



Monday, June 25, 2018

Karen Waters-Husted
CH2M HILL Plateau Remediation Company
825 Jadwin Avenue
Richland, WA 99352

Re: ALS Workorder: 1805654
Project Name: SURV, APRIL 2018
Project Number: S18-004

Dear Ms. Waters-Husted:

Two water samples were received from CH2M HILL Plateau Remediation Company, on 5/31/2018. The samples were scheduled for the following analysis:

Strontium-90

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the method employed.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental
Katie M. O'Brien
Project Manager

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

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1805654

Client Name: CH2M HILL Plateau Remediation Company

Client Project Name: SURV, APRIL 2018

Client Project Number: S18-004

Client PO Number: BOA 54854

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
B3HT62	1805654-1		WATER	30-May-18	11:17
B3HT63	1805654-2		WATER	30-May-18	11:17

**CH2M Hill Plateau
Remediation Company**

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#
S18-004-094

Page 1 of 1

Collector: Dan Woehle CHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
SAF No.: S18-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: SURV, APRIL 2018	Logbook No.: HNF-N-506 -99-48	Ice Chest No.: 6005-1722
Shipped To (Lab): ALS Environmental Ft. Collins	Method of Shipment: Commercial Carrier	Bill of Lading/Air Bill No.: 77A355504037
Protocol: CERCLA	Priority: 30 Days	Offsite Property No.: 9499

POSSIBLE SAMPLE HAZARDS/REMARK

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

SPECIAL INSTRUCTIONS

N/A

Sample No. B3HT62	Filter N	Date 5-30-18	Time 1117	No/Type Container 2x1-L G/P	Sample Analysis SRISO_SEP_PRECIP_GPC: COMMON	Holding Time 6 Months	Preservative HNO3 to pH <2
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06/25/2018

REV.0

Relinquished By: Dan Woehle CHPRC	Signature <i>[Signature]</i>	Date/Time MAY 30 2018 12:00	Received By: Leahy Wall CHPRC	Signature <i>[Signature]</i>	Date/Time MAY 30 2018 12:00	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: Leahy Wall CHPRC	Signature <i>[Signature]</i>	Date/Time MAY 30 2018 1400	Received By: FEDEX	Signature	Date/Time	
Relinquished By: FED EX	Signature	Date/Time	Received By: C Trimbale	Signature <i>[Signature]</i>	Date/Time 5-31-18	
Relinquished By:	Signature	Date/Time	Received By:	Signature	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):				Disposed By:	Date/Time:

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 1805654		C.O.C. # S18-004-095 Page 1 of 1
Collector: Dan Woehle CHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650		
SAF No.: S18-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071		
Project Title: SURV, APRIL 2018	Logbook No.: HNF-N-506-99-48	Ice Chest No.: 605-1722		
Shipped To (Lab): ALS Environmental Ft. Collins	Method of Shipment: Commercial Carrier	Bill of Lading/Air Bill No.: 77235504857		
Protocol: CERCLA	Priority: 30 Days	Offsite Property No.: 9499		
POSSIBLE SAMPLE HAZARDS/REMARK ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1		SPECIAL INSTRUCTIONS N/A		
Sample No.: B3HT63(2)	Filter: N	Time: 5:30-18	Date: 11/17	No/Type Container: 2x1-L G/P
		Sample Analysis: SRISO_SEP_PRECIP_GPC: COMMON		Holding Time: 6 Months
				Preservative: HNO3 to pH <2

Relinquished By: Dan Woehle CHPRC Signature: <i>[Signature]</i>	Received By: Leahy Wall Signature: <i>[Signature]</i>	Date/Time: MAY 30 2018 1200	Matrix *: S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By: Dan Woehle CHPRC Signature: <i>[Signature]</i>	Received By: Leahy Wall Signature: <i>[Signature]</i>	Date/Time: MAY 30 2018 1400	
Relinquished By: fcb Signature: <i>[Signature]</i>	Received By: C. Smith Signature: <i>[Signature]</i>	Date/Time: 5-31-18 0954	
Relinquished By: <i>[Signature]</i>	Received By: <i>[Signature]</i>	Date/Time:	
Relinquished By: <i>[Signature]</i>	Received By: <i>[Signature]</i>	Date/Time:	
FINAL SAMPLE DISPOSITION		Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Date/Time:



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: CHPRC

Workorder No: 1805654

Project Manager: [Signature]

Initials: CDJ Date: 5-31-18

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES	NO
3. Are Custody seals on sample containers intact?	NONE	<input checked="" type="radio"/> YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	<input checked="" type="radio"/> N/A	YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ___ < green pea ___ > green pea	<input checked="" type="radio"/> N/A	YES	NO
15. Do any water samples contain sediment? Amount of sediment: ___ dusting ___ moderate ___ heavy	Amount N/A	YES	<input checked="" type="radio"/> NO
16. Were the samples shipped on ice?		YES	<input checked="" type="radio"/> NO
17. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: #1 #3 #4	RAD ONLY	YES <input checked="" type="radio"/> NO
Cooler #: <u>1</u>			
Temperature (°C): <u>Amb</u>			
No. of custody seals on cooler: <u>2</u>			
External µR/hr reading: <u>13</u>			
Background µR/hr reading: <u>11</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? <input checked="" type="radio"/> YES / NO / NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 6/1/18

Form 201r25.xls (02/12/2018) *IR Gun #1, VWR SN 170560549 *IR Gun #3, VWR SN 170647571 *IR Gun #4, Oakton, SN 2372220101-0002

ORIGIN ID:PSCA (509) 373-3580
JANELLE ZUNKER
CH2M
6269 LATAM ST.
RICHLAND, WA 99354
UNITED STATES US

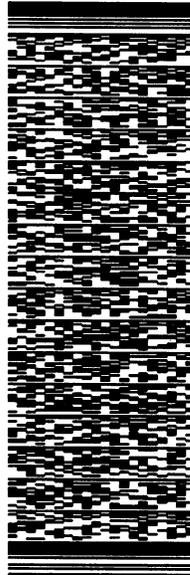
SHIP DATE: 30MAY18
ACTWGT: 24.00 LB
CAD: 107066051/NET3980
BILL THIRD PARTY

TO JULIE ELLINGSON
ALS GLOBAL
225 COMMERCE DRIVE

132

FORT ADAMS CO B0524
(970) 490-1111
NV
F: 949

DEPT



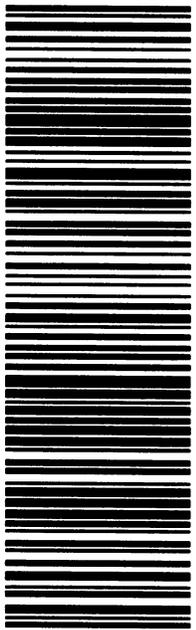
J18118012801W

TRK# 7723 5550 4837
0201

THU - 31 MAY 10:30A
PRIORITY OVERNIGHT
DSR

XHFTCA

CO-US DEN 80524



1805654

552J2782B/DC-A5

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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Strontium-90

Case Narrative

CH2M HILL Plateau Remediation Company

SURV, April 2018 – S18-004

Work Order Number: 1805654

1. These samples were prepared according to the current revision of SOP 707.
2. These samples were analyzed for the presence of ⁹⁰Sr according to the current revision of SOP 724. The analyses were completed on 06/13/2018.
3. Total radio-strontium is reported as ⁹⁰Sr. The presence of other radioisotopes of strontium may cause positive bias in the measured strontium concentration.
4. The analysis results for these samples are reported in units of pCi/L. The samples were not filtered prior to analysis.
5. Sample volume was insufficient to allow preparation of a duplicate. A laboratory control sample duplicate (LCSD) was prepared in lieu of a client sample duplicate.
6. In accordance with project specific instructions, the evaluation threshold for Relative Percent Difference (RPD) has been set at 20%. RPD is defined as:

$$RPD = \frac{|S - D|}{(S + D)/2} * 100$$

Where: S = sample activity result and D = duplicate activity result.

7. No anomalous situations were encountered during the preparation and analysis of these samples. All quality control criteria were met.



The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Jean Anderson
Jean Anderson
Radiochemistry Primary Data Reviewer

6/15/18
Date

Kath M. O.
Radiochemistry Final Data Reviewer

6/25/18
Date

Strontium-90 by GFPC

PAI 724 Rev 12

Method Blank Results

Lab Name: ALS -- Fort Collins

Work Order Number: 1805654

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: SURV, APRIL 2018 S18-004

Lab ID: SR180608-1MB

Sample Matrix: WATER
 Prep SOP: PAI 707 Rev 14
 Date Collected: 08-Jun-18
 Date Prepared: 08-Jun-18
 Date Analyzed: 13-Jun-18

Prep Batch: SR180608-1
 QCBatchID: SR180608-1-2
 Run ID: SR180608-1A
 Count Time: 120 minutes

Final Aliquot: 995 ml
 Result Units: pCi/l
 File Name: SRC0613B

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Requested MDC	DL	Lab Qualifier
10098-97-2	Sr-90	2.03E-01 +/- 2.42E-01	5.13E-01	1.00E+00	NA	U

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
STRONTIUM	1.060E+03	1.02E+03	ug	96.2	40 - 110 %	

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC.
 Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
 Y2 - Chemical Yield outside default limits.
 LT - Result is less than Requested MDC, greater than sample specific MDC.

Abbreviations:

TPU - Total Propagated Uncertainty
 MDC - Sample specific Minimum Detectable Concentration
 BDL - Below Detection Limit

M - Requested MDC not met.
 B - Analyte concentration greater than MDC.
 B3 - Analyte concentration greater than MDC but less than Requested MDC.
 DL - Decision Level

Data Package ID: SR1805654-1

Strontium-90 by GFPC

PAI 724 Rev 12

Laboratory Control Sample(s)

Lab Name: ALS -- Fort Collins
 Work Order Number: 1805654
 Client Name: CH2M HILL Plateau Remediation Company
 ClientProject ID: SURV, APRIL 2018 S18-004

Lab ID: SR180608-1LCS

Sample Matrix: WATER
 Prep SOP: PAI 707 Rev 14
 Date Collected: 08-Jun-18
 Date Prepared: 08-Jun-18
 Date Analyzed: 13-Jun-18

Prep Batch: SR180608-1
 QCBatchID: SR180608-1-2
 Run ID: SR180608-1A
 Count Time: 100 minutes

Final Aliquot: 995 ml
 Result Units: pCi/l
 File Name: SRC0613A

CASNO	Target Nuclide	Results +/- 2s TPU	MDC	Spike Added	% Rec	Control Limits	Lab Qualifier
10098-97-2	Sr-90	1.10E+01 +/- 2.68E+00	6.31E-01	1.070E+01	103	75 - 125	

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
STRONTIUM	1.090E+03	9.92E+02	ug	91.3	40 - 110 %	

Comments:

Qualifiers/Flags:

- U - Result is less than the sample specific MDC.
- LT - Result is less than Requested MDC, greater than sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
- Y2 - Chemical Yield outside default limits.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS Recovery within control limits.
- M - The requested MDC was not met.
- M3 - The requested MDC was not met, but thereported activity is greater than the reported MDC.

Abbreviations:

- TPU - Total Propagated Uncertainty
- MDC - Minimum Detectable Concentration

Data Package ID: SR1805654-1

Strontium-90 by GFPC

PAI 724 Rev 12

Laboratory Control Sample(s)

Lab Name: ALS -- Fort Collins
 Work Order Number: 1805654
 Client Name: CH2M HILL Plateau Remediation Company
 ClientProject ID: SURV, APRIL 2018 S18-004

Lab ID: SR180608-1LCSD	Sample Matrix: WATER	Prep Batch: SR180608-1	Final Aliquot: 995 ml
	Prep SOP: PAI 707 Rev 14	QCBatchID: SR180608-1-2	Result Units: pCi/l
	Date Collected: 08-Jun-18	Run ID: SR180608-1A	File Name: SRC0613A
	Date Prepared: 08-Jun-18	Count Time: 100 minutes	
	Date Analyzed: 13-Jun-18		

CASNO	Target Nuclide	Results +/- 2s TPU	MDC	Spike Added	% Rec	Control Limits	Lab Qualifier
10098-97-2	Sr-90	1.03E+01 +/- 2.50E+00	5.66E-01	1.070E+01	96.0	75 - 125	

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
STRONTIUM	1.060E+03	1.00E+03	ug	94.5	40 - 110 %	

Comments:

Qualifiers/Flags:
 U - Result is less than the sample specific MDC.
 LT - Result is less than Requested MDC, greater than sample specific MDC.
 Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
 Y2 - Chemical Yield outside default limits.
 L - LCS Recovery below lower control limit.
 H - LCS Recovery above upper control limit.
 P - LCS Recovery within control limits.
 M - The requested MDC was not met.
 M3 - The requested MDC was not met, but thereported activity is greater than the reported MDC.

Abbreviations:
 TPU - Total Propagated Uncertainty
 MDC - Minimum Detectable Concentration

Data Package ID: SR1805654-1

06/25/2018

REV.0

Strontium-90 by GFPC

PAI 724 Rev 12

Duplicate Sample Results (DER)

Lab Name: ALS -- Fort Collins

Work Order Number: 1805654

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: SURV, APRIL 2018 S18-004

Field ID:	
Lab ID:	SR180608-1LCSD

Sample Matrix: WATER
 Prep SOP: PAI 707 Rev 14
 Date Collected: 08-Jun-18
 Date Prepared: 08-Jun-18
 Date Analyzed: 13-Jun-18

Prep Batch: SR180608-1
 QCBatchID: SR180608-1-2
 Run ID: SR180608-1A
 Count Time: 100 minutes

Final Aliquot: 995 ml
 Prep Basis: Unfiltered
 Moisture(%): NA
 Result Units: pCi/l
 File Name: SRC0613A

CASNO	Analyte	Sample				Duplicate				DER	DER Lim
		Result +/-	2 s TPU	MDC	Flags	Result +/-	2 s TPU	MDC	Flags		
10098-97-2	Sr-90	1.10E+01 +/- 2.68E+00		6.31E-01		1.03E+01 +/- 2.50E+00		5.66E-01		0.396	3

Comments:

Duplicate Qualifiers/Flags:

- U - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- D - DER is greater than Control Limit of 3
- LT - Result is less than Request MDC, greater than sample specific MDC
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits

Abbreviations:

- TPU - Total Propagated Uncertainty
- DER - Duplicate Error Ratio
- BDL - Below Detection Limit
- NR - Not Reported

Data Package ID: SR1805654-1

06/25/2018

REV.0

Strontium-90 by GFPC

PAI 724 Rev 12

Duplicate Sample Results (RPD)

Lab Name: ALS -- Fort Collins

Work Order Number: 1805654

Client Name: CH2M HILL Plateau Remediation Company

ClientProject ID: SURV, APRIL 2018 S18-004

Field ID:	
Lab ID:	SR180608-1LCSD

Sample Matrix: WATER
 Prep SOP: PAI 707 Rev 14
 Date Collected: 08-Jun-18
 Date Prepared: 08-Jun-18
 Date Analyzed: 13-Jun-18

Prep Batch: SR180608-1
 QCBatchID: SR180608-1-2
 Run ID: SR180608-1A
 Count Time: 100 minutes

Final Aliquot: 995 ml
 Prep Basis: Unfiltered
 Moisture(%): NA
 Result Units: pCi/l
 File Name: SRC0613A

CASNO	Analyte	Sample				Duplicate				RPD	RPD Lim
		Result +/-	2 s TPU	MDC	Flags	Result +/-	2 s TPU	MDC	Flags		
10098-97-2	Sr-90	1.10E+01 +/-	2.68E+00	6.31E-01		1.03E+01 +/-	2.50E+00	5.66E-01		7.00	20

Comments:

Qualifiers/Flags:

- + - Duplicate RPD not within limits.
- LT - Result is less than Request MDC, greater than sample specific MDC
- U - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- M - Requested MDC not met.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC

Abbreviations:

- TPU - Total Propagated Uncertainty
- BDL - Below Detection Limit
- NR - Not Reported

Data Package ID: SR1805654-1

Strontium-90 by GFPC

PAI 724 Rev 12

Sample Results

Lab Name: ALS -- Fort Collins
 Work Order Number: 1805654
 Client Name: CH2M HILL Plateau Remediation Company
 ClientProject ID: SURV, APRIL 2018 S18-004

Field ID:	B3HT62
Lab ID:	1805654-1

Sample Matrix: WATER
 Prep SOP: PAI 707 Rev 14
 Date Collected: 30-May-18
 Date Prepared: 08-Jun-18
 Date Analyzed: 13-Jun-18

Prep Batch: SR180608-1
 QCBatchID: SR180608-1-2
 Run ID: SR180608-1A
 Count Time: 100 minutes
 Report Basis: Unfiltered

Final Aliquot: 995 ml
 Prep Basis: Unfiltered
 Moisture(%): NA
 Result Units: pCi/l
 File Name: SRC0613

Analysis ReqCode: SRISO_SEP_PR

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Requested MDC	DL	Lab Qualifier
10098-97-2	Sr-90	1.50E-01 +/- 2.70E-01	5.94E-01	1E+00	NA	U

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
STRONTIUM	1.560E+03	1.52E+03	ug	97.9	40 - 110 %	

Comments:

Qualifiers/Flags:

- U - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
- Y2 - Chemical Yield outside default limits.
- LT - Result is less than Requested MDC, greater than sample specific MDC.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- M - The requested MDC was not met.

Abbreviations:

- TPU - Total Propagated Uncertainty
- MDC - Sample specific Minimum Detectable Concentration
- BDL - Below Detection Limit
- DL - Decision Level

Data Package ID: SR1805654-1

Strontium-90 by GFPC

PAI 724 Rev 12

Sample Results

Lab Name: ALS -- Fort Collins
 Work Order Number: 1805654
 Client Name: CH2M HILL Plateau Remediation Company
 ClientProject ID: SURV, APRIL 2018 S18-004

Field ID:	B3HT63
Lab ID:	1805654-2

Sample Matrix: WATER
 Prep SOP: PAI 707 Rev 14
 Date Collected: 30-May-18
 Date Prepared: 08-Jun-18
 Date Analyzed: 13-Jun-18

Prep Batch: SR180608-1
 QCBatchID: SR180608-1-2
 Run ID: SR180608-1A
 Count Time: 100 minutes
 Report Basis: Unfiltered

Final Aliquot: 995 ml
 Prep Basis: Unfiltered
 Moisture(%): NA
 Result Units: pCi/l
 File Name: SRC0613

Analysis ReqCode: SRISO_SEP_PR

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Requested MDC	DL	Lab Qualifier
10098-97-2	Sr-90	1.52E-01 +/- 2.52E-01	5.53E-01	1E+00	NA	U

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
STRONTIUM	1.500E+03	1.46E+03	ug	97.8	40 - 110 %	

Comments:

Qualifiers/Flags:

- U - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.
- Y2 - Chemical Yield outside default limits.
- LT - Result is less than Requested MDC, greater than sample specific MDC.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- M - The requested MDC was not met.

Abbreviations:

- TPU - Total Propagated Uncertainty
- MDC - Sample specific Minimum Detectable Concentration
- BDL - Below Detection Limit
- DL - Decision Level

Data Package ID: SR1805654-1

Prep Batch ID: SR180608-1

Start Date: 06/08/18	End Date: 06/08/18	Concentration Method: NONE	Batch Created By: rgs
Start Time: 10:42	End Time: 10:42	Extract Method: PAI 70714	Date Created: 06/08/18
Prep Analyst: Reilly G. Stockton		Initial Volume Units: ml	Time Created: 10:42
Comments:		Final Volume Units: ml	Validated By: rgs
<div style="border: 1px solid black; height: 30px; width: 100%;"></div>			Date Validated: 06/13/18
			Time Validated: 8:35

QC Batch ID: SR180608-1-2

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
SR180608-1	CAR	XXXXXX	WATER	XXXXXX	1000	1000	NONE	1	1805616
SR180608-1	MB	XXXXXX	WATER	XXXXXX	1000	994.50	NONE	1	1805616
SR180608-1	LCS	XXXXXX	WATER	XXXXXX	1000	994.50	NONE	1	1805616
SR180608-1	LCSD	XXXXXX	WATER	XXXXXX	1000	994.50	NONE	1	1805616
1805616-1	SMP	XXXXXX	WATER	XXXXXX	1000	994.50	NONE	1	1805616
1805654-1	SMP	B3HT62	WATER	5/30/2018	1000	994.50	NONE	1	1805654
1805654-2	SMP	B3HT63	WATER	5/30/2018	1000	994.50	NONE	1	1805654
1806061-1	SMP	XXXXXX	WATER	XXXXXX	1000	994.50	NONE	1	1806061

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicat
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
RVS	Reporting Level Verification Standar	SMP	Field Sample
SYS	Sample Yield Spike		