9.43E-02	U	**RPD**	**-244.0**		1.50E+01		-0.48			L	
EU-152	2.84E+00	U	7.5E+00	7.5E+00	6.41E+00	pCi/L		0.44	4/2/18 08:57 a		1.82823	$GER11
	-4.49E+00	U	**RPD**	**-890.7**		5.00E+01		0.75			L	
EU-154	8.43E-01	U	1.2E+01	1.2E+01	4.56E+00	pCi/L		0.18	4/2/18 08:57 a		1.82823	$GER11
	-5.17E+00	U	**RPD**	**-278.0**		5.00E+01		0.14			L	
EU-155	-6.25E-01	U	6.5E+00	6.5E+00	8.29E+00	pCi/L		-0.08	4/2/18 08:57 a		1.82823	$GER11
	-1.20E+00	U	**RPD**	**-62.7**		5.00E+01		-0.19			L	
K-40	6.16E+00	U	3.5E+01	3.5E+01	6.19E+01	pCi/L		0.1	4/2/18 08:57 a		1.82823	$GER11
	2.69E+01	U	**RPD**	**125.5**				0.35			L	
SB-125	5.66E-01	U	8.2E+00	8.2E+00	9.76E+00	pCi/L		0.06	4/2/18 08:57 a		1.82823	$GER11
	5.75E+00	U	**RPD**	**164.2**		5.00E+01		0.14			L	

No. of Results: 9 **Comments:**

RPD - Relative Percent Difference.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 18-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 7:40:00 AM
Lot-Sample No.:	**J8C150408-4**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDD9 DUP**	**COC No. :**	I18-006-066	**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078050	C14_LSC			**Work Order:**	NAPDA1AC	**Report DB ID:**	NAPDA1CR		**Orig Sa DB ID:**	9NAPDA10		
C-14	-6.72E+00	U	7.2E+00	8.5E+00	1.79E+01	pCi/L	100%	-0.38	4/12/18 08:31 p		0.075	LSC4
	6.72E-01	U	**RPD**	**-244.4**		5.00E+01		-(1.6)			L	

No. of Results: 1 **Comments:**

4/18/2018

REV.0

TestAmerica Inc
rptSTLRchDupV5.8.5 A2002

RPD - Relative Percent Difference.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 18-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 10:56:00 AM
Lot-Sample No.:	**J8C150408-3**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDF3 DUP**	**COC No. :**	I18-006-049	**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078031	PUISO_PLATE_AEA			**Work Order:**	NAPC91AK	**Report DB ID:**	NAPC91KR		**Orig Sa DB ID:** 9NAPC910			
PU-238	-2.34E-02	U	1.6E-01	1.6E-01	3.90E-01	pCi/L	84%	-0.06	3/27/18 08:32 a		0.2017	ALP40
	-8.32E-03	U	**RPD**	**-95.0**		1.00E+00		-0.29			L	
PU239/40	-1.95E-02	U	1.6E-01	1.6E-01	3.77E-01	pCi/L	84%	-0.05	3/27/18 08:32 a		0.2017	ALP40
	-4.16E-02	U	**RPD**	**-72.4**		1.00E+00		-0.24			L	
Batch: 8078032	PU241_IE_LSC			**Work Order:**	NAPC91AL	**Report DB ID:**	NAPC91LR		**Orig Sa DB ID:** 9NAPC910			
Pu-241	3.94E+00	U	5.4E+00	6.6E+00	1.27E+01	pCi/L	84%	0.31	3/30/18 03:11 p		0.2017	LSC10
	-1.56E+00	U	**RPD**	**461.9**		2.50E+01		(1.2)			L	
Batch: 8078048	AMCMISO_EIE_PLT_AEA			**Work Order:**	NAPC92AN	**Report DB ID:**	NAPC92NR		**Orig Sa DB ID:** 9NAPC910			
AMERICIUM 241	1.39E-01	U	2.3E-01	2.4E-01	4.04E-01	pCi/L	103%	0.34	3/30/18 11:15 a		0.20099	ALP40
	-1.13E-02	U	**RPD**	**235.4**		1.00E+00		(1.2)			L	
									Alpha Spec Result Sum = 9.6E-02			
Batch: 8078053	I129LL_SEP_LEPS_GS			**Work Order:**	NAPC91AP	**Report DB ID:**	NAPC91PR		**Orig Sa DB ID:** 9NAPC910			
I129	1.21E+00		5.9E-01	5.9E-01	6.75E-01	pCi/L	71%	(1.8)	4/13/18 07:45 a		1.9068	LEP5$1
	7.18E-01	U	**RPD**	**51.0**		1.00E+00		(4.1)			L	
									Alpha Spec Result Sum = 9.6E-02			
Batch: 8101011	TC99_ETVDSK_LSC			**Work Order:**	NAPC92AQ	**Report DB ID:**	NAPC92QR		**Orig Sa DB ID:** 9NAPC940			
TC-99	1.32E+02		8.7E+00	9.9E+00	1.15E+01	pCi/L	100%	(11.5)	4/12/18 09:06 p		0.12655	LSC10
	1.53E+02		**RPD**	**14.8**		1.50E+01		(26.7)			L	

TestAmerica Inc
rptSTLRchDupV5.
8.5 A2002

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U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 18-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 10:56:00 AM
Lot-Sample No.:	**J8C150408-3**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HDF3 DUP**	**COC No. :**	I18-006-049	**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector

No. of Results: 6 **Comments:**

TestAmerica Inc **RPD - Relative Percent Difference.**

rptSTLRchDupV5.8.5 A2002 **MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.**

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FORM II

Date: 18-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 9:01:00 AM
Lot-Sample No.:	**J8C150411-2**	**Report No. :**	72621	**Received Date:**	3/15/2018 10:55:00 AM
Client Sample ID:	**B3HDJ0 DUP**	**COC No. :**	I18-006-058	**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078047	UISO_PLATE_AEA			**Work Order:**	NAPDJ2AM	**Report DB ID:**	NAPDJ2MR		**Orig Sa DB ID:** 9NAPDJ20			
U-234	1.60E+00		6.5E-01	7.0E-01	3.17E-01	pCi/L	92%	(5.)	3/28/18 11:20 a		0.20009	ALP212
	1.54E+00		**RPD**	**3.7**		1.00E+00		(4.5)			L	
U-235	-5.18E-03	U	1.3E-01	1.3E-01	2.56E-01	pCi/L	92%	-0.02	3/28/18 11:20 a		0.20009	ALP212
	5.68E-02	U	**RPD**	**240.1**		1.00E+00		-0.08			L	
U-238	1.09E+00		5.3E-01	5.7E-01	3.01E-01	pCi/L	92%	(3.6)	3/28/18 11:20 a		0.20009	ALP212
	1.17E+00		**RPD**	**7.7**		1.00E+00		(3.8)			L	

Ratio U-234/238 = 1.5 ***Alpha Spec Result Sum = 2.7E+00***

No. of Results: 3 **Comments:**

4/18/2018

REV.0

TestAmerica Inc
rptSTLRchDupV5.8.5 A2002

RPD - Relative Percent Difference.
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U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 18-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 8:20:00 AM
Lot-Sample No.:	**J8C160408-2**	**Report No. :**	72621	**Received Date:**	3/15/2018 2:55:00 PM
Client Sample ID:	**B3HHP3 DUP**	**COC No. :**	S18-003-318	**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078054	NP237_LLE_PLATE_AEA			**Work Order:** NAPF01AE		**Report DB ID:** NAPF01ER			**Orig Sa DB ID:** 9NAPF010			
NP-237	0.00E+00	U	0.0E+00	1.8E-01	3.37E-01	pCi/L	86%	0.	4/2/18 04:40 p		0.2018	ALP112
	-8.43E-03	U	**RPD**	**-200.0**		1.00E+00		0.			L	

No. of Results: 1 **Comments:**

TestAmerica Inc
rptSTLRchDupV5.
8.5 A2002

RPD - Relative Percent Difference.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

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FORM II

Date: 18-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 9:22:00 AM
Lot-Sample No.:	**J8C150405-3**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HJ02 DUP**	**COC No. :**	S18-003-232	**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078042	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPC51AC	**Report DB ID:**	NAPC51CR		**Orig Sa DB ID:** 9NAPC510			
STRONTIUM	-1.89E-01	U	5.9E-01	5.9E-01	1.12E+00	pCi/L	93%	-0.17	3/28/18 08:08 a		0.49496	GPC31B
	-1.06E-01	U	**RPD**	**-56.5**		2.00E+00		-0.64			L	

No. of Results: 1 **Comments:**

TestAmerica Inc
rptSTLRchDupV5.
8.5 A2002

RPD - Relative Percent Difference.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 18-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/14/2018 10:56:00 AM
Lot-Sample No.:	**J8C150405-1**	**Report No. :**	72621	**Received Date:**	3/14/2018 2:30:00 PM
Client Sample ID:	**B3HJ42 DUP**	**COC No. :**	S18-003-300	**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078045	9310_ALPHABETA_GPC			**Work Order:**	NAPC31AE	**Report DB ID:**	NAPC31ER		**Orig Sa DB ID:** 9NAPC310			
Alpha	2.45E+00		1.2E+00	1.3E+00	1.67E+00	pCi/L	100%	(1.5)	3/30/18 01:38 p		0.20139	GPC22A
	2.95E+00		**RPD**	**18.6**		3.00E+00		(3.7)			L	
Batch: 8078049	9310_ALPHABETA_GPC			**Work Order:**	NAPC31AF	**Report DB ID:**	NAPC31FR		**Orig Sa DB ID:** 9NAPC310			
Beta	3.84E+01		2.4E+00	5.4E+00	1.81E+00	pCi/L	100%	(21.2)	3/30/18 09:06 a		0.20115	GPC26C
	3.51E+01		**RPD**	**8.8**		4.00E+00		(14.1)			L	
Batch: 8102010	906.0_H3_LSC			**Work Order:**	NAPC32AG	**Report DB ID:**	NAPC32GR		**Orig Sa DB ID:** 9NAPC320			
H-3	1.80E+04	N	6.6E+02	9.7E+02	4.60E+02	pCi/L	100%	(39.1)	4/12/18 01:53 p		0.00501	LSC6
	1.81E+04	N	**RPD**	**1.1**		7.00E+02		(36.9)			L	

No. of Results: 3 **Comments:**

FORM II

Date: 18-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08031	**Collection Date:**	3/15/2018 8:06:00 AM
Lot-Sample No.:	**J8C150410-1**	**Report No. :**	72621	**Received Date:**	3/15/2018 10:55:00 AM
Client Sample ID:	**B3HK86 DUP**	**COC No. :**	W18-003-143	**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078036	903.1_RA226_LUC			**Work Order:**	NAPDG1AG	**Report DB ID:**	NAPDG1GR		**Orig Sa DB ID:** 9NAPDG10			
Ra-226	2.42E-01	U	2.2E-01	2.2E-01	3.38E-01	pCi/L	90%	0.72	4/17/18 12:28 p		1.00454	ASC4UA
	1.80E-01	U	**RPD**	**29.2**		1.00E+00		(2.2)			L	
Batch: 8096010	RL-RA-001			**Work Order:**	NAPDG2AF	**Report DB ID:**	NAPDG2FR		**Orig Sa DB ID:** 9NAPDG20			
Ra-228	2.92E-01	U	2.2E-01	2.5E-01	4.11E-01	pCi/L	80%	0.71	4/11/18 06:21 p		1.00454	GPC3D
	3.06E-01	U	**RPD**	**4.7**		1.00E+00		(2.3)			L	

No. of Results: 2 **Comments:**

4/18/2018

REV.0

TestAmerica Inc
rptSTLRchDupV5.8.5 A2002

RPD - Relative Percent Difference.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 18-Apr-18

Lab Name: TestAmerica Inc

Matrix: WATER

SDG: W08031

Report No. : 72621

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8078050	C14_LSC			**Work Order:**	NAPHN1AA		**Report DB ID:**	NAPHN1AB				
C-14	4.28E+00	U	7.5E+00	8.9E+00	1.77E+01	pCi/L	100%	0.24	4/13/18 03:06 a		0.075	LSC4
					8.52E+00	5.00E+01		0.97			L	
Batch: 8078031	PUISO_PLATE_AEA			**Work Order:**	NAPG21AA		**Report DB ID:**	NAPG21AB				
PU-238	6.57E-02	U	1.5E-01	1.5E-01	2.94E-01	pCi/L	94%	0.22	3/27/18 10:47 a		0.20003	ALP39
					6.54E-02	1.00E+00		0.9			L	
PU239/40	-3.49E-02	U	1.5E-01	1.5E-01	3.87E-01	pCi/L	94%	-0.09	3/27/18 10:47 a		0.20003	ALP39
					1.10E-01	1.00E+00		-0.47			L	
Batch: 8078047	UISO_PLATE_AEA			**Work Order:**	NAPHK1AA		**Report DB ID:**	NAPHK1AB				
U-234	-5.28E-03	U	1.3E-01	1.3E-01	2.61E-01	pCi/L	100%	-0.02	3/27/18 12:33 p		0.20353	ALP438
					5.54E-02	1.00E+00		-0.08			L	
U-235	0.00E+00	U	0.0E+00	1.3E-01	2.42E-01	pCi/L	100%	0.	3/27/18 12:33 p		0.20353	ALP438
					4.73E-02	1.00E+00		0.			L	
U-238	0.00E+00	U	0.0E+00	1.3E-01	2.42E-01	pCi/L	100%	0.	3/27/18 12:33 p		0.20353	ALP438
					4.73E-02	1.00E+00		0.			L	
Batch: 8078048	AMCMISO_EIE_PLT_AEA			**Work Order:**	NAPHL1AA		**Report DB ID:**	NAPHL1AB				
AMERICIUM 241	3.66E-02	U	1.4E-01	1.4E-01	3.75E-01	pCi/L	102%	0.1	3/29/18 01:58 p		0.20063	ALP43
					1.06E-01	1.00E+00		0.51			L	
Batch: 8078032	PU241_IE_LSC			**Work Order:**	NAPG31AA		**Report DB ID:**	NAPG31AB				
Pu-241	-1.66E-01	U	4.7E+00	5.9E+00	1.15E+01	pCi/L	94%	-0.01	3/30/18 09:28 p		0.20003	LSC10
					5.51E+00	2.50E+01		-0.06			L	
Batch: 8102010	906.0_H3_LSC			**Work Order:**	NAPHQ2AA		**Report DB ID:**	NAPHQ2AB				

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 18-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08031

Matrix: WATER **Report No. :** 72621

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
H-3	9.74E+01	U	1.9E+02	2.2E+02	4.61E+02	pCi/L	100%	0.21	4/12/18 06:16 p		0.005	LSC6
					2.14E+02	7.00E+02		0.89			L	
Batch: 8078051	GAMMA_GS			**Work Order:**	NAPHP1AA		**Report DB ID:**	NAPHP1AB				
CO-60	-3.59E+00	U	6.2E+00	6.2E+00	4.84E+00	pCi/L		-0.74	4/2/18 08:59 a		2.00027	$GER13
					2.17E+00	2.50E+01		-(1.2)			L	
CS-134	3.07E+00	U	4.8E+00	4.8E+00	4.25E+00	pCi/L		0.72	4/2/18 08:59 a		2.00027	$GER13
					1.94E+00	1.50E+01		(1.3)			L	
CS-137	-7.40E-01	U	3.7E+00	3.7E+00	3.88E+00	pCi/L		-0.19	4/2/18 08:59 a		2.00027	$GER13
					1.74E+00	1.50E+01		-0.4			L	
EU-152	4.79E+00	U	9.0E+00	9.0E+00	7.63E+00	pCi/L		0.63	4/2/18 08:59 a		2.00027	$GER13
					3.42E+00	5.00E+01		(1.1)			L	
EU-154	5.28E-01	U	1.5E+01	1.5E+01	5.28E+00	pCi/L		0.1	4/2/18 08:59 a		2.00027	$GER13
					2.37E+00	5.00E+01		0.07			L	
EU-155	5.71E+00	U	6.5E+00	6.5E+00	9.89E+00	pCi/L		0.58	4/2/18 08:59 a		2.00027	$GER13
					4.44E+00	5.00E+01		(1.8)			L	
K-40	-3.92E+01	U	3.5E+01	3.5E+01	6.72E+01	pCi/L		-0.58	4/2/18 08:59 a		2.00027	$GER13
					3.08E+01			-(2.2)			L	
SB-125	-6.98E+00	U	9.9E+00	9.9E+00	1.01E+01	pCi/L		-0.69	4/2/18 08:59 a		2.00027	$GER13
					4.59E+00	5.00E+01		-(1.4)			L	
Batch: 8078045	9310_ALPHABETA_GPC			**Work Order:**	NAPHH1AA		**Report DB ID:**	NAPHH1AB				
Alpha	-9.73E-02	U	4.2E-01	4.2E-01	7.98E-01	pCi/L	100%	-0.12	3/30/18 01:38 p		0.20011	GPC22C
					3.53E-01	3.00E+00		-0.47			L	
Batch: 8084058	9310_ALPHABETA_GPC			**Work Order:**	NAPTA1AA		**Report DB ID:**	NAPTA1AB				

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 18-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08031

Matrix: WATER **Report No. :** 72621

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Alpha	-5.45E-02	U	4.0E-01	4.0E-01	7.67E-01	pCi/L	100%	-0.07	4/5/18 09:35 a		0.20135	GPC21C
					3.38E-01	3.00E+00		-0.27			L	
Batch: 8078049	9310_ALPHABETA_GPC			**Work Order:**	NAPHM1AA		**Report DB ID:**	NAPHM1AB				
Beta	1.21E+00	U	9.4E-01	9.5E-01	1.51E+00	pCi/L	100%	0.8	3/30/18 09:06 a		0.20144	GPC28B
					7.17E-01	4.00E+00		(2.5)			L	
Batch: 8078053	I129LL_SEP_LEPS_GS			**Work Order:**	NAPHR1AA		**Report DB ID:**	NAPHR1AB				
I129	1.88E-01	U	2.1E-01	2.1E-01	6.25E-01	pCi/L	71%	0.3	4/13/18 11:54 a		2.00055	LEP5$1
						1.00E+00		(1.8)			L	
Batch: 8078036	903.1_RA226_LUC			**Work Order:**	NAPG71AA		**Report DB ID:**	NAPG71AB				
Ra-226	5.53E-02	U	1.8E-01	1.8E-01	3.26E-01	pCi/L	83%	0.17	4/17/18 12:26 p		1.00408	ASCASA
					1.36E-01	1.00E+00		0.62			L	
Batch: 8096010	RL-RA-001			**Work Order:**	NAPG52AA		**Report DB ID:**	NAPG52AB				
Ra-228	5.19E-01		2.7E-01	3.0E-01	4.67E-01	pCi/L	85%	(1.1)	4/11/18 06:41 p		1.00408	GPC4A
					2.01E-01	1.00E+00		(3.4)			L	
Batch: 8078042	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPHE1AA		**Report DB ID:**	NAPHE1AB				
STRONTIUM	-5.77E-02	U	6.1E-01	6.1E-01	1.13E+00	pCi/L	90%	-0.05	3/28/18 08:08 a		0.50735	GPC32B
					5.09E-01	2.00E+00		-0.19			L	
Batch: 8078038	SE79_SEP_IE_LSC			**Work Order:**	NAPG91AA		**Report DB ID:**	NAPG91AB				
Se-79	3.75E+00	U	4.6E+00	5.3E+00	1.10E+01	pCi/L	74%	0.34	4/3/18 02:06 p		0.20004	LSC4
					5.23E+00	5.00E+01		(1.4)			L	
Batch: 8101011	TC99_ETVDSK_LSC			**Work Order:**	NAPHJ4AA		**Report DB ID:**	NAPHJ4AB				

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 18-Apr-18

Lab Name: TestAmerica Inc

SDG: W08031

Matrix: WATER

Report No. : 72621

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
TC-99	-3.45E-01	U	4.6E+00	5.2E+00	1.15E+01	pCi/L	100%	-0.03	4/13/18 12:04 a		0.12821	LSC10
					5.44E+00	5.00E+01		-0.13			L	
Batch: 8078054	NP237_LLE_PLATE_AEA			**Work Order:**	NAPHT1AA		**Report DB ID:**	NAPHT1AB				
NP-237	-7.39E-03	U	1.9E-01	1.9E-01	3.65E-01	pCi/L	80%	-0.02	4/2/18 04:41 p		0.20777	ALP113
					7.75E-02	1.00E+00		-0.08			L	

No. of Results: 27 **Comments:**

4/18/2018

TestAmerica Inc
rptSTLRchBlank
V5.8.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

REV.0

FORM II

LCS RESULTS

Date: 18-Apr-18

Lab Name: TestAmerica Inc

SDG: W08031

Matrix: WATER

Report No. : 72621

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 8078050	C14_LSC			**Work Order:**	NAPHN1AC		**Report DB ID:**	NAPHN1CS					
C-14	4.75E+02		1.7E+01	3.2E+01	1.77E+01	pCi/L	100%	4.82E+02	9.7E+00	99%	4/13/18 04:12 a	0.075	LSC4
							Rec Limits:	80	120	0.0		L	
Batch: 8078031	PUISO_PLATE_AEA			**Work Order:**	NAPG22AC		**Report DB ID:**	NAPG22CS					
PU239/40	5.02E+00		1.2E+00	1.4E+00	3.64E-01	pCi/L	112%	4.49E+00	4.5E-02	112%	3/27/18 02:20 p	0.20066	ALP39
							Rec Limits:	80	120	0.1		L	
Batch: 8078047	UISO_PLATE_AEA			**Work Order:**	NAPHK1AC		**Report DB ID:**	NAPHK1CS					
U-234	1.56E+01		2.0E+00	3.4E+00	2.45E-01	pCi/L	103%	1.62E+01	8.5E-02	97%	3/27/18 12:33 p	0.20056	ALP439
							Rec Limits:	80	120	0.0		L	
U-238	1.74E+01		2.2E+00	3.7E+00	2.45E-01	pCi/L	103%	1.69E+01	8.9E-02	103%	3/27/18 12:33 p	0.20056	ALP439
							Rec Limits:	80	120	0.0		L	
Batch: 8078048	AMCMISO_EIE_PLT_AEA			**Work Order:**	NAPHL2AC		**Report DB ID:**	NAPHL2CS					
AMERICIUM 241	2.41E+01		2.8E+00	5.2E+00	3.74E-01	pCi/L	99%	2.25E+01	2.3E-01	107%	3/30/18 11:15 a	0.20029	ALP39
							Rec Limits:	80	120	0.1		L	
Batch: 8078032	PU241_IE_LSC			**Work Order:**	NAPG31AC		**Report DB ID:**	NAPG31CS					
Pu-241	9.31E+02		1.7E+01	5.8E+01	1.07E+01	pCi/L	100%	1.14E+03	1.4E+01	82%	3/30/18 11:34 p	0.20066	LSC10
							Rec Limits:	80	120	-0.2		L	
Batch: 8102010	906.0_H3_LSC			**Work Order:**	NAPHQ2AC		**Report DB ID:**	NAPHQ2CS					
H-3	2.73E+03		3.1E+02	3.5E+02	4.62E+02	pCi/L	100%	2.76E+03	8.3E+01	99%	4/12/18 06:59 p	0.005	LSC6
							Rec Limits:	80	120	0.0		L	
Batch: 8078051	GAMMA_GS			**Work Order:**	NAPHP2AC		**Report DB ID:**	NAPHP2CS					
CO-60	3.83E+01		4.3E+00	4.3E+00	4.80E+00	pCi/L		3.68E+01		104%	4/5/18 11:03 a	2.00053	$GER19
							Rec Limits:	80	120	0.0		L	

TestAmerica Inc **Bias** **- (Result/Expected)-1 as defined by ANSI N13.30.**

rptSTLRchLcs
V5.8.5 A2002

FORM II

LCS RESULTS

Date: 18-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08031

Matrix: WATER **Report No. :** 72621

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
CS-137	4.82E+01		7.2E+00	7.2E+00	3.28E+00	pCi/L		4.90E+01		98%	4/5/18 11:03 a	2.00053	$GER19
							Rec Limits:	80	120	0.0		L	
EU-152	8.27E+01		7.4E+00	7.4E+00	5.65E+00	pCi/L		7.56E+01		109%	4/5/18 11:03 a	2.00053	$GER19
							Rec Limits:	80	120	0.1		L	
Batch: 8078045	9310_ALPHABETA_GPC			**Work Order:**	NAPHH1AC		**Report DB ID:**	NAPHH1CS					
Alpha	1.95E+01		1.6E+00	5.1E+00	6.87E-01	pCi/L	100%	2.26E+01	2.3E-01	86%	3/30/18 01:38 p	0.20021	GPC22D
							Rec Limits:	80	120	-0.1		L	
Batch: 8084058	9310_ALPHABETA_GPC			**Work Order:**	NAPTA1AC		**Report DB ID:**	NAPTA1CS					
Alpha	2.29E+01		1.7E+00	6.1E+00	6.77E-01	pCi/L	100%	2.25E+01	2.3E-01	102%	4/5/18 09:35 a	0.20016	GPC21D
							Rec Limits:	80	120	0.0		L	
Batch: 8078049	9310_ALPHABETA_GPC			**Work Order:**	NAPHM1AC		**Report DB ID:**	NAPHM1CS					
Beta	2.47E+01		1.8E+00	3.8E+00	1.58E+00	pCi/L	100%	2.24E+01	1.6E-01	110%	3/30/18 09:06 a	0.20027	GPC28C
							Rec Limits:	80	120	0.1		L	
Batch: 8078053	I129LL_SEP_LEPS_GS			**Work Order:**	NAPHR2AC		**Report DB ID:**	NAPHR2CS					
I129	2.26E+01		3.2E+00	3.2E+00	1.32E+00	pCi/L	75%	1.90E+01		119%	4/16/18 02:30 p	2.00085	LEP4$1
							Rec Limits:	80	120	0.2		L	
Batch: 8078036	903.1_RA226_LUC			**Work Order:**	NAPG71AC		**Report DB ID:**	NAPG71CS					
Ra-226	9.10E+00		8.2E-01	2.0E+00	4.80E-01	pCi/L	92%	9.95E+00	1.0E-01	91%	4/17/18 12:25 p	1.00088	ASCDMC
							Rec Limits:	80	120	-0.1		L	
Batch: 8096010	RL-RA-001			**Work Order:**	NAPG52AC		**Report DB ID:**	NAPG52CS					
Ra-228	8.54E+00		6.2E-01	1.0E+00	3.94E-01	pCi/L	91%	9.84E+00	9.9E-02	87%	4/11/18 06:41 p	1.00088	GPC4B
							Rec Limits:	80	120	-0.1		L	
Batch: 8078042	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPHE1AC		**Report DB ID:**	NAPHE1CS					

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

FORM II

LCS RESULTS

Date: 18-Apr-18

Lab Name: TestAmerica Inc

SDG: W08031

Matrix: WATER

Report No. : 72621

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
STRONTIUM	1.38E+01		1.5E+00	3.5E+00	1.02E+00	pCi/L	98%	1.32E+01	9.4E-02	104%	3/28/18 08:08 a	0.50841	GPC32C
							Rec Limits:	80	120	0.0		L	
Batch: 8101011	TC99_ETVDSK_LSC			**Work Order:**	NAPHJ4AC		**Report DB ID:**	NAPHJ4CS					
TC-99	9.60E+01		8.0E+00	8.8E+00	1.18E+01	pCi/L	100%	1.08E+02	6.2E-01	89%	4/13/18 12:49 a	0.12593	LSC10
							Rec Limits:	80	120	-0.1		L	
Batch: 8078054	NP237_LLE_PLATE_AEA			**Work Order:**	NAPHT1AC		**Report DB ID:**	NAPHT1CS					
NP-237	9.06E+00		1.6E+00	2.8E+00	3.12E-01	pCi/L	82%	8.99E+00	4.1E-01	101%	4/2/18 04:41 p	0.20064	ALP114
							Rec Limits:	80	120	0.0		L	

No. of Results: 19 **Comments:**

FORM II

MATRIX SPIKE RESULTS

Date: 18-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08031

Lot-Sample No.: J8C150408-5, B3HDF0 **Report No. :** 72621 **Matrix:** WATER

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDC|MDA	Rpt Unit	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 8078050	**Work Order:** NAPDD1AC			**Report DB ID:** NAPDD1CW			**Orig Sa DB ID:** 9NAPDD10					
C-14	4.63E+02		1.7E+01	3.3E+01	1.78E+01	pCi/L	100%	96.02%	4.82E+02	4/12/18 10:43 p	0.075	C14_LSC
	1.96E+00								9.7E+00		L	LSC4

Number of Results: 1

Comments:

4/18/2018

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TestAmerica Inc **RER** - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

rptSTLRchMs **Bias** - (Result/Expected)-1 as defined by ANSI N13.30.

V5.8.5 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 18-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08031

Lot-Sample No.: J8C150409-1, B3HHX2 **Report No. :** 72621 **Matrix:** WATER

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDC|MDA	Rpt Unit	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 8102010	**Work Order:** NAPDF2AD			**Report DB ID:** NAPDF2DW			**Orig Sa DB ID:** 9NAPDF20					
H-3	4.95E+01	U N	1.6E+03	5.6E+03	5.40E+02	pCi/L	100%	3.04%	1.63E+03	4/12/18 03:21 p	0.00429	906.0_H3_LSC
	9.69E+04								4.9E+01		L	LSC6

Number of Results: 1

Comments:

TestAmerica Inc
rptSTLRchMs
V5.8.5 A2002

RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
Bias - (Result/Expected)-1 as defined by ANSI N13.30.
N Qual - MS, MSD: Spike recovery exceeds upper or lower control limit.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

MATRIX SPIKE RESULTS

Date: 18-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08031

Lot-Sample No.: J8C150411-2, B3HDJ0 **Report No. :** 72621 **Matrix:** WATER

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDC|MDA	Rpt Unit	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 8101011	**Work Order:** NAPDJ2AN			**Report DB ID:** NAPDJ2NW			**Orig Sa DB ID:** 9NAPDJ20					
TC-99	4.47E+02		3.0E+01	8.1E+01	1.16E+01	pCi/L	100%	83.40%	5.36E+02 3.2E+00	4/12/18 10:35 p	0.12624 L	TC99_ETVDSK_LSC LSC10

Number of Results: 1

Comments:

4/18/2018

REV.0

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RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

Bias - (Result/Expected)-1 as defined by ANSI N13.30.