

Analytical Data Package Prepared For
CH2M Hill Plateau Remediation

Radiochemical Analysis By

TestAmerica TARL

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

Data Package Contains _____ Pages

Report Nbr: 40379

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05543	A09-010	B1X517	J8J150367-1	K00AW1AA	9K00AW10	8309334
		B1X534	J8J150367-2	K00A41AA	9K00A410	8309334
		B1X535	J8J150367-3	K00A51AA	9K00A510	8309334
		B1X521	J8J150367-4	K00A71AA	9K00A710	8309334
		B1X518	J8J150367-5	K00CE1AA	9K00CE10	8309334
		B1X529	J8J150367-6	K00CG1AA	9K00CG10	8309334
S09-010	S09-010	B1X6X2	J8J170220-1	K04F71AA	9K04F710	8309347
		B1X7B8	J8J170220-2	K04GE1AA	9K04GE10	8309334
		B1X7B8	J8J170220-2	K04GE1AC	9K04GE10	8309348
W09-010	W09-010	B1XC73	J8J220176-1	K1CKF1AA	9K1CKF10	8309350
		B1XC89	J8J220176-2	K1CKP1AA	9K1CKP10	8309350
		B1XC89	J8J220176-2	K1CKP1AC	9K1CKP10	8309334
I09-003	I09-003	B1XC44	J8J270177-1	K1PG91AA	9K1PG910	8309334
W09-010	W09-010	B1XF04	J8J270178-1	K1PHJ1AA	9K1PHJ10	8309350
		B1XC82	J8J270180-1	K1PHN1AA	9K1PHN10	8309350

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Comments:

0082352

RECEIVED DECEMBER 15, 2008

Report Nbr: 40379

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W05543	W09-010	B1XDV3	J8J270180-2	K1PH11AA	9K1PH110	8309350
		B1XDV3	J8J270180-2	K1PH11AC	9K1PH110	8309334
		B1XDV3	J8J270180-2	K1PH11AD	9K1PH110	8309351
	I09-003	B1XC26	J8J270182-1	K1PJK1AA	9K1PJK10	8309334
	I09-002	B1X623	J8J280248-1	K1Q8Q1AA	9K1Q8Q10	8309353
	S09-010	B1X6X8	J8J280249-1	K1Q951AA	9K1Q9510	8309334
		B1X6X7	J8J280249-2	K1Q971AA	9K1Q9710	8309334
		B1X788	J8J290333-1	K1WHK1AA	9K1WHK10	8309353
		B1X795	J8J290333-2	K1WHX1AA	9K1WHX10	8309353

Comments:

Certificate of Analysis

CH2M Hill Plateau Remediation Company
P.O. Box 1600
Mail Stop - B6-06
Richland, WA 99352

December 15, 2008

Attention: Mike Neely

SAF Number : A09-010, S09-010, W09-010, I09-003, W09-010, I09-002
Date SDG Closed : October 29, 2008
Number of Samples : Twenty (20)
Sample Type : Water
SDG Number : W05543
Data Deliverable : 45-Day / Summary

CASE NARRATIVE

I. Introduction

Between October 14, 2008 and October 29, 2008 twenty water samples were received at TestAmer.ca (TARL) for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Fluor Hanford specific IDs:

<u>PGW ID#</u>	<u>TARL ID#</u>	<u>DATE OF RECEIPT</u>	<u>MATRIX</u>
B1X517	K00AW	10/14/08	WATER
B1X534	K00A4	10/14/08	WATER
B1X535	K00A5	10/14/08	WATER
B1X521	K00A7	10/14/08	WATER
B1X518	K00CE	10/14/08	WATER
B1X529	K00CG	10/14/08	WATER
B1X6X2	K04F7	10/16/08	WATER
B1X7B8	K04GE	10/16/08	WATER
B1XC73	K1CKF	10/21/08	WATER
B1XC89	K1CKP	10/21/08	WATER
B1XC44	K1PG9	10/22/08	WATER
B1XF04	K1PHJ	10/22/08	WATER
B1XC82	K1PHN	10/22/08	WATER
B1XDV3	K1PHI	10/22/08	WATER

B1XC26	K1PJK	10/22/08	WATER
B1X623	K1Q8Q	10/24/08	WATER
B1X6X8	K1Q95	10/24/08	WATER
B1X6X7	K1Q97	10/24/08	WATER
B1X788	K1WHK	10/29/08	WATER
B1X795	K1WHX	10/29/08	WATER

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:

Gamma Spectroscopy

Gamma Spec (LL) by method RL-GAM-001 (RICH-RC-5017)*

Iodine-129 (LL) by method RL-GAM-002 (RICH-RC-5025)*

Iodine-129 by method RL-GAM-002 (RICH-RC-5025)*

Liquid Scintillation Counting

Technetium-99 by method RL-LSC-013 (RICH-RC-5078)*

Carbon-14 by method RL-LSC-008 (RICH-RC-5022)*

Nickel-63 by method RL-LSC-017 (RICH-RC-5069)*

*SOP ID's changed effective 7-01-2008. Attached is a cross reference until SOP ID's are changed in all systems.

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

Gamma Spectroscopy

Gamma Spec (LL) by method RL-GAM-001 (RICH-RC-5017):

There was insufficient volume for a duplicate. Sample B1XF04 was recounted on a different detector for the duplicate (B1XF04 DUP). Except as noted, the LCS, batch blank, samples and sample duplicate (B1XF04) results are within contractual requirements.

CH2M Hill Plateau Remediation Company
December 15, 2008

Iodine-129 (LL) by method RL-GAM-002 (RICH-RC-5025):

All the samples were analyzed with reduced volumes due to insufficient sample volumes. Except as note, the LCS, batch blank, samples and sample duplicate (B1X517) results are within contractual requirements.

Iodine-129 by method RL-GAM-002 (RICH-RC-5025):

The LCS, batch blank, samples and sample duplicate (B1X6X2) results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by method RL-LSC-013 (RICH-RC-5078):

The LCS, batch blank, samples, sample duplicate (B1X7B8), and sample matrix spike (B1X7B8) results are within contractual requirements.

Carbon-14 by method RL-LSC-008 (RICH-RC-5022):

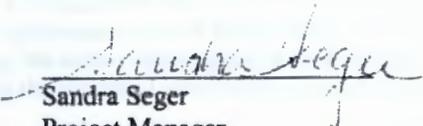
The LCS, batch blank, samples and sample duplicate (B1X788) results are within contractual requirements.

Nickel-63 by method RL-LSC-017 (RICH-RC-5069):

The LCS, batch blank, sample and sample duplicate (B1XDV3) results are within contractual requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:


Sandra Seger
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	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 00-02	Gross Alpha (Coprecipitation)	RICH-RC-5021
EPA 903.0	Total Alpha Radium (Ra-226)	RICH-RC-5027
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr-89/90	RICH-RC-5006
ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007

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, $R = \text{constants} * f(x,y,z,\dots)$. 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/\sqrt{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.
Total Uncert (#s) u_c - Combined Uncertainty.	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 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%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgmdCnt}/\text{BkgmdCntMin})/\text{SCntMin})) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. 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	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%. $MDC = (4.65 * \text{Sqrt}((\text{BkgmdCnt}/\text{BkgmdCntMin})/\text{SCntMin}) + 2.71/\text{SCntMin}) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$. 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 = $(S-D)/[\text{sqrt}(\text{TPUs}^2 + \text{TPUD}^2)]$ 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.

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
Asbestos	RL-ASB-001	N/A	NIOSH 7400	Fiber Counting by Phase Contrast Microscopy based on NIOSH 7400
Asbestos	RL-ASB-002	N/A	NIOSH 9002	Sample Prep and Analysis for Asbestos (bulk) by Polarized Light Microscopy based on NIOSH 9002
Alpha - Gross	ARCHIVED	RICH-RB-5035	Liquid Scintillation Anal/ Packard	DETERMINATION OF GROSS ALPHA IN NASAL SMEARS BY LIQUID SCINTILLATION COUNTING
Alpha - Gross	RL-GPC-001	RICH-RC-5014	9310 / EPA SW846 910.0 / EPA 600	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN WATER BY METHOD 9310
Alpha - Gross	RL-GPC-007	RICH-RC-5020	SM 7110B EPA 680	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN SOIL, SHORELINE SOIL, FOOD AND VEGETATION
Alpha - Gross	RL-GPC-002	RICH-RC-5021	00-02 EPA 520	DETERMINATION OF GROSS ALPHA ACTIVITY IN WATER BY COPRECIPIATION
Alpha - Gross	RL-GPC-008	RICH-RC-5036	ER100 / LANL	PREPARATION OF AIR FILTERS FOR GROSS ALPHA/BETA AND COMPOSITING AIR FILTERS
Am	RL-ALP-003	RICH-RC-5072	Mod RP 725 / DOE0089T EXT Chromatography	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
Am	RL-ALP-010	RICH-RC-5080	Am03/Pu11HASL 300 NAS-NS-30C6	SEQUENTIAL SEPARATION OF PLUTONIUM AND AMERICIUM
Beta - Gross	RL-GPC-001	RICH-RC-5014	9310 / EPA SW846 910.0 / EPA 600	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN WATER BY METHOD 9310
Beta - Gross	RL-GPC-007	RICH-RC-5020	SM 7110B EPA 680	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN SOIL, SHORELINE SOIL, FOOD AND VEGETATION
Beta - Gross	RL-GPC-008	RICH-RC-5036	ER100 / LANL	PREPARATION OF AIR FILTERS FOR GROSS ALPHA/BETA AND COMPOSITING AIR FILTERS
C14	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
C14	RL-LSC-008	RICH-RC-5022	EPA C-01 / EPA 520	CARBON 14 BY DIGESTION METHOD
C14	RL-LSC-009	RICH-RC-5040	Mod C14 / EPA 680	DETERMINATION OF CARBON-14 BY BENZENE SYNTHESIS
C14	RL-LSC-010	RICH-RC-5046	EPA C-01 / EPA 520	DETERMINATION OF CARBON-14 IN GRAPHITE AND SOIL
C14	RL-LSC-011	RICH-RC-5047	Mod H-02 / EPA 520	DETERMINATION OF CARBON-14 IN WATER BY DIRECT COUNTING
Cm	RL-ALP-003	RICH-RC-5072	Mod RP 725 / DOE0089T EXT Chromatography	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
Coliform	RL-WC-001	RICH-WC-5001	9222B	DETERMINATION OF TOTAL COLIFORM: MULTIPLE TUBE FERMENTATION TECHNIQUE
Coliform	RL-WC-002	RICH-WC-5002	9131	TOTAL COLIFORMS BY MEMBRANE FILTRATION
Coliform	RL-WC-005	RICH-WC-5007	9223	TOTAL COLIFORM BY THE COLLERT METHOD
Cr6+	RL-WC-003	RICH-WC-5003	7196A, SW846	DETERMINATION OF HEXAVALENT CHROMIUM (CrVI) IN WATER, SOIL, AND SIMILAR MATRICES
Cr6+	RL-WC-004	RICH-WC-5005	3060 / SW846	DETERMINATION OF HEXAVALENT CHROMIUM (CrVI) IN SOLID MATRICES WITH ALKALINE DIGESTION
Fe	RL-LSC-015	RICH-RC-5074	EXT Chromatography Mod Fe55/PNL-ALO-435	SEPARATION OF IRON AND NICKEL BY EXTRACTION CHROMATOGRAPHY
Fe55	RL-LSC-016	RICH-RC-5023	R4-73-014 / EPA HASL 300	DETERMINATION OF IRON-55 AND IRON-59 IN WATER
Fe59	RL-LSC-016	RICH-RC-5023	R4-73-014 / EPA HASL 300	DETERMINATION OF IRON-55 AND IRON-59 IN WATER
Gamma	RL-GAM-001	RICH-RC-5017	901.0 / HASL 300 ASTM D3649	PREPARATION OF ALL MATRICES FOR ANALYSIS BY GAMMA SPECTROSCOPY
H3	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
H3	RL-LSC-003	RICH-RB-5034	7500-3 / SM	DETERMINATION OF TRITIUM IN URINE BY DISTILLATION
H3	RL-LSC-004	RICH-RC-5004	H3 / EPA LV539	DETERMINATION OF TRITIUM IN AIR
H3	RL-LSC-005	RICH-RC-5007	Mod 906.0 / EPA 600	SEPARATION OF TRITIUM IN WATER AND AQUEOUS COMPONENT OF WINE
H3	RL-LSC-007	RICH-RC-5024	H-3 by EE EPA LV539 / HASL 300	DETERMINATION OF LOW LEVEL TRITIUM IN WATER BY ELECTROLYTIC ENRICHMENT
H3	RL-LSC-002	RICH-RC-5037	H-3 in Water/Tissue / LV 539	DETERMINATION OF TRITIUM BY CRYOGENIC DISTILLATION
H3	RL-LSC-006	RICH-RC-5048	H-3 in Water/Tissue / LV 539	TRITIUM PREPARATION IN MILK SAMPLES
I129	RL-GAM-002	RICH-RC-5025	R4-73-014/EPA ASTM D2334 (Discontinued)	DETERMINATION OF IODINE-131 AND 129 IN WATER BY SOLVENT EXTRACTION METHOD
I131	RL-GAM-002	RICH-RC-5025	R4-73-014/EPA ASTM D2334 (Discontinued)	DETERMINATION OF IODINE-131 AND 129 IN WATER BY SOLVENT EXTRACTION METHOD
I131	ARCHIVED	RICH-RC-5049	HASL 300 (1983)	DETERMINATION OF IODINE-131 IN MILK BY BATCH ION-EXCHANGE
Metals	ARCHIVED	BHI-MT-0001	6010	ICP-AE SPECTROSCOPY, SPECTROMETRIC METHOD FOR TRACE ELEMENT ANALYSIS, METHOD 6010A FOR Bechtel

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
Metals	RL-MT-001	RICH-MT-0001	6010B	ICP-AES for TRACE ELEMENT ANALYSIS, METHOD 6010B
Metals	RL-MT-002	RICH-MT-0002	SW486 3050B	ACID DIGESTION FOR ICP ANALYSIS
Metals	RL-MT-003	RICH-MT-0003	NIOSH 7300	DIGESTION PREP based on METHOD NIOSH 7300
Ni	RL-LSC-015	RICH-RC-5074	EXT Chromatography Mod Fe55/PNL-ALO-435	SEPARATION OF IRON AND NICKEL BY EXTRACTION CHROMATOGRAPHY
Ni63	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
Ni63	RL-LSC-017	RICH-RC-5069	EXT Chromatography Mod RP300 / DCE0089T	SEPARATION OF NI-63 BY EXTRACTION CHROMATOGRAPHY
Np	RL-ALP-013	RICH-RC-5009	NAS-NS-3060	DETERMINATION OF NEPTUNIUM-237 BY LIQUID-LIQUID EXTRACTION IN ALL MATRICES
Np	RL-ALP-006	RICH-RC-5064	EXT Chromatography	SEPARATION OF NEPTUNIUM BY EXTRACTION CHROMATOGRAPHY
P32	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
Pb	RL-ALP-011	RICH-RC-5076	EXT Chromatography	DETERMINATION OF LEAD-210 BY EXTRACTION CHROMATOGRAPHY
Po	RL-ALP-007	RICH-RB-5001	NAS-NS-3037 HASL 300	DETERMINATION OF POLONIUM-210 IN URINE
Po	RL-ALP-012	RICH-RC-5012	Po-01 / HASL 300 Mod U01 HASL 300	SEPARATION OF ISOTOPIC URANIUM AND POLONIUM-210 IN WATER, SOIL AND FILTERS
Prep - Bioassay	ARCHIVED	RICH-RB-0001		PREPARATION FOR RAPID BIOASSAY ANALYSES
Prep - Bioassay	RL-PRP-001	RICH-RB-5002	Mod Pu06 / HASL 300	PREPARATION OF URINE AND BLOOD SAMPLES
Prep - Bioassay	ARCHIVED	RICH-RB-5004	ASTM D1429-95	DETERMINATION OF SPECIFIC GRAVITY OF URINE
Prep - Bioassay	RL-RPL-002	RICH-RB-5036	Pub 6490,6601 / PNL LA-10300-M R200	PREPARATION OF SYNTHETIC URINE AND FECES USING RECIPES FROM HPS N13.30 PERFORMANCE TESTING
Prep - Bioassay	RL-PRP-002	RICH-RB-5037	ASTM D3865	PREPARATION OF FECAL SAMPLES USING HYDROFLUORIC ACID DIGESTION
Prep - Bioassay	RL-RPL-003	RICH-RC-5028	ICRP Publication 23	PREPARATION OF SYNTHETIC URINE AND FECES
Prep - Count	RL-ALP-016	RICH-RC-5003	G-03 / HASL 300	COPRECIPITATION OF SOME ACTINIDES ON NEODYMIUM FLUORIDE FOR ALPHA-PARTICLE SPECTROMETRY
Prep - Count	RL-ALP-015	RICH-RC-5039	G-03 / HASL 300 Anal Chem 1972	ELECTRODEPOSITION OF ACTINIDES
Prep - Count	RL-ALP-014	RICH-RC-5085	Morrison & Friiser NAS-NS-3050	ANHYDROUS ETHER EXTRACTION OF URANIUM
Prep - Env	RL-KPA-001	RICH-RC-5015	ASTM / D5174-97	ENVIRONMENTAL SAMPLE PREPARATION FOR URANIUM BY LASER-INDUCED PHOSPHORESCENCE
Prep - Env	RL-PRP-004	RICH-RC-5016	Sr02 / HASL 300	PREPARATION OF ENVIRONMENTAL MATRICES
Prep - Env	RL-PRP-007	RICH-RC-5045	Mod Pu02 / HASL 300	PREPARATION OF MIXED BED RESINS AND PRE-FILTERS
Prep - Env	RL-PRP-008	RICH-RC-5068	Mod ER100 / LA10300	PREPARATION OF SOIL, VEGETATION AND AIR FILTERS BY MIXED STRONG ACID LEACHING
Prep - Resin	RL-ALP-017	RICH-RC-5018	Mod Pu11 / Mod 300	ION-EXCHANGE PREPARATION
Prep - Soil	RL-PRP-003	RICH-RC-5013	Pu02A / HASL 300 D5259 / ASTM	PREPARATION OF SOIL SAMPLES
Prep - Soil	RL-PRP-005	RICH-RC-5019	SW 846/3015/3051/3052	PREPARATION AND DISSOLUTION OF SEDIMENTS AND SOIL BY MICROWAVE BOMB DIGESTION
Prep - Soil	RL-PRP-006	RICH-RC-5032	Pu02A / HASL 300	COMPLETE DISSOLUTION BY MIXED ACIDS IN A TEFLON BEAKER
Prep - Soil	RL-PRP-009	RICH-RC-5077	Mod ER100 / LA10300	PREPARATION OF SMALL SOIL SAMPLES FOR GAMMA SPEC AND/OR RADIOCHEM ANAL BY ACID DIGESTION
Prep - Urine	RL-PRP-010	RICH-RC-5086	AnalyticaChemActa1992 RP800 / DOE00089T	URINE AND WATER SAMPLE PREPARATION BY CALCIUM PHOSPHATE PRECIPITATION
Prep - Water	RL-PRP-010	RICH-RC-5086	AnalyticaChemActa1992 RP800 / DOE00089T	URINE AND WATER SAMPLE PREPARATION BY CALCIUM PHOSPHATE PRECIPITATION
Pu	ARCHIVED	RICH-RB-5015	Pu11 / HASL 300	RAPID DETERMINATION OF PLUTONIUM IN FECES
Pu	RL-ALP-002	RICH-RC-5010	Pu11 / HASL 300	DETERMINATION OF ISOTOPIC PLUTONIUM IN ALL MATRICES
Pu	RL-ALP-010	RICH-RC-5080	Am03 HASL 300 Pu11 / HASL 300	SEQUENTIAL SEPARATION OF PLUTONIUM AND AMERICIUM
Pu	RL-ALP-001	RICH-RC-5087	AnalyticaChemActa1992 RP800 / DOE00089T	DETERMINATION OF PLUTONIUM BY EXTRACTION CHROMATOGRAPHY
Ra	RL-RA-001	RICH-RC-5005	903.1 / EPA 600	RADIUM-226 AND RADIUM-228 SEPARATION IN RADIOCHEMICAL MATRICES - ADAPTED FROM EPA 903.1 A1JD 904.0
Ra	RL-RA-001	RICH-RC-5005	904.0 / EPA 600	RADIUM-226 AND RADIUM-228 SEPARATION IN RADIOCHEMICAL MATRICES - ADAPTED FROM EPA 903.1 A1JD 904.0

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
Ra	RL-RA-002	RICH-KC-5027	Mod D2460/ ASTM 903.0 / EPA 600	DETERMINATION OF TOTAL RADIUM
Rn	RL-LSC-019	RICH-RC-5082	913.0 / EPA	DETERMINATION OF RADON-222 - ADAPTED FROM METHOD 913.0
S35	ARCHIVED	RICH-RB-5020	Hillebrand, Lundell, Bright, Hoffman 1953	DETERMINATION OF SULFUR-35 IN URINE
Se79	RL-LSC-012	RICH-RC-5043	Selenium / NAS-NS-3030	RADIOCHEMICAL DETERMINATION OF SELENIUM-79
Solubility	ARCHIVED	RICH-RC-5035	Kallwardt & Thomas PNL3716	DETERMINATION OF SOLUBILITY OF RADIOACTIVE PARTICLE CONSTITUENTS
Sr	RL-GPC-005	RICH-RB-5007	Mod Sr02 / HASL 300 Mod 905.0 / EPA 600	DETERMINATION OF TOTAL STRONTIUM IN URINE
Sr	RI-GPC-006	RICH-RB-5021	Mod Sr02 / HASL 300 Mod 905.0 / EPA 600	DETERMINATION OF STRONTIUM IN FECES
Sr	ARCHIVED	RICH-RB-5022	Mod Sr02 / HASL 300 Mod 905.0 / EPA 600	DETERMINATION OF TOTAL STRONTIUM IN URINE FOR RAPID ANALYSIS
Sr	ARCHIVED	RICH-RB-5031	Mod Sr02 / HASL 300 Mod 905.0 / EPA 600	RAPID DETERMINATION OF TOTAL STRONTIUM IN FECES
Sr	RL-GPC-003	RICH-RC-5006	Mod Sr02 / HASL 300 Mod 905.0 / EPA 600	STRONTIUM SEPARATION IN ENVIRONMENTAL MATRICES
Sr - Yt	RL-GPC-004	RICH-RC-5071	Mod Sr02 / HASL 300 Mod 905.0 / EPA 600	YTTRIUM-90 SEPARATION FOR STRONTIUM-90 DETERMINATION IN ALL MATRICES
Tc	RL-LSC-014	RICH-RC-5065	EXT Chromatography Mod RP550 / DOE0089T	DETERMINATION OF TECHNETIUM-99 BY EXTRACTION CHROMATOGRAPHY
Tc	RI-LSC-013	RICH-RC-5078	Tc01 / HASL 300	SEPARATION OF TECHNETIUM-99 IN ALL MATRICES
Th	RL-ALP-008	RICH-RB-5006	Mod Th01 / HASL 300	SEPARATION OF THORIUM FROM URINE AND FECAL SAMPLES
Th	RL-ALP-005	RICH-RC-5084	Mod Th01 / HASL 300 Anal Chim Acta 1982	DETERMINATION OF THORIUM ISOTOPIC IN ENVIRONMENTAL MATRICES
U	RL-ALP-012	RICH-KC-5012	Po-01 / HASL 300 Mod U01 / HASL 300	SEPARATION OF ISOTOPIC URANIUM AND POLONIUM-210 IN WATER, SOIL AND FILTERS
U	RL-KPA-002	RICH-RC-5031	Mod U01 / HASL 300	SEPARATION OF TOTAL URANIUM IN WATER AND URINE
U	RL-KPA-003	RICH-RC-5058	D5174 / ASTM	DETERMINATION OF URANIUM BY PHOSPHORESCENCE ANALYSIS
U	RL-ALP-004	RICH-RC-5067	EXT Chromatography Mod RP725 / DOE0089T	SEPARATION OF URANIUM BY EXTRACTION CHROMATOGRAPHY
U	RL-ALP-003	RICH-RC-5072	EXT Chrom Mod RP725 & 800 / DOE0089T	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
U	RI-ALP-009	RICH-RC-5079	EXT Chromatography Mod RP725 / DOE0089T	DETERMINATION OF ISOTOPIC URANIUM IN ALL MATRICES

12/15/2008 11:39:59 AM

TestAmerica Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 40379 File Name: h:\Reportdb\edd\Fead\Rad\W05543.Edd, h:\Reportdb\edd\Fead\Rad\40379.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9K00A410	B1X534		MW6-SBB-A1	A09-010	W05543					10/14/2008 10:05				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309334	I-129L	15046-84-1	1.76E-01	pCi/L	1.5E-01	1.5E-01	U	2.96E-01	103.2	I129LL_SEP_LEPS	3.9042E+00	L	11/26/2008 20:03	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9K00A510	B1X535		MW6-SBB-A1	A09-010	W05543					10/14/2008				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309334	I-129L	15046-84-1	4.98E-03	pCi/L	1.1E-01	1.1E-01	U	2.09E-01	104.6	I129LL_SEP_LEPS	3.8662E+00	L	11/26/2008 23:07	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9K00A710	B1X521		MW6-SBB-A1	A09-010	W05543					10/14/2008 13:16				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309334	I-129L	15046-84-1	1.38E+00	pCi/L	3.6E-01	3.6E-01		1.94E-01	104.1	I129LL_SEP_LEPS	3.8793E+00	L	11/26/2008 23:08	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9K00AW10	B1X517		MW6-SBB-A1	A09-010	W05543					10/14/2008 11:50				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309334	I-129L	15046-84-1	1.31E+00	pCi/L	4.3E-01	4.3E-01	U	6.07E-01	101.4	I129LL_SEP_LEPS	3.7647E+00	L	11/26/2008 16:28	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9K00CE10	B1X518		MW6-SBB-A1	A09-010	W05543					10/14/2008 11:50				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309334	I-129L	15046-84-1	1.61E+00	pCi/L	3.8E-01	3.8E-01	U	6.60E-01	100.5	I129LL_SEP_LEPS	3.7536E+00	L	11/26/2008 23:08	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9K00CG10	B1X529		MW6-SBB-A1	A09-010	W05543					10/14/2008 12:46				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309334	I-129L	15046-84-1	1.01E+00	pCi/L	2.3E-01	2.3E-01	U	4.59E-01	103.0	I129LL_SEP_LEPS	3.8791E+00	L	11/27/2008 07:19	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9K04F710	B1X6X2		MW6-SBB-A1	S09-010	W05543					10/14/2008 12:48				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309347	I-129L	15046-84-1	4.30E+00	pCi/L	1.4E+00	1.4E+00	U	2.79E+00	103.0	I129_SEP_LEPS_G	5.00E-01	L	12/04/2008 16:10	I

TestAmerica

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

rptFeadRadSummaryEdd v3.48

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12/15/2008 11:39:59 AM

TestAmerica Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 40379 File Name: h:\Reportdb\edd\Fead\Rad\W05543.Edd, h:\Reportdb\edd\Fead\Rad\40379.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:				
9K04GE10	B1X7B8		MW6-SBB-A1	S09-010	W05543					10/16/2008 10:56				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309334	I-129L	15046-84-1	1.57E-01	pCi/L	2.3E-01	2.3E-01	U	3.44E-01	101.6	I129LL_SEP_LEPS	3.8887E+00	L	11/27/2008 07:20	I
8309348	TC-99	14133-76-7	-9.82E+00	pCi/L	4.1E+00	5.9E+00	U	1.03E+01	100.0	TC99_SEP_LSC	1.25E-01	L	12/09/2008 00:30	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:				
9K1CKF10	B1XC73		MW6-SBB-A1	W09-010	W05543					10/20/2008 13:13				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309350	BE-7	13966-02-4	2.23E+01	pCi/L	2.0E+01	2.0E+01	U	3.77E+01		GAMMALL_GS	2.00E+00	L	12/03/2008 09:16	I
8309350	CO-60	10198-40-0	-3.85E-01	pCi/L	1.6E+00	1.6E+00	U	2.82E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:16	I
8309350	CS-134	13967-70-9	-1.71E-01	pCi/L	1.7E+00	1.7E+00	U	3.14E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:16	I
8309350	CS-137	10045-97-3	1.68E-01	pCi/L	1.7E+00	1.7E+00	U	2.97E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:16	I
8309350	EU-152	14683-23-9	-1.46E+00	pCi/L	4.0E+00	4.0E+00	U	6.83E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:16	I
8309350	EU-154	15585-10-1	8.63E-01	pCi/L	4.5E+00	4.5E+00	U	8.62E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:16	I
8309350	EU-155	14391-16-3	8.27E-01	pCi/L	2.8E+00	2.8E+00	U	4.97E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:16	I
8309350	K-40	13966-00-2	-2.84E+01	pCi/L	4.2E+01	4.2E+01	U	8.72E+01		GAMMALL_GS	2.00E+00	L	12/03/2008 09:16	I
8309350	RU-106	13967-48-1	1.16E+00	pCi/L	1.6E+01	1.6E+01	U	2.88E+01		GAMMALL_GS	2.00E+00	L	12/03/2008 09:16	I
8309350	SB-125	14234-35-6	-1.48E+00	pCi/L	4.3E+00	4.3E+00	U	7.30E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:16	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:				
9K1CKP10	B1XC89		MW6-SBB-A1	W09-010	W05543					10/20/2008 11:47				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309350	BE-7	13966-02-4	-5.57E+00	pCi/L	2.1E+01	2.1E+01	U	3.59E+01		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:17	I
8309350	CO-60	10198-40-0	1.98E+00	pCi/L	1.7E+00	1.7E+00	U	3.70E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:17	I
8309350	CS-134	13967-70-9	1.21E+00	pCi/L	1.6E+00	1.6E+00	U	3.19E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:17	I
8309350	CS-137	10045-97-3	-8.49E-03	pCi/L	1.4E+00	1.4E+00	U	2.62E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:17	I
8309350	EU-152	14683-23-9	-1.41E+00	pCi/L	4.1E+00	4.1E+00	U	6.97E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:17	I
8309350	EU-154	15585-10-1	8.45E-01	pCi/L	4.6E+00	4.6E+00	U	8.89E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:17	I
8309350	EU-155	14391-16-3	-9.48E-01	pCi/L	3.2E+00	3.2E+00	U	5.40E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:17	I
8309350	K-40	13966-00-2	-4.19E+01	pCi/L	3.6E+01	3.6E+01	U	7.32E+01		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:17	I
8309350	RU-106	13967-48-1	-1.78E+00	pCi/L	1.4E+01	1.4E+01	U	2.38E+01		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:17	I
8309350	SB-125	14234-35-6	-2.16E+00	pCi/L	3.8E+00	3.8E+00	U	6.51E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:17	I

TestAmerica

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual - Analyte was found in the associated laboratory blank above the MDC.

rptFeadRadSummaryEdd v3.48

12/15/2008 11:39:59 AM

TestAmerica Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 40379 File Name: h:\Reportdb\ledd\FeadIVRad\W05543.Edd, h:\Reportdb\ledd\FeadIVRad\40379.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
8309334	I-129L	15046-84-1	3.11E-01	pCi/L	2.4E-01	2.4E-01	U	3.52E-01	107.6	I129LL_SEP_LEPS 3.8938E+00	L 11/27/2008 07:20	I		
9K1PG910	B1XC44	MW6-SBB-A1	I09-003	W05543						10/21/2008 11:17				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309334	I-129L	15046-84-1	-3.74E-02	pCi/L	1.2E-01	1.2E-01	U	2.09E-01	101.6	I129LL_SEP_LEPS	3.8991E+00	L	11/27/2008 09:05	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9K1PH110	B1XDV3	MW6-SBB-A1	W09-010	W05543						10/21/2008 10:17				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309350	BE-7	13966-02-4	-5.03E+00	pCi/L	1.8E+01	1.8E+01	U	3.12E+01		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	CO-60	10198-40-0	1.30E+00	pCi/L	1.8E+00	1.8E+00	U	3.42E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	CS-134	13967-70-9	-1.02E-01	pCi/L	1.8E+00	1.8E+00	U	3.12E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	CS-137	10045-97-3	-7.36E-01	pCi/L	1.6E+00	1.6E+00	U	2.60E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	EU-152	14683-23-9	-1.29E+00	pCi/L	4.0E+00	4.0E+00	U	6.64E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	EU-154	15585-10-1	2.39E+00	pCi/L	4.9E+00	4.9E+00	U	9.29E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	EU-155	14391-16-3	7.65E-02	pCi/L	4.1E+00	4.1E+00	U	6.97E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	K-40	13966-00-2	-3.51E+01	pCi/L	4.8E+01	4.8E+01	U	9.56E+01		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	RU-106	13967-48-1	-2.62E+00	pCi/L	1.4E+01	1.4E+01	U	2.38E+01		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	SB-125	14234-35-6	-2.83E+00	pCi/L	3.9E+00	3.9E+00	U	6.47E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309334	I-129L	15046-84-1	2.28E+01	pCi/L	2.5E+00	2.5E+00		3.47E-01	102.4	I129LL_SEP_LEPS	3.938E+00	L	11/27/2008 10:48	I
8309351	NI-63	13981-37-8	2.78E+02	pCi/L	6.1E+00	1.9E+01		5.37E+00	65.8	NI63_LSC	3.999E-01	L	12/06/2008 06:34	I
Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9K1PHJ10	B1XF04	MW6-SBB-A1	W09-010	W05543						10/21/2008 11:17				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309350	BE-7	13966-02-4	-9.66E+00	pCi/L	1.9E+01	1.9E+01	U	3.30E+01		GAMMALL_GS	2.00E+00	L	12/03/2008 09:17	I
8309350	CO-60	10198-40-0	-5.44E-01	pCi/L	1.9E+00	1.9E+00	U	3.33E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:17	I
8309350	CS-134	13967-70-9	3.50E-02	pCi/L	1.6E+00	1.6E+00	U	2.97E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:17	I
8309350	CS-137	10045-97-3	-7.13E-01	pCi/L	1.5E+00	1.5E+00	U	2.51E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:17	I
8309350	EU-152	14683-23-9	2.01E+00	pCi/L	3.7E+00	3.7E+00	U	6.84E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:17	I
8309350	EU-154	15585-10-1	4.43E-01	pCi/L	4.8E+00	4.8E+00	U	9.07E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:17	I
8309350	EU-155	14391-16-3	1.02E+00	pCi/L	2.7E+00	2.7E+00	U	4.97E+00		GAMMALL_GS	2.00E+00	L	12/03/2008 09:17	I

TestAmerica

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

rptFeadRadSummaryEdd v3.48

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

12/15/2008 11:39:59 AM

TestAmerica Report

Lab Code: TARL

FormNbr:	FormatType:	Version:	Rpt Nbr:	File Name:
R	FEAD	05	40379	h:\Reportdb\edd\FeadIVRad\W05543.Edd, h:\Reportdb\edd\FeadIVRad\40379.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:				
9K1PHN10	B1XC82		MW6-SBB-A1	W09-010	W05543					10/21/2008 11:19				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309350	BE-7	13966-02-4	-7.21E+00	pCi/L	1.7E+01	1.7E+01	U	2.92E+01		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	CO-60	10198-40-0	1.52E+00	pCi/L	1.3E+00	1.3E+00	U	2.74E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	CS-134	13967-70-9	1.00E+00	pCi/L	1.3E+00	1.3E+00	U	2.55E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	CS-137	10045-97-3	1.83E-01	pCi/L	1.2E+00	1.2E+00	U	2.22E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	EU-152	14683-23-9	-3.77E-02	pCi/L	3.2E+00	3.2E+00	U	5.60E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	EU-154	15585-10-1	-2.11E+00	pCi/L	3.5E+00	3.5E+00	U	5.88E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	EU-155	14391-16-3	-8.62E-01	pCi/L	3.1E+00	3.1E+00	U	5.37E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	K-40	13966-00-2	1.14E+00	pCi/L	2.1E+01	2.1E+01	U	4.02E+01		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	RU-106	13967-48-1	9.11E+00	pCi/L	1.2E+01	1.2E+01	U	2.23E+01		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I
8309350	SB-125	14234-35-6	-1.07E+00	pCi/L	3.3E+00	3.3E+00	U	5.64E+00		GAMMALL_GS	2.0001E+00	L	12/03/2008 09:18	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:				
9K1PJK10	B1XC26		MW6-SBB-A1	I09-003	W05543					10/21/2008 13:23				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309334	I-129L	15046-84-1	-2.75E-02	pCi/L	1.5E-01	1.5E-01	U	2.54E-01	99.5	I129LL_SEP_LEPS	3.9169E+00	L	11/28/2008 08:12	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:				
9K1Q8Q10	B1X623		MW6-SBB-A1	I09-002	W05543					10/23/2008 11:51				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309353	C-14	14762-75-5	2.65E+01	pCi/L	4.3E+00	5.2E+00		8.36E+00	100.0	C14_LSC	2.00E-01	L	12/04/2008 21:31	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:				
9K1Q9510	B1X6X8		MW6-SBB-A1	S09-010	W05543					10/23/2008 11:00				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309334	I-129L	15046-84-1	7.99E+00	pCi/L	1.0E+00	1.0E+00		4.07E-01	104.3	I129LL_SEP_LEPS	3.8554E+00	L	11/28/2008 08:13	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%:	Distilled Volume	Sample On Date:	Collection Date:
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TestAmerica

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

rptFeadRadSummaryEdd v3.48

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

12/15/2008 11:39:59 AM

TestAmerica Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 40379 File Name: h:\Reportdb\edd\Fead\VRad\W05543.Edd, h:\Reportdb\edd\Fead\VRad\40379.Edd

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/Solids%*:	Distilled Volume	Sample On Date:	Collection Date:				
9K1Q9710	B1X6X7		MW6-SBB-A1	S09-010	W05543					10/23/2008 11:00				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309334	I-129L	15046-84-1	5.05E+00	pCi/L	7.5E-01	7.5E-01		3.28E-01	100.8	I129LL_SEP_LEPS	3.8367E+00	L	11/28/2008 08:13	I
9K1WHK10	B1X788		MW6-SBB-A1	S09-010	W05543					10/27/2008 08:44				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309353	C-14	14762-75-5	6.13E+03	pCi/L	3.9E+01	2.3E+02		8.36E+00	100.0	C14_LSC	2.00E-01	L	12/04/2008 22:14	I
9K1WHX10	B1X795		MW6-SBB-A1	S09-010	W05543					10/27/2008 11:46				
Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
8309353	C-14	14762-75-5	4.68E+03	pCi/L	3.4E+01	1.7E+02		8.36E+00	100.0	C14_LSC	2.00E-01	L	12/04/2008 23:39	I

Monday, December 15, 2008

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05543.Edd, h:\Reportdb\edd\Fead\VRad\40379.Edd

Lab Sample Id: K17G11AB

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/14/2008 11:50

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/14/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								AY	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309334	I-129L	1.36E-01	pCi/L	1.2E-01	U	2.49E-01	101.9		I129LL_SEP_L	4.00E+00	11/28/2008				D
BLK	15046-84-1			1.2E-01						L	09:59				

Monday, December 15, 2008

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05543.Edd, h:\Reportdb\edd\Fead\Rad\40379.Edd

Lab Sample Id: K17HM1AB

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/14/2008 12:48

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/16/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BA	H					
Batch # / Qc Type	Analy/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309347 BLK	I-129L 15046-84-1	-1.11E+00	pCi/L	1.0E+00 1.0E+00	U	1.55E+00	98.1		I129_SEP_LEP	5.001E-01 L	12/04/2008 19:49				D

Monday, December 15, 2008

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIVRad\W05543.Edd, h:\Reportdb\edd\FeadIVRad\40379.Edd

Lab Sample Id: K17HN1AB

Sdg/Rept Nbr: W05543

40379

Collection Date: 10/16/2008 10:56

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/16/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BC	H					
Batch #/ Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309348 BLK	TC-99 14133-76-7	-9.38E+00	pCi/L	6.0E+00 4.1E+00	U	1.01E+01	100.0		TC99_SEP_LS	1.251E-01 L	12/09/2008 00:30				D

Monday, December 15, 2008

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05543.Edd, h:\Reportdb\edd\FeadIV\Rad\40379.Edd

Lab Sample Id: K17HR1AB

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/21/2008 11:17

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/22/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BE	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309350	BE-7	-2.15E-01	pCi/L	1.9E+01	U	3.33E+01			GAMMALL_GS	2.0001E+00	12/03/2008				D
	BLK 13966-02-4			1.9E+01						L	09:19				
8309350	CO-60	-1.31E+00	pCi/L	1.6E+00	U	2.61E+00			GAMMALL_GS	2.0001E+00	12/03/2008				D
	BLK 10198-40-0			1.6E+00						L	09:19				
8309350	CS-134	5.93E-01	pCi/L	1.7E+00	U	3.21E+00			GAMMALL_GS	2.0001E+00	12/03/2008				D
	BLK 13967-70-9			1.7E+00						L	09:19				
8309350	CS-137	3.62E-02	pCi/L	1.5E+00	U	2.75E+00			GAMMALL_GS	2.0001E+00	12/03/2008				D
	BLK 10045-97-3			1.5E+00						L	09:19				
8309350	EU-152	-3.87E+00	pCi/L	3.8E+00	U	6.18E+00			GAMMALL_GS	2.0001E+00	12/03/2008				D
	BLK 14683-23-9			3.8E+00						L	09:19				
8309350	EU-154	3.23E+00	pCi/L	4.1E+00	U	8.58E+00			GAMMALL_GS	2.0001E+00	12/03/2008				D
	BLK 15585-10-1			4.1E+00						L	09:19				
8309350	EU-155	-4.55E-01	pCi/L	2.5E+00	U	4.23E+00			GAMMALL_GS	2.0001E+00	12/03/2008				D
	BLK 14391-16-3			2.5E+00						L	09:19				
8309350	K-40	-2.31E+01	pCi/L	3.4E+01	U	6.94E+01			GAMMALL_GS	2.0001E+00	12/03/2008				D
	BLK 13966-00-2			3.4E+01						L	09:19				
8309350	RU-106	8.49E-01	pCi/L	1.5E+01	U	2.66E+01			GAMMALL_GS	2.0001E+00	12/03/2008				D
	BLK 13967-48-1			1.5E+01						L	09:19				
8309350	SB-125	-1.24E-01	pCi/L	3.8E+00	U	6.78E+00			GAMMALL_GS	2.0001E+00	12/03/2008				D
	BLK 14234-35-6			3.8E+00						L	09:19				

Monday, December 15, 2008

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05543.Edd, h:\Reportdb\edd\Fead\VRad\40379.Edd

Lab Sample Id: K17HT1AB

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/21/2008 10:17

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/22/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BG	H					
Batch #/ Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309351 BLK	NI-63 13981-37-8	1.11E+00	pCi/L	6.1E+00 3.8E+00	U	9.17E+00	38.1		NI63_LSC	4.00E-01 L	12/06/2008 10:00				D

Monday, December 15, 2008

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIVRad\W05543.Edd, h:\Reportdb\edd\FeadIVRad\40379.Edd

Lab Sample Id: K17HV1AB

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/27/2008 08:44

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BLK

Received Date: 10/29/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BI	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309353 BLK	C-14 14762-75-5	1.45E+00	pCi/L	4.2E+00 3.5E+00	U	8.36E+00	100.0		C14_LSC	2.00E-01	12/04/2008 20:06				D

Monday, December 15, 2008

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05543.Edd, h:\Reportdb\edd\Fead\VRad\40379.Edd

Lab Sample Id: K17G11CS

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/14/2008 11:50

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/14/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								AZ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	To/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Allq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309334 BS	I-129L 15046-84-1	1.08E+01	pCi/L	1.3E+00 1.3E+00		4.85E-01	99.8	9.65E+00 112.0	I129LL_SEP_L	3.989E+00 L	11/28/2008 12:06			70 130	D

Monday, December 15, 2008

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\VRad\W05543.Edd, h:\Reportdb\ledd\Fead\VRad\40379.Edd

Lab Sample Id: K17HM1CS

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/14/2008 12:48

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/16/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BB	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309347 BS	I-129L 15046-84-1	4.98E+01	pCi/L	7.7E+00 7.7E+00		2.74E+00	101.0	4.55E+01 109.3	I129_SEP_LEP	5.00E-01 L	12/04/2008 21:35			70 130	D

Monday, December 15, 2008

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\VRad\W05543.Edd, h:\Reportdb\ledd\Fead\VRad\40379.Edd

Lab Sample Id: K17HN1CS

Sdg/Rept Nbr: W05543

40379

Collection Date: 10/16/2008 10:56

Client Id: NA

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/16/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BD	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309348 BS	TC-99 14133-76-7	5.23E+02	pCi/L	3.7E+01 1.3E+01		1.03E+01	100.0	5.55E+02 94.2	TC99_SEP_LS	1.25E-01 L	12/09/2008 00:30			70 130	D

Monday, December 15, 2008

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05543.Edd, h:\Reportdb\edd\Fead\Rad\40379.Edd

Lab Sample Id: K17HR1CS

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/21/2008 11:17

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/22/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BF	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309350 BS	CO-60 10198-40-0	4.29E+01	pCi/L	7.1E+00 7.1E+00		2.97E+00		3.71E+01 115.4	GAMMALL_GS	2.00E+00 L	12/03/2008 09:19			75 125	D
8309350 BS	CS-137 10045-97-3	5.35E+01	pCi/L	8.7E+00 8.7E+00		3.21E+00		4.99E+01 107.3	GAMMALL_GS	2.00E+00 L	12/03/2008 09:19			70 130	D
8309350 BS	EU-152 14683-23-9	7.99E+01	pCi/L	1.4E+01 1.4E+01		8.10E+00		7.64E+01 104.5	GAMMALL_GS	2.00E+00 L	12/03/2008 09:19			70 130	D

Monday, December 15, 2008

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\ledd\Fead\VRad\W05543.Edd, h:\Reportdb\ledd\Fead\VRad\40379.Edd

Lab Sample Id: K17HT1CS

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/21/2008 10:17

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/22/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BH	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309351 BS	NI-63 13981-37-8	3.13E+02	pCi/L	2.0E+01 5.9E+00		4.67E+00	85.1	3.79E+02 82.4	NI63_LSC	4.00E-01 L	12/06/2008 11:43			70 130	D

Monday, December 15, 2008

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05543.Edd, h:\Reportdb\edd\Fead\Rad\40379.Edd

Lab Sample Id: K17HV1CS

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/27/2008 08:44

Client Id: NA

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: BS

Received Date: 10/29/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
	MW6-SBB-A19981								BJ	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309353 BS	C-14 14762-75-5	4.40E+01	pCi/L	5.8E+00 4.8E+00		8.36E+00	100.0	4.65E+01 94.5	C14_LSC	2.00E-01 L	12/04/2008 20:48			70 130	D

Monday, December 15, 2008

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05543.Edd, h:\Reportdb\edd\Fead\Rad\40379.Edd

Lab Sample Id: K00AW1CR

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/14/2008 11:50

Client Id: B1X517

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/14/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
A09-010	MW6-SBB-A19981								AU	H					
Batch #/ Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309334 DUP	I-129L 15046-84-1	1.69E+00 1.31E+00	pCi/L	3.9E-01 3.9E-01	U	6.39E-01	100.5		I129LL_SEP_L	3.7928E+00 L	11/26/2008 18:19	25.2 20.0	1.4 3		D

Monday, December 15, 2008

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05543.Edd, h:\Reportdb\edd\Fead\VRad\40379.Edd

Lab Sample Id: K04F71CR

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/14/2008 12:48

Client Id: B1X6X2

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/16/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S09-010	MW6-SBB-A19981								AV	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309347	I-129L	2.50E+00	pCi/L	1.3E+00	U	2.68E+00	99.7		I129_SEP_LEP	5.001E-01	12/04/2008	52.8	2.		D
DUP	15046-84-1	4.30E+00		1.3E+00						L	18:02	20.0	3		

Monday, December 15, 2008

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIVRad\W05543.Edd, h:\Reportdb\edd\FeadIVRad\40379.Edd

Lab Sample Id: K04GE1ER

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/16/2008 10:56

Client Id: B1X7B8

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/16/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S09-010	MW6-SBB-A19981								AX	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309348 DUP	TC-99 14133-76-7	-7.90E+00 -9.82E+00	pCi/L	6.0E+00 4.2E+00	U	1.03E+01	100.0		TC99_SEP_LS	1.25E-01 L	12/09/2008 00:30	0.0 20.0	0.4 3		D

TESTAMERICA

Monday, December 15, 2008

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05543.Edd, h:\Reportdb\edd\Fead\Rad\40379.Edd

Lab Sample Id: K1PH11ER

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/21/2008 10:17

Client Id: B1XDV3

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/22/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
W09-010	MW6-SBB-A19981								BK	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	To/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/ L	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309351	NI-63	2.88E+02	pCi/L	1.9E+01		3.84E+00	100.0		NI63_LSC	4.00E-01	12/06/2008	3.4	0.7		D
DUP	13981-37-8	2.78E+02		5.1E+00						L	08:17	20.0	3		

31

Monday, December 15, 2008

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\Rad\W05543.Edd, h:\Reportdb\edd\Fead\Rad\40379.Edd

Lab Sample id: K1PHJ1CR

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/21/2008 11:17

Client id: B1XF04

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/22/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File id	FSuffix	RTyp					
W09-010	MW6-SBB-A19981								BL	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309350	BE-7	-5.57E-01	pCi/L	1.8E+01	U	3.19E+01			GAMMALL_GS	2.00E+00	12/02/2008	0.0	0.7		D
	DUP 13966-02-4	-9.66E+00		1.8E+01						L	19:01	20.0	3		
8309350	CO-60	5.88E-01	pCi/L	1.5E+00	U	2.81E+00			GAMMALL_GS	2.00E+00	12/02/2008	5197.4	1.1		D
	DUP 10198-40-0	-5.44E-01		1.5E+00						L	19:01	20.0	3		
8309350	CS-134	1.44E+00	pCi/L	1.6E+00	U	3.06E+00			GAMMALL_GS	2.00E+00	12/02/2008	190.5	1.2		D
	DUP 13967-70-9	3.50E-02		1.6E+00						L	19:01	20.0	3		
8309350	CS-137	7.09E-01	pCi/L	1.5E+00	U	2.73E+00			GAMMALL_GS	2.00E+00	12/02/2008	0.0	1.3		D
	DUP 10045-97-3	-7.13E-01		1.5E+00						L	19:01	20.0	3		
8309350	EU-152	-1.88E-01	pCi/L	3.9E+00	U	6.63E+00			GAMMALL_GS	2.00E+00	12/02/2008	241.2	0.8		D
	DUP 14683-23-9	2.01E+00		3.9E+00						L	19:01	20.0	3		
32 8309350	EU-154	1.88E+00	pCi/L	4.0E+00	U	7.74E+00			GAMMALL_GS	2.00E+00	12/02/2008	123.8	0.5		D
	DUP 15585-10-1	4.43E-01		4.0E+00						L	19:01	20.0	3		
8309350	EU-155	-1.72E-01	pCi/L	4.2E+00	U	7.17E+00			GAMMALL_GS	2.00E+00	12/02/2008	281.1	0.4		D
	DUP 14391-16-3	1.02E+00		4.2E+00						L	19:01	20.0	3		
8309350	K-40	-2.73E+01	pCi/L	4.7E+01	U	9.43E+01			GAMMALL_GS	2.00E+00	12/02/2008	0.0	0.2		D
	DUP 13966-00-2	-2.10E+01		4.7E+01						L	19:01	20.0	3		
8309350	RU-106	-8.40E-01	pCi/L	1.3E+01	U	2.27E+01			GAMMALL_GS	2.00E+00	12/02/2008	0.0	0.		D
	DUP 13967-48-1	-9.23E-01		1.3E+01						L	19:01	20.0	3		
8309350	SB-125	5.34E-01	pCi/L	3.6E+00	U	6.32E+00			GAMMALL_GS	2.00E+00	12/02/2008	0.0	0.4		D
	DUP 14234-35-6	-5.52E-01		3.6E+00						L	19:01	20.0	3		

TestAmerica

rptFeadRadEdd v3.68

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.

J Qual - No U qualifier has been assigned and the result is below the Reporting Limit (CRDL).

B Qual- Analyte was found in the associated laboratory blank above the MDC.

Monday, December 15, 2008

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\Fead\VRad\W05543.Edd, h:\Reportdb\edd\Fead\VRad\40379.Edd

Lab Sample Id: K1WHK1CR

Sdg/Rept Nbr: W05543

40379

Collection Date: 10/27/2008 08:44

Client Id: B1X788

Matrix: WATER

WATER

Sample On Date:

Moisture/Solids%*:

QC Type: DUP

Received Date: 10/29/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S09-010	MW6-SBB-A19981								BM	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qual	MDC	Tracer Yield	Spk Concl/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309353	C-14	6.39E+03	pCi/L	2.4E+02		8.36E+00	100.0		C14_LSC	2.00E-01	12/04/2008	4.1	1.6		D
DUP	14762-75-5	6.13E+03		4.0E+01						L	22:56	20.0	3		

Monday, December 15, 2008

TestAmerica Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R

FormatType: FEAD

VersionNbr: 05

File Name: h:\Reportdb\edd\FeadIV\Rad\W05543.Edd, h:\Reportdb\edd\FeadIV\Rad\40379.Edd

Lab Sample Id: K04GE1DW

Sdg/Rept Nbr: W05543 40379

Collection Date: 10/16/2008 10:56

Client Id: B1X7B8

Matrix: WATER WATER

Sample On Date:

Moisture/Solids%*:

QC Type: MS

Received Date: 10/16/2008

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp					
S09-010	MW6-SBB-A19981								AW	H					
Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu- al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
8309348 MS	TC-99 14133-76-7	3.33E+03	pCi/L	2.0E+02 3.2E+01		1.02E+01	100.0	3.59E+03 92.7	TC99_SEP_LS	1.25E-01 L	12/09/2008 00:30			60 140	D

Lot No., Due Date: J8J220176,J8J270180,J8J270178; 12/15/2008

Client, Site: 384868; PGW 615HANFORD HANFORD

QC Batch No., Method Test: 8309350; RGAMMA Gamma by GER

SDG, Matrix: W05543; WATER

1.0 COC

1.1 Is the COC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete: includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

The sample was re-counted on a different detector in order to provide a duplicate sample.

First Level Review

John Norto

Date 12-4-8

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 8309350

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie Date: 12/5/08

Lot No., Due Date: J8J150367,J8J170220,J8J220176,J8J270177,J8J270180,J8J270182,J8J280249; 12/15/2008
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 8309334; RGAMLEPS Gamma by LEPS
SDG, Matrix: W05543; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review

John Norton

Date

12-1-8

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 8309334

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie Date: 12/2/08

Lot No., Due Date: J8J170220; 12/15/2008
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 8309347; RGAMLEPS Gamma by LEPS
 SDG, Matrix: W05543; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

Yes No N/A

5.4 Was transcription checked? Yes No N/A

Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

Yes No N/A

6.0 Comments on any No response:

First Level Review John Kotter Date 12-5-08



Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 8309347

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	/		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	/		
2. Does the blank result meet the Contract criteria?	/		
3. Is the blank result < the Contract Detection Limit?	/		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	/		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?			/
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	/		
4. Was transcription checked?	/		
5. Were all calculations checked at a minimum frequency?	/		
6. Were units checked?	/		

Comments on any "No" response: _____

Second Level Review: Jodie Co Date: 12/8/08

Lot No., Due Date: J8J170220; 12/15/2008
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 8309348; RTC99 Tc-99 by LSC
 SDG, Matrix: W05543; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review John Hostas Date 12-12-8

Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 7309348

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?	✓		
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: E. J. Ford Date: 12/15/8

Lot No., Due Date: J8J280248, J8J290333; 12/15/2008
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 8309353; RC14 C-14 by LSC
 SDG, Matrix: W05543; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review *Joh* *Wester*

Date 12-5-8



Data Review Checklist
RADIOCHEMISTRY
 Second Level Review

Batch Number: 8309353

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: *Jodie A* Date: 12/3/08

Lot No., Due Date: J8J270180; 12/15/2008
 Client, Site: 384868; PGW 615HANFORD HANFORD
 QC Batch No., Method Test: 8309351; RNI63 NI-63 by LSC
 SDG, Matrix: W05543; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:

First Level Review John Florio Date 12-9-8

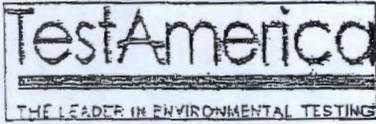
Data Review Checklist RADIOCHEMISTRY Second Level Review

Batch Number: 8309351

Review Item	Yes (✓)	No (✓)	NA (✓)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie Co Date: 12/10/08



Sample Check-in List

Date/Time Received: 10-14-08 15:00 GM Screen Result 0.10 mg/hn
 Client: Flova SDG #: 5543 NA [] SAF #: AC9-D10 NA []
 Work Order Number: J8J150367 Chain of Custody # AC9-010-1,31,32,
 Shipping Container ID: _____ Air Bill # 5, 2, 21

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? NA [] Yes No []
4. Cooler Temperature: 2° NA 5. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 52
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:

<input checked="" type="checkbox"/> Tape	<input checked="" type="checkbox"/> Hazard Labels
<input checked="" type="checkbox"/> Custody Seals	<input type="checkbox"/> Appropriate Sample Labels
9. Samples are:

<input checked="" type="checkbox"/> In Good Condition	<input type="checkbox"/> Leaking
<input type="checkbox"/> Broken	<input type="checkbox"/> Have Air Bubbles

 (Only for samples requiring no head space.)
10. Sample pH taken? NA [] pH < 2 pH > 2 pH > 9 [] Amount HNO₃ Added _____
11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 10-14-08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____
 No action necessary; process as is.

Project Manager _____ Date _____



Sample Check-in List

Date/Time Received: 10-16-08 13:45 GM Screen Result 0.10 mA/hn

Client: Fluon SDG #: W05543 NA [] SAF #: 509-010 NA []

Work Order Number: J8J170220 Chain of Custody # 509-010-166, 182

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes [] No []
2. Custody Seals dated and signed? NA [] Yes [] No []
3. Chain of Custody record present? NA [] Yes [] No []
4. Cooler Temperature: _____ NA [] 5. Vermiculite/packing materials is NA [] Wet [] Dry []
6. Number of samples in shipping container: 15
7. Sample holding times exceeded? NA [] Yes [] No []
8. Samples have:
 - _____ Tape
 - _____ Custody Seals
 - _____ Hazard Labels
 - _____ Appropriate Sample Labels
9. Samples are:
 - In Good Condition
 - _____ Broken
 - _____ Leaking
 - _____ Have Air Bubbles
 (Only for samples requiring no head space.)
10. Sample pH taken? NA [] pH < 2 [] pH > 2 [] pH > 9 [] Amount HNO₃ Added _____
11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No []
13. Description of anomalies (include sample numbers): _____

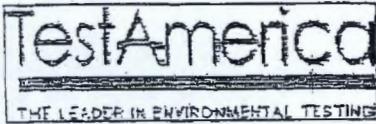
Sample Custodian: [Signature] Date: 10-16-08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____



Sample Check-in List

Date/Time Received: 10-21-08 11:50 GM Screen Result 0.10 mg / in

Client: FLUON SDG #: W05513 NA [] SAF #: W09-010 NA []

Work Order Number: J83220176 Chain of Custody # W09-010-2314 243

Shipping Container ID: N/A Air Bill # N/A

- 1. Custody Seals on shipping container intact? NA [] Yes No []
- 2. Custody Seals dated and signed? NA [] Yes No []
- 3. Chain of Custody record present? NA [] Yes No []
- 4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []
- 6. Number of samples in shipping container: 19
- 7. Sample holding times exceeded? NA Yes [] No []
- 8. Samples have:
 - Tape
 - Custody Seals
 - Hazard Labels
 - Appropriate Sample Labels
- 9. Samples are:
 - In Good Condition
 - Broken
 - Leaking
 - Have Air Bubbles
 (Only for samples requiring no head space.)
- 10. Sample pH taken? NA [] pH < 2 pH > 2 pH > 9 [] Amount HNO₃ Added _____
- 11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.
- 12. Were any anomalies identified in sample receipt? Yes [] No
- 13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 10-21-08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.



Sample Check-in List

Date/Time Received: 10-22-08 12:30 GM Screen Result 0.10 μm/hm

Client: FLOON SDG #: W05EU3 NA [] SAF #: IC9-003 NA []

Work Order Number: 385270177 Chain of Custody # IC9-003-23

Shipping Container ID: _____ Air Bill # _____

- 1. Custody Seals on shipping container intact? NA [] Yes [x] No []
- 2. Custody Seals dated and signed? NA [] Yes [x] No []
- 3. Chain of Custody record present? NA [] Yes [x] No []

4. Cooler Temperature: _____ NA [x] 5. Vermiculite/packing materials is NA [x] Wet [] Dry []

6. Number of samples in shipping container: 5

7. Sample holding times exceeded? NA [x] Yes [] No []

8. Samples have:

 Tape Hazard Labels

 / Custody Seals / Appropriate Sample Labels

9. Samples are:

 / In Good Condition Leaking

 Broken Have Air Bubbles

(Only for samples requiring no head space.)

10. Sample pH taken? NA [] pH < 2 [x] pH > 2 [] pH > 9 [] Amount HNO₃ Added _____

11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.

12. Were any anomalies identified in sample receipt? Yes [] No [x]

13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 10-22-08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary: process as is.



Sample Check-in List

Date/Time Received: 10-22-08 12:30 GM Screen Result 0.10 μn/hn

Client: FLUON SDG #: W05543 NA [] SAF #: W09-010 NA []

Work Order Number: J8527078 Chain of Custody # W09-010-306

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes [✓] No []
2. Custody Seals dated and signed? NA [] Yes [✓] No []
3. Chain of Custody record present? NA [] Yes [✓] No []
4. Cooler Temperature: _____ NA [✓] 5. Vermiculite/packing materials is NA [] Wet [] Dry []
6. Number of samples in shipping container: 5
7. Sample holding times exceeded? NA [✓] Yes [] No []
8. Samples have:

<input type="checkbox"/> Tape <input checked="" type="checkbox"/> Custody Seals	<input type="checkbox"/> Hazard Labels <input checked="" type="checkbox"/> Appropriate Sample Labels
--	---
9. Samples are:

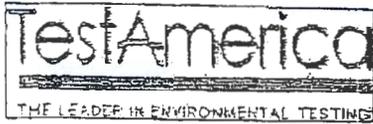
<input checked="" type="checkbox"/> In Good Condition <input type="checkbox"/> Broken	<input type="checkbox"/> Leaking <input type="checkbox"/> Have Air Bubbles <small>(Only for samples requiring no head space.)</small>
--	---
10. Sample pH taken? NA [] pH < 2 [✓] pH > 2 [] pH > 9 [] Amount HNO₃ Added _____
11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No [✓]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 10-22-08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.



Sample Check-in List

Date/Time Received: 10-22-08 12:30 GM Screen Result 0.10mN/hn
 Client: FLUON SDG #: W055UB NA [] SAF #: W09-D10 NA []
 Work Order Number: 385270180 Chain of Custody #: W09-D10-238,276
 Shipping Container ID: _____ Air Bill #: _____

1. Custody Seals on shipping container intact? NA [] Yes No []
2. Custody Seals dated and signed? NA [] Yes No []
3. Chain of Custody record present? NA [] Yes No []
4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []
6. Number of samples in shipping container: 10
7. Sample holding times exceeded? NA Yes [] No []
8. Samples have:
 Tape
 Custody Seals
 Hazard Labels
 Appropriate Sample Labels
9. Samples are:
 In Good Condition
 Broken
 Leaking
 Have Air Bubbles
(Only for samples requiring no head space.)
10. Sample pH taken? NA [] pH < 2 pH > 2 pH > 9 [] Amount HNO₃ Added _____
11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 10-22-08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

No action necessary, process as is.

TESTAMERICA

FLUOR HANFORD	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # 109-003-8
		Page <u>1</u> of <u>1</u>

Collector KE Hamilton W055U3	Contact/Requester Mike Neely	Telephone No. MSIN FAX 509-373-0654
SAF No. 109-003	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 22PI OCTOBER 2008	Method of Shipment Govt Vehicle	Ice Chest No. Temp.
Shipped To (Lab) TestAmerica Incorporated, Richland	Priority: 45 Days	Bill of Lading/Air Bill No.
Protocol CERCLA	Offsite Property No.	

POSSIBLE SAMPLE HAZARDS/REMARKS * * *	SPECIAL INSTRUCTIONS Hold Time FY08 and FY09 samples cannot be in the same SDG. 200 Area Generator Knowledge Information Form applies.
Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B1XC26		W	10-21-08	1323	1x20-mL P	Activity Scan KIPJK	6 Months	None
B1XC26		W			2x4000-mL G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1)	6 Months	None

Relinquished By KE Hamilton <i>Kevin E Hamilton</i>	Received By R. D. Julian <i>R. D. Julian</i>	Matrix *
Date/Time 10-22-08	Date/Time 10-22-08	S - Soil DS - Drum Solid SE - Sediment DF - Drum Liquid SO - Solid T - Tissue SL - Sludge W - Wine W - Water L - Liquid O - Oil V - Vegetation A - Air X - Other
Relinquished By R. D. Julian <i>R. D. Julian</i>	Received By DAVID HARB. <i>David Harb.</i>	
Date/Time 10-22-08	Date/Time 10-22-08	
Relinquished By	Received By	
Date/Time	Date/Time	
Relinquished By	Received By	
Date/Time	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By Date/Time



Sample Check-in List

Date/Time Received: 10-22-08 12:30 GM Screen Result 0.10 mg/hg
Client: Fluon SDG #: W05543 NA [] SAF #: 109-003 NA []
Work Order Number: 385270182 Chain of Custody # 109-003-B
Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes [x] No []
2. Custody Seals dated and signed? NA [] Yes [] No []
3. Chain of Custody record present? NA [] Yes [x] No []
4. Cooler Temperature: _____ NA [x]
5. Vermiculite/packing materials is NA [x] Wet [] Dry []
6. Number of samples in shipping container: 10
7. Sample holding times exceeded? NA [x] Yes [] No []
8. Samples have:
____ Tape
____ Custody Seals
____ Hazard Labels
____ Appropriate Sample Labels
9. Samples are:
____ In Good Condition
____ Broken
____ Leaking
____ Have Air Bubbles
(Only for samples requiring no head space.)
10. Sample pH taken? NA [] pH<2 [x] pH>2 [x] pH>9 [] Amount HNO₃ Added _____
11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [] No [x]
13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 10-22-08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____
[] No action necessary; process as is.

TESTAMERICA

FLUOR HANFORD	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. #	109-002-88
		Page	1 of 1

Collector KE Hamilton	Contact/Requester Mike Neely	Telephone No. 509-373-0654	MSIN	FAX
SAF No. 109-002	Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title 100KR4IAM(1/2). OCTOBER 2008	HNF-50619	Ice Chest No.	Temp.	
Shipped To (Lab) TestAmerica Incorporated, Richland	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.		
Protocol CERCLA	Priority: 45 Days	Offsite Property No.		

POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)	SPECIAL INSTRUCTIONS Hold Time FY08 and FY09 samples cannot be in the same SDG. 100 Area Generator Knowledge Information Form applies.	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
		W05543 due 12/8/08 JBS 280248	

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B1X623		W	10/24/08	1151	1x20-mL P	Activity Scan K1Q8Q	6 Months	None
B1X623		W	↓	↓	2x1000-mL G/P	C14_LSC: C-14 (1)	6 Months	None

Relinquished By KE Hamilton	Print <i>KE Hamilton</i>	Sign <i>KE Hamilton</i>	Date/Time 10/24/08	Received By <i>Phonda Weger</i>	Print <i>Phonda Weger</i>	Sign <i>Phonda Weger</i>	Date/Time 10/24/08	Matrix * S = Soil DS = Drum Solid SE = Sediment DI = Drum Liner SO = Solid T = Tissue SL = Sludge WI = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By	Date/Time	Date/Time	Date/Time	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time	Date/Time	Date/Time	Date/Time		
Relinquished By	Date/Time	Received By	Date/Time	Date/Time	Date/Time	Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time		



Sample Check-in List

Date/Time Received: 10/24/08 @ 1430 GM Screen Result LO2

Client: Pbw SDG #: W085503 NA [] SAF #: 109-002 NA []

Work Order Number: J8J280248 Chain of Custody # 109-002-88

Shipping Container ID: N/A Air Bill # N/A

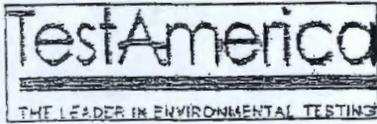
- Custody Seals on shipping container intact? NA [] Yes [] No []
- Custody Seals dated and signed? NA [] Yes [] No []
- Chain of Custody record present? NA [] Yes [] No []
- Cooler Temperature: _____ NA [] 5. Vermiculite/packing materials is NA [] Wet [] Dry []
- Number of samples in shipping container: 1
- Sample holding times exceeded? NA [] Yes [] No []
- Samples have:
 - _____ Tape
 - _____ Custody Seals
 - _____ Hazard Labels
 - Appropriate Sample Labels
- Samples are:
 - In Good Condition
 - _____ Broken
 - _____ Leaking
 - _____ Have Air Bubbles
 - (Only for samples requiring no head space.)
- Sample pH taken? NA [] pH < 2 [] pH > 2 [] pH > 9 [] Amount HNO₃ Added _____
- Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.
- Were any anomalies identified in sample receipt? Yes [] No []
- Description of anomalies (include sample numbers): _____

Sample Custodian: R. Sawyer Date: 10/24/08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.



Sample Check-in List

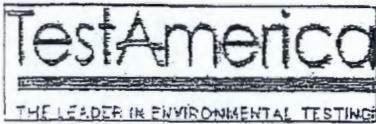
Date/Time Received: 10/24/08 14:30 GM Screen Result LO.2
Client: PLW SDG #: W05543 NA [] SAF #: 509-010 NA []
Work Order Number: J8J280249 Chain of Custody # 509-010-2249225
Shipping Container ID: N/A Air Bill # N/A

- Custody Seals on shipping container intact? NA [] Yes No []
- Custody Seals dated and signed? NA [] Yes No []
- Chain of Custody record present? NA [] Yes No []
- Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA [] Wet [] Dry []
- Number of samples in shipping container: 2
- Sample holding times exceeded? NA Yes [] No []
- Samples have:
____ Tape
____ Custody Seals
____ Hazard Labels
 Appropriate Sample Labels
- Samples are:
 In Good Condition
____ Broken
____ Leaking
____ Have Air Bubbles
(Only for samples requiring no head space.)
- Sample pH taken? NA pH < 2 [] pH > 2 [] pH > 9 [] Amount HNO₃ Added _____
- Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.
- Were any anomalies identified in sample receipt? Yes [] No
- Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 10/24/08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____
[] No action necessary; process as is.



Sample Check-in List

Date/Time Received: 102908 1445 GM Screen Result 0.1K

Client: CH2M SDG #: WDSS43 NA [] SAF #: 509-010 NA []

Work Order Number: J8J290333 Chain of Custody # 509-010-104,-118

Shipping Container ID: N/A Air Bill # N/A

- 1. Custody Seals on shipping container intact? NA [] Yes [] No []
- 2. Custody Seals dated and signed? NA [] Yes [] No []
- 3. Chain of Custody record present? NA [] Yes [] No []

4. Cooler Temperature: _____ NA [] 5. Vermiculite/packing materials is NA [] Wet [] Dry []

6. Number of samples in shipping container: 2

7. Sample holding times exceeded? NA [] Yes [] No []

8. Samples have:

_____ Tape _____ Hazard Labels

Custody Seals Appropriate Sample Labels

9. Samples are:

In Good Condition _____ Leaking

_____ Broken _____ Have Air Bubbles

(Only for samples requiring no head space.)

10. Sample pH taken? NA [] pH<2 [] pH>2 [] pH>9 [] Amount HNO₃ Added _____

11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.

12. Were any anomalies identified in sample receipt? Yes [] No []

13. Description of anomalies (include sample numbers): _____

Sample Custodian: [Signature] Date: 102908

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

TESTAMERICA

12/1/2008 1:25:03 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

AW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 12/05/2008 *W05543*

Sep1 DT/Tm Tech:

Batch: 8309350 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,LaneL *Box 9*



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 K1CKF-1-AA J8J220176-1-SAMP 10/20/2008 13:13 AmtRec: VIAL,2X4LP #Containers: 2	2000.00g,in				<i>None</i>	<i>200</i>	<i>45</i>	<i>1236</i>	<i>12/3/08mc</i>	
2 K1CKP-1-AA J8J220176-2-SAMP 10/20/2008 11:47 AmtRec: VIAL,2X4LP,LP #Containers: 4	2000.10g,in						<i>65</i>	<i>1237</i>		
3 K1PHJ-1-AA J8J270178-1-SAMP 10/21/2008 11:17 AmtRec: VIAL,4LP #Containers: 2	2000.00g,in						<i>67</i>	<i>1237</i>		
4 K1PHJ-1-AC-X J8J270178-1-DUP 10/21/2008 11:17 AmtRec: VIAL,4LP #Containers: 2							<i>63</i>	<i>2221</i>	<i>12/2/0800</i>	
5 K1PHN-1-AA J8J270180-1-SAMP 10/21/2008 11:19 AmtRec: VIAL,4LP #Containers: 2	2000.10g,in						<i>610</i>	<i>1238</i>	<i>12/3/08mc</i>	
6 K1PHI-1-AA J8J270180-2-SAMP 10/21/2008 10:17 AmtRec: VIAL,LP,3X4LP #Containers: 5	2000.10g,in						<i>613</i>	<i>1238</i>		
7 K17HR-1-AA-B J8K040000-350-BLK 10/21/2008 11:17 AmtRec: #Containers: 1	2000.10g,in						<i>66</i>	<i>1279</i>		

TESTAMERICA

12/1/2008 1:25:06 PM

Sample Preparation/Analysis

Balance Id:1120482733

AW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 12/05/2008

Sep1 DT/Tm Tech:

Batch: 8309350

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,Lanel



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppl or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 K17HR-1-AC-C		2000.00g.in	QCAG1516		100 mL		68	1239	12/1/08/m	
J8K040000-350-LCS			08/26/08.pd			200				
10/21/2008 11:17		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:

Comments: K1PHJ-SAMP "Comments No dup d/t ISV. L.JL 120108"

PH < 2.0. JPL 12/1/08

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS, 57671

K1CKF1AA-SAMP Constituent List:

Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:70	UCL:130	RPD:20
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
K17HR1AA-BLK:											
Co-60	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-134	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:6.00E+00	pCi/L	LCL:	UCL:	RPD:
Eu-154	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Eu-155	RDL:.00E+00	pCi/L	LCL:	UCL:	RPD:
K-40	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:	Sb-125	RDL:0.00E+00	pCi/L	LCL:	UCL:	RPD:
K17HR1AC-LCS:											
Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	RA-226	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20						
K1CKF1AA-SAMP Calc Info:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			
K17HR1AA-BLK:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			
K17HR1AC-LCS:											
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B			

TESTAMERICA

12/1/2008 1:25:06 PM

Sample Preparation/Analysis

Balance Id:1120482733

AW Gamma PrpRC5017
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 12/05/2008

Sep1 DT/Tm Tech:

Batch: 8309350
SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,LaneL



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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Approved By _____

Date: _____

79

TESTAMERICA

11/18/2008 7:02:03 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National LabBN I-129 Prp/SepRC5025
TB Gamma by LEPD

Pipet #: _____

AnalyDueDate: 11/28/2008 *W05543*

5I CLIENT: HANFORD

Sep1 DT/Tm Tech: _____

Batch: 8309334 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SS, 57671

Sep2 DT/Tm Tech: _____

Prep Tech: ,Lanel

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 K00AW-1-AA J8J150367-1-SAMP 10/14/2008 11:50	3764.70g,in	3764.70g,in	ITA7735 11/07/08							
				37.5	100	L2	1808		11/26/08 OR	
				AmtRec: VIAL,2X4LP #Containers: 3		Scr:	Alpha: -4.72E-04 uCi/Sa	Beta: 3.59E-03 uCi/Sa		
2 K00AW-1-AC-X J8J150367-1-DUP 10/14/2008 11:50	3792.80g,in	3792.80g,in	ITA7736 11/07/08							
				37.2		L2	1959		11/26/08 OR	
				AmtRec: VIAL,2X4LP #Containers: 3		Scr:	Alpha: -4.72E-04 uCi/Sa	Beta: 3.59E-03 uCi/Sa		
3 K00A4-1-AA J8J150367-2-SAMP 10/14/2008 10:05	3904.20g,in	3904.20g,in	ITA7737 11/07/08							
				38.2		L2	2143		11/26/08 OR	
				AmtRec: VIAL,2X4LP #Containers: 3		Scr:	Alpha: -2.50E-04 uCi/Sa	Beta: 6.08E-04 uCi/Sa		
4 K00A5-1-AA J8J150367-3-SAMP 10/14/2008 00:00	3866.20g,in	3866.20g,in	ITA7738 11/07/08							
				38.7		L2	0047		11/26/08 OR	
				AmtRec: VIAL,2X4LP #Containers: 3		Scr:	Alpha: 1.02E-03 uCi/Sa	Beta: 2.51E-04 uCi/Sa		
5 K00A7-1-AA J8J150367-4-SAMP 10/14/2008 13:16	3879.30g,in	3879.30g,in	ITA7739 11/07/08							
				38.5		L4	0048			
				AmtRec: VIAL,2X4LP #Containers: 3		Scr:	Alpha: -6.14E-04 uCi/Sa	Beta: 3.40E-04 uCi/Sa		
6 K00CE-1-AA J8J150367-5-SAMP 10/14/2008 11:50	3753.60g,in	3753.60g,in	ITA7740 11/07/08							
				37.2		L5				
				AmtRec: VIAL,2X4LP #Containers: 3		Scr:	Alpha: 4.34E-04 uCi/Sa	Beta: 1.85E-03 uCi/Sa		
7 K00CG-1-AA J8J150367-6-SAMP 10/14/2008 12:46	3879.10g,in	3879.10g,in	ITA7741 11/07/08							
				38.1		L2	0809		11/27/08	
				AmtRec: VIAL,2X4LP #Containers: 3		Scr:	Alpha: -7.49E-04 uCi/Sa	Beta: 2.82E-03 uCi/Sa		

TESTAMERICA

11/18/2008 7:02:04 AM	Sample Preparation/Analysis	Balance Id:1120482733
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab	BN I-129 Prp/SepRC5025 TB Gamma by LEPD 5I CLIENT: HANFORD	Pipet #: _____
AnalyDueDate: 11/28/2008		Sep1 DT/Tm Tech: _____
Batch: 8309334 WATER pCi/L	PM, Quote: SS , 57671	Sep2 DT/Tm Tech: _____
SEQ Batch, Test: None		Prep Tech: ,Lanel



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 K04GE-1-AA J8J170220-2-SAMP 10/16/2008 10:56 AmtRec: VIAL,3XLP,2X4LP #Containers: 6	3888.70g,in		ITA7742 11/07/08			100	L4	0900		11/27/08/ML
9 K1CKP-1-AC J8J220176-2-SAMP 10/20/2008 11:47 AmtRec: VIAL,2X4LP,LP #Containers: 4	3893.80g,in		ITA7743 11/07/08				L5	0900		
10 K1PG9-1-AA J8J270177-1-SAMP 10/21/2008 11:17 AmtRec: VIAL,2X4LP #Containers: 3	3899.10g,in		ITA7744 11/07/08				L2	1045		11/27/08/ML
11 K1PH1-1-AC J8J270180-2-SAMP 10/21/2008 10:17 AmtRec: VIAL,LP,3X4LP #Containers: 5	3938.00g,in		ITA7745 11/07/08				L2	1228		11/27/08/ML
12 K1PJK-1-AA J8J270182-1-SAMP 10/21/2008 13:23 AmtRec: VIAL,2X4LP #Containers: 3	3916.90g,in		ITA7746 11/07/08				L2	0952		11/27/08/ML
13 K1Q95-1-AA J8J280249-1-SAMP 10/23/2008 11:00 AmtRec: VIAL,2X4LP #Containers: 3	3855.40g,in		ITA7747 11/07/08				L4	0957		
14 K1Q97-1-AA J8J280249-2-SAMP 10/23/2008 11:00 AmtRec: VIAL,2X4LP #Containers: 3	3836.70g,in		ITA7748 11/07/08				L5	0957		

82

TESTAMERICA

11/18/2008 7:02:05 AM

Sample Preparation/Analysis

Balance Id:1120482733

BN I-129 Prp/SepRC5025
 TB Gamma by LEPD
 5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 11/28/2008

Sep1 DT/Tm Tech:

Batch: 8309334
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,LaneL

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15K17G1-1-AA-B J8K040000-334-BLK 10/14/2008 11:50		4000.00g,in	ITA7749 11/07/08				LZ	1139	11/28/08 KC	
										
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:		
16K17G1-1-AC-C J8K040000-334-LCS 10/14/2008 11:50		3989.00g,in	ISD0889 10/08/08				LZ	1746	11/28/08 KC	
										
		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:		

37.7
100
37.8

Comments: REDUCED VOLTS D/T (SV. R) 11/18/08

82

All Clients for Batch:
 384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS, 57671

R00AW1AA-SAMP Constituent List:
 I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
 K17G11AA-BLK:
 I-129 RDL:1.00E+00 pCi/L LCL: UCL: RPD:
 K17G11AC-LCS:
 I-129 RDL:5 pCi/L LCL:70 UCL:130 RPD:20

R00AW1AA-SAMP Calc Info:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
 K17G11AA-BLK:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
 K17G11AC-LCS:
 Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____

12/1/2008 2:35:03 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/2/2007, 12/6/2008, Batch: '8309334', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8309334				
AC	Rev1C	LaneL	11/18/2008 6:17:55	
SC		wagarr	IsBatched 11/4/2008 1:44:37 PM	ICOC_RADCALC v4.8.35
SC		LaneL	InPrep 11/18/2008 6:17:55 AM	RL-PRP-004 REVISION 0
SC		LaneL	Prep1C 11/18/2008 7:02:45 AM	RL-PRP-004 REVISION 0
SC		BostedD	InPrep2 11/19/2008 2:19:19 PM	RL-GAM-002 REVISION 0
SC		BostedD	Prep2C 11/26/2008 3:35:54 PM	RL-GAM-002 REVISION 0
SC		DAWKINSO	InCnt1 11/26/2008 3:54:31 PM	RL-CI-007 REVISION 0
SC		DAWKINSO	CalcC 11/28/2008 11:32:11 PM	RL-CI-007 REVISION 0
SC		nortonj	Rev1C 12/1/2008 2:34:56 PM	RL-DR-001 REV 0
AC		LaneL	11/18/2008 7:02:45	
AC		BostedD	11/19/2008 2:19:19	
AC		BostedD	11/26/2008 3:35:54	
AC		DAWKINSO	11/26/2008 3:54:31	
AC		DAWKINSO	11/28/2008 11:32:11	
AC		nortonj	12/1/2008 2:34:56 PM	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

TESTAMERICA

12/1/2008 12:32:24 PM
 384868, Pacific Northwest National Laboratory
 Pacific Northwest National Lab
AnalyDueDate: 12/01/2008 *W05543*
Batch: 8309347 WATER pCi/L **PM, Quote: SS, 57671**
 SEQ Batch, Test: None
Sample Preparation/Analysis
 BN I-129 Prp/SepRC5025
 TB Gamma by LEPD
 5I CLIENT: HANFORD
 Balance Id:1120482733
 Pipet #:
 Sep1 DT/Tm Tech:
 Sep2 DT/Tm Tech:
 Prep Tech: ,LaneL

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 K04F7-1-AA J8J170220-1-SAMP 10/14/2008 12:48 AmtRec: VIAL_2X4LP #Containers: 3	500.00g,in		ITA7764 11/20/08			38.1 100	L2	1750	12/4/0802	Scr: Alpha: -3.21E-04 uCi/Sa Beta: 8.67E-04 uCi/Sa
2 K04F7-1-AC-X J8J170220-1-DUP 10/14/2008 12:48 AmtRec: VIAL_2X4LP #Containers: 3	500.10g,in		ITA7765 11/20/08			36.9	L2	1942	12/4/0802	Scr: Alpha: -3.21E-04 uCi/Sa Beta: 8.67E-04 uCi/Sa
3 K17HM-1-AA-B J8K040000-347-BLK 10/14/2008 12:48 AmtRec: #Containers: 1	500.10g,in		ITA7766 11/20/08			36.3	L2	2129	12/4/0802	Scr: Alpha: Beta:
4 K17HM-1-AC-C J8K040000-347-LCS 10/14/2008 12:48 AmtRec: #Containers: 1	500.00g,in		ISB0305 10/08/08			37.9	L2	2315		Scr: Alpha: Beta:

Comments:

All Clients for Batch:
 384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS, 57671

K04F71AA-SAMP Constituent List:
 I-129 RDL:5.00E+00 pCi/L LCL:70 UCL:130 RPD:20
 K17HM1AA-BLK:
 I-129 RDL:5.00E+00 pCi/L LCL: UCL: RPD:
 K17HM1AC-LCS:
 I-129 RDL:5 pCi/L LCL:70 UCL:130 RPD:20
 K04F71AA-SAMP Calc Info:

TESTAMERICA

12/1/2008 12:32:25 PM

Sample Preparation/Analysis

Balance Id:1120482733

BN I-129 Prp/SepRC5025
 TB Gamma by LEPD
 5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 12/01/2008

Sep1 DT/Tm Tech:

Batch: 8309347
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech: ,LaneL

Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
										
K17HM1AA-BLK:	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B					
K17HM1AC-LCS:	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B					
	Uncert Level (#s): 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B					

Approved By _____

Date: _____

85

12/5/2008 12:58:26 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/6/2007, 12/10/2008, Batch: '8309347', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8309347				
AC	Rev1C	LaneL	12/1/2008 12:25:22	
SC		wagarr	IsBatched 11/4/2008 1:44:37 PM	ICOC RADCALC v4.8.35
SC		LaneL	InPrep 12/1/2008 12:25:22 PM	RL-PRP-004 REVISION 0
SC		LaneL	Prep1C 12/1/2008 12:33:06 PM	RL-PRP-004 REVISION 0
SC		BostedD	Prep2C 12/4/2008 3:52:45 PM	RL-GAM-002 REVISION 0
SC		DAWKINSO	InCnt1 12/4/2008 4:12:00 PM	RL-CI-007 REVISION 0
SC		BlackCL	CalcC 12/5/2008 4:57:04 AM	RL-CI-007 REVISION 0
SC		nortonj	Rev1C 12/5/2008 12:58:22 PM	RL-DR-001 REV 0
AC		LaneL	12/1/2008 12:33:06	
AC		BostedD	12/4/2008 3:52:45 PM	
AC		DAWKINSO	12/4/2008 4:12:00 PM	
AC		BlackCL	12/5/2008 4:57:04	
AC		nortonj	12/5/2008 12:58:22	

AC: Accepting Entry, SC: Status Change

TestAmerica Richland
Richland Wa.

TESTAMERICA

12/1/2008 11:15:34 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

AM Tc-99 Prp/SepRC5078
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 12/01/2008 **W05543**

Sep1 DT/Tm Tech: _____

Batch: 8309348 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SS , 57671

Sep2 DT/Tm Tech: _____

Prep Tech: ,Lanel



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 K04GE-1-AC	125.00g,in							
J8J170220-2-SAMP								
10/16/2008 10:56		AmtRec: VIAL_3XLP_2X4LP	#Containers: 6			Scr: Alpha: 5.46E-04 uCi/Sa	Beta: 1.55E-03 uCi/Sa	
2 K04GE-1-AD-S	125.00g,in		TCSG2266					
J8J170220-2-MS			10/10/08,pd					
10/16/2008 10:56		AmtRec: VIAL_3XLP_2X4LP	#Containers: 6			Scr: Alpha: 5.46E-04 uCi/Sa	Beta: 1.55E-03 uCi/Sa	
3 K04GE-1-AE-X	125.00g,in							
J8J170220-2-DUP								
10/16/2008 10:56		AmtRec: VIAL_3XLP_2X4LP	#Containers: 6			Scr: Alpha: 5.46E-04 uCi/Sa	Beta: 1.55E-03 uCi/Sa	
4 K17HN-1-AA-B	125.10g,in							
J8K040000-348-BLK								
10/16/2008 10:56		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	
5 K17HN-1-AC-C	125.00g,in		TCSE2265					
J8K040000-348-LCS			09/30/08,pd					
10/16/2008 10:56		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	
6 K17HN-1-AD-BN								
J8K040000-348-IBLK								
10/16/2008 10:56		AmtRec:	#Containers: 1			Scr: Alpha:	Beta:	

60

87

TESTAMERICA

12/1/2008 11:15:35 AM

Sample Preparation/Analysis

Balance Id:

AM Tc-99 Prp/SepRC5078
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 12/01/2008

Sep1 DT/Tm Tech:

Batch: 8309348

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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Comments: PA < 2.0. *gfk* 12108

All Clients for Batch:

384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS, 57671

K04GE1AC-SAMP Constituent List:

Tc-99 RDL:1.50E+01 pCi/L LCL:70 UCL:130 RPD:20

K04GE1AD-MS Constituent List:

K17HN1AA-BLK:

Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:

K17HN1AC-LCS:

Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

K17HN1AD-IBLK:

Tc-99 RDL:1.50E+01 pCi/L LCL: UCL: RPD:

K04GE1AC-SAMP Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

K04GE1AD-MS Calc Info:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

K17HN1AA-BLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

K17HN1AC-LCS:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

K17HN1AD-IBLK:

Uncert Level (#s): 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____

Date: _____

12/12/2008 7:30:19 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/13/2007, 12/17/2008, Batch: '8309348', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8309348				
AC	Rev1C	LaneL	12/1/2008 11:09:48	
SC		wagarr	IsBatched 11/4/2008 1:44:37 PM	ICOC_RADCALC v4.8.35
SC		LaneL	InPrep 12/1/2008 11:09:48 AM	RL-PRP-004 REVISION 0
SC		LaneL	Prep1C 12/1/2008 11:16:17 AM	RL-PRP-004 REVISION 0
SC		Barcotl	InSep1 12/8/2008 11:40:13 AM	RL-LSC-013 REVISION 0
SC		Barcoll	Sep1C 12/8/2008 11:40:26 AM	RL-LSC-013 REVISION 0
SC		ClarkR	InCnt1 12/8/2008 12:18:47 PM	RL-CI-005 REVISION 0
SC		BlackCL	CalcC 12/9/2008 5:37:50 AM	RL-CI-005 REVISION 0
SC		nortonj	Rev1C 12/12/2008 7:30:12 AM	RL-DR-001 REV 0
AC		LaneL	12/1/2008 11:16:17	
AC		Barcotl	12/8/2008 11:40:13	
AC		Barcoll	12/8/2008 11:40:26	
AC		ClarkR	12/8/2008 12:18:47	
AC		BlackCL	12/9/2008 5:37:50	
AC		nortonj	12/12/2008 7:30:12	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

TESTAMERICA

11/4/2008 1:42:39 PM

Sample Preparation/Analysis

Balance Id: *N/A*

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

5S C-14 Prp/SepRC5022
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 12/08/2008 *W05543*

Sep1 DT/Tm Tech: *12-4-08 DW*

Batch: 8309353 WATER pCi/L

PM, Quote: SS, 57671

Sep2 DT/Tm Tech:

Prep Tech:



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 K1Q8Q-1-AA								
J8J280248-1-SAMP								
10/23/2008 11:51		AmtRec: VIAL, 2XLP						Scr: Alpha: 3.76E-04 uCi/Sa Beta: 1.84E-04 uCi/Sa
2 K1WHK-1-AA								
J8J290333-1-SAMP								
10/27/2008 08:44		AmtRec: VIAL, 2XLP						Scr: Alpha: Beta:
3 K1WHK-1-AC-X								
J8J290333-1-DUP								
10/27/2008 08:44		AmtRec: VIAL, 2XLP						Scr: Alpha: Beta:
4 K1WHX-1-AA								
J8J290333-2-SAMP								
10/27/2008 11:46		AmtRec: VIAL, 2XLP						Scr: Alpha: Beta:
5 K17HV-1-AA-B								
J8K040000-353-BLK								
10/27/2008 08:44		AmtRec:						Scr: Alpha: Beta:
6 K17HV-1-AC-C								
J8K040000-353-LCS								
10/27/2008 08:44		AmtRec:						Scr: Alpha: Beta:
7 K17HV-1-AD-BN								
J8K040000-353-IBLK								
10/27/2008 08:44		AmtRec:						Scr: Alpha: Beta:

90

TESTAMERICA

11/4/2008 1:42:39 PM

Sample Preparation/Analysis

Balance Id: *N/A*

5S C-14 Prp/SepRC5022
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 12/08/2008

Sep1 DT/Tm Tech: *12-4-08 pm*

Batch: 8309353
SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech:

Prep Tech:



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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Comments:

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

K1Q8Q1AA-SAMP Constituent List:
C-14 RDL:2.00E+02 pCi/L LCL:70 UCL:130 RPD:20

K17HV1AA-BLK:

K17HV1AC-LCS:

K17HV1AD-IBLK:

K1Q8Q1AA-SAMP Calc Info:

Sample ID	Uncert Level (#s):	Decay to SaDt:	Blk Subt.:	Sci.Not.:	ODRs:
K17HV1AA-BLK:	2	Y	N	Y	B
K17HV1AC-LCS:	2	Y	N	Y	B
K17HV1AD-IBLK:	2	Y	N	Y	B

Approved By _____ Date: _____

12/5/2008 2:54:06 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/6/2007, 12/10/2008, Batch: '8309353', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8309353				
AC	Rev1C	McDowellID	12/3/2008 9:33:33	
SC		wagarr	IsBatched	11/4/2008 1:44:37 PM
SC		McDowellID	InSep1	12/3/2008 9:33:33 AM
SC		McDowellID	Sep1C	12/4/2008 1:37:40 PM
SC		ClarkR	InCnt1	12/4/2008 1:50:04 PM
SC		BlackCL	CalcC	12/5/2008 5:02:22 AM
SC		nortonj	Rev1C	12/5/2008 2:53:59 PM
AC		McDowellID	12/4/2008 1:37:40 PM	ICOC_RADCALC v4.8.35
AC		ClarkR	12/4/2008 1:50:04 PM	RL-LSC-008 REVISION 0
AC		BlackCL	12/5/2008 5:02:22	RL-LSC-008 REVISION 0
AC		nortonj	12/5/2008 2:53:59 PM	RL-CI-005 REVISION 0
				RL-CI-005 REVISION 0
				RL-DR-001 REV 0

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

TESTAMERICA

12/1/2008 10:54:33 AM

Sample Preparation/Analysis

Balance Id:1120482733

384868, Pacific Northwest National Laboratory
Pacific Northwest National Lab

AA Ni-63 PrpRC5016, SepRC5069
S4 Nickel by ICP and Nickel-63 by Liquid Scint
SI CLIENT: HANFORD

Pipet #:

AnalyDueDate: 12/05/2008 *W05543*

Sep1 DT/Tm Tech:

Batch: 8309351 WATER pCi/L
SEQ Batch, Test: None

PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

Prep Tech: ,Lanel



Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 K1PH1-1-AD J8J270180-2-SAMP 10/21/2008 10:17			399.90g,in	399.90g	NITA2544 09/22/08					
<i>100</i>										
			AmtRec: VIAL,LP,3X4LP	#Containers: 5			Scr:	Alpha: 3.76E-04 uCi/Sa	Beta: -5.19E-04 uCi/Sa	
2 K1PH1-1-AE-X J8J270180-2-DUP 10/21/2008 10:17			400.00g,in	400.00g	NITA2545 09/22/08					
			AmtRec: VIAL,LP,3X4LP	#Containers: 5			Scr:	Alpha: 3.76E-04 uCi/Sa	Beta: -5.19E-04 uCi/Sa	
3 K17HT-1-AA-B J8K040000-351-BLK 10/21/2008 10:17			400.00g,in	400.00g	NITA2546 09/22/08					
			AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	
4 K17HT-1-AC-C J8K040000-351-LCS 10/21/2008 10:17			400.00g,in	400.00g	NISA0816 09/22/08					
			AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	
5 K17HT-1-AD-BN J8K040000-351-IBLK 10/21/2008 10:17					<i>NITA2549</i>					
			AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:	

Comments: *PH < 2.0. RPK 12108*

All Clients for Batch:
384868, Pacific Northwest National Laboratory Pacific Northwest National Lab, SS , 57671

K1PH11AD-SAMP Constituent List:
Ni-63 RDL:15 pCi/L LCL:70 UCL:130 RPD:20

TESTAMERICA

12/1/2008 10:54:34 AM

Sample Preparation/Analysis

Balance Id:

AA Ni-63 PrpRC5016, SepRC5069
 S4 Nickel by ICP and Nickel-63 by Liquid Scint
 5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 12/05/2008

Sep1 DT/Tm Tech:

Batch: 8309351

pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:



Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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K17HT1AA-BLK:										
Ni-63	RDL:15	pCi/L	LCL:	UCL:	RPD:					
K17HT1AC-LCS:										
Ni-63	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20					
K17HT1AD-IBLK:										
Ni-63	RDL:15	pCi/L	LCL:	UCL:	RPD:					
K1PH11AD-SAMP Calc Info:										
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B		
K17HT1AA-BLK:										
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B		
K17HT1AC-LCS:										
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B		
K17HT1AD-IBLK:										
Uncert Level (#s): 2		Decay to SaDt: Y		Blk Subt.: N		Sci.Not.: Y		ODRs: B		

Approved By _____

Date: _____

94

12/9/2008 7:34:06 AM

ICOC Fraction Transfer/Status Report

ByDate: 12/10/2007, 12/14/2008, Batch: '8309351', User: 'ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
8309351				
AC	Rev1C	LaneL	12/1/2008 10:43:54	
SC		wagarr	IsBatched	11/4/2008 1:44:37 PM
SC		LaneL	InPrep	12/1/2008 10:43:54 AM
SC		LaneL	Prep1C	12/1/2008 10:51:12 AM
SC		Barcotl	InSep1	12/5/2008 11:53:14 AM
SC		Barcotl	Sep1C	12/5/2008 11:53:34 AM
SC		ClarkR	InCnt1	12/5/2008 12:11:35 PM
SC		BlackCL	CalcC	12/8/2008 8:07:33 AM
SC		nortonj	Rev1C	12/9/2008 7:34:01 AM
AC		LaneL		12/1/2008 10:51:12
AC		Barcotl		12/5/2008 11:53:14
AC		Barcotl		12/5/2008 11:53:34
AC		ClarkR		12/5/2008 12:11:35
AC		BlackCL		12/8/2008 8:07:33
AC		nortonj		12/9/2008 7:34:01

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.