



Pace Analytical Services, LLC
 Sheridan, WY and Gillette, WY

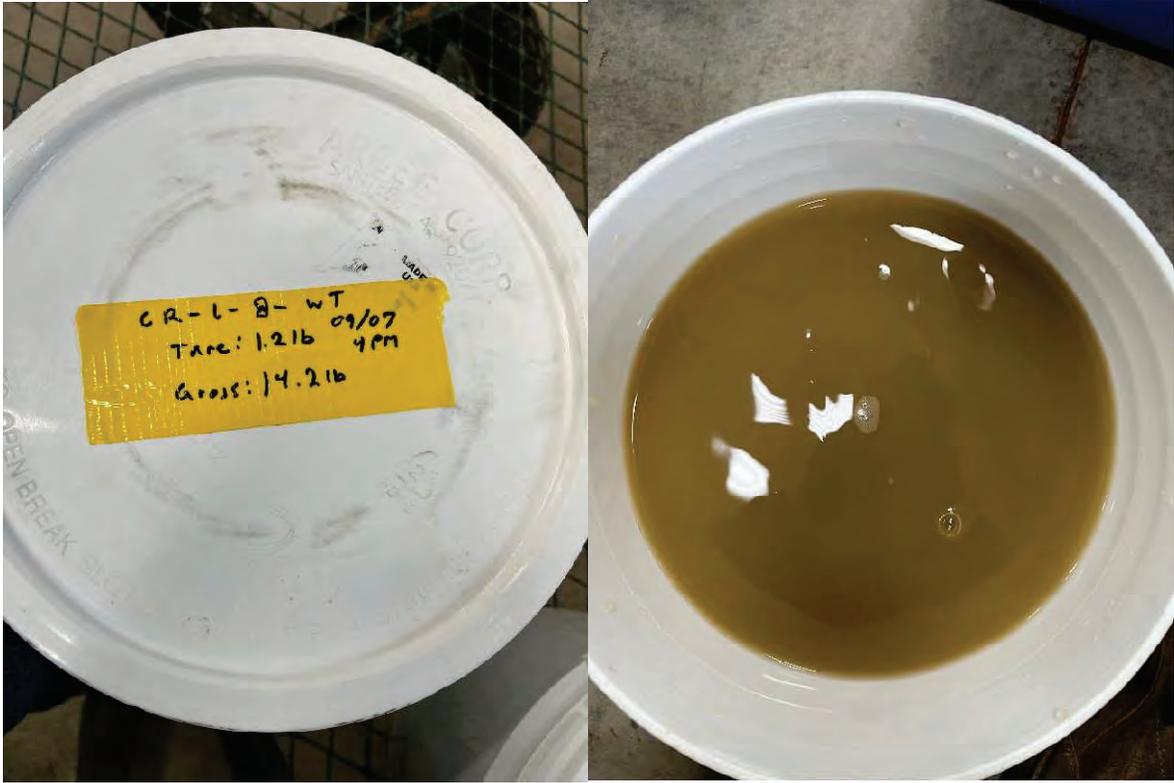
Client Name Tetra Tech/Disa		Project Identification RAFS T033/10365440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>		Telephone # 307-871-7291								
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS <table border="1"> <tr> <td>Metals by 6019/6020</td> <td>Ra-226 by 903.1</td> <td>Ra-228 by 904.0</td> <td>TDS by SM 2540</td> <td>TSS by SM 2540</td> <td></td> <td></td> </tr> </table>				Metals by 6019/6020	Ra-226 by 903.1	Ra-228 by 904.0	TDS by SM 2540	TSS by SM 2540		
Metals by 6019/6020	Ra-226 by 903.1	Ra-228 by 904.0	TDS by SM 2540					TSS by SM 2540						
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disausa.com		Phone 510-302-6310/307-871-7291		Preservative Lot # <small>1:1 HNO3: M-072722-2 112SO4: Chem 2-71-4 NaOH: Wet-3-40-1</small>								
		Purchase Order #		Quote #		REMARKS								

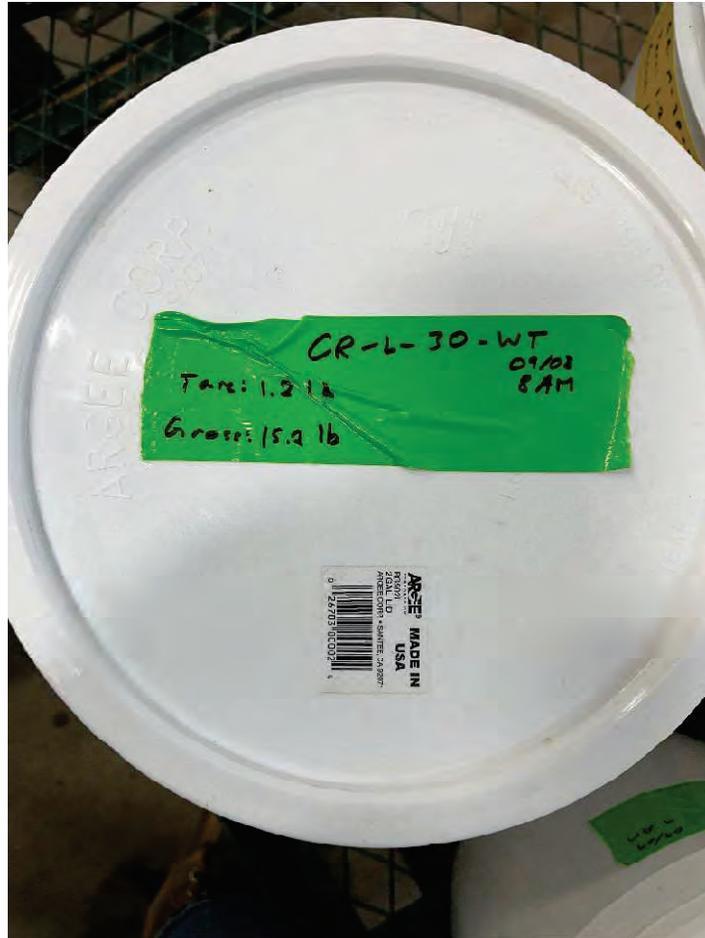
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS					REMARKS
							Metals by 6019/6020	Ra-226 by 903.1	Ra-228 by 904.0	TDS by SM 2540	TSS by SM 2540	
1		09/07/22	10:00	CR-L-4-WT	WT	7	✓	✓	✓	✓	✓	
2		09/07/22	16:00	CR-L-8-WT	WT	7	✓	✓	✓	✓	✓	
3		09/08/22	08:00	CR-L-30-WT	WT	7	✓	✓	✓	✓	✓	
4		09/09/22	09:00	CR-M-4-WT	WT	7	✓	✓	✓	✓	✓	
5		09/12/22	14:00	CR-M-8-WT	WT	7	✓	✓	✓	✓	✓	
6		09/13/22	14:30	CR-M-30-WT	WT	7	✓	✓	✓	✓	✓	
7												
8												
9												
10												
11												
12												
13												
14												

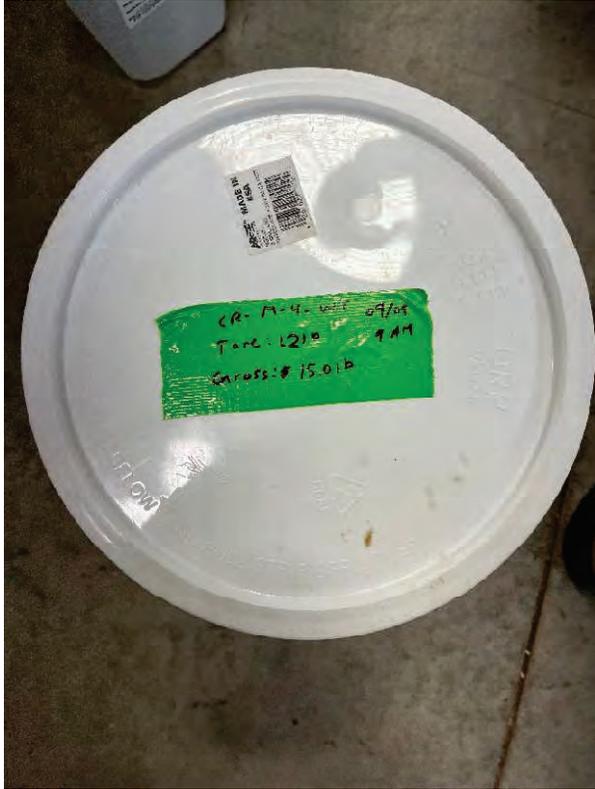
LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i> / Andrew Halverson	09/15/22	16:00			

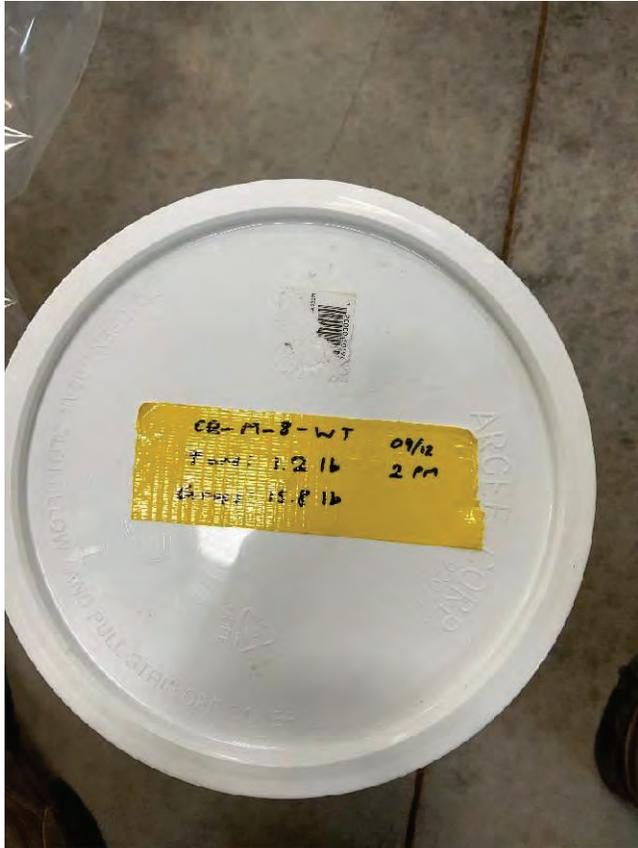
SHIPPING INFO		MATRIX CODES		TURNAROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service		Compliance Monitoring?	Y/N	Not filtered. No preservatives. In 3 separate coolers. Perform TSS and TDS immediately. Hold on metals, Ra-226, and Ra-228 until directed by Tetra Tech and Disa.		
<input type="checkbox"/> Fed Express	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround	Program (SDWA, NPDES,...)					
<input type="checkbox"/> US Mail	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days	PWSID / Permit #					
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days	Chlorinated?	Y/N				
<input checked="" type="checkbox"/> Other <small>Secure dropoff</small>	Other	OT	Rush & Urgent Surcharges will be applied		Sample Disposal: Lab	✓ Client			

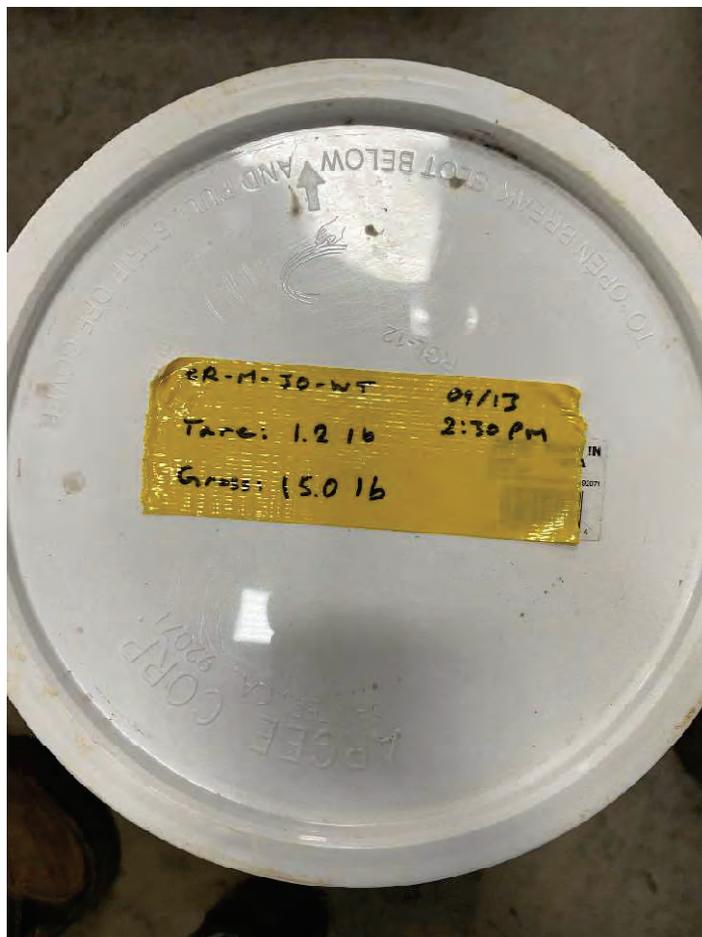













 Phone: 307-266-2229
 Fax: 307-266-9156

SHIPMENT NUMBER
 ORIGIN **Nº C 2329**

SHIPPER <i>Dida Technology, Inc</i>		CONSIGNEE <i>Acce</i>		DATE SHIPPED <i>07/15/2022</i>	
STREET <i>1653 Ewy Hill Ave</i>		STREET		FRIGHT TERMS <input type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT <input type="checkbox"/> C.O.D. <input type="checkbox"/> OTHER (SEE BILL TO)	
CITY <i>Calver</i>		CITY <i>Shelton</i>		SHIPPER'S REF. NO.	
STATE <i>WV</i>		STATE		ZIP	
ZIP <i>26040</i>		ZIP		SPECIAL INSTRUCTIONS	
SHIPPER'S REF. NO.		CONSIGNEE'S REF. NO.		CONTACT PHONE	
CONTACT		CONTACT		CONTACT PHONE	
PHONE <i>307-816-7261</i>		PHONE		PHONE	
BILL TO: (If Other Than Shipper, list Consignee)		SPECIAL INSTRUCTIONS		FRIGHT CHARGE	
PIECES		DESCRIPTION OF CONTENTS		WEIGHT	
<i>1</i>		<i>Cooler w/ Water samples</i>			
				SPECIAL SERVICES <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Verbal Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Thruhaul <input type="checkbox"/> Intra-City Courier	
		DELIVERY DEADLINE		EXCESS VALUATION	
		DECLARED VALUE		SHIPPER'S C.O.D.	
				TOTAL CHARGES	
SHIPPER'S SIGNATURE <i>[Signature]</i>		PACKED DATE/TIME		RECEIVED BY ACC. EMPLOYEE	
COPY DISTRIBUTION What - Delivery Receipt Copy - Original Invoice		RECEIVED IN GOOD ORDER EXCEPT AS NOTED		DELIVERY DRIVER'S SIGNATURE	
		DATE RCVD		TIME RCVD	
		DATE RCVD		TIME RCVD	



WPL
WESTERN FRUIT LOGGERS

Phone: 307-266-2229
Fax: 307-266-9156

SHIPMENT NUMBER
ORIGIN **Nº C 2328**

SHIPPER **Bize Technologies, Inc.** CONSIGNEE **ACE** DATE SHIPPED
09/15/2022

STREET **1653 English Avenue** SURRET

CITY **Casper** STATE **WY** ZIP **82401** CITY **Shelby** STATE ZIP

SHIPPER'S REF. NO. CONTACT PHONE CONSIGNEE'S REF. NO. CONTACT PHONE

BILL TO: Shipper (New Shipper) or Consignee

SPECIAL INSTRUCTIONS

PIECES	DESCRIPTION OF CONTENTS	WEIGHT
1	Cooler w/ Water samples	

SHIPPER certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is limited to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding \$10 (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES
 Special Delivery
 Signature Service
 Verbal Delivery Confirmation
 Exclusive Truck
 Signature and Turnaround
 Intra-City Courier

DELIVERY DEADLINE

DECLARED VALUE

EXCESS VALUATION

SHIPPER'S C.O.D.

TOTAL CHARGES

SHIPPER'S SIGNATURE: _____ PICKUP DATE/TIME: _____ RECEIVED BY ACC. EMPLOYEE: _____

COPY DISTRIBUTION: White - Delivery Receipt, Canary - Original Invoice

RECEIVED IN GOOD ORDER EXCEPT AS NOTED DATE RCV'D TIME RCV'D PLS DELIVERY DRIVER'S SIGNATURE







Client Name Tetra Tech/Disa	Project Identification RAES T033/10365440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / a.halverson@disa.usa.com		
	Phone 510-302-6310/307-871-7291	Metals by 6010/6020	Preservative Lot # <small>1:1 HNO3: M-072722-2 11:2SO4: Chem 2-71-4 NaOH: Wet-3-40-1</small>
	Purchase Order #	Quote #	REMARKS

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 903.1	Ra 228 by 904.0	TDS by SM 2540	TSS by SM 2540	REMARKS
1	2209244-001	09/07/22	10:00	CR-L-4-WT	WT	7	✓	✓	✓	✓	✓	
2	-002	09/07/22	16:00	CR-L-8-WT	WT	7	✓	✓	✓	✓	✓	
3	-003	09/08/22	08:00	CR-L-30-WT	WT	7	✓	✓	✓	✓	✓	
4	-004	09/09/22	09:00	CR-M-4-WT	WT	7	✓	✓	✓	✓	✓	
5	-005	09/12/22	14:00	CR-M-8-WT	WT	7	✓	✓	✓	✓	✓	
6	-006	09/13/22	14:30	CR-M-30-WT	WT	7	✓	✓	✓	✓	✓	
7												
8												
9												
10												
11												
12												
13												
14												

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
10.6°C ^{9:30} 11.6°C ROI - Melted 3 coolers, all 24hr since ok (3)	<i>Andrew Halverson</i>	09/15/22	16:00	<i>Sam ...</i>	9/16/22	15:00

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input checked="" type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <small>Lab courier secure dropoff</small>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input checked="" type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <u>Y/N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y/N</u> Sample Disposal: Lab <input checked="" type="checkbox"/> Client	Not filtered. No preservatives. In 3 separate coolers. Perform TSS and TDS immediately. Hold on metals, Ra 226, and Ra 228 until directed by Tetra Tech and Disa.



DC#_Title: ENV-FRM-SHRT-0033 v00_Condition Upon Receipt Form Terra Lab

Effective Date: 05/13/2022

Survey Meter # Model 2241-2; SN 182115
pH strip lot # HC281827
Thermometer SN# 27130475

Condition Upon Receipt (Attach to COC)

Sample Receipt

1 Number of ice chests/packages received: 3 ROI? Yes No

Note as "OTC" if samples are received over the counter, unpackaged

2 Temperature of cooler/samples. (If more than 8 coolers, please write on back)

Table with 2 rows: Temps Observed (°C) and Temps Corrected (°C). Handwritten values: 10.4 and 10.5.

Acceptable is: 0.1° to 10°C for Bacteria; and 0.1° to 6°C for most other water parameters. Samples may not have had adequate time to cool following collection. Indicate ROI (Received on Ice) for iced samples received on the same day as sampled, in addition to temperature at r

Client contact for temperatures outside method criteria must be documented below.

- 3 Emission rate of samples for radiochemical analyses < 0.5mR/hr? Yes No N/A
4 COC Number (If applicable): 196531
5 Do the number of bottles agree with the COC? Yes No N/A
6 Were the samples received intact? (no broken bottles, leaks, etc.) Yes No N/A
7 Were the sample custody seals intact? Yes No N/A
8 Is the COC properly completed, legible, and signed? Yes No

Sample Verification, Labeling & Distribution

- 1 Were all requested analyses understood and appropriate? Yes No
2 Did the bottle labels correspond with the COC information? Yes No
3 Samples collected in method-prescribed containers? Yes No
4 Sample Preservation:

Table with 4 columns: pH at Receipt, Final pH (if added in lab), Preservative/Lot#, Date/Time Added. Rows include Total Metals, Diss Metals, Nutrient, Cyanide, Sulfide, Phenol, SDWA Rads.

- 5 VOA vials have <6mm headspace? Yes No N/A
6 Were all analyses within holding time at the time of receipt? Yes No
7 Have rush or project due dates been checked and accepted? Yes No
8 Do samples require subcontracted analyses? Yes No

If "Yes", which type of subcontracting is required? General Customer-Specified Certified

Sample Receipt, Verification, Login, Labeling & Distribution completed by (initials): Set ID: 52209244

Discrepancy Documentation (use back of sheet for notes on discrepancies)

Any items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: Method of Contact: Phone:
Initiated By: Date/Time: Email:
Problem: Metals + Rads can hold until further notice, per client request.
Resolution:

All shaded fields must be completed.
 This is a legal document: any misrepresentation may be construed as fraud.

196832

Client Name Tetra Tech / Disa	Project Identification RAEs TO33/20365440033.03.02	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>	Telephone # 307-871-7291
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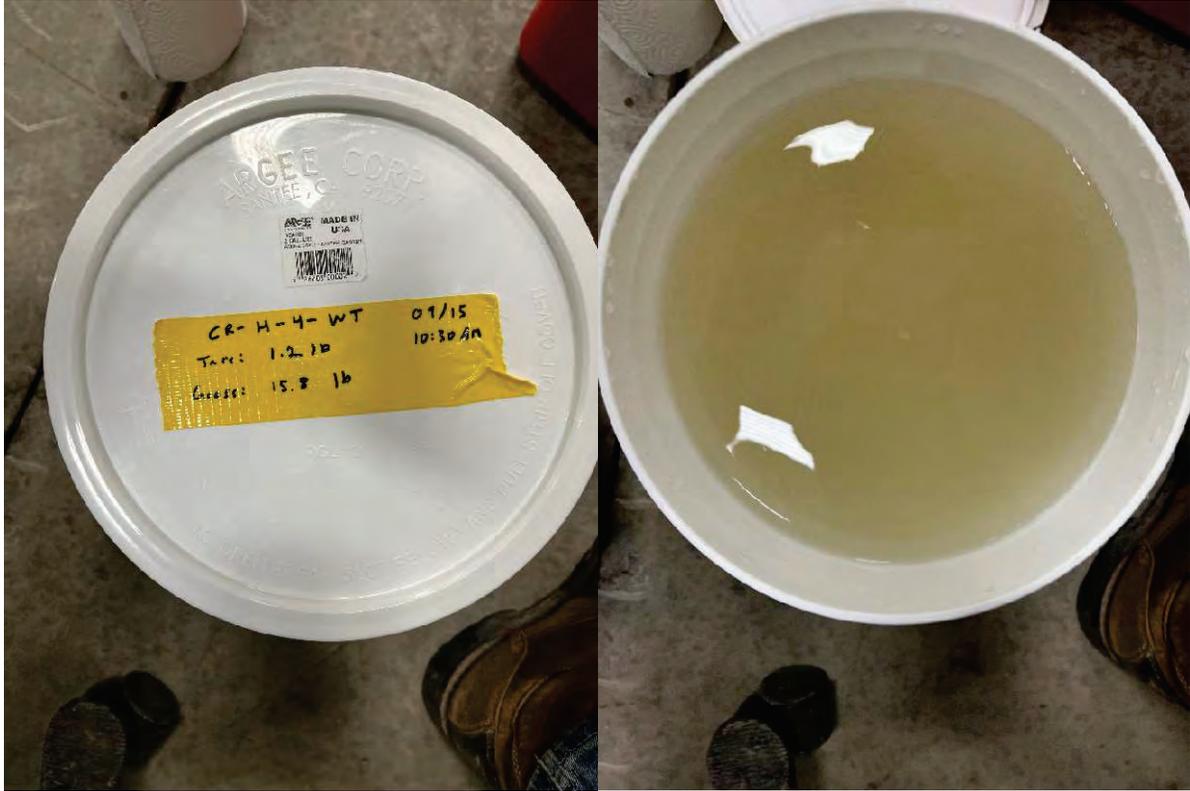
Report Address Tetra Tech / Disa	Contact Name Mike Dahlquist / Andrew Halverson	<table border="1"> <tr> <th colspan="7">ANALYSES / PARAMETERS</th> </tr> <tr> <td>Total Metals by 2010</td> <td>Dissolved Metals by 6020</td> <td>Total Ra226 by 903.1</td> <td>Total R-228 by 904.0</td> <td>Dissolved R-226 903.1</td> <td>TDS by SM 2540</td> <td>TSS by SM 2540</td> </tr> </table>	ANALYSES / PARAMETERS							Total Metals by 2010	Dissolved Metals by 6020	Total Ra226 by 903.1	Total R-228 by 904.0	Dissolved R-226 903.1	TDS by SM 2540	TSS by SM 2540
ANALYSES / PARAMETERS																
Total Metals by 2010	Dissolved Metals by 6020		Total Ra226 by 903.1	Total R-228 by 904.0	Dissolved R-226 903.1	TDS by SM 2540	TSS by SM 2540									
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / a.halverson@disa.com															
	Phone 510-302-6310 / 307-871-7291															

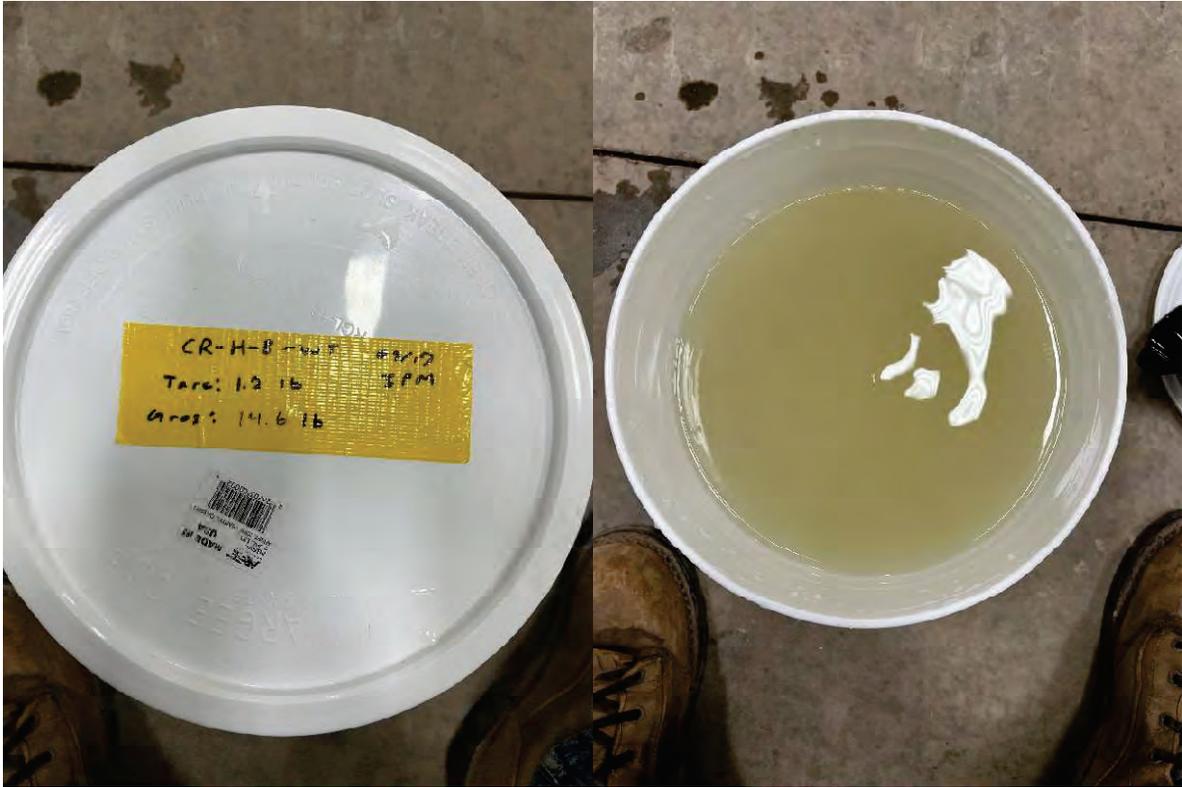
Preservative Lot #
 H111NO3: M-072722-2
 H2SO4: Chem 2-71-4
 NaOH: Wet-3-40-1

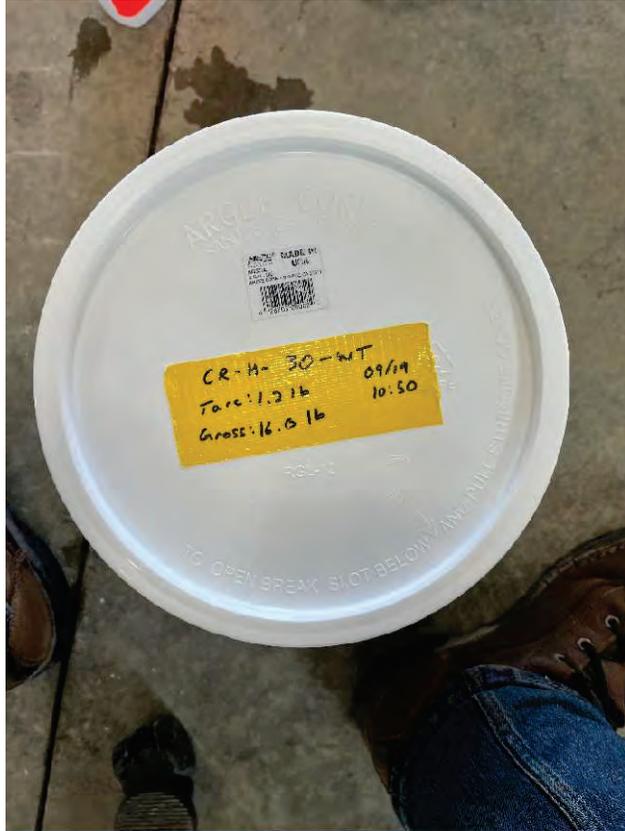
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS							REMARKS
							Total Metals by 2010	Dissolved Metals by 6020	Total Ra226 by 903.1	Total R-228 by 904.0	Dissolved R-226 903.1	TDS by SM 2540	TSS by SM 2540	
1		09/15/22	10:30	CR-H-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
2		09/17/22	15:00	CR-H-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
3		09/16/22	18:20	CR-M-0-5L-0.45 Filtrate Pre-Rec	WT	1		✓						Filtered, preserved
4		09/19/22	06:00	CR-M-0-5L-0.45 Filtrate Post-Rec	WT	1		✓						Filtered, preserved
5		09/19/22	10:50	CR-H-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
6		09/20/22	16:50	QV-L-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
7		09/20/22	18:20	QV-L-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
8		09/21/22	07:00	QV-L-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	09/21/22	10:00			

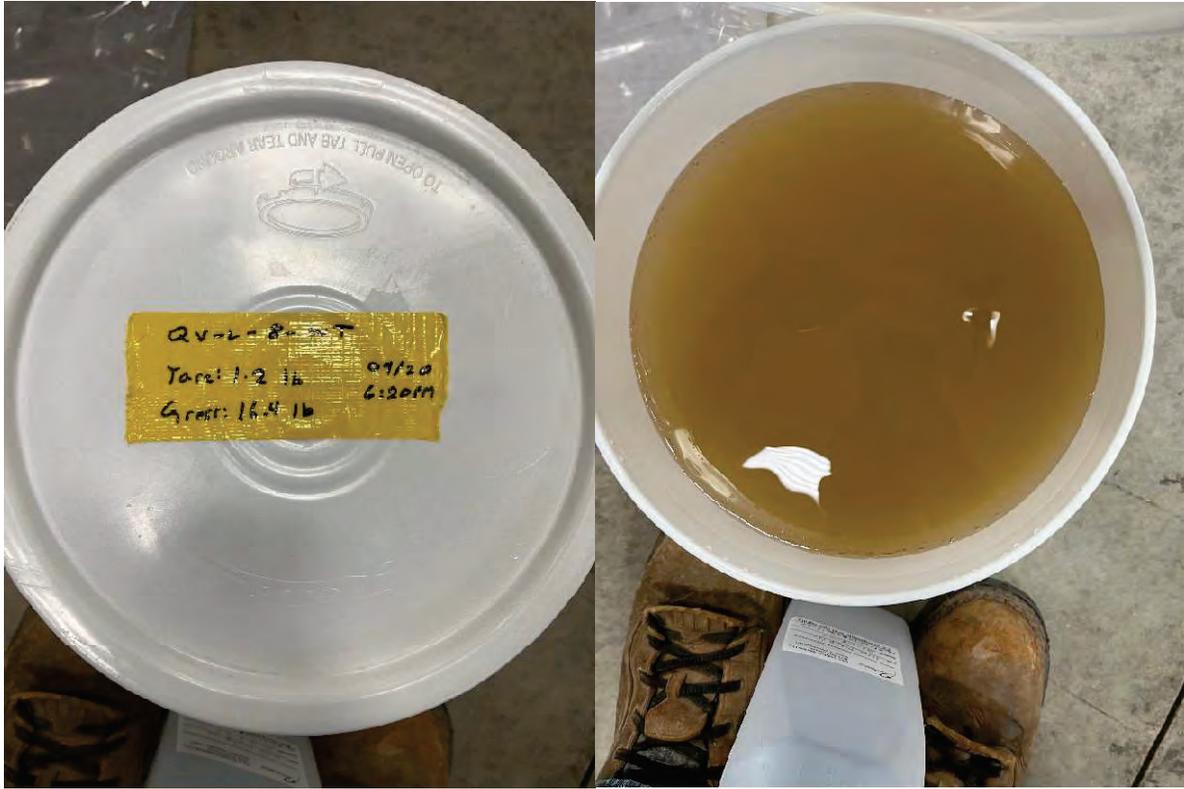
SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>In 3 separate coolers. For unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis.</i>

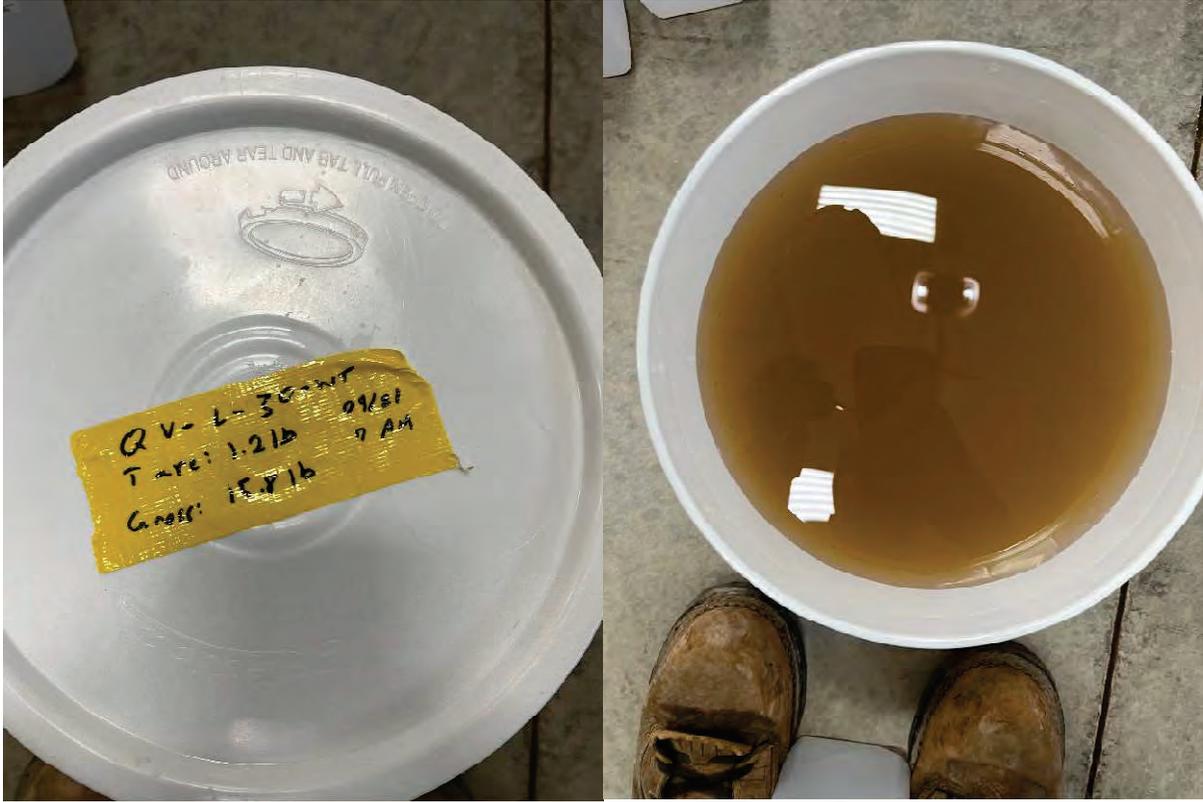













 Phone: 307-266-2229
 Fax: 307-266-9156

SHIPMENT NUMBER
 ORIGIN **N^o c 2322**

SHIPPER *Disa Technologies, Inc.* **CONSIGNEE** *Pace*
STREET *1653 English Ave* **STREET**
CITY *Casper* **STATE** *WY* **ZIP** *82601* **CITY** *Sheridan* **STATE** **ZIP**
SHIPPER'S REF. NO. **CONTACT** **PHONE** *307-271-9291* **CONSIGNEE'S REF. NO.** **CONTACT** **PHONE**

BILL TO:
(If Other Than Shipper Or Consignee)
PIECES **DESCRIPTION OF CONTENTS** **WEIGHT**
1 *Water samples in cooler*

Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES
 Special Delivery
 Signature Service
 Verbal Delivery Confirmation
 Exclusive Truck
 Signature and Turnaround
 Intra-City Courier

DELIVERY DEADLINE
DECLARED VALUE
EXCESS VALUATION
SHIPPER'S C.O.D.
TOTAL CHARGES

SHIPPER'S SIGNATURE *[Signature]* **PICKUP DATE/TIME** **RECEIVED BY ACC. EMPLOYEE**
COPY DISTRIBUTION
White - Delivery Receipt
 Canary - Original Invoice

RECEIVED IN GOOD ORDER EXCEPT AS NOTED **DATE RCVD** **TIME RCVD** **PCS.** **DELIVERY DRIVER'S SIGNATURE**


 Phone: 307-266-2229
 Fax: 307-266-9156

SHIPMENT NUMBER
 ORIGIN **N^o c 2323**

SHIPPER *Disa Technologies, Inc.* **CONSIGNEE** *Pace*
STREET *1653 English Ave* **STREET**
CITY *Casper* **STATE** *WY* **ZIP** *82601* **CITY** *Sheridan* **STATE** **ZIP**
SHIPPER'S REF. NO. **CONTACT** **PHONE** *307-271-9291* **CONSIGNEE'S REF. NO.** **CONTACT** **PHONE**

BILL TO:
(If Other Than Shipper Or Consignee)
PIECES **DESCRIPTION OF CONTENTS** **WEIGHT**
1 *Water samples in cooler*

Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES
 Special Delivery
 Signature Service
 Verbal Delivery Confirmation
 Exclusive Truck
 Signature and Turnaround
 Intra-City Courier

DELIVERY DEADLINE
DECLARED VALUE
EXCESS VALUATION
SHIPPER'S C.O.D.
TOTAL CHARGES

SHIPPER'S SIGNATURE *[Signature]* **PICKUP DATE/TIME** **RECEIVED BY ACC. EMPLOYEE**
COPY DISTRIBUTION
White - Delivery Receipt
 Canary - Original Invoice

RECEIVED IN GOOD ORDER EXCEPT AS NOTED **DATE RCVD** **TIME RCVD** **PCS.** **DELIVERY DRIVER'S SIGNATURE**


 Phone: 307-266-2229
 Fax: 307-266-9156

SHIPPER <u>Dia Technologies, Inc</u>		COUSHNIK <u>Ray</u>		SHIPMENT NUMBER ORDER N° C 2324	
STREET <u>1683 English Ave</u>		STREET		DATE SHIPPED <u>09/21/2022</u>	
CITY <u>Casper</u> STATE <u>WY</u> ZIP <u>82401</u>		CITY <u>Shoshone</u> STATE ZIP		FREIGHT TERMS <input type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT C.O.D. <input type="checkbox"/> OTHER (SEE BILL TO)	
SHIPPER'S REF NO. CONTACT PHONE <u>307-291-7241</u>		CONSIGNEE'S REF. NO. CONTACT PHONE		FREIGHT CHARGE	
BILL TO: Ship Name Ship Address		SPECIAL INSTRUCTIONS		SPECIAL SERVICE	
TRUCKS		DESCRIPTION OF CONTENTS <u>1 Water samples in cooler</u>		WEIGHT	
Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the shipper agrees and declares that the value of the property is not to exceed \$100 (dollars) for any shipment of 100 pounds or less, and not exceeding 100 cents per pound for any shipment weighing in excess of 100 pounds.		SPECIAL SERVICES <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Netral Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Postmarking <input type="checkbox"/> Intra-City Courier		DELIVERY CHARGES EXCESS VALUE SHIPPER'S C.O.D. TOTAL CHARGES	
SHIPPER'S SIGNATURE <u>[Signature]</u>		PICKUP DATE/TIME		RECEIVED BY ACC. EMPLOYEE	
CARRIER DISTRIBUTION Ship - Delivery Manager Consignee - Original Receiver		RECEIVED IN GOOD ORDER (EXCEPT AS NOTED)		DATE RCVD TIME RCVD PCS	
				DELIVERY DRIVER'S SIGNATURE	





Pace Analytical Services, LLC
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page **1** of **1**

All shaded fields must be completed.
This is a legal document: any misrepresentation may be construed as fraud.

196832

Client Name Tetra Tech / Disa	Project Identification RAES T033/10365440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>	Telephone # 307-871-7291
Report Address Tetra Tech / Disa	Contact Name Mike Dahlquist / Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov		
	Phone 510-302-6310 / 307-871-7291	Total Metals by 6010	Preservative Lot # 1:1 HNO3: M-072722-2 H2SO4: Chem 2-71-4 NaOH: Wet-3-40-1
	Purchase Order #	Dissolved Metals by 6010	REMARKS
	Quote #	Total Ra226 by 903.1	
		Total Ra228 by 904.0	
		Dissolved Ra-226 by 905.1	
		TDS by SM 2540	
		TSS by SM 2540	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6010	Dissolved Metals by 6010	Total Ra226 by 903.1	Total Ra228 by 904.0	Dissolved Ra-226 by 905.1	TDS by SM 2540	TSS by SM 2540	REMARKS
1	52209316-001	09/15/22	10:30	CR-H-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
2	002	09/17/22	15:00	CR-H-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
3	003	09/16/22	18:20	CR-M-0-SL-0.45 Filtrate pre-Rec	WT	1		✓						Filtered, Preserved
4	004	09/17/22	06:06	CR-M-0-SL-0.45 Filtrate Post-Rec	WT	1		✓						Filtered, Preserved
5	005	09/19/22	10:50	CR-H-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
6	006	09/20/22	16:50	QV-L-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
7	007	09/20/22	18:20	QV-L-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
8	008	09/21/22	07:00	QV-L-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
1.6°C (3 coolers) RO2 3.7°C RO2 5.9°C RO2 OK	<i>[Signature]</i> / Andrew Halverson	09/21/22	10:00	<i>[Signature]</i> Daniel Slipp	09/21/22	16:05

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier Secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>In 3 separate coolers. For unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis.</i>



Report Review Checklist

Log Review

COC Review Information on COC matches that on report; spelling accurate.	Initials/Date:	WN 9/22/22
1 Original COC attached, signed and dated.		✓
2 Samples received within temperature		✓
2 Parameters requested.		✓
3 Client.		✓
4 Report recipient/address.		✓
5 Invoice recipient/address.		✓
6 Project. Requested changes to Project must be communicated to Project Mgr.		NA
7 Appropriate detection limits (RLs) assigned.		✓
8 Prices may need to be adjusted prior to invoicing. (circle)	Yes or No	NA
9 P. O. number.		NA
10 Sample IDs.		✓
11 Sample dates.		✓
12 Date received.		✓
13 Date due.		✓
14 Matrix.		✓
15 PWSID included for safe drinking water compliance samples.		NA
16 Field data entered appropriately (Log Review); matches lab data (Report Review).		NA
17 Special requests indicated in "Comments" section of Work Order summary.		✓
18 All "No" responses on Condition Upon Receipt form have been resolved	Yes or No	NA

Data Review	Report Review
1 Automated QC (Check Data button) review performed, discrepancies resolved.	✓
2 Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.	✓
3 Worksheet/instrument data compared to report results for calculation, transcription and data entry errors.	✓
4 Results compared to historical data if applicable.	NA
5 Analysis date and time.	✓
6 Analytical method.	✓
7 Appropriate detection limits (RLs) assigned.	✓
8 Appropriate units of measure.	✓
9 Analyst's initials.	✓
10 Calculations checked?	✓
11 Subcontracted analyses identified as such with qualifier or as attachment to lab report	NA
12 Subcontracted report reviewed	NA
13 Invoice parameters match those on COC.	✓

Final Review	
1 Report appears complete and appropriate.	✓
2 Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report.	✓
3 All necessary qualifiers included in report.	✓
4 Qualifiers referenced in case narrative; which includes descriptions of all sample/analysis anomalies.	✓
5 Anomalies, including reason for report reissue, explained in Case Narrative.	✓
6 Copies of report sent to all recipients requested on COC. (circle) Copy to Regulator Hard Copy Email	✓
7 All special requests listed on COC, or attached parameter list, honored.	✓
8 Special report format per client request.	✓
9 Report pages signed.	✓

Client Name: Tetra Tech/Disa Project Identification: RAES T033/20365440033.03.01 Sampler (Signature/Attestation of Authenticity): [Signature] Telephone #: 307-871-7291

Report Address: Tetra Tech/Disa Contact Name: Mike Dahlquist/Andrew Halverson Email: mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov Phone: 510-302-6310 / 307-871-7291

Invoice Address: Tetra Tech Purchase Order #: 1150922 Quote #: _____

ANALYSES / PARAMETERS

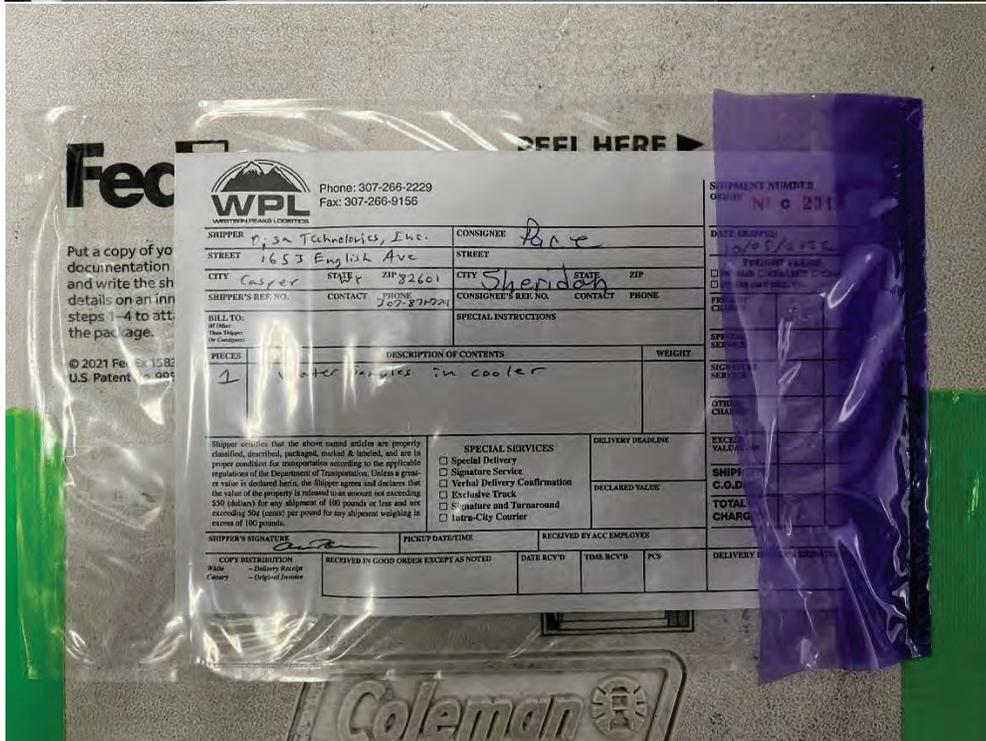
Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Ra 226 by 903.1	Total Ra 228 by 904.0	Dissolved Ra 226 by 903.1	TDS by SM 2540	TSS by SM 2540
---------------------------	-------------------------------	-----------------------	-----------------------	---------------------------	----------------	----------------

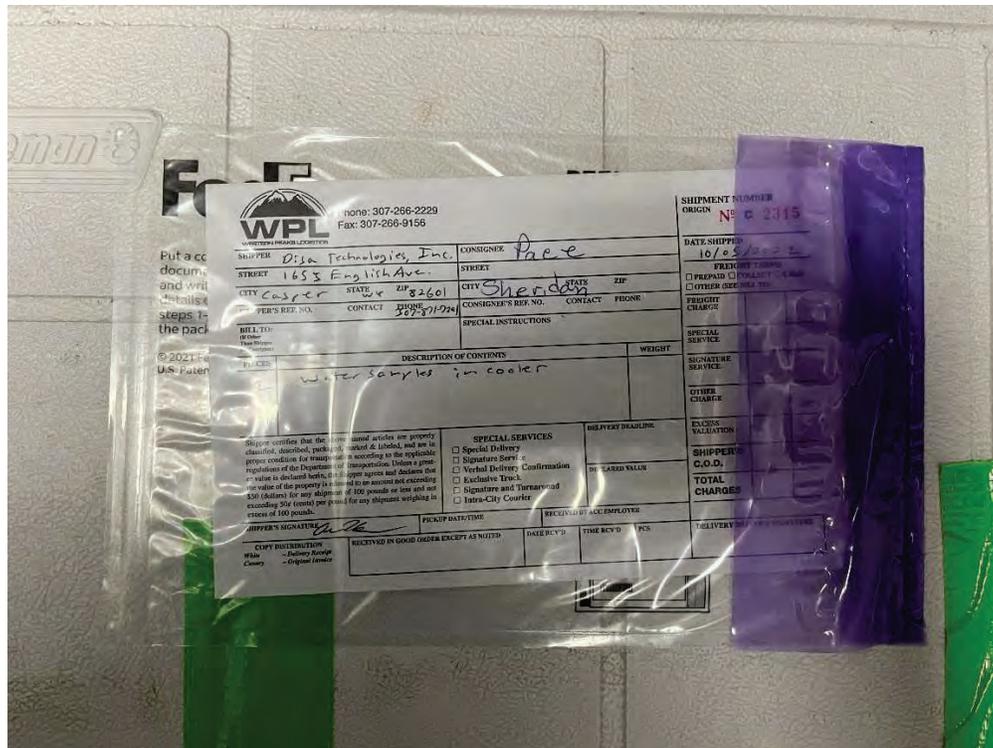
Preservative Lot #
 111 HNO3: M-072722-2
 112SO4: Chem 2-71-4
 NaOH: Wet-3-40-1

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS						REMARKS	
							Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Ra 226 by 903.1	Total Ra 228 by 904.0	Dissolved Ra 226 by 903.1	TDS by SM 2540		TSS by SM 2540
1		09/30/22	06:30	QV-M-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
2		09/29/22	19:00	QV-M-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
3		10/01/22	16:00	QV-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
4		10/02/22	08:00	QV-H-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
5		10/02/22	16:00	QV-H-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
6		10/03/22	10:00	QV-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
7														
8														
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<u>[Signature] / Andrew Halverson</u>	<u>10/05/22</u>	<u>18:00</u>			

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <u>6am courier secure dropoff</u>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<u>In 3 separate coolers. For unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis.</u>





Put a copy of this document and write details of contents in steps 1-3 on the back of the package.
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WPL WESTERN PIEDMONT LOGISTICS Phone: 307-266-2229 Fax: 307-266-9156

SHIPPER: *Disa Technologies, Inc.* CONSIGNEE: *Pac-e*

STREET: *1653 English Ave.* STREET: _____

CITY: *Casper* STATE: *WY* ZIP: *82601* CITY: *Sheridan* STATE: _____ ZIP: _____

SHIPPER'S REF. NO. _____ CONTACT _____ PHONE: _____ CONSIGNEE'S REF. NO. _____ CONTACT _____ PHONE: _____

BILL TO: _____ SPECIAL INSTRUCTIONS: _____

PIECES: _____ DESCRIPTION OF CONTENTS: *Water samples in cooler* WEIGHT: _____

SHIPPER certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is not in excess of \$100 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES: Special Delivery Signature Service Verbal Delivery Confirmation Exclusive Track Signature and Turnaround Intra-City Courier

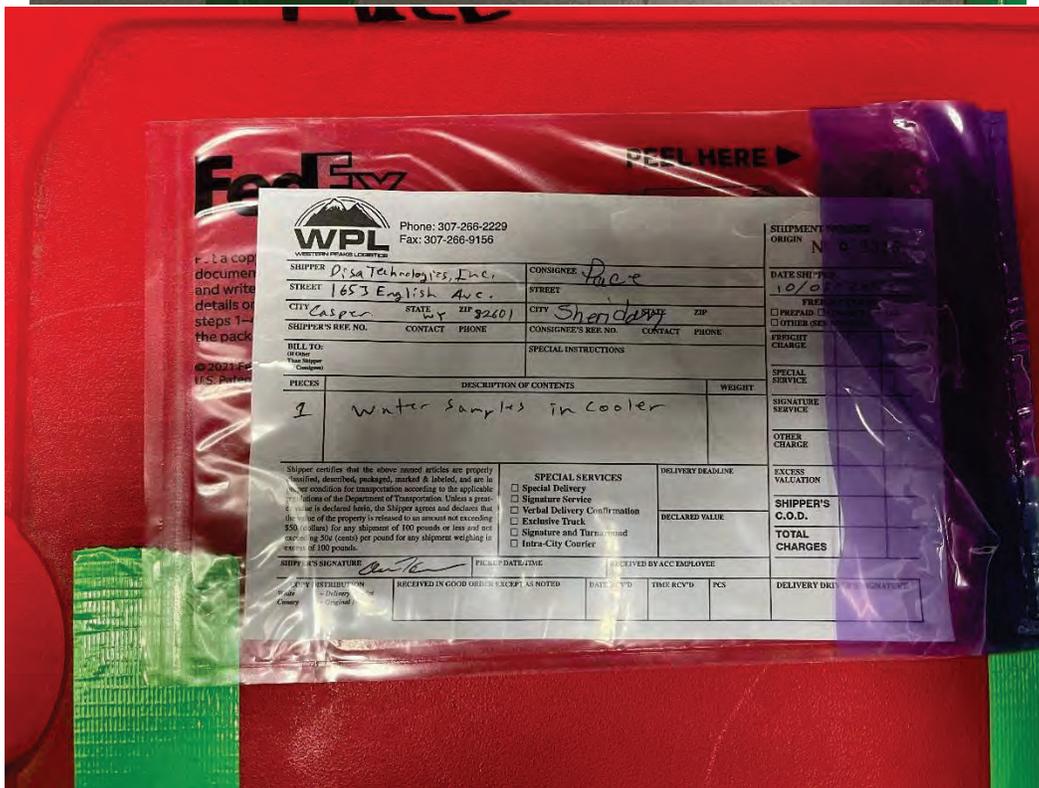
DELIVERY DEADLINE: _____ EXCESS VALUATION: _____

DECLARED VALUE: _____ SHIPPER'S C.O.D.: _____ TOTAL CHARGES: _____

SHIPPER'S SIGNATURE: _____ PICKUP DATE/TIME: _____ RECEIVED BY ACC EMPLOYEE: _____

COPY DISTRIBUTION: While in Delivery Receipt Carrier Original Invoice

RECEIVED IN GOOD ORDER EXCEPT AS NOTED DATE RCY'D TIME RCY'D PCS DELIVERY DATE AND SIGNATURE: _____



Put a copy of this document and write details of contents in steps 1-3 on the back of the package.
© 2021 Fed Ex U.S. Patent

WPL WESTERN PIEDMONT LOGISTICS Phone: 307-266-2229 Fax: 307-266-9156

SHIPPER: *Disa Technologies, Inc.* CONSIGNEE: *Pac-e*

STREET: *1653 English Ave.* STREET: _____

CITY: *Casper* STATE: *WY* ZIP: *82601* CITY: *Sheridan* STATE: _____ ZIP: _____

SHIPPER'S REF. NO. _____ CONTACT _____ PHONE: _____ CONSIGNEE'S REF. NO. _____ CONTACT _____ PHONE: _____

BILL TO: _____ SPECIAL INSTRUCTIONS: _____

PIECES: *1* DESCRIPTION OF CONTENTS: *Water samples in cooler* WEIGHT: _____

SHIPPER certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is not in excess of \$100 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES: Special Delivery Signature Service Verbal Delivery Confirmation Exclusive Track Signature and Turnaround Intra-City Courier

DELIVERY DEADLINE: _____ EXCESS VALUATION: _____

DECLARED VALUE: _____ SHIPPER'S C.O.D.: _____ TOTAL CHARGES: _____

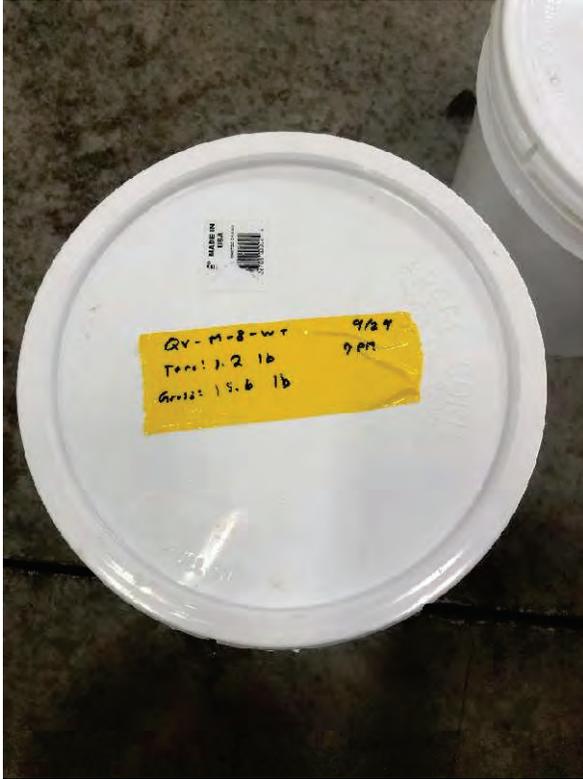
SHIPPER'S SIGNATURE: _____ PICKUP DATE/TIME: _____ RECEIVED BY ACC EMPLOYEE: _____

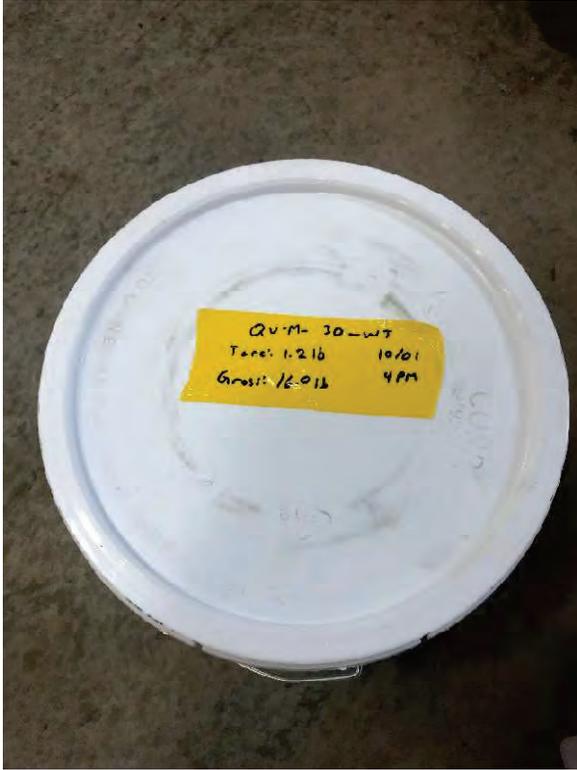
COPY DISTRIBUTION: While in Delivery Receipt Carrier Original Invoice

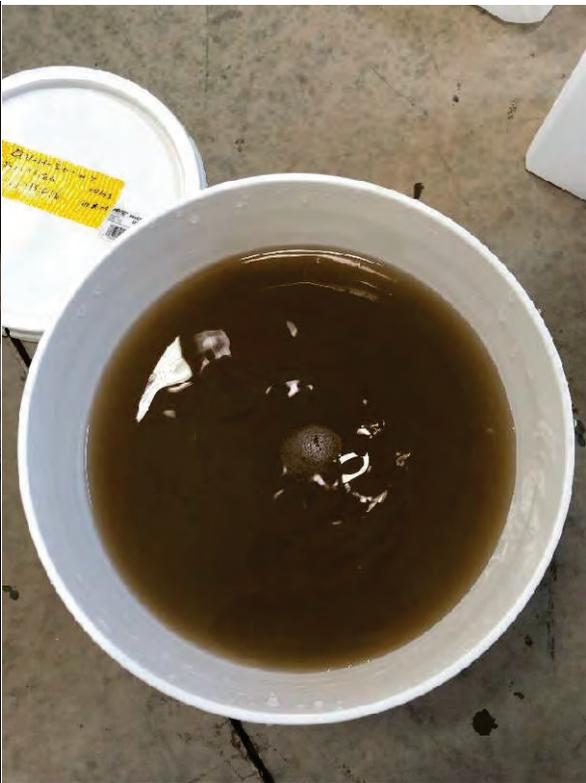
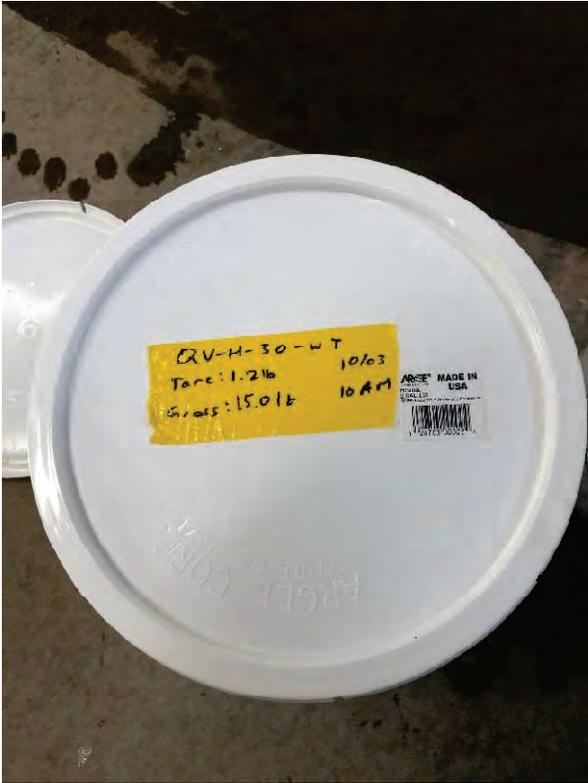
RECEIVED IN GOOD ORDER EXCEPT AS NOTED DATE RCY'D TIME RCY'D PCS DELIVERY DATE AND SIGNATURE: _____













All shaded fields must be completed.
This is a legal document: any misrepresentation may be construed as fraud.

196827

Client Name Tetra Tech/Disa	Project Identification RAES T033/20365440033.03.02	Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>	Telephone # 307-871-7291
---------------------------------------	--	--	------------------------------------

Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / a.halverson@disausa.com	

Phone 510-302-6310 / 307-871-7291	Purchase Order # 1150922	Quote #
---	------------------------------------	---------

Preservative Lot #
1:1 HNO3: M-072722-2
1:10SO4: Chem 2-71-4
NaOH: Wet-3-40-1

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Ra 226 by 903.1	Total Ra 228 by 904.0	Dissolved Ra 226 by 903.1	TDS by SM 2540	TSS by SM 2540	REMARKS
2	002	09/29/22	19:00	QV-M-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
3	003	10/01/22	16:00	QV-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
4	004	10/02/22	08:00	QV-M-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
5	005	10/02/22	16:00	QV-M-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
6	006	10/03/22	10:00	QV-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
7														
8														
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
3 coolers 1.6° 1.0° 1.5° RHS	<i>Andrew Halverson</i> / Andrew Halverson	10/05/22	18:00	<i>[Signature]</i>	10/16/22	10:45

SHIPPING INFO <input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Bob Courier</i>	MATRIX CODES Water WT Soil SL Solid SD Filter FT Other OT	TURNAROUND TIMES <input type="checkbox"/> Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input checked="" type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	COMPLIANCE INFORMATION Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	ADDITIONAL REMARKS <i>For 3 separate coolers. For unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis.</i>
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Pace Analytical Services, LLC

www.pacelabs.com

555 Absaraka St.
Sheridan, WY 82801

Voice: 307.674.7506
FAX: 307.672.9845

1673 Terra Ave.
Sheridan, WY 82801

Voice: 307.672.8945
FAX: 307.672.6053

4506 Wigwam Blvd., Ste. D
Gillette, WY 82718
Voice: 307.682.8945

It is critical that Pace has enough information to prepare your report to meet strict quality review processes. Therefore, please complete the Chain of Custody (COC) form with as much detailed information as possible – especially contact information – to ensure accurate analysis, reporting, and invoicing.

Provide as much contact information as possible.

Include purchase order if required and quote if available.

Provide as much information as possible so that the correct analyses will be performed.

Pace Analytical Services, LLC Sheridan, WY and Gillette, WY										CHAIN OF CUSTODY RECORD -										Page 1 of 3							
Client Name Acme Environmental Company										Project Identification Main Street Project / AEC 1234					Sampler (Signature/Printed) <i>John Doe</i> John Doe					Telephone # (307) 555-1212							
Report Address 555 First Street Springfield, WY 12345										Contact Name Bob Smith					ANALYSES / PARAMETERS										REMARKS		
Invoice Address P O Box 123 Springfield, WY 12345										Email bsmith@email.com																	
										Phone (307) 555-6789					Purchase Order # AEC 5678		Quote # 12345										
ITEM	LAB ID <small>(Lab Use Only)</small>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	BTEXN (8250)	TPH-GRO (8015)	TPH-DRG (8015)	NO ₃ -NO ₂ -SO ₄	pH, EC, TDS	Diss Fe, Mn	Total Cd, Cr, Pb	Pb	REMARKS												
															pH	EC	Temp	SWL									
1		01/01/11	8:00	MW-1	WT	6	X	X	X						7.1	1200	10.0	93.5									
2		01/01/11	8:30	MW-2	WT	6	X	X	X			X			7.3	1100	9.4	104.0									
3		01/01/11	9:00	MW-3	WT	7	X	X	X		X		X		7.8	1300	6.3	84.75									
4		01/01/11	8:00	10104-FT	FT	1							X														
5		01/01/11	12:00	Runoff 1	WT	4				X	X	X															
6		01/01/11	15:35	Runoff 2	WT	4				X		X	X														
7		01/02/11	10:00	Truck 1	OT	2							X		Matrix = Oil												
8		01/02/11	11:30	Site ABC 1" - 5"	SL	1				X			X														
9		01/02/11	13:30	Site ABC 6" - 12"	SL	1				X			X														
10																											
11																											
12																											
13																											
14																											
LAB COMMENTS										Relinquished By (Signature/Printed)					DATE		TIME		Received By (Signature/Printed)					DATE		TIME	
										<i>John Doe</i> / John Doe					01/02/11		17:00		<i>Mary Jones</i> / Mary Jones					01/02/11		17:00	
SHIPPING INFO			MATRIX CODES			TURNAROUND TIMES			COMPLIANCE INFORMATION			ADDITIONAL REMARKS															
<input type="checkbox"/> UPS	Water	WT	Check desired service			Compliance Monitoring? <input checked="" type="checkbox"/> N			Program (SDWA, NPDES, ...) UST			Field conditions 01/01/11 Clear, Calm.															
<input type="checkbox"/> Fed Express	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit # WY 123456			Chlorinated? <input type="checkbox"/> Y / <input checked="" type="checkbox"/> N			Field conditions 01/02/11 Overcast, wind 10 mph															
<input type="checkbox"/> US Mail	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days	<input type="checkbox"/> URGENT - < 2 Working Days		Sample Disposal Lab			Client <input checked="" type="checkbox"/> X																		
<input checked="" type="checkbox"/> Hand Carried	Filter	FT	Rush & Urgent Surcharges will be applied																								
<input type="checkbox"/> Other	Other	OT																									

Address where final report will be sent.

Address where invoice will be sent.

Information entered in "Sample Identification" will be used in the final report. Include all information necessary for unique sample identification.

Custody Record MUST include signature, date and time.

Use the "Remarks" area to document field measurements for samples and/or additional sample information.

Use the "Additional Remarks" area to document field observations and/or additional instructions to laboratory.

Specify required turnaround time. Prior notification is required for Rush and Urgent service.

Indicate whether data will be used in compliance monitoring report. Report format may depend on program selected.

Specify who will dispose of sample. Disposal of hazardous samples by Pace will result in additional charges to client.



DC#_Title: ENV-FRM-SHRT-0033 v00_Condition Upon Receipt Form Terra Lab

Effective Date: 05/13/2022

Survey Meter # Model 2241-2; SN 182115
pH strip lot #
Thermometer SN# 27130475

Condition Upon Receipt (Attach to COC)

Sample Receipt

1 Number of ice chests/packages received: 3 ROI? Yes No

Note as "OTC" if samples are received over the counter, unpackaged

2 Temperature of cooler/samples. (If more than 8 coolers, please write on back)

Table with 2 rows: Temps Observed (°C) and Temps Corrected (°C). Values: 1.6, 1.0, 1.5, 1.5, 0.9, 1.4

Acceptable is: 0.1° to 10°C for Bacteria; and 0.1° to 6°C for most other water parameters. Samples may not have had adequate time to cool following collection. Indicate ROI (Received on Ice) for iced samples received on the same day as sampled, in addition to temperature at r

Client contact for temperatures outside method criteria must be documented below.

- 3 Emission rate of samples for radiochemical analyses < 0.5mR/hr? Yes No N/A
4 COC Number (If applicable): 196827
5 Do the number of bottles agree with the COC? Yes No N/A
6 Were the samples received intact? (no broken bottles, leaks, etc.) Yes No N/A
7 Were the sample custody seals intact? Yes No N/A
8 Is the COC properly completed, legible, and signed? Yes No

Sample Verification, Labeling & Distribution

- 1 Were all requested analyses understood and appropriate? Yes No
2 Did the bottle labels correspond with the COC information? Yes No
3 Samples collected in method-prescribed containers? Yes No
4 Sample Preservation:

Table with 4 columns: pH at Receipt, Final pH (if added in lab), Preservative/Lot#, Date/Time Added. Rows include Total Metals, Diss Metals, Nutrient, Cyanide, Sulfide, Phenol, SDWA Rads.

- 5 VOA vials have <6mm headspace? Yes No N/A
6 Were all analyses within holding time at the time of receipt? Yes No
7 Have rush or project due dates been checked and accepted? Yes No N/A
8 Do samples require subcontracted analyses? Yes No

If "Yes", which type of subcontracting is required? General Customer-Specified Certified

Sample Receipt, Verification, Login, Labeling & Distribution completed by (initials): WN Set ID: 51221090

Discrepancy Documentation (use back of sheet for notes on discrepancies)

Any items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: Method of Contact: Phone:
Initiated By: Date/Time: Email:
Problem:
Resolution:

COC Review	Initials/Date: <u>WN 10/10/22</u>	COC #: <u>196827</u>	Log Review		
			Yes	No	N/A
1 Original COC attached, signed and dated			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Sample(s) received within temperature			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Parameter(s) requested			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Client			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Report recipient/address			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Invoice recipient/address			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Project and RLs		Requested changes to Project must be communicated to Project Mgr.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8 Prices may need to be adjusted prior to invoicing			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9 P. O. number			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Sample IDs			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Sample dates			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Date received			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Date due			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Matrix			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 PWSID included for safe drinking water compliance samples			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16 Field data entered appropriately			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17 Special requests indicated in "Comments" section of Work Order summary			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 All "No" responses on Condition Upon Receipt form have been resolved			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Data Review	Report Review		
1 Automated QC (Check Data button) review performed, discrepancies resolved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Results compared to historical data if applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Analysis date and time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Analytical method	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Appropriate units of measure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Analyst's initials	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Field data entered matches lab data	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9 Subcontracted analyses identified as such with qualifier or as attachment to lab report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10 Subcontracted report reviewed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11 Invoice parameters match those on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final Review	Report Review		
1 Report appears complete and appropriate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 All necessary analytical qualifiers included in report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Copies of report sent to all recipients requested on COC (circle)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Copies of report sent to Regulator (ex. PWS ID)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 All special requests listed on COC, or attached parameter list, honored.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Special report format per client request	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Case Narrative signed and includes completion date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Email **Hard Copy**

Client Name Tetra Tech / Disa		Project Identification RAEST033/10365440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>		Telephone # 3078717291													
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist / Andrew Halverson		ANALYSES / PARAMETERS <table border="1"> <tr> <td>Total Metals by 6019/6020</td> <td>Total Ra226 by 903.1</td> <td>Total Ra228 by 904.0</td> <td>TDS by SM2540</td> <td>TSS by SM2540</td> <td>MS/MSD</td> </tr> <tr> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> </table>				Total Metals by 6019/6020	Total Ra226 by 903.1	Total Ra228 by 904.0	TDS by SM2540	TSS by SM2540	MS/MSD	✓	✓	✓	✓	✓	✓
Total Metals by 6019/6020	Total Ra226 by 903.1	Total Ra228 by 904.0	TDS by SM2540					TSS by SM2540	MS/MSD										
✓	✓	✓	✓	✓	✓														
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / andrew.halverson@disansa.com		Phone 510-302-6310 / 307-871-7291		Preservative Lot # <small>1:1 IINO3: M-072722-2 112SO4: Cnem 2-71-4 NaOH: Wet-3-40-1</small>													
		Purchase Order # 1150922		Quote #		REMARKS													

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS						REMARKS
							Total Metals by 6019/6020	Total Ra226 by 903.1	Total Ra228 by 904.0	TDS by SM2540	TSS by SM2540	MS/MSD	
1		10/05/22	17:00	SW-WT-01	WT	7	✓	✓	✓	✓	✓		Unfiltered
2		10/05/22	17:10	SW-WT-02	WT	21	✓	✓	✓	✓	✓		Unfiltered, MS/MSD for metals and Ra226
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i> / Andrew Halverson	10/06/22	19:00			

<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier Securedropoff</i>		Water WT Soil SL Solid SD Filter FT Other OT		TURNAROUND TIMES <input type="checkbox"/> Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>		COMPLIANCE INFORMATION Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client		ADDITIONAL REMARKS <i>Samples in two separate coolers. Soil samples for Bulk Analysis and SPLP in coolers as well.</i>	
---	--	--	--	---	--	---	--	--	--

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection Agency

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	
REMARKS							

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS										REMARKS
							Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1	MS/MSD							
1		09/09/22	09:00	CR-L-0-SL-01 +25	SL	1	x	x									7.30 g
2		09/09/22	09:00	CR-L-0-SL-01 +50	SL	1	x	x									21.82 g
3		09/09/22	09:00	CR-L-0-SL-01 +100	SL	1	x	x									78.60 g
4		09/09/22	09:00	CR-L-0-SL-01 +140	SL	1	x	x									60.52 g
5		09/09/22	09:00	CR-L-0-SL-01 +200	SL	1	x	x									48.25 g
6		09/09/22	09:00	CR-L-0-SL-01 +270	SL	1	x	x									19.00 g
7		09/09/22	09:00	CR-L-0-SL-01 -270	SL	1	x	x									76.85 g
8		09/06/22	16:00	CR-L-4-SY +25	SL	1	x	x									5.28 g
9		09/06/22	16:00	CR-L-4-SY +50	SL	1	x	x									23.47 g
10		09/06/22	16:00	CR-L-4-SY +100-01	SL	1	x	x									36.62 g
11		09/06/22	16:00	CR-L-4-SY +100-02	SL	1	x	x									36.63 g
12		03/30/22	10:00	CTS-L-0+1/4-inch	SL	1	x	x				x					1014.94 g, MS/MSD for details
13		09/06/22	16:00	CR-L-4-SY +140	SL	1	x	x									54.00 g
14		09/06/22	16:00	CR-L-4-SY +200	SL	1	x	x									36.94 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i> / Andrew Halverson	10/06/22	19:00			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier secure Dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached



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Page **2** of **5**

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Telephone # 307-871-7291

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS
Invoice Address Tetra Tech	Email <i>mike.dahlquist@tetratech.com / a.halverson@disausa.com</i>	
	Phone 510-302-6310/307-871-7291	
	Purchase Order # 1150922	Quote #

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS												REMARKS
							Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1										
1		09/06/22	16:00	CR-L-4-SY +270	SL	1	x	x										14.75 g	
2		09/07/22	14:00	CR-L-8-SY +25	SL	1	x	x										4.11 g	
3		09/07/22	14:00	CR-L-8-SY +50	SL	1	x	x										24.05 g	
4		09/07/22	14:00	CR-L-8-SY +100	SL	1	x	x										79.07 g	
5		09/07/22	14:00	CR-L-8-SY +140	SL	1	x	x										59.00 g	
6		09/07/22	17:00	CR-L-8-SY +200	SL	1	x	x										38.87 g	
7		09/07/22	14:00	CR-L-8-SY +270	SL	1	x	x										15.63 g	
8		09/08/22	08:00	CR-L-30-SY +25	SL	1	x	x										3.71 g	
9		09/08/22	08:00	CR-L-30-SY +50	SL	1	x	x										21.57 g	
10		09/08/22	08:00	CR-L-30-SY +100	SL	1	x	x										74.76 g	
11		09/08/22	08:00	CR-L-30-SY +140	SL	1	x	x										57.66 g	
12		09/08/22	08:00	CR-L-30-SY +200	SL	1	x	x										39.60 g	
13		01/08/22	08:00	CR-L-30-SY +270	SL	1	x	x										16.42 g	
14		09/14/22	11:00	CR-M-0-SL-01 +25	SL	1	x	x										36.97 g	

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/04/22	19:00			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached



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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disansa.com</i>					
		Phone 510-302-6310/307-871-7291					
		Purchase Order # 1150922		Quote #			

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS						REMARKS	
							Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-12	MS/MSD				
1		09/14/22	11:00	CR-M-0-SL-01 +50	SL	1	x	x						77.55 g
2		09/14/22	11:00	CR-M-0-SL-01 +100-01	SL	1	x	x						42.17 g
3		09/14/22	11:00	CR-M-0-SL-01 +100-02	SL	1	x	x						42.15 g
4		09/14/22	11:00	CR-M-0-SL-01 +140	SL	1	x	x						30.38 g
5		08/30/22	10:00	CTS-M-0-+1/4-inch	SL	1	x	x			x			1088.29 g
6		09/14/22	11:00	CR-M-0-SL-01 +200	SL	1	x	x						20.85 g
7		09/14/22	11:00	CR-M-0-SL-01 +270	SL	1	x	x						9.44 g
8		09/14/22	11:00	CR-M-0-SL-01 -270	SL	1	x	x						56.16 g
9		09/09/22	10:00	CR-M-4-SY +25	SL	1	x	x						20.61 g
10		09/09/22	10:00	CR-M-4-SY +50	SL	1	x	x						92.38 g
11		09/09/22	10:00	CR-M-4-SY +100	SL	1	x	x						88.27 g
12		09/09/22	10:00	CR-M-4-SY +140	SL	1	x	x						28.45 g
13		09/09/22	10:00	CR-M-4-SY +200	SL	1	x	x						17.67 g
14		09/09/22	10:00	CR-M-4-SY +270	SL	1	x	x						7.86 g

LAB COMMENTS		Relinquished By (Signature/Printed)		DATE	TIME	Received By (Signature/Printed)		DATE	TIME
		<i>[Signature]</i> / Andrew Halverson		10/06/22	19:00				

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	<input type="checkbox"/> FedEx	Water	WT	Check desired service		Compliance Monitoring?	Y / N	Please return unused sample to Disa after reporting.	
<input type="checkbox"/> USPS	<input type="checkbox"/> Hand Carried	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround	<input type="checkbox"/> RUSH - 5 Working Days	Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.	
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Other <i>lab courier send dropoff</i>	Solid	SD	<input type="checkbox"/> URGENT - < 2 Working Days	<i>Rush & Urgent Surcharges will be applied</i>	PWSID / Permit #		Table A-12 from Work Plan attached	
		Filter	FT			Chlorinated?	Y / N		
		Other	OT			Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>	



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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291		
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS				REMARKS
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disasna.com</i>						
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #		

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1	MS/MSD								
1		09/12/22	11:00	CR-M-8-SY +25	SL	1	x	x										41.31 g
2		09/12/22	11:00	CR-M-8-SY +50	SL	1	x	x										123.38 g
3		09/12/22	11:00	CR-M-8-SY +100	SL	1	x	x										102.63 g
4		09/12/22	11:00	CR-M-8-SY +140	SL	1	x	x										31.43 g
5		09/12/22	11:00	CR-M-8-SY +200	SL	1	x	x										19.17 g
6		09/12/22	11:00	CR-M-8-SY +270	SL	1	x	x										8.90 g
7		09/13/22	15:00	CR-M-30-SY +25	SL	1	x	x										25.11 g
8		09/13/22	15:00	CR-M-30-SY +50	SL	1	x	x										92.89 g
9		09/13/22	15:00	CR-M-30-SY +100-01	SL	1	x	x										46.66 g
10		09/13/22	15:00	CR-M-30-SY +100-02	SL	1	x	x										46.66 g
11		08/30/22	10:00	CTS-H-0-+1/4 inch Bulk Assay	SL	1	x	x		x								1014.94 g, MS/MSD for Metals
12		09/13/22	15:00	CR-M-30-SY +140	SL	1	x	x										30.09g
13		09/13/22	15:00	CR-M-30-SY +200	SL	1	x	x										19.87 g
14		09/13/22	15:00	CR-M-30-SY +270	SL	1	x	x										8.92 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/06/22	19:00			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached



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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291		
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS				
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disausa.com</i>						
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #		REMARKS

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1	MS/MSD								
																		1
2		09/19/22	17:00	CR-H-0-SL-01 +50	SL	1	x	x										139.19 g
3		09/19/22	17:00	CR-H-0-SL-01 +100	SL	1	x	x										92.25 g
4		09/19/22	17:00	CR-H-0-SL-01 +140	SL	1	x	x										21.13 g
5		09/19/22	17:00	CR-H-0-SL-01 +200	SL	1	x	x										14.87 g
6		09/19/22	17:00	CR-H-0-SL-01 +270	SL	1	x	x										9.19 g
7		09/19/22	17:00	CR-H-0-SL-01 -270	SL	1	x	x										71.97 g
8		09/15/22	13:30	CR-H-4-SY +25	SL	1	x	x										338.14 g
9		09/15/22	13:30	CR-H-4-SY +50	SL	1	x	x										688.11 g
10		09/15/22	13:30	CR-H-4-SY +100	SL	1	x	x										394.93 g
11		09/15/22	13:30	CR-H-4-SY +140	SL	1	x	x										74.24 g
12		09/15/22	13:30	CR-H-4-SY +200	SL	1	x	x										46.31 g
13		09/15/22	13:30	CR-H-4-SY +270	SL	1	x	x										24.31 g
14																		

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/16/22	19:00			

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service		Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.		
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.		
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #		Table A-12 from Work Plan attached		
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated?	Y / N			
<input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>		Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>		



Package Survey From

Date: 10/06/2022 Time: 19:00 Surveyor Name: Andrew Holverson

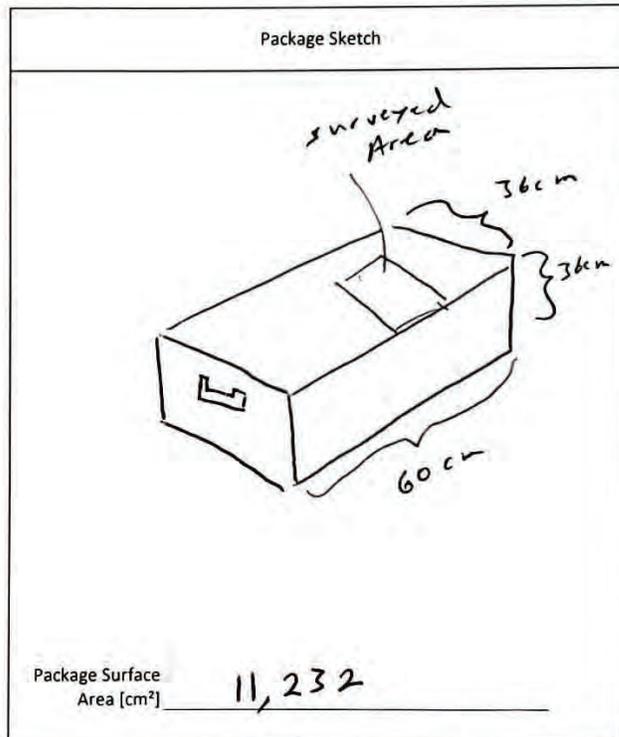
Unat Specific Activity	7.1 e-7 Ci/g
Limits	
Exempt:	2.7e-11 Ci/g
AND	2.7e-8 Ci
Excepted:	7.1e-7 Ci/g
A1 [Ci]:	Unlimited
A2 [Ci]:	Unlimited
	0.5 mRem/hr
	~500 µR/hr
Alpha:	24 dpm/cm ²
Beta:	240 dpm/cm ²

Package Description	<u>Water samples with <10 lb of Unat soil <1500 ppm</u>
Package Destination	<u>Pace Analytical 1673 Terra Avenue Sheridan, WY 82801</u>

Contents	<u><1500 ppm Unat Soil</u>	Exempt (Y/N)	<u>N</u>
Material Specific Activity	<u>1.07 e-9 Ci/g</u>	UN2910 Excepted (Y/N)	<u>Y</u>
Contents Mass	<u><10 lb</u>		
Contents Total Activity	<u>4.6 e-6 Ci</u>		

Instrument	
Manufacturer	<u>Ludlum</u>
Model	<u>19</u>
Serial No.	<u>268865</u>
Cal Due Date	<u>12/19/2022</u>
FC Passed (Y/N)	<u>Y</u>
Background	<u>8 µR/hr</u>

Location	Gross	Net
Side 1	<u>12</u>	<u>4 µR/hr</u>
Side 2	<u>23</u>	<u>15 µR/hr</u>
Side 3	<u>20</u>	<u>12 µR/hr</u>
Side 4	<u>11</u>	<u>3 µR/hr</u>
Side 5	<u>17</u>	<u>9 µR/hr</u>
Side 6	<u>16</u>	<u>8 µR/hr</u>



Meter	
Manufacturer	<u>Ludlum</u>
Model	<u>2929</u>
Serial No.	<u>208319</u>
Cal Due Date	<u>06/27/2023</u>

Detector	
Manufacturer	<u>Ludlum</u>
Model	<u>43-10-1</u>
Serial No.	<u>PR215938</u>
Cal Due Date	<u>06/27/2023</u>

FC Passed (Y/N)	<u>Y</u>
BKG Alpha (cpm)	<u>1</u>
Beta/Gamma (cpm)	<u>63</u>
300 cm ² Surveyed (Y/N)	<u>Y</u>
Entire Package Surveyed (Y/N)	<u>N</u>

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²		
Swipe 1	<u>17</u>	<u>16</u>	<u>0.1</u>	<u>3</u>	<u>95</u>	<u>32</u>	<u>0.1</u>	<u>13.3</u>	<u>AM</u>	<u>Andrew Holverson</u> Surveyor Signature
Swipe 2	<u>17</u>	<u>16</u>	<u>0.1</u>	<u>3</u>	<u>85</u>	<u>22</u>	<u>0.1</u>	<u>9.2</u>	<u>AM</u>	
			<u>0.1</u>				<u>0.1</u>			Date: <u>10/07/2022</u> Time: <u>08:40</u>
			<u>0.1</u>				<u>0.1</u>			

Note: Wiped down thoroughly prior to release



Package Survey From

Date: 0/06/2022 Time: 19:00 Surveyor Name: Andrew Hakerson

Package Description	Water Samples with <10 lb of <200 ppm Unat soil
Package Destination	Pace Analytical 1673 Terra Avenue Sheridan, WY 82801

Unat Specific Activity	7.1e-7 Ci/g
Limits	
Exempt:	2.7e-11 Ci/g AND 2.7e-8 Ci
Excepted:	7.1e-7 Ci/g
A1 [Ci]:	Unlimited
A2 [Ci]:	Unlimited
	0.5 mRem/hr ~500 µR/hr
Alpha:	24 dpm/cm ²
Beta:	240 dpm/cm ²

Contents	<200 ppm Unat Soil	Exempt (Y/N)	N
Material Specific Activity	<1.42e-10 Ci/g	UN2910 Excepted (Y/N)	Y
Contents Mass	<10 lb		
Contents Total Activity	<6.3e-7 Ci		

Instrument	
Manufacturer	Ludlum
Model	19
Serial No.	268865
Cal Due Date	12/19/2022
FC Passed (Y/N)	Y
Background	8 µR/hr

Package Sketch

Package Surface Area [cm²] 11,232

Location	Gross	Net
Side 1	10	2 µR/hr
Side 2	11	3 µR/hr
Side 3	10	2 µR/hr
Side 4	10	2 µR/hr
Side 5	10	2 µR/hr
Side 6	10	2 µR/hr

Meter	
Manufacturer	Ludlum
Model	2929
Serial No.	208319
Cal Due Date	06/27/2023

Detector	
Manufacturer	Ludlum
Model	43-10-1
Serial No.	PR215938
Cal Due Date	06/27/2023

FC Passed (Y/N)	Y
BKG Alpha (cpm)	0
Beta/Gamma (cpm)	63
300 cm ² Surveyed (Y/N)	Y
Entire Package Surveyed (Y/N)	N

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²		
Swipe 1	43	43	0.1	8	123	60	0.1	25	AM	 Surveyor Signature: Released
Swipe 2	24	24	0.1	4.5	103	40	0.1	16.7	AM	
			0.1				0.1			Date: 10/07/2022
			0.1				0.1			Time: 03:10

Note: Wiped down thoroughly prior to release



Package Survey From

Date: 10/06/2022 Time: 19:00 Surveyor Name: Andrew Halverson

Unat Specific Activity
7.1e-7 Ci/g
Limits
Exempt: 2.7e-11 Ci/g
AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g
A1 [Ci]: Unlimited
A2 [Ci]: Unlimited
0.5 mRem/hr
~500 µR/hr
Alpha: 24 dpm/cm ²
Beta: 240 dpm/cm ²

Package Description	<u>< 14 lb Unat soil with</u> <u>< 1500 ppm U concentration</u>
Package Destination	<u>Pace Analytical</u> <u>1673 Terra Avenue</u> <u>Sheridan, WY 82801</u>

Contents	<u>< 1500 ppm U nat soil</u>	Exempt (Y/N)	<u>N</u>
Material Specific Activity	<u>< 1.07 e-9 ci/g</u>	UN2910 Excepted (Y/N)	<u>Y</u>
Contents Mass	<u>< 14 lb</u>		
Contents Total Activity	<u>< 6.5 e-6 Ci</u>		

Instrument	
Manufacturer	<u>Ludlum</u>
Model	<u>19</u>
Serial No.	<u>268865</u>
Cal Due Date	<u>12/19/2022</u>
FC Passed (Y/N)	<u>Y</u>
Background	<u>8 µR/hr</u>

Location	Gross	Net
Side 1	<u>20</u>	<u>12 µR/hr</u>
Side 2	<u>21</u>	<u>13 µR/hr</u>
Side 3	<u>32</u>	<u>24 µR/hr</u>
Side 4	<u>24</u>	<u>16 µR/hr</u>
Side 5	<u>8</u>	<u>—</u>
Side 6	<u>21</u>	<u>13 µR/hr</u>

Package Sketch

Package Surface Area [cm²] 4,690

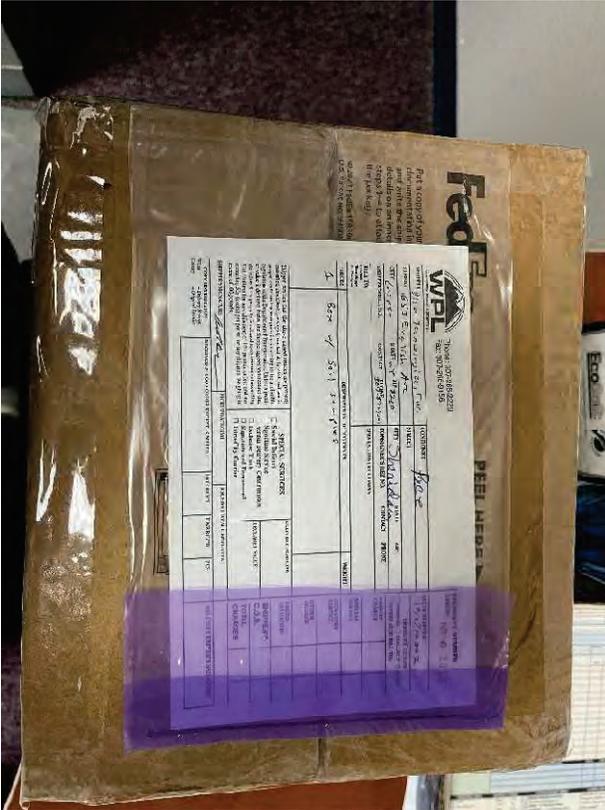
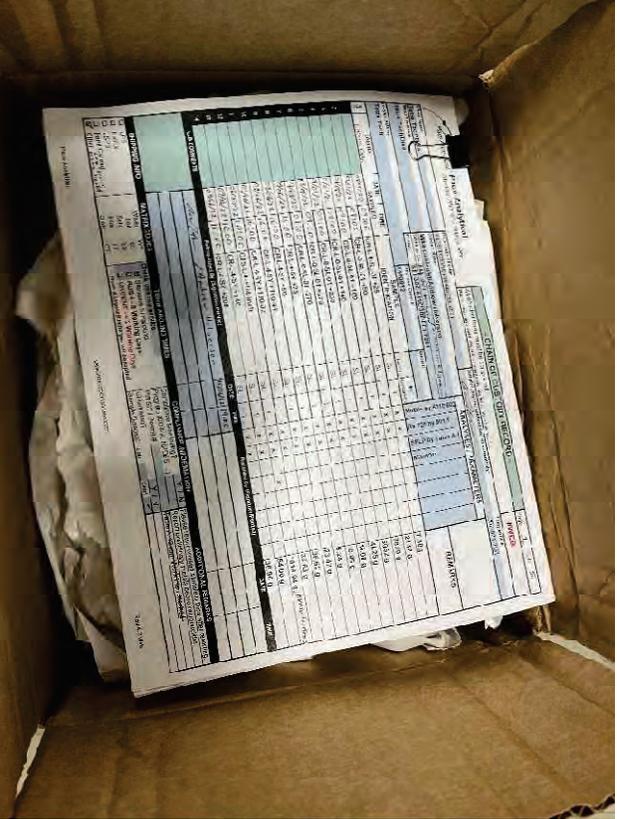
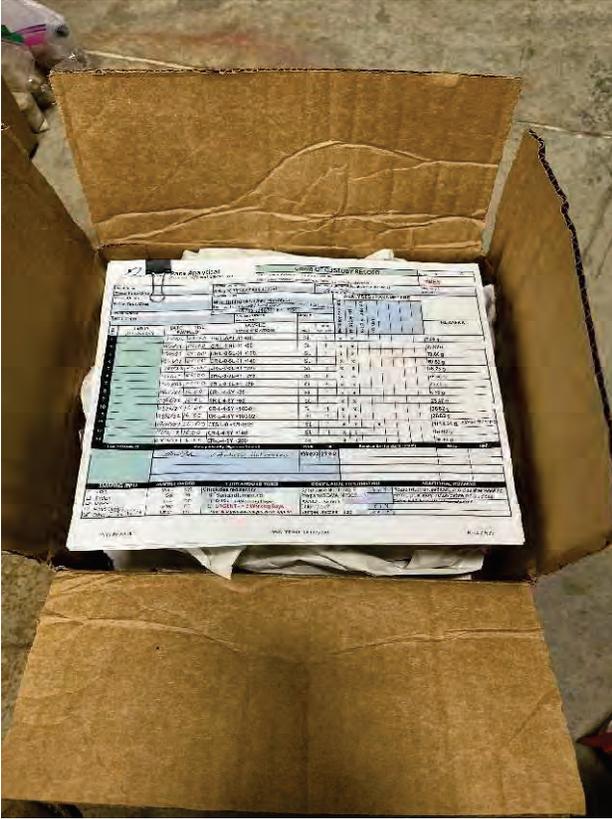
Meter	
Manufacturer	<u>Ludlum</u>
Model	<u>2929</u>
Serial No.	<u>208319</u>
Cal Due Date	<u>06/27/2023</u>

Detector	
Manufacturer	<u>Ludlum</u>
Model	<u>43-10-1</u>
Serial No.	<u>PR215938</u>
Cal Due Date	<u>06/27/2023</u>

FC Passed (Y/N)	<u>Y</u>
BKG Alpha (cpm)	<u>0</u>
Beta/Gamma (cpm)	<u>61</u>
300 cm ² Surveyed (Y/N)	<u>Y</u>
Entire Package Surveyed (Y/N)	<u>N</u>

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²		
Swipe 1	<u>4</u>	<u>4</u>	<u>0.1</u>	<u>0.8</u>	<u>67</u>	<u>6</u>	<u>0.1</u>	<u>2.5</u>	<u>AH</u>	<u>Andrew Halverson</u> Surveyor Signature
Swipe 2	<u>3</u>	<u>3</u>	<u>0.1</u>	<u>0.6</u>	<u>52</u>	<u>—</u>	<u>0.1</u>	<u>—</u>	<u>AH</u>	
			<u>0.1</u>				<u>0.1</u>			Date: <u>10/07/2022</u>
			<u>0.1</u>				<u>0.1</u>			Time: <u>08:10</u>









Pace Analytical Services, LLC
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page 1 of 1

All shaded fields must be completed.
This is a legal document: any misrepresentation may be construed as fraud.

196822

Client Name <i>Tetra Tech / Disa</i>	Project Identification <i>RAES TOSS/10365440035.03.01</i>	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>	Telephone # <i>3078717291</i>
---	--	---	----------------------------------

Report Address <i>Tetra Tech/Disa</i>	Contact Name <i>Mike Dahlquist / Andrew Halverson</i>	ANALYSES / PARAMETERS
Invoice Address <i>Tetra Tech</i>	Email <i>mike.dahlquist@tetratech.com / andrew.halverson@tetratech.com</i>	
	Phone <i>510-302-6310 / 307-871-7291</i>	

Preservative Lot #
1:1 HNO₃: M-072722-2
1:250 H₂SO₄: Chem 2-71-4
NaOH: Wet-3-40-1

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS						REMARKS
							Total Metals by 6019/6020	Total Ra-226 by 903.1	Total Ra-228 by 904.0	TDS by SM2540	TSS by SM2540	MS/MSD	
1	<i>52248140-001</i>	<i>10/05/22</i>	<i>17:00</i>	<i>SW-WT-01</i>	<i>WT</i>	<i>7</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>Unfiltered</i>
2	<i>✓ 002</i>	<i>10/05/22</i>	<i>17:10</i>	<i>SW-WT-02</i>	<i>WT</i>	<i>21</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>Unfiltered, MS/MSD for Metals and Ra-226</i>
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
<i>2 coolers ROT 5.0 + 5.0</i>	<i>[Signature] / Andrew Halverson</i>	<i>10/06/22</i>	<i>19:00</i>	<i>[Signature]</i>	<i>10/10/22</i>	<i>13:37</i>
<i>Roads = 500.4R/H</i>						

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier SecureDropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <u>Y/N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y/N</u> Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>Samples in two separate coolers. Soil samples for Bulk Analysis and SPLP in coolers as well.</i>



Pace Analytical
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -	Page 1 of 1
<i>All shaded fields must be completed.</i>	
This is a legal document; any misrepresentation may be construed as fraud.	
#WEB	

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email		
	Phone 510-302-6310/307-871-7291		
	Purchase Order # 1150922	Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS										REMARKS	
							Metals by 6010/6020	Ra 226 by 901.1	SPLP by Table A-12									
1	52210147-001	08/23/22	10:03	CR-L-0-SL-01	SL	1	x	x	x									703.33 g
2	002	08/23/22	10:32	CR-M-0-SL-01	SL	1	x	x	x									649.85 g
3	003	08/23/22	10:51	CR-H-0-SL-01	SL	1	x	x	x									796.62 g
4	004	08/26/22	10:00	QV-L-0-SL-01	SL	1	x	x	x									659.77 g
5	005	08/27/22	09:25	QV-M-0-SL-01	SL	1	x	x	x									721.82 g
6	006	8/27/22	12:00	QV-H-0-SL-01	SL	1	x	x	x									768.26 g
7	007	08/30/22	10:00	CTS-L-0-SL-01	SL	1	x	x	x									590.31 g
8	008	08/30/22	10:00	CTS-M-0-SL-01	SL	1	x	x	x									645.78 g
9	009	08/30/22	10:00	CTS-H-0-SL-01	SL	1	x	x	x									773.47 g
10	010	09/06/22	16:00	CR-L-4-SY Combined +25/+270	SL	1				x								413.27 g
11	011	09/07/22	14:00	CR-L-8-SY Combined +25/+270	SL	1				x								439.49 g
12	012	09/08/22	08:00	CR-L-30-SY Combined +25/+270	SL	1				x								425.64 g
13	013	09/09/22	10:00	CR-M-4-SY Combined +25/+270	SL	1				x								507.97 g
14	014	09/12/22	11:00	CR-M-8-SY Combined +25/+270	SL	1				x								622.34 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	/ Andrew Halverson	10/06/22	19:00		10/10/22	13:32

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached Samples in 2 separate coolers with SW-WT-01 and 3201014700202 samples

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection Agency

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

Table A-13. Aqueous Radionuclide Analytical Parameter Summary for SPLP Extract

Analyte	CAS Number	Analytical Method	MDC ¹ (pCi/L)	Requested MDC ¹ (pCi/L)	USEPA MCL ² (pCi/L)	ORNL Ecological Screening Level (pCi/L)
Radium-226	13982-63-3	Alpha Scint USEPA 903.1	0.2	0.1	5 *	160
Radium-228	15262-20-1	GFPC USEPA 904.0	1.0	0.1	5 *	NV

Notes:

- ¹ MDCs requested from laboratories based on the expertise of the certified health physicist and project chemist.
- ² MCLs from USEPA National Primary Drinking Water Regulations (USEPA 2009).
- * The MCL for radium-226 and radium-228 is defined on a combined basis. The MCL for total radium (radium-226 + radium-228) is 5 pCi/L.

CAS Chemical Abstracts Service
 GFPC Gas flow proportional counting
 MCL Maximum contaminant level
 MDC Minimum detectable concentration
 NV No value
 ORNL Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory (Bechtel Jacobs Company 1998)
 pCi/L Picocurie per liter
 Scint Scintillation
 SPLP Synthetic precipitation leaching procedure
 USEPA U.S. Environmental Protection Agency

Sources:

Bechtel Jacobs Company. 1998. "Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory, Oak Ridge, Tennessee."
 U.S. Environmental Protection Agency (USEPA). 2009. "National Primary Drinking Water Regulations." EPA 816-F-09-004. May.



Report Review Checklist

Log Review

COC Review Information on COC matches that on report; spelling accurate.

Initials/Date:

WN 10/26/22

- 1 Original COC attached, signed and dated.
2 Samples received within temperature
2 Parameters requested.
3 Client.
4 Report recipient/address.
5 Invoice recipient/address.
6 Project. Requested changes to Project must be communicated to Project Mgr.
7 Appropriate detection limits (RLs) assigned.
8 Prices may need to be adjusted prior to invoicing. (circle)
9 P. O. number.
10 Sample IDs.
11 Sample dates.
12 Date received.
13 Date due.
14 Matrix.
15 PWSID included for safe drinking water compliance samples.
16 Field data entered appropriately (Log Review); matches lab data (Report Review).
17 Special requests indicated in "Comments" section of Work Order summary.
18 All "No" responses on Condition Upon Receipt form have been resolved

Data Review

Report Review

- 1 Automated QC (Check Data button) review performed, discrepancies resolved.
2 Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.
3 Worksheet/instrument data compared to report results for calculation, transcription and data entry errors.
4 Results compared to historical data if applicable.
5 Analysis date and time.
6 Analytical method.
7 Appropriate detection limits (RLs) assigned.
8 Appropriate units of measure.
9 Analyst's initials.
10 Calculations checked?
11 Subcontracted analyses identified as such with qualifier or as attachment to lab report
12 Subcontracted report reviewed
13 Invoice parameters match those on COC.

Final Review

- 1 Report appears complete and appropriate.
2 Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report.
3 All necessary qualifiers included in report.
4 Qualifiers referenced in case narrative; which includes descriptions of all sample/analysis anomalies.
5 Anomalies, including reason for report reissue, explained in Case Narrative.
6 Copies of report sent to all recipients requested on COC. (circle) Copy to Regulator Hard Copy Email
7 All special requests listed on COC, or attached parameter list, honored.
8 Special report format per client request.
9 Report pages signed.



Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE TIME SAMPLED		SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-12	MS/MSD				REMARKS
		DATE	TIME											
1		09/09/22	09:00	CR-L-0-SL-01 +25	SL	1	x	x						7.30 g
2		09/09/22	09:00	CR-L-0-SL-01 +50	SL	1	x	x						21.82 g
3		09/09/22	09:00	CR-L-0-SL-01 +100	SL	1	x	x						78.60 g
4		09/09/22	09:00	CR-L-0-SL-01 +140	SL	1	x	x						60.52 g
5		09/09/22	09:00	CR-L-0-SL-01 +200	SL	1	x	x						48.25 g
6		09/09/22	09:00	CR-L-0-SL-01 +270	SL	1	x	x						19.00 g
7		09/09/22	09:00	CR-L-0-SL-01 -270	SL	1	x	x						76.85 g
8		09/06/22	16:00	CR-L-4-SY +25	SL	1	x	x						5.28 g
9		09/06/22	16:00	CR-L-4-SY +50	SL	1	x	x						23.47 g
10		09/06/22	16:00	CR-L-4-SY +100-01	SL	1	x	x						36.62 g
11		09/06/22	16:00	CR-L-4-SY +100-02	SL	1	x	x						36.63 g
12		03/30/22	10:00	CTS-L-0-+1/4-inch	SL	1	x	x		x				1014.94 g, MS/MSD for metals
13		09/06/22	16:00	CR-L-4-SY +140	SL	1	x	x						54.00 g
14		09/06/22	16:00	CR-L-4-SY +200	SL	1	x	x						36.94 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/06/22	19:00	<i>[Signature]</i>	10-10-22	13:29
<i>Redo a 500 mL H</i>						

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached-



- CHAIN OF CUSTODY RECORD -

All shaded fields must be completed.
This is a legal document, any misrepresentation may be construed as fraud.

#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disansa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE TIME SAMPLED		SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-11							REMARKS
1		09/06/22	16:00	CR-L-4-SY +270	SL	1	x	x								14.75 g
2		09/07/22	14:00	CR-L-8-SY +25	SL	1	x	x								4.11 g
3		09/07/22	14:00	CR-L-8-SY +50	SL	1	x	x								24.05 g
4		09/07/22	14:00	CR-L-8-SY +100	SL	1	x	x								79.07 g
5		09/07/22	14:00	CR-L-8-SY +140	SL	1	x	x								59.00 g
6		09/07/22	17:00	CR-L-8-SY +200	SL	1	x	x								38.87 g
7		09/07/22	14:00	CR-L-8-SY +270	SL	1	x	x								15.63 g
8		09/08/22	08:00	CR-L-30-SY +25	SL	1	x	x								3.71 g
9		09/08/22	08:00	CR-L-30-SY +50	SL	1	x	x								21.57 g
10		09/08/22	08:00	CR-L-30-SY +100	SL	1	x	x								74.76 g
11		09/08/22	08:00	CR-L-30-SY +140	SL	1	x	x								57.66 g
12		09/08/22	08:00	CR-L-30-SY +200	SL	1	x	x								39.60 g
13		09/08/22	08:00	CR-L-30-SY +270	SL	1	x	x								16.42 g
14		09/14/22	11:00	CR-M-0-SL-01 +25	SL	1	x	x								36.97 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/06/22	14:00	<i>[Signature]</i> Julie Gonzalez	10-10-22	13:29

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>sub courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached



Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetra-tech.com / a.halverson@disansa.com					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-11	MS/MSD							REMARKS	
																		1
2		09/14/22	11:00	CR-M-0-SL-01 +100-01	SL	1	x	x										42.17 g
3		09/14/22	11:00	CR-M-0-SL-01 +100-02	SL	1	x	x										42.15 g
4		09/14/22	11:00	CR-M-0-SL-01 +140	SL	1	x	x										30.38 g
5		08/30/22	10:00	CTS-M-0-+1/4-inch	SL	1	x	x		x								1088.29 g, <i>ms/msd to metals</i>
6		09/14/22	11:00	CR-M-0-SL-01 +200	SL	1	x	x										20.85 g
7		09/14/22	11:00	CR-M-0-SL-01 +270	SL	1	x	x										9.44 g
8		09/14/22	11:00	CR-M-0-SL-01 -270	SL	1	x	x										56.16 g
9		09/09/22	10:00	CR-M-4-SY +25	SL	1	x	x										20.61 g
10		09/09/22	10:00	CR-M-4-SY +50	SL	1	x	x										92.38 g
11		09/09/22	10:00	CR-M-4-SY +100	SL	1	x	x										88.27 g
12		09/09/22	10:00	CR-M-4-SY +140	SL	1	x	x										28.45 g
13		09/09/22	10:00	CR-M-4-SY +200	SL	1	x	x										17.67 g
14		09/09/22	10:00	CR-M-4-SY +270	SL	1	x	x										7.86 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	Andrew Halverson	10/06/22	14:00		10-10-22	13:29

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>lab courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached



Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disausa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-11	MS/MSD					REMARKS
2		09/12/22	11:00	CR-M-8-SY +50	SL	1	x	x							123.38 g
3		09/12/22	11:00	CR-M-8-SY +100	SL	1	x	x							102.63 g
4		09/12/22	11:00	CR-M-8-SY +140	SL	1	x	x							31.43 g
5		09/12/22	11:00	CR-M-8-SY +200	SL	1	x	x							19.17 g
6		09/12/22	11:00	CR-M-8-SY +270	SL	1	x	x							8.90 g
7		09/13/22	15:00	CR-M-30-SY +25	SL	1	x	x							25.11 g
8		09/13/22	15:00	CR-M-30-SY +50	SL	1	x	x							92.89 g
9		09/13/22	15:00	CR-M-30-SY +100-01	SL	1	x	x							46.66 g
10		09/13/22	15:00	CR-M-30-SY +100-02	SL	1	x	x							46.66 g
11		08/30/22	10:00	CTS-H-0+1/4 inch Bulk Assay	SL	1	x	x		x					1014.94 g, MS/MSD for Metals
12		09/13/22	15:00	CR-M-30-SY +140	SL	1	x	x							30.09g
13		09/13/22	15:00	CR-M-30-SY +200	SL	1	x	x							19.87 g
14		09/13/22	15:00	CR-M-30-SY +270	SL	1	x	x							8.92 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/06/22	14:00	<i>[Signature]</i> Julie Horzelka	10-10-22	13:29

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service		Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.		
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.		
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #		Table A-12 from Work Plan attached-		
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated?	Y / N			
<input checked="" type="checkbox"/> Other <i>Lab courier 3 c/w + dropoff</i>	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>		Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>		



- CHAIN OF CUSTODY RECORD -

Page 5 of 5

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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE TIME SAMPLED		SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS								REMARKS
							Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-11	MS/MSD					
1		09/19/22	17:00	CR-H-0-SL-01 +25	SL	1	x	x							83.60 g
2		09/19/22	17:00	CR-H-0-SL-01 +50	SL	1	x	x							139.19 g
3		09/19/22	17:00	CR-H-0-SL-01 +100	SL	1	x	x							92.25 g
4		09/19/22	17:00	CR-H-0-SL-01 +140	SL	1	x	x							21.13 g
5		09/19/22	17:00	CR-H-0-SL-01 +200	SL	1	x	x							14.87 g
6		09/19/22	17:00	CR-H-0-SL-01 +270	SL	1	x	x							9.19 g
7		09/19/22	17:00	CR-H-0-SL-01 -270	SL	1	x	x							71.97 g
8		09/15/22	13:30	CR-H-4-SY +25	SL	1	x	x							84.54 g
9		09/15/22	13:30	CR-H-4-SY +50	SL	1	x	x							172.04 g
10		09/15/22	13:30	CR-H-4-SY +100	SL	1	x	x							98.72 g
11		09/15/22	13:30	CR-H-4-SY +140	SL	1	x	x							18.56 g
12		09/15/22	13:30	CR-H-4-SY +200	SL	1	x	x							11.58 g
13		09/15/22	13:30	CR-H-4-SY +270	SL	1	x	x							6.08 g
14															

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/06/22	19:00	<i>[Signature]</i>	10-10-22	13:29

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab return see work sheet</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab <u>Client</u> <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached

Ra 226 Sample Compositing Summary

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet.
2 duplicates and 2 MSD for metals have already been indicated for those samples

Legend
Duplicate

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	124.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.26	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	82.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	138.19	After metals split, analyze remaining mass for Ra 226
3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226

4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
6	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226

9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from -140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226

9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 227
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226



Report Review Checklist

Log Review

COC Review Information on COC matches that on report; spelling accurate.

Initials/Date:

WN 10/31/22

- 1 Original COC attached, signed and dated.
2 Samples received within temperature
2 Parameters requested.
3 Client.
4 Report recipient/address.
5 Invoice recipient/address.
6 Project. Requested changes to Project must be communicated to Project Mgr.
7 Appropriate detection limits (RLs) assigned.
8 Prices may need to be adjusted prior to invoicing. (circle) Yes or No
9 P. O. number.
10 Sample IDs.
11 Sample dates.
12 Date received.
13 Date due.
14 Matrix.
15 PWSID included for safe drinking water compliance samples. NA
16 Field data entered appropriately (Log Review); matches lab data (Report Review). NA
17 Special requests indicated in "Comments" section of Work Order summary.
18 All "No" responses on Condition Upon Receipt form have been resolved Yes or No

Data Review

Report Review

- 1 Automated QC (Check Data button) review performed, discrepancies resolved.
2 Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.
3 Worksheet/instrument data compared to report results for calculation, transcription and data entry errors.
4 Results compared to historical data if applicable. NA
5 Analysis date and time.
6 Analytical method.
7 Appropriate detection limits (RLs) assigned.
8 Appropriate units of measure.
9 Analyst's initials.
10 Calculations checked?
11 Subcontracted analyses identified as such with qualifier or as attachment to lab report NA
12 Subcontracted report reviewed NA
13 Invoice parameters match those on COC.

Final Review

- 1 Report appears complete and appropriate.
2 Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report.
3 All necessary qualifiers included in report.
4 Qualifiers referenced in case narrative; which includes descriptions of all sample/analysis anomalies.
5 Anomalies, including reason for report reissue, explained in Case Narrative.
6 Copies of report sent to all recipients requested on COC. (circle) Copy to Regulator Hard Copy Email
7 All special requests listed on COC, or attached parameter list, honored.
8 Special report format per client request.
9 Report pages signed.

- CHAIN OF CUSTODY RECORD -

All shaded fields must be completed.
This is a legal document; any misrepresentation may be construed as fraud

#WEB

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov		
Phone 510-302-6310/307-871-7291	Purchase Order # 1150922		

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD											REMARKS	
																					1
2		09/30/22	21:00	QV-M-8-SY +140	SL	1	x	x													25.22 g
3		09/30/22	21:00	QV-M-8-SY +200	SL	1	x	x													12.35 g
4		09/30/22	21:00	QV-M-8-SY +270	SL	1	x	x													6.22 g
5		10/01/22	18:30	QV-M-30-SY +25	SL	1	x	x													41.91 g
6		10/01/22	18:30	QV-M-30-SY +50	SL	1	x	x	X												130.72 g MS/MSD for Metals
7		10/01/22	18:30	QV-M-30-SY +100-01	SL	1	x	x													53.37 g
8		10/01/22	18:30	QV-M-30-SY +100-02	SL	1	x	x													53.36 g
9		10/01/22	18:30	QV-M-30-SY +140	SL	1	x	x													26.36 g
10		10/01/22	18:30	QV-M-30-SY +200	SL	1	x	x													13.68 g
11		10/01/22	18:30	QV-M-30-SY +270	SL	1	x	x													7.21 g
12		10/02/22	17:00	QV-H-4-SY +25	SL	1	x	x													101.55 g
13		10/02/22	17:00	QV-H-4-SY +50	SL	1	x	x													224.51 g
14		10/02/22	17:00	QV-H-4-SY +100	SL	1	x	x													147.85 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i> / Andrew Halverson	10/19/22	12:20			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab w/ write secure bagoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <u>Y / N</u> Program (SDWA, NPDES,...) _____ PWSID / Permit # _____ Chlorinated? <u>Y / N</u> Sample Disposal: Lab _____ Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides.



Pace Analytical Services, LLC
 Sheridan, WY and Gillette, WY

Client Name Tetra Tech/Disa		Project Identification RAES T033/1036544 0033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist / Andrew Halverson		ANALYSES / PARAMETERS <i>Total Metals by 6010/6020</i> <i>Dissolved Metals by 6010/6020</i> <i>Total Ra 226 by 903.1</i> <i>Total Ra 228 by 904.0</i> <i>Dissolved Ra 226 by 903.1</i> <i>TDS by 5M2540</i> <i>TSS by 5M2540</i>			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com/a.halverson@disa.com					
		Phone 510-362-6310/307-871-7291		Purchase Order # 1150922		Quote #	

Preservative Lot #
 1:1 HNO3: M-072722-2
 H2SO4: Chem 2-71-4
 NaOH: Wet-3-40-1

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS								REMARKS
							Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Ra 226 by 903.1	Total Ra 228 by 904.0	Dissolved Ra 226 by 903.1	TDS by 5M2540	TSS by 5M2540		
1		10/05/22	10:00	CTS-L-4-WT	WT	7	✓		✓	✓		✓	✓		Unfiltered
2		10/05/22	16:30	CTS-L-8-WT	WT	7	✓		✓	✓		✓	✓		Unfiltered
3		10/06/22	16:41	CTS-L-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓		Unfiltered
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/10/22	12:05			

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Secure Dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>In 2 separate coolers. For Unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis. Soil samples w/ CTS-L-30-WT in cooler.</i>



Pace Analytical
Sheridan, WY and Gillette, WY

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Phone 510-302-6310/307-871-7291	SPLP by Table A-12	SPLP by Table A-13
	Purchase Order # 1150922	MS/MSD	
	Quote #		
			REMARKS

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	SPLP by Table A-12	SPLP by Table A-13	MS/MSD									
1		09/13/22	15:00	CR-M-30-SY Combined +25/+270	SL	1	x	x										537.61 g
2		09/15/22	13:30	CR-H-4-SY Combined +25/+270	SL	1	x	x	x									780.85 g
3		09/17/22	16:00	CR-H-8-SY Combined +25/+270-01	SL	1	x	x										388.24 g
4		09/17/22	16:00	CR-H-8-SY Combined +25/+270-02	SL	1	x	x										383.75 g
5		09/19/22	11:40	CR-H-30-SY Combined +25/+270	SL	1	x	x										589.73 g
6		09/20/22	10:00	QV-L-4-SY Combined +25/+270	SL	1	x	x										485.89 g
7		09/28/22	13:00	QV-L-8-SY Combined +25/+270	SL	1	x	x										662.81 g
8		09/29/22	08:00	QV-L-30-SY Combined +25/+270	SL	1	x	x										619.92 g
9		09/30/22	12:30	QV-M-4-SY Combined +25/+270	SL	1	x	x										753.70 g
10		09/30/22	21:00	QV-M-8-SY Combined +25/+270	SL	1	x	x										759.64 g
11		10/01/22	18:30	QV-M-30-SY Combined +25/+270	SL	1	x	x										650.64 g
12		10/02/22	17:00	QV-H-4-SY Combined +25/+270	SL	1	x	x										1048.37 g
13																		
14																		

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
		10/10/22	12:05			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>by courier see work sheet</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab <u>Client</u> <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 and A-13 from Work Plan attached

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection Agency

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

Table A-13. Aqueous Radionuclide Analytical Parameter Summary for SPLP Extract

Analyte	CAS Number	Analytical Method	MDC ¹ (pCi/L)	Requested MDC ¹ (pCi/L)	USEPA MCL ² (pCi/L)	ORNL Ecological Screening Level (pCi/L)
Radium-226	13982-63-3	Alpha Scint USEPA 903.1	0.2	0.1	5 *	160
Radium-228	15262-20-1	GFPC USEPA 904.0	1.0	0.1	5 *	NV

Notes:

- ¹ MDCs requested from laboratories based on the expertise of the certified health physicist and project chemist.
² MCLs from USEPA National Primary Drinking Water Regulations (USEPA 2009).
* The MCL for radium-226 and radium-228 is defined on a combined basis. The MCL for total radium (radium-226 + radium-228) is 5 pCi/L.

CAS Chemical Abstracts Service
GFPC Gas flow proportional counting
MCL Maximum contaminant level
MDC Minimum detectable concentration
NV No value
ORNL Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory (Bechtel Jacobs Company 1998)
pCi/L Picocurie per liter
Scint Scintillation
SPLP Synthetic precipitation leaching procedure
USEPA U.S. Environmental Protection Agency

Sources:

Bechtel Jacobs Company. 1998. "Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory, Oak Ridge, Tennessee."
U.S. Environmental Protection Agency (USEPA). 2009. "National Primary Drinking Water Regulations." EPA 816-F-09-004. May.



Package Survey From

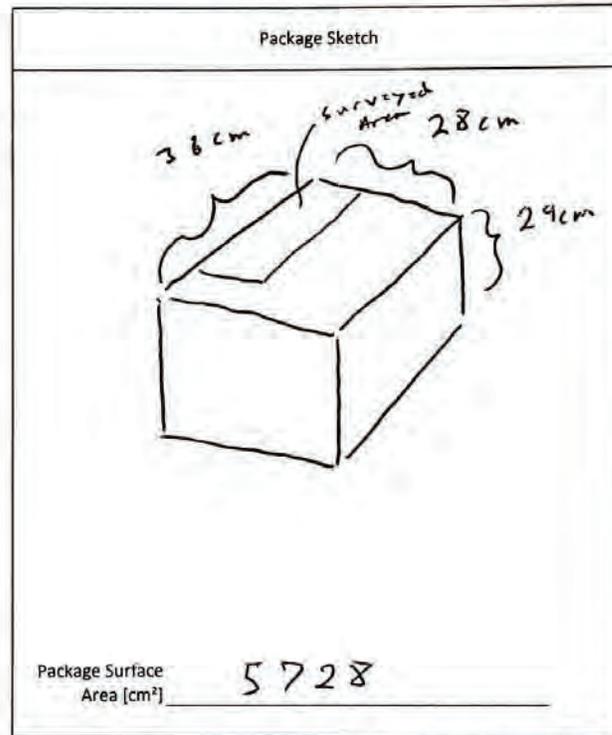
Date: 10/10/22 Time: 13:00 Surveyor Name: Andrew Halverson

Package Description	<u>Box with <14 lb of <1500 ppm</u>
	<u>Unat soil</u>
Package Destination	<u>Pace Labs</u>
	<u>1673 Terra Avenue</u>
	<u>Sheridan, WY 82801</u>

Unat Specific Activity
7.1 e-7 Ci/g
Limits
Exempt: 2.7e-11 Ci/g
AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g
A1 [Ci]: Unlimited
A2 [Ci]: Unlimited
0.5 mRem/hr
~500 µR/hr
Alpha: 24 dpm/cm ²
Beta: 240 dpm/cm ²

Contents	<u><1500 ppm Unat soil</u>	Exempt (Y/N)	<u>N</u>
Material Specific Activity	<u><1.07e-9 Ci/g</u>	UN2910 Excepted (Y/N)	<u>Y</u>
Contents Mass	<u><14 lb</u>		
Contents Total Activity	<u><6.4e-6 Ci</u>		

Instrument	
Manufacturer	<u>Ludlum</u>
Model	<u>19</u>
Serial No.	<u>268865</u>
Cal Due Date	<u>12/19/2022</u>
FC Passed (Y/N)	<u>Y</u>
Background	<u>8 µR/hr</u>



Location	Gross	Net
Side 1	<u>12</u>	<u>4 µR/hr</u>
Side 2	<u>12</u>	<u>4 µR/hr</u>
Side 3	<u>13</u>	<u>5 µR/hr</u>
Side 4	<u>14</u>	<u>6 µR/hr</u>
Side 5	<u>14</u>	<u>6 µR/hr</u>
Bottom → Side 6	<u>21</u>	<u>13 µR/hr</u>

Meter	
Manufacturer	<u>Ludlum</u>
Model	<u>2929</u>
Serial No.	<u>208319</u>
Cal Due Date	<u>06/27/2023</u>

Detector	
Manufacturer	<u>Ludlum</u>
Model	<u>43-10-1</u>
Serial No.	<u>PR215938</u>
Cal Due Date	<u>06/27/2023</u>

FC Passed (Y/N)	<u>Y</u>
BKG Alpha (cpm)	<u>0</u>
Beta/Gamma (cpm)	<u>56</u>
300 cm ² Surveyed (Y/N)	<u>Y</u>
Entire Package Surveyed (Y/N)	<u>N</u>

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²		
Swipe 1	<u>2</u>	<u>2</u>	<u>0.1</u>	<u>0.4</u>	<u>71</u>	<u>15</u>	<u>0.1</u>	<u>6.3</u>	<u>AM</u>	<u>ate</u> Surveyor Signature:
Swipe 2	<u>2</u>	<u>2</u>	<u>0.1</u>	<u>0.4</u>	<u>56</u>	<u>-</u>	<u>0.1</u>	<u>-</u>	<u>AM</u>	
			<u>0.1</u>				<u>0.1</u>			Released
			<u>0.1</u>				<u>0.1</u>			Date: <u>10/10/2022</u>
										Time: <u>13:30</u>

Package Survey From

Date: 10/10/22 Time: 13:00 Surveyor Name: Andrew Halverson

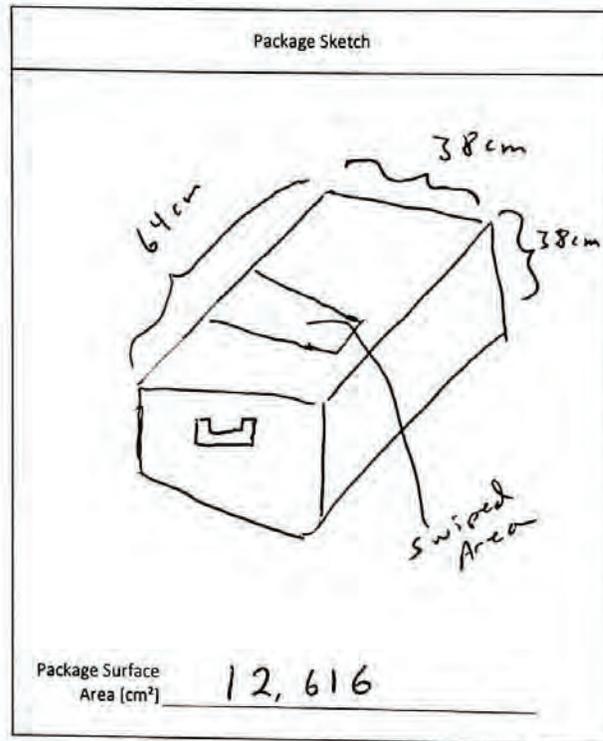
Package Description	<u>Cooler with water and <17 lb of <1500 ppm Unat soil</u>
Package Destination	<u>Pace Labs 1673 Terra Avenue Sheridan, WY 82801</u>

Unat Specific Activity	7.1 e-7 Ci/g
Limits	Exempt: 2.7e-11 Ci/g AND 2.7e-8 Ci Excepted: 7.1e-7 Ci/g
A1 [Ci]:	Unlimited
A2 [Ci]:	Unlimited
	0.5 mRem/hr ~500 µR/hr
Alpha:	24 dpm/cm ²
Beta:	240 dpm/cm ²

Contents	<u><1500ppm Unat soil</u>	Exempt (Y/N)	<u>N</u>
Material Specific Activity	<u><1.07e-9 Ci/g</u>	UN2910 Excepted (Y/N)	<u>Y</u>
Contents Mass	<u><17 lb</u>		
Contents Total Activity	<u><8.2 e-6 Ci</u>		

Instrument	
Manufacturer	<u>Ludlum</u>
Model	<u>19</u>
Serial No.	<u>268865</u>
Cal Due Date	<u>12/19/2022</u>
FC Passed (Y/N)	<u>Y</u>
Background	<u>8 µR/hr</u>

Location	Gross	Net
Side 1	<u>11</u>	<u>3 µR/hr</u>
Side 2	<u>13</u>	<u>5 µR/hr</u>
Side 3	<u>12</u>	<u>4 µR/hr</u>
Side 4	<u>13</u>	<u>5 µR/hr</u>
Side 5	<u>10</u>	<u>2 µR/hr</u>
Side 6	<u>12</u>	<u>4 µR/hr</u>



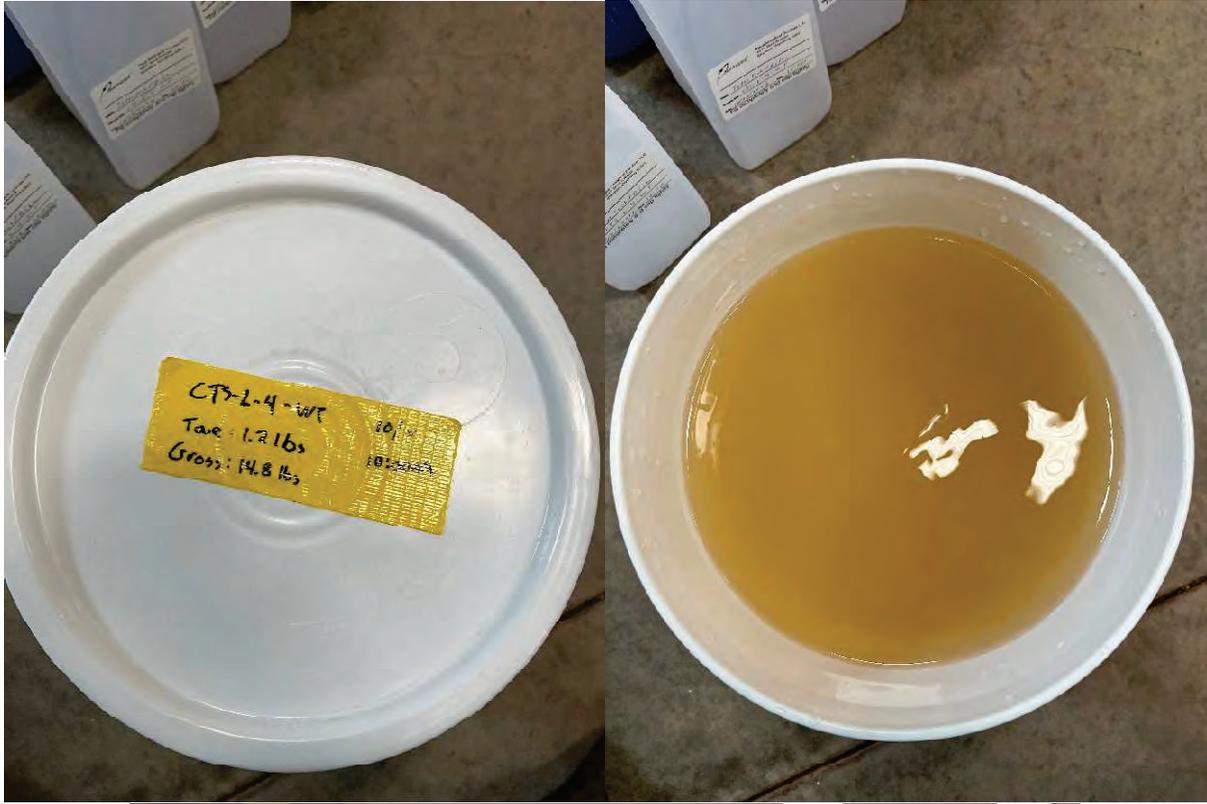
Meter	
Manufacturer	<u>Ludlum</u>
Model	<u>2929</u>
Serial No.	<u>208319</u>
Cal Due Date	<u>06/27/2023</u>

Detector	
Manufacturer	<u>Ludlum</u>
Model	<u>43-10-1</u>
Serial No.	<u>PR215938</u>
Cal Due Date	<u>06/27/2023</u>

FC Passed (Y/N)	<u>Y</u>
BKG Alpha (cpm)	<u>0</u>
Beta/Gamma (cpm)	<u>64</u>
300 cm ² Surveyed (Y/N)	<u>Y</u>
Entire Package Surveyed (Y/N)	<u>N</u>

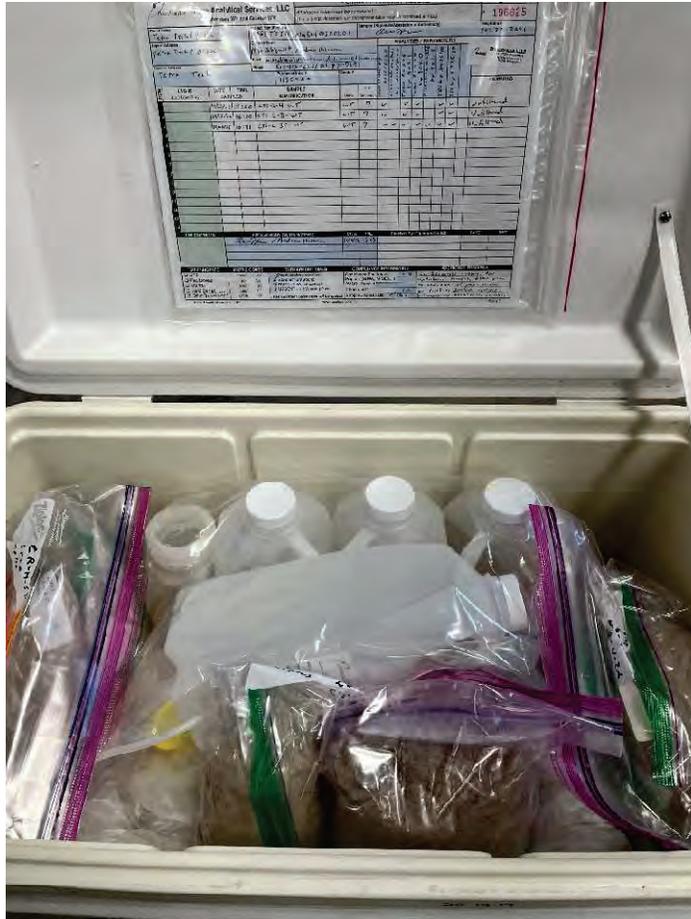
Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled	AM
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²			
Swipe 1	<u>4</u>	<u>4</u>	<u>0.1</u>	<u>0.8</u>	<u>82</u>	<u>18</u>	<u>0.1</u>	<u>7.5</u>	<u>AM</u>	<i>Andrew Halverson</i> Surveyor Signature:	
Swipe 2	<u>9</u>	<u>9</u>	<u>0.1</u>	<u>1.7</u>	<u>81</u>	<u>17</u>	<u>0.1</u>	<u>7.1</u>	<u>AM</u>		
Swipe 3	<u>5</u>	<u>5</u>	<u>0.1</u>	<u>0.94</u>	<u>48</u>	<u>-</u>	<u>0.1</u>	<u>-</u>	<u>AM</u>		
			<u>0.1</u>				<u>0.1</u>			Released	
										Date: <u>10/10/2022</u>	
										Time: <u>13:30</u>	

Note: Cooler wiped down and 3rd swipe taken









FedEx Phone: 907-266-2229 Fax: 307-266-9156

WPL WATERBURY POWER LABORATORIES

Put a copy of this document and write the details on all steps 1-4 to the package.

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SHIPPER Din Technologies, Inc		CONSIGNEE Pace		SHIPMENT NUMBER	
STREET 1655 English Ave		STREET		ORIGIN NY 6 3315	
CITY Casper STATE WY ZIP 82401		CITY Shirley STATE VA ZIP		DATE SHIPPED 10/20/2021	
SHIPPER'S REF. NO.		CONSIGNEE'S REF. NO.		<input type="checkbox"/> PREPARED BY SHIPPER <input type="checkbox"/> OTHER	
BILL TO: (If From Other Shipper Or Consignee)		SPECIAL INSTRUCTIONS		WEIGHT CHANGE	
CONTACT PHONE 307-371-9241				SPECIAL SERVICE	
PIECES 1	DESCRIPTION OF CONTENTS cooler with water and soil samples	WEIGHT		SIGNATURE SERVICE	
Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is related to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.		SPECIAL SERVICES <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Verbal Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Turnaround <input type="checkbox"/> Intra-City Courier		DELIVERY DEADLINE DECLARED VALUE	
SHIPPER'S SIGNATURE <i>[Signature]</i>		RECEIVED BY ACC EMPLOYEE		EXCESS VALUATION	
COPY DISTRIBUTION - Delivery Receipt Only		RECEIVED IN GOOD ORDER EXCEPT AS NOTED		SHIPPER'S C.O.D.	
		DATE/TIME		TOTAL CHARGES	
		INITIALS		DELIVERY DESTINATION	
		PCS			











Pace Analytical Services, LLC
 Sheridan, WY and Gillette, WY

Client Name <i>Tetra Tech/Disa</i>	Project Identification <i>RAES T033/ 2036544 0033.03.01</i>	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>	Telephone # <i>307-871-7291</i>
Report Address <i>Tetra Tech/Disa</i>	Contact Name <i>Mike Dahlquist / Andrew Halverson</i>	ANALYSES / PARAMETERS	
Invoice Address <i>Tetra Tech</i>	Email <i>mike.dahlquist@tetratech.com/a.halverson@disa.com</i>		
	Phone <i>510-302-6310 / 307-871-7291</i>	Total Metals by <i>6010/6020</i>	Preservative Lot # <small>1:1 HNO3: M-072722-2 H2SO4: Chem 2-71-4 NaOH: Wet-3-40-1</small>
	Purchase Order # <i>1150922</i>	Dissolved Metals <i>by 6010/6020</i>	
	Quote #	Total Rn 226 <i>by 903.1</i>	REMARKS
		Total Rn 228 <i>by 904.0</i>	
		Dissolved Rn 226 <i>by 903.1</i>	
		TDS by <i>SM2540</i>	
		TSS by <i>SM2540</i>	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS						REMARKS	
							Total Metals by	Dissolved Metals	Total Rn 226	Total Rn 228	Dissolved Rn 226	TDS by		TSS by
1	<i>52210167-001</i>	<i>10/05/22</i>	<i>10:00</i>	<i>CTS-L-4-WT</i>	<i>WT</i>	<i>7</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<i>Unfiltered</i>				
2	<i>002</i>	<i>10/05/22</i>	<i>16:30</i>	<i>CTS-L-8-WT</i>	<i>WT</i>	<i>7</i>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<i>Unfiltered</i>				
3	<i>003</i>	<i>10/06/22</i>	<i>16:41</i>	<i>CTS-L-30-WT</i>	<i>WT</i>	<i>7</i>	<input checked="" type="checkbox"/>	<i>Unfiltered</i>						
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
<i>3.10C Rot</i>	<i>[Signature] / Andrew Halverson</i>	<i>10/10/22</i>	<i>12:05</i>	<i>[Signature] Dan / Slipp</i>	<i>10/11/22</i>	<i>12:17</i>
<i>4.50C Rot</i>						
<i>rot sweep OK</i>						

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Hub Carrier Secure Drive</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <u>Y/N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y/N</u> Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>In 2 separate coolers. For unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis. Soil samples w/ CTS-L-30 WT in cooler.</i>

S2210162

Pace Analytical

Work Order Summary



Client: Tetra Tech
Project: RAES TO33/103G5440033.03.01
Comments: Level IV

Work Order: S2210162
Received: 10/11/2022
Due: 11/29/2022

Tests/Analytes

- EPA 1312
Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Molybdenum, Nickel, Selenium, Silver, Thallium, Uranium, Vanadium, Zinc
- Radium 226 by SPLP 1312
Dissolved Radium 226, MDC
- Radium 228 by SPLP 1312
Dissolved Radium 228, MDC

Samples

Sample ID	Client Sample ID	Collection Date	Matrix	Depths
S2210162-001	CR-M-30-SY Combined +25/+270	9/13/2022 3:00:00 PM	Soil	
S2210162-002	CR-H-4-SY Combined +25/+270	9/15/2022 3:30:00 PM	Soil	
S2210162-003	CR-H-8-SY Combined +25/+270-01	9/17/2022 4:00:00 PM	Soil	
S2210162-004	CR-H-8-SY Combined +25/+270-02	9/17/2022 4:00:00 PM	Soil	
S2210162-005	CR-H-30-SY Combined +25/+270	9/19/2022 11:40:00 AM	Soil	
S2210162-006	QV-L-4-SY Combined +25/+270	9/20/2022 10:00:00 AM	Soil	
S2210162-007	QV-L-8-SY Combined +25/+270	9/28/2022 1:00:00 PM	Soil	
S2210162-008	QV-L-30-SY Combined +25/+270	9/29/2022 8:00:00 AM	Soil	
S2210162-009	QV-M-4-SY Combined +25/+270	9/30/2022 12:30:00 PM	Soil	
S2210162-010	QV-M-8-SY Combined +25/+270	9/30/2022 9:00:00 PM	Soil	
S2210162-011	QV-M-30-SY Combined +25/+270	10/1/2022 6:30:00 PM	Soil	
S2210162-012	QV-H-4-SY Combined +25/+270	10/2/2022 5:00:00 PM	Soil	



Pace Analytical
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -	Page 2 of 2
All shaded fields must be completed.	#WEB
This is a legal document; any misrepresentation may be construed as fraud.	

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email		
Phone 510-302-6310/307-871-7291	Purchase Order # 1150922		
	Quote #	REMARKS	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	SPLP by Table A-12	SPLP by Table A-13	MS/MSD					REMARKS
1		09/13/22	15:00	CR-M-30-SY Combined +25/+270	SL	1	x	x						537.61 g
2		09/15/22	13:30	CR-H-4-SY Combined +25/+270	SL	1	x	x	x					780.85 g
3		09/17/22	16:00	CR-H-8-SY Combined +25/+270-01	SL	1	x	x						388.24 g
4		09/17/22	16:00	CR-H-8-SY Combined +25/+270-02	SL	1	x	x						383.75 g
5		09/19/22	11:40	CR-H-30-SY Combined +25/+270	SL	1	x	x						589.73 g
6		09/20/22	10:00	QV-L-4-SY Combined +25/+270	SL	1	x	x						485.89 g
7		09/28/22	13:00	QV-L-8-SY Combined +25/+270	SL	1	x	x						662.81 g
8		09/29/22	08:00	QV-L-30-SY Combined +25/+270	SL	1	x	x						619.92 g
9		09/30/22	12:30	QV-M-4-SY Combined +25/+270	SL	1	x	x						753.70 g
10		09/30/22	21:00	QV-M-8-SY Combined +25/+270	SL	1	x	x						759.64 g
11		10/01/22	18:30	QV-M-30-SY Combined +25/+270	SL	1	x	x						650.64 g
12		10/02/22	17:00	QV-H-4-SY Combined +25/+270	SL	1	x	x						1048.37 g
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
3.10c Rpt rad Sweep OK	Andrew Halverson	10/10/22	12:05	Daniel Sipp	10/11/22	12:18

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 and A-13 from Work Plan attached

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection Agency

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>



Package Survey From

Date: 10/10/22 Time: 13:00 Surveyor Name: Andrew Holverson

Package Description	Cooler with water and <17 lb of <1500 ppm Unat soil
Package Destination	Pace Labs 1673 Fern Avenue Sheridan, WY 82801

Unat Specific Activity	7.1e-7 Ci/g
Limits	Exempt: 2.7e-11 Ci/g AND 2.7e-8 Ci Excepted: 7.1e-7 Ci/g A1 [Ci]: Unlimited A2 [Ci]: Unlimited 0.5 mRem/hr ~500 µR/hr Alpha: 24 dpm/cm² Beta: 240 dpm/cm²

Contents	<1500 ppm unat soil	Exempt (Y/N)	N
Material Specific Activity	<1.07e-9 Ci/g	UN2910 Excepted (Y/N)	Y
Contents Mass	<17 lb		
Contents Total Activity	<8.2e-6 Ci		

Instrument	
Manufacturer	Ludlum
Model	19
Serial No.	268865
Cal Due Date	12/19/2022
FC Passed (Y/N)	Y
Background	8 µR/hr

Package Sketch

Package Surface Area [cm²] 12,616

Location	Gross	Net
Side 1	11	5 µR/hr
Side 2	13	5 µR/hr
Side 3	12	4 µR/hr
Side 4	13	5 µR/hr
Side 5	10	2 µR/hr
Side 6	12	4 µR/hr

Meter	
Manufacturer	Ludlum
Model	2929
Serial No.	208319
Cal Due Date	06/27/2023

Detector	
Manufacturer	Ludlum
Model	43-10-1
Serial No.	PR215938
Cal Due Date	06/27/2023

FC Passed (Y/N)	Y
BKG Alpha (cpm)	0
Beta/Gamma (cpm)	64
300 cm² Surveyed (Y/N)	Y
Entire Package Surveyed (Y/N)	N

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled	AM
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²			
Swipe 1	4	4	0.1	0.8	82	18	0.1	7.5	AM	 Released	
Swipe 2	9	9	0.1	1.7	86	17	0.1	7.1	AM		
Swipe 3	5	5	0.1	0.94	48	-	0.1	-	AM		
			0.1				0.1				Date: 10/10/2022
											Time: 13:30

Note: Cooler wiped down and 3rd swipe taken

Table A-13. Aqueous Radionuclide Analytical Parameter Summary for SPLP Extract

Analyte	CAS Number	Analytical Method	MDC ¹ (pCi/L)	Requested MDC ¹ (pCi/L)	USEPA MCL ² (pCi/L)	ORNL Ecological Screening Level (pCi/L)
Radium-226	13982-63-3	Alpha Scint USEPA 903.1	0.2	0.1	5 *	160
Radium-228	15262-20-1	GFPC USEPA 904.0	1.0	0.1	5 *	NV

Notes:

- ¹ MDCs requested from laboratories based on the expertise of the certified health physicist and project chemist.
- ² MCLs from USEPA National Primary Drinking Water Regulations (USEPA 2009).
- * The MCL for radium-226 and radium-228 is defined on a combined basis. The MCL for total radium (radium-226 + radium-228) is 5 pCi/L.

CAS Chemical Abstracts Service
 GFPC Gas flow proportional counting
 MCL Maximum contaminant level
 MDC Minimum detectable concentration
 NV No value
 ORNL Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory (Bechtel Jacobs Company 1998)
 pCi/L Picocurie per liter
 Scint Scintillation
 SPLP Synthetic precipitation leaching procedure
 USEPA U.S. Environmental Protection Agency

Sources:

Bechtel Jacobs Company. 1998. "Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory, Oak Ridge, Tennessee."
 U.S. Environmental Protection Agency (USEPA). 2009. "National Primary Drinking Water Regulations." EPA 816-F-09-004. May.

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com/a.halverson@disa.wy.gov	Metals by 6010/6020	REMARKS
	Phone 510-302-6310/307-871-7291	Ra 226 by 901.1	
	Purchase Order # 1150922	MS/MSD	
	Quote #		

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD	REMARKS
1		09/17/22	16:00	CR-H-8-SY +25	SL	1	x	x		95.13 g
2		09/17/22	16:00	CR-H-8-SY +50-01	SL	1	x	x		82.39 g
3		09/17/22	16:00	CR-H-8-SY +50-02	SL	1	x	x		82.38 g
4		08/24/22	12:00	CR-H-0-KY	SL	1	x	x	x	713.58 g, ms/msd for Metals
5		09/17/22	16:00	CR-H-8-SY +100	SL	1	x	x		92.59 g
6		09/17/22	16:00	CR-H-8-SY +140	SL	1	x	x		18.00 g
7		09/17/22	16:00	CR-H-8-SY +200	SL	1	x	x		11.00 g
8		09/17/22	16:00	CR-H-8-SY +270	SL	1	x	x		6.02 g
9		09/19/22	11:40	CR-H-30-SY +25	SL	1	x	x		37.25 g
10		09/19/22	11:40	CR-H-30-SY +50	SL	1	x	x		126.37 g
11		09/19/22	11:40	CR-H-30-SY +100	SL	1	x	x		92.15 g
12		09/19/22	11:40	CR-H-30-SY +140	SL	1	x	x		20.03 g
13		09/19/22	11:40	CR-H-30-SY +200	SL	1	x	x		12.67 g
14		09/19/22	11:40	CR-H-30-SY +270	SL	1	x	x		7.24 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
rad sweep OK	<i>[Signature]</i> / Andrew Halverson	10/10/22	12:20	<i>[Signature]</i>	10/11/22	12:22

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides.



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- CHAIN OF CUSTODY RECORD -	Page 2 of 7
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Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email <i>mike.dahlquist@tetratech.com / a.halverson@discuss.com</i>		
	Phone 510-302-6310/307-871-7291	Metals by 6010/6020	Ra 226 by 901.1
	Purchase Order # 1150922	MS/MSD	
	Quote #		
			REMARKS

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD									
1		09/29/22	18:30	QV-L-0-SL-01 +25	SL	1	x	x										52.30 g
2		09/29/22	18:30	QV-L-0-SL-01 +50	SL	1	x	x										89.67 g
3		09/29/22	18:30	QV-L-0-SL-01 +100	SL	1	x	x										102.86 g
4		09/29/22	18:30	QV-L-0-SL-01 +140	SL	1	x	x										30.44 g
5		09/29/22	18:30	QV-L-0-SL-01 +200	SL	1	x	x										15.33 g
6		09/29/22	18:30	QV-L-0-SL-01 +270	SL	1	x	x										8.67 g
7		09/29/22	18:30	QV-L-0-SL-01 -270	SL	1	x	x										68.72 g
8		09/20/22	10:00	QV-L-4-SY +25	SL	1	x	x										22.90 g
9		09/20/22	10:00	QV-L-4-SY +50-01	SL	1	x	x										43.06 g
10		09/20/22	10:00	QV-L-4-SY +50-02	SL	1	x	x										43.06 g
11		09/20/22	10:00	QV-L-4-SY +100	SL	1	x	x	x									90.47 g, <i>MS/MSD for metals</i>
12		09/20/22	10:00	QV-L-4-SY +140	SL	1	x	x										26.36 g
13		09/20/22	10:00	QV-L-4-SY +200	SL	1	x	x										12.40 g
14		09/20/22	10:00	QV-L-4-SY +270	SL	1	x	x										5.66 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
		10/10/22	12:20			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. S2211015001



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- CHAIN OF CUSTODY RECORD -

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Page 3 of 7
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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS										REMARKS	
							Metals by 6010/6020	Ra 226 by 901.1	MS/MSD									
1		09/28/22	13:00	QV-L-8-SY +25	SL	1	x	x										37.62 g
2		09/28/22	13:00	QV-L-8-SY +50	SL	1	x	x										119.26 g
3		09/28/22	13:00	QV-L-8-SY +100	SL	1	x	x										119.94 g
4		09/28/22	13:00	QV-L-8-SY +140	SL	1	x	x										33.19 g
5		09/28/22	13:00	QV-L-8-SY +200	SL	1	x	x										15.46 g
6		09/28/22	13:00	QV-L-8-SY +270	SL	1	x	x										7.53 g
7		09/29/22	08:00	QV-L-30-SY +25	SL	1	x	x										30.09 g
8		09/29/22	08:00	QV-L-30-SY +50	SL	1	x	x										105.42 g
9		09/29/22	08:00	QV-L-30-SY +100	SL	1	x	x										117.69 g
10		09/29/22	08:00	QV-L-30-SY +140	SL	1	x	x										34.22 g
11		09/29/22	08:00	QV-L-30-SY +200	SL	1	x	x										16.76 g
12		09/29/22	08:00	QV-L-30-SY +270	SL	1	x	x										7.79 g
13		09/30/22	12:30	QV-M-4-SY +25	SL	1	x	x										81.35 g
14		09/30/22	12:30	QV-M-4-SY +50	SL	1	x	x	x									149.59 g <i>MS/MSD for Metals</i>

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/10/22	12:20			

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service		Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.		
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.		
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #				
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated?	Y / N			
<input checked="" type="checkbox"/> Other <i>Lab courier</i>	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>		Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>		



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Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
	Email <i>mikedahlquist@tetratech.com/andrew.halverson@disa.wy.gov</i>		
Invoice Address Tetra Tech	Phone 510-302-6310/307-871-7291		
	Purchase Order # 1150922	Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE TIME SAMPLED		SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Pb 226 by 901.1	MS/MSD						REMARKS
		DATE	TIME												
1		09/30/22	12:30	QV-M-4-SY +100-01	SL	1	x	x							53.24 g
2		09/30/22	12:30	QV-M-4-SY +100-02	SL	1	x	x							53.24 g
3		09/30/22	12:30	QV-M-4-SY +140	SL	1	x	x							23.34 g
4		09/30/22	12:30	QV-M-4-SY +200	SL	1	x	x							11.09 g
5		09/30/22	12:30	QV-M-4-SY +270	SL	1	x	x							5.88 g
6		10/02/22	12:30	QV-M-0-SL-01 +25	SL	1	x	x							56.49 g
7		10/02/22	12:30	QV-M-0-SL-01 +50	SL	1	x	x							114.89 g
8		10/02/22	12:30	QV-M-0-SL-01 +100	SL	1	x	x							87.26 g
9		10/02/22	12:30	QV-M-0-SL-01 +140	SL	1	x	x							25.76 g
10		10/02/22	12:30	QV-M-0-SL-01 +200	SL	1	x	x							12.46 g
11		10/02/22	12:30	QV-M-0-SL-01 +270	SL	1	x	x							8.06 g
12		10/02/22	12:30	QV-M-0-SL-01 -270	SL	1	x	x							74.87 g
13		09/30/22	21:00	QV-M-8-SY +25	SL	1	x	x							64.92 g
14		09/30/22	21:00	QV-M-8-SY +50	SL	1	x	x							157.33 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i> / Andrew Halverson	10/10/22	12:20			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>by courier</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. S2211015001



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Page 5 of 7

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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD	REMARKS						
										1		09/30/22	21:00	QV-M-8-SY +100	SL	1
2		09/30/22	21:00	QV-M-8-SY +140	SL	1	x	x								25.22 g
3		09/30/22	21:00	QV-M-8-SY +200	SL	1	x	x								12.35 g
4		09/30/22	21:00	QV-M-8-SY +270	SL	1	x	x								6.22 g
5		10/01/22	18:30	QV-M-30-SY +25	SL	1	x	x								41.91 g
6		10/01/22	18:30	QV-M-30-SY +50	SL	1	x	x	X							130.72 g, MS/MSD for metals
7		10/01/22	18:30	QV-M-30-SY +100-01	SL	1	x	x								53.37 g
8		10/01/22	18:30	QV-M-30-SY +100-02	SL	1	x	x								53.36 g
9		10/01/22	18:30	QV-M-30-SY +140	SL	1	x	x								26.36 g
10		10/01/22	18:30	QV-M-30-SY +200	SL	1	x	x								13.68 g
11		10/01/22	18:30	QV-M-30-SY +270	SL	1	x	x								7.21 g
12		10/02/22	17:00	QV-H-4-SY +25	SL	1	x	x								101.55 g
13		10/02/22	17:00	QV-H-4-SY +50	SL	1	x	x								224.51 g
14		10/02/22	17:00	QV-H-4-SY +100	SL	1	x	x								147.85 g

LAB COMMENTS	Relinquished By (Signature/Printed) <i>[Signature] / Andrew Halverson</i>	DATE 10/19/22	TIME 12:20	Received By (Signature/Printed)	DATE	TIME

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service		Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.		
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.		
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #				
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated?	Y / N			
<input checked="" type="checkbox"/> Other	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>		Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>	S2211015001	

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email <i>mike.dahlquist@tetatech.com / a.halverson@disa.wy.gov</i>		
	Phone 510-302-6310/307-871-7291	Purchase Order # 1150922	Quote #

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD											REMARKS	
																					1
2		10/02/22	17:00	QV-H-4-SY +200	SL	1	x	x													14.50 g
3		10/02/22	17:00	QV-H-4-SY +270	SL	1	x	x													6.64 g
4		10/04/22	12:00	QV-H-0-SL-01 +25	SL	1	x	x													57.53 g
5		10/04/22	12:00	QV-H-0-SL-01 +50	SL	1	x	x													109.53 g
6		10/04/22	12:00	QV-H-0-SL-01 +100	SL	1	x	x													98.59 g
7		10/04/22	12:00	QV-H-0-SL-01 +140	SL	1	x	x													24.54 g
8		10/04/22	12:00	QV-H-0-SL-01 +200	SL	1	x	x													12.01 g
9		10/04/22	12:00	QV-H-0-SL-01 +270	SL	1	x	x													7.35 g
10		10/04/22	12:00	QV-H-0-SL-01 -270	SL	1	x	x													72.37 g
11		10/03/22	21:20	QV-H-30-SY +25	SL	1	x	x													61.80 g
12		10/03/22	21:20	QV-H-30-SY +50	SL	1	x	x	x												165.49 g, MS/MSD for metals
13		10/03/22	21:20	QV-H-30-SY +100-01	SL	1	x	x													65.97 g
14		10/03/22	21:20	QV-H-30-SY +100-02	SL	1	x	x													65.97 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/10/22	12:20			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. S2211015001



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- CHAIN OF CUSTODY RECORD -	Page <u>7</u> of <u>7</u>
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Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email <i>mikedahlquist@tetratech.com / a.halverson@disa.wy.gov</i>		
	Phone 510-302-6310/307-871-7291	Metals by 6010/6020	Ra 226 by 901.1
	Purchase Order # 1150922	MS/MSD	
	Quote #		REMARKS

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD										
1		10/03/22	21:20	QV-H-30-SY +140	SL	1	x	x											32.71 g
2		10/03/22	21:20	QV-H-30-SY +200	SL	1	x	x											16.32 g
3		10/03/22	21:20	QV-H-30-SY +270	SL	1	x	x											7.74 g
4		10/03/22	14:40	QV-H-8-SY +25	SL	1	x	x											89.94 g
5		10/03/22	14:40	QV-H-8-SY +50	SL	1	x	x											216.80 g
6		10/03/22	14:40	QV-H-8-SY +100	SL	1	x	x											151.40 g
7		10/03/22	14:40	QV-H-8-SY +140	SL	1	x	x											32.08 g
8		10/03/22	14:40	QV-H-8-SY +200	SL	1	x	x											15.06 g
9		10/03/22	14:40	QV-H-8-SY +270	SL	1	x	x											7.21 g
10																			
11																			
12																			
13																			
14																			

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
		10/10/22	12:20			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. S2211015001

Ra 226 Sample Compositing Summary

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet.
2 duplicates and 2 MSD for metals have already been indicated for those samples.

Legend
Duplicate

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	114.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.26	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	81.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	138.19	After metals split, analyze remaining mass for Ra 226

3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226

8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from +140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226

8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 227
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226

8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 227
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226

8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from -140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226

Ra 226 Sample Compositing Summary

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet. 2 duplicates and 2 MSD for metals have already been indicated for those samples

Legend	
	Duplicate

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	124.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.26	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	82.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	138.19	After metals split, analyze remaining mass for Ra 226

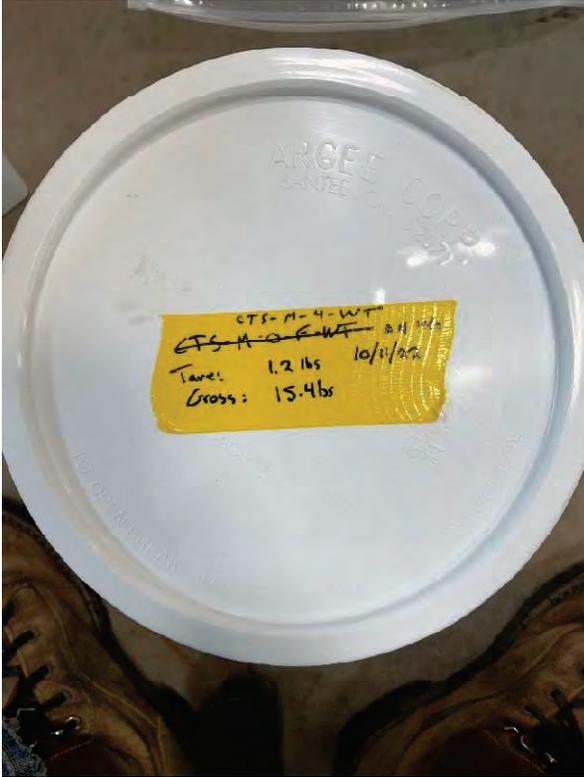
3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
6	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226

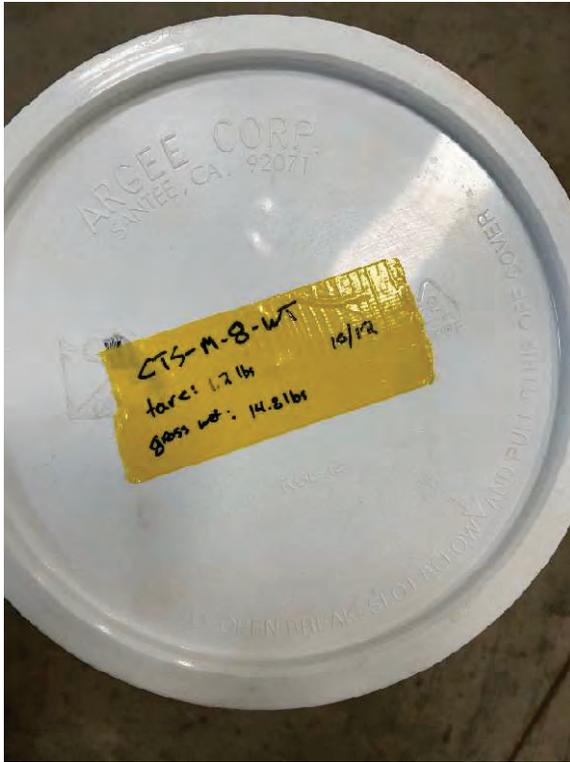
Client Name Tetra Tech / Disa		Project Identification RAES T033/10365440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>		Telephone # 307-871-7291								
Report Address Tetra Tech / Disa		Contact Name Mike Dahlquist / Andrew Halverson		ANALYSES / PARAMETERS <table border="1"> <tr> <td>Total Metals by 6010/6020</td> <td>Dissolved Metals by 6010/6020</td> <td>Total Cu 226 by 903.1</td> <td>Total Cu 228 by 904.0</td> <td>Dissolved Cu 226 by 903.1</td> <td>TDS by SM2540</td> <td>TSS by SM2540</td> </tr> </table>				Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Cu 226 by 903.1	Total Cu 228 by 904.0	Dissolved Cu 226 by 903.1	TDS by SM2540	TSS by SM2540
Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Cu 226 by 903.1	Total Cu 228 by 904.0					Dissolved Cu 226 by 903.1	TDS by SM2540	TSS by SM2540				
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disansa.com		Phone 510-302-6310 / 307-871-7291										
Purchase Order # 1150922		Quote #		Preservative Lot # <small>1:1 HNO3: M-072722-2 11%SO4: Chem 2-71-4 NaOH: Wet-3-40-1</small>										

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS						REMARKS	
							Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Cu 226 by 903.1	Total Cu 228 by 904.0	Dissolved Cu 226 by 903.1	TDS by SM2540		TSS by SM2540
1		10/11/22	09:24	CTS-M-4-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives
2		10/12/22	14:06	CTS-M-8-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives
3		10/13/22	08:00	CTS-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	unfiltered, no preservatives
4		10/13/22	07:40	CTS-H-4-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

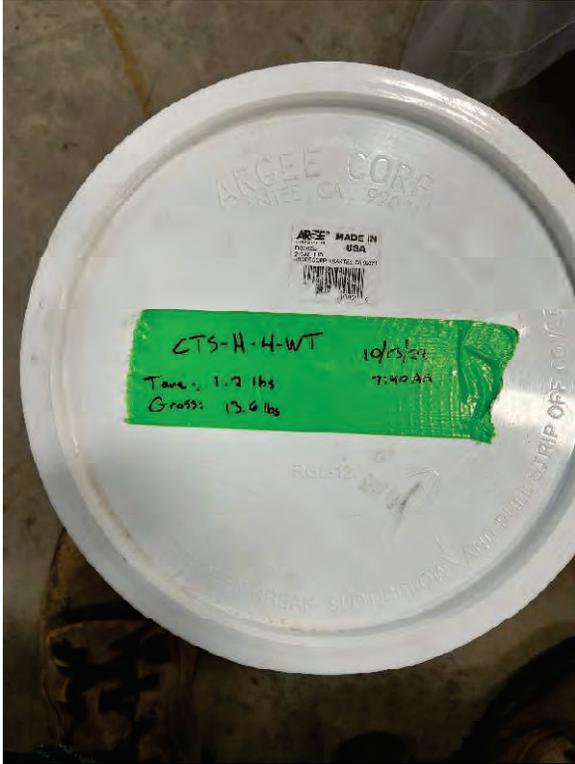
LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i> / Andrew Halverson	10/13/22	14:50			

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>In 2 separate coolers. For unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis.</i>











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 Phone: 307-266-2229 Fax: 307-266-9156

SHIPPER Disa Technologies, Inc. CONSIGNEE Pace
 STREET 1653 English Ave STREET
 CITY Casper STATE WY ZIP 82401 CITY Sheridan STATE WY ZIP
 SHIPPER'S REF. NO. CONTACT PHONE CONSIGNEE'S REF. NO. CONTACT PHONE
 BILL TO: (If Other Than Shipper Or Consignee)
 SPECIAL INSTRUCTIONS

PIECES	DESCRIPTION OF CONTENTS	WEIGHT
1	Cooler with Water Samples	

SHIPPER certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released in an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.

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 Special Delivery
 Signature Service
 Verbal Delivery Confirmation
 Exclusive Truck
 Signature and Turnaround
 Intra-City Courier

DELIVERY DEADLINE
 EXCESS VALUATION
 DECLARED VALUE
 SHIPPER'S C.O.D.
 TOTAL CHARGE

SHIPPER'S SIGNATURE [Signature] PICKUP DATE/TIME RECEIVED BY ACC EMPLOYEE

COPY DISTRIBUTION
 White - Delivery Receipt
 Canary - Original Invoice

RECEIVED IN GOOD ORDER EXCEPT AS NOTED	DATE RCY'D	TIME RCY'D	PCS	DELIVERY POINT	DATE

SHIPMENT NUMBER ORIGIN Nº C 2313
 DATE SHIPPED 10/13/2022
 FREIGHT TERMS
 PREPAID COLLECT OTHER (SEE BILL #)
 FREIGHT CHARGE
 SPECIAL SERVICE
 SIGNATURE SERVICE
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 DECLARED VALUE
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 TOTAL CHARGE

SHIPPER'S SIGNATURE [Signature] PICKUP DATE/TIME RECEIVED BY ACC EMPLOYEE

COPY DISTRIBUTION
 White - Delivery Receipt
 Canary - Original Invoice

RECEIVED IN GOOD ORDER EXCEPT AS NOTED	DATE RCY'D	TIME RCY'D	PCS	DELIVERY POINT	DATE

SHIPMENT NUMBER ORIGIN Nº C 2313
 DATE SHIPPED 10/13/2022
 FREIGHT TERMS
 PREPAID COLLECT OTHER (SEE BILL #)
 FREIGHT CHARGE
 SPECIAL SERVICE
 SIGNATURE SERVICE
 OTHER CHARGE
 EXCESS VALUATION
 SHIPPER'S C.O.D.
 TOTAL CHARGE







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196826

Client Name Tetra Tech / Disa		Project Identification RAES T033/LOS 65440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>		Telephone # 307-871-7291	
Report Address Tetra Tech / Disa		Contact Name Mike Dahlquist / Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa-usa.com					
Phone 510-302-6310 / 307-871-7291		Purchase Order # 1150922		Quote #		Preservative Lot # 1:1 HNO3: M-072722-2 H2SO4: Chem 2-71-4 NaOH: Wet-3-40-1	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS								REMARKS
							Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Cu 226 by 903.1	Total Cu 228 by 904.0	Dissolved Cu 226 by 903.1	TDS by SM2540	TSS by SM2540		
1	5221022501	10/11/22	09:24	CTS-M-4-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives	
2	-002	10/12/22	14:06	CTS-M-8-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives	
3	-003	10/13/22	08:00	CTS-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	unfiltered, no preservatives	
4	-004	10/13/22	07:40	CTS-H-4-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives	
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
5.7°C R22 5.40C ROE OK ray street sweep	<i>Andrew Halverson</i> / Andrew Halverson	10/13/22	14:50	<i>Shmil Ben Daniel Slipp</i>	10/14/22	12:10

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <i>10/14/22</i> <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	<input type="checkbox"/> Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? <u>Y/N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y/N</u> Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>In 2 separate coolers. For unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis.</i>



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- CHAIN OF CUSTODY RECORD -

Page 1 of 1

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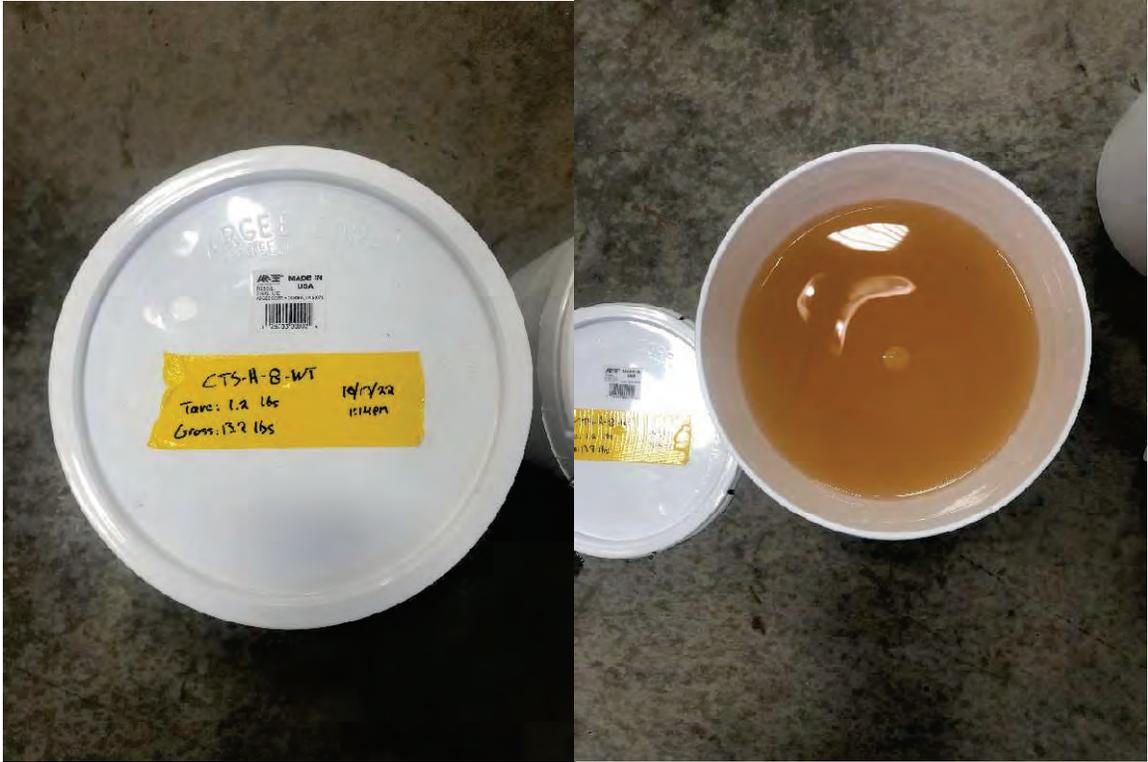
196920

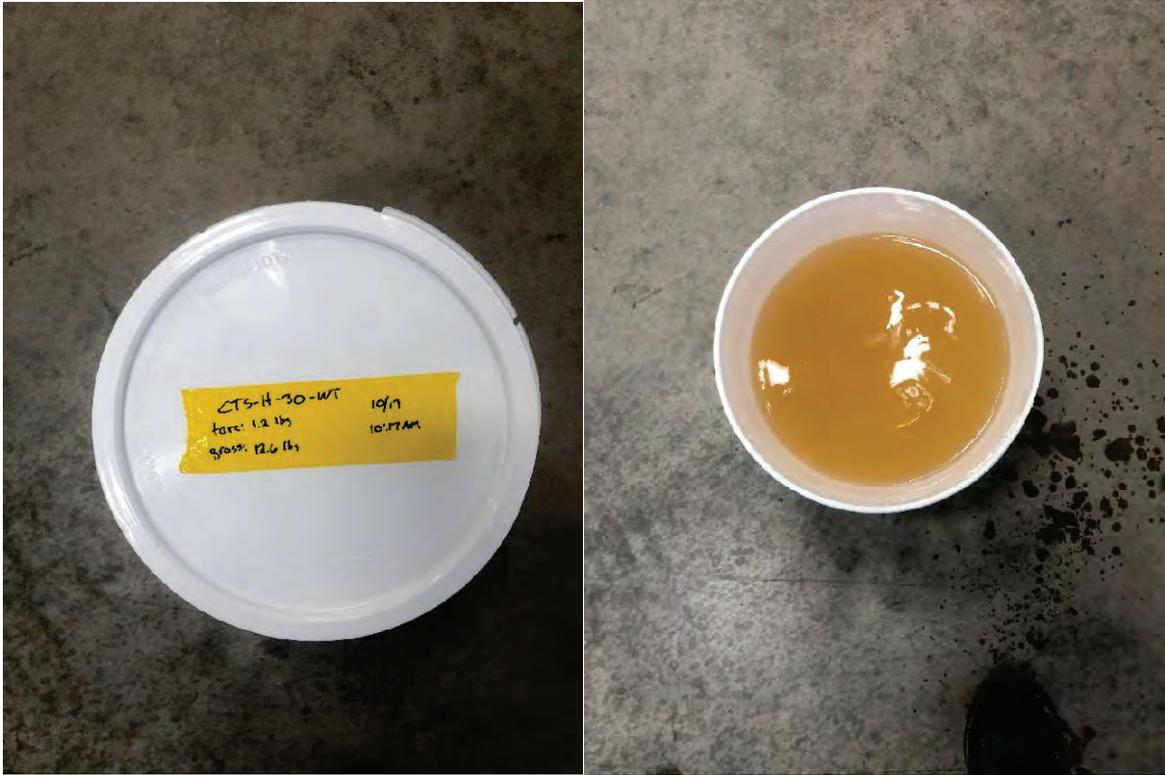
Client Name Tetra Tech / DISA	Project Identification RAEST033/20365440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>Madeline Orrell</i>	Telephone # 406-599-0225
Report Address Tetra Tech / DISA	Contact Name Mike Dahlquist / Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com	Total Metals by Lead/0020 Dissolved Metals by Lead/0020 Total Pb 22.6 by 903.1 Total Ra 228 by 904.0 Dissolved Ra 22.0 by 903.1 TDS by SM 2540 TSS by SM 2540	
	Phone 510-302-6310 / 307-871-7291	Preservative Lot # <small>L1 HNO3: M-07220-2 H2SO4: Chem 2-71-2 NaOH: Wet-3-01-1</small>	
	Purchase Order # 1150922	REMARKS	

ITEM	LAB ID <small>(Lab Use Only)</small>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by Lead/0020	Dissolved Metals by Lead/0020	Total Pb 22.6 by 903.1	Total Ra 228 by 904.0	Dissolved Ra 22.0 by 903.1	TDS by SM 2540	TSS by SM 2540	REMARKS
1		10/13/22	13:14	CTS-H-8-SWT	WT	1	✓		✓	✓		✓	✓	unfiltered
2				CTS-H-30-WT	WT	1	✓	✓	✓	✓	✓	✓	✓	unfiltered
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Madeline Orrell</i> Madeline Orrell	10/19	17:00			

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>In cooler for unfiltered samples, filter prior to addition of preservatives on total vs. dissolved analysis</i>





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CHAIN OF CUSTODY RECORD Page 1 of 1

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Client Name: TECH TECH/DISA Project Identification: BAEST033/20265440033.03.01 Sampler (Signature/Institution of Authority): Maxime Orrell Telephone #: 406-599-0215

Report Address: TECH TECH/DISA Contact Name: MIKE DAHLQUIST Email: MIKE.DAHLQUIST@PACESA.COM ANALYSES / PARAMETERS: 1150922

Phone: 510-802-6100/811-7281 Address: 1150922

LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE	WT	HT	PH	COND	TOC	NO ₃ -N	NO ₂ -N	NO ₃ -N	NO ₂ -N	NO ₃ -N	NO ₂ -N	REMARKS
	10/21/22	10:17	WTS-H-8-WT	WT	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	unfiltered
	10/17/22	10:17	CTS-H-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	✓	✓	unfiltered

LAB COMMENTS: Maxime Orrell, Maxime Orrell 10/19/22

Requested By (Signature/Printed): _____ DATE: _____ TIME: _____ Received By (Signature/Printed): _____ DATE: _____ TIME: _____

SHIPPING INFO: UPS, FedEx Express, US Mail, Hand Carried, Other (Specify): _____

MATRIX CODES: Water (WT), Soil (SL), Gels (GC), Paper (PT), Other (OT)

TURNAROUND TIMES: Standard Turnaround, RUSH - 5 Working Days, URGENT - 3 Working Days

COMPLIANCE INFORMATION: Compliance Monitoring Program (ISMA NPDES), PHSD / Permit # _____, Chain-of-Custody, Sample Disposal: Lab / Client

ADDITIONAL REMARKS: in 4 cooler. For unfiltered samples enter prior to addition of preservatives on total vs. dissolved analysis

Please Return




 Phone: 307-266-2229
 Fax: 307-266-9156

SHIPMENT NUMBER
 ORIGIN **Nº C 2350**

SHIPPER DISA TECHNOLOGIES INC		CONSIGNEE PACE		DATE SHIPPED 10/19/2022	
STREET 1652 ENGLISH AVE		STREET		FREIGHT TERMS <input type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT <input type="checkbox"/> C.O.D. <input type="checkbox"/> OTHER (SEE BILL TO)	
CITY CASPER	STATE WY	ZIP 82401	CITY SHERIDAN	STATE WY	ZIP
SHIPPER'S REF. NO.	CONTACT	PHONE 307-871-7311	CONSIGNEE'S REF. NO.	CONTACT	PHONE
BILL TO: <small>(If Other Than Shipper Or Consignee)</small>		SPECIAL INSTRUCTIONS		FREIGHT CHARGE	
PIECES 1	DESCRIPTION OF CONTENTS cooler w/ water samples		WEIGHT		SPECIAL SERVICE
<small>Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.</small>			SPECIAL SERVICES <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Verbal Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Turnaround <input type="checkbox"/> Intra-City Courier		DELIVERY DEADLINE
SHIPPER'S SIGNATURE [Signature]			PICKUP DATE/TIME		RECEIVED BY ACC EMPLOYEE
SHIPPER'S DISTRIBUTION What - Delivery Receipt Contain - Original Invoice			<input type="checkbox"/> RECEIVED IN GOOD ORDER EXCEPT AS NOTED	DATE RCY'D	TIME RCY'D
			PCS	EXCESS VALUATION	
					SHIPPER'S C.O.D.
					TOTAL CHARGES
					DELIVERY DRIVER'S SIGNATURE







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 Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

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Page 1 of 1
 # **196920**

Client Name Tetra Tech / DISA	Project Identification RAEST033/20365440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>Madeline Orrell</i>	Telephone # 406-599-0225
Report Address Tetra Tech / DISA	Contact Name Mike Dahlquist / Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com	Total Metals by 6010/6020 Dissolved Metals by 6010/6020 Total Ra 226 by 903.1 Total Ra 228 by 904.0 Dissolved Ra226 by 903.1 TDS by SM 2540 TSS by SM 2540	Preservative Lot # 1:1 HNO3: M-072722-2 H2SO4: Chem 2-71-3 NaOH: Wet-3-40-1
	Phone 510-302-6310/307-871-7291		
	Purchase Order # 1150922	Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Ra 226 by 903.1	Total Ra 228 by 904.0	Dissolved Ra226 by 903.1	TDS by SM 2540	TSS by SM 2540	REMARKS
1	221037-001	10/13/22	13:14	CTS-H-8-SWT	WT	7	✓		✓	✓		✓	✓	unfiltered
2	-002	10/17/22	10:17	CTS-H-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	unfiltered
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
11.2°C No ice	<i>Madeline Orrell</i>	10/19	17:00	<i>Dennis Lee</i>	10/20/22	12:44

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure DROPOFF</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>In 1 cooler. For unfiltered samples, filter prior to addition of preservatives on total vs. dissolved analysis</i>

Client Name <i>Tetra Tech/ D:sa</i>	Project Identification <i>RAEST033/20365440033.03.01</i>	Sampler (Signature/Attestation of Authenticity) 	Telephone # <i>307-871-7291</i>
Report Address <i>Tetra Tech/ D:sa</i>	Contact Name <i>Mike Dahlquist / Andrew Halverson</i>	ANALYSES / PARAMETERS	
Invoice Address <i>Tetra Tech</i>	Email <i>mike.dahlquist@tetratech.com / a.halverson@d:sa.usace</i>		
	Phone <i>510-302-6310 / 307-871-7291</i>		
	Purchase Order # <i>1150922</i>		
	Quote #		

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS			REMARKS
							Total Metals by <i>6010/6020</i>	<i>Ra 226 Total</i>	<i>Ba 210 Total</i>	
1		<i>10/13/22</i>	<i>NO TIME</i>	<i>CR Fractionation Water</i>	<i>WT</i>	<i>5</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Unfiltered, Not preserved</i>
2		<i>10/11/22</i>	<i>NO TIME</i>	<i>QU Fractionation Water</i>	<i>WT</i>	<i>5</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Unfiltered, Not preserved</i>
3		<i>10/18/22</i>	<i>NO TIME</i>	<i>CTS Fractionation Water</i>	<i>WT</i>	<i>5</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Unfiltered, Not preserved</i>
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 / Andrew Halverson	<i>10/26/22</i>	<i>15:40</i>			

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Secure Dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>Water Samples in 2 separate coolers.</i> <i>Soil Samples divided into 3 coolers.</i>

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291		
Report Address Tetra Tech/Disa		Contact Name Mike Dahquist/Andrew Halverson		ANALYSES / PARAMETERS				REMARKS
Invoice Address Tetra Tech		Email mike.dahquist@tetratech.com/a.halverson@disa.wy.gov						
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #		

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	SPLP by Table A-12	SPLP by Table A-13	MS/MSD	ANALYSES / PARAMETERS						REMARKS
1		10/05/22	10:32	CTS-L-4-SY Combined +25/270	SL	1	x	x								363.88 g
2		10/06/22	9:45	CTS-L-8-SY Combined +25/270	SL	1	x	x								297.88 g
3		10/06/22	13:25	CTS-L-30-SY Combined +25/270	SL	1	x	x								253.43 g
4		10/11/22	9:30	CTS-M-4-SY Combined +25/270	SL	1	x	x								308.72 g
5		10/11/22	NO TIME	CTS-M-8-SY Combined +25/270	SL	1	x	x								294.18 g
6		10/13/22	8:00	CTS-M-30-SY Combined +25/270	SL	1	x	x								281.39 g
7		10/13/22	11:30	CTS-H-4-SY Combined +25/270	SL	1	x	x								311.15 g
8		10/13/22	10:00	CTS-H-8-SY Combined +25/270	SL	1	x	x								338.53 g
9		10/17/22	9:53	CTS-H-30-SY Combined +25/270	SL	1	x	x								298.63 g
10		10/03/22	14:40	QV-H-8-SY Combined +25/+270	SL	1	x	x	x							1012.12 g, MS/MSD for SPLP
11		10/03/22	21:20	QV-H-30-SY Combined +25/+270-01	SL	1	x	x								414.54 g
12		10/03/22	21:20	QV-H-30-SY Combined +25/+270-02	SL	1	x	x								413.32 g
13																
14																

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> Andrew Halverson	10/26/22	15:40			

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service			Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.	
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround	Program (SDWA, NPDES,...)				Report preliminary metals before radionuclides.	
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days	PWSID / Permit #				Table A-12 and A-13 from Work Plan attached	
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days	Chlorinated?		Y / N			
<input checked="" type="checkbox"/> Other <i>Lab Courier Secure Dropoff</i>	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>	Sample Disposal: Lab		Client	<input checked="" type="checkbox"/>		

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	TCLP by Table A-12	REMARKS												
1		10/24/22	18:35	QV-L-4-SY -270 Concentrate	SL	1	x	x	x													280.73 g
2		10/24/22	18:45	QV-L-8-SY -270 Concentrate	SL	1	x	x	x													362.72 g
3		10/24/22	18:55	QV-L-30-SY -270 Concentrate	SL	1	x	x	x													394.32 g
4		10/24/22	19:04	QV-M-4-SY -270 Concentrate	SL	1	x	x	x													375.01 g
5		10/24/22	19:08	QV-M-8-SY -270 Concentrate	SL	1	x	x	x													393.39 g
6		10/24/22	19:10	QV-M-30-SY -270 Concentrate	SL	1	x	x	x													404.61 g
7		10/24/22	19:21	QV-H-4-SY -270 Concentrate	SL	1	x	x	x													470.18 g
8		10/24/22	19:26	QV-H-8-SY -270 Concentrate	SL	1	x	x	x													470.56 g
9		10/24/22	19:30	QV-H-30-SY -270 Concentrate	SL	1	x	x	x													459.77 g
10		10/24/22	19:38	CR-L-4-SY -270 Concentrate	SL	1	x	x	x													298.92 g
11		10/24/22	19:43	CR-L-8-SY -270 Concentrate	SL	1	x	x	x													309.37 g
12		10/24/22	19:46	CR-L-30-SY -270 Concentrate	SL	1	x	x	x													333.14 g
13		10/24/22	19:57	CR-M-4-SY -270 Concentrate	SL	1	x	x	x													271.70 g
14		10/24/22	20:02	CR-M-8-SY -270 Concentrate	SL	1	x	x	x													334.43 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/24/22	15:40			

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water WT	Check desired service		Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.			
<input type="checkbox"/> FedEx	Soil SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.			
<input type="checkbox"/> USPS	Solid SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #		Table A-12 from Work Plan attached			
<input type="checkbox"/> Hand Carried	Filter FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated?	Y / N				
<input checked="" type="checkbox"/> Other <i>Lab courier sec w/ dropoff</i>	Other OT	<i>Rush & Urgent Surcharges will be applied</i>		Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>			



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Page 4 of 11
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Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email <i>mike.dahlquist@tetratech.com / a.halverson@disausa.com</i>		
	Phone 510-302-6310/307-871-7291	Metals by 6010/602	MS/MSD
	Purchase Order # 1150922	Ra 226 by 901.1	TCLP by Table A-12
	Quote #		
			REMARKS

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	TCLP by Table A-12	MS/MSD							
1		10/24/22	20:05	CR-M-30-SY -270 Concentrate	SL	1	x	x	x								350.94 g
2		10/13/22	11:30	CTS-H-4-SY -270-01	SL	1	x	x	x								304.81 g
3		10/13/22	11:30	CTS-H-4-SY -270-02	SL	1	x	x	x								301.03 g
4		10/13/22	10:00	CTS-H-8-SY -270	SL	1	x	x	x								659.54 g
5		10/17/22	9:53	CTS-H-30-SY -270	SL	1	x	x	x	x							699.81 g, MS/MSD for metals and TCLP
6		10/24/22	20:14	CR-H-4-SY -270 Concentrate	SL	1	x	x	x								241.01 g
7		10/24/22	20:17	CR-H-8-SY -270 Concentrate	SL	1	x	x	x								343.28 g
8		10/24/22	20:22	CR-H-30-SY -270 Concentrate	SL	1	x	x	x								358.80 g
9		10/11/22	9:30	CTS-M-4-SY -270	SL	1	x	x	x								546.55 g
10		10/11/22	NO TIME	CTS-M-8-SY -270	SL	1	x	x	x								571.44 g
11		10/13/22	8:00	CTS-M-30-SY -270	SL	1	x	x	x								596.81 g
12		10/05/22	10:32	CTS-L-4-SY -270	SL	1	x	x	x								591.53 g
13		10/06/22	8:45	CTS-L-8-SY -270-01	SL	1	x	x	x								303.14 g
14		10/06/22	8:45	CTS-L-8-SY -270-02	SL	1	x	x	x								297.70 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/26/22	15:40			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Carrier Secure Report</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached



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Page **5** of **11**
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Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / a.halverson@disa.usa.com		
	Phone 510-302-6310/307-871-7291	Quote #	
	Purchase Order # 1150922		REMARKS

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS				REMARKS
							Metals by 6010/602	Ra 226 by 901.1	TCLP by Table A-12	MS/MSD	
1		10/06/22	13:25	CTS-L-30-SY -270	SL	1	x	x	x	x	667.67 g, MS/MSD for Metals and TCLP
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/24/22	15:40			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Carrier Express Report</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disausa.com					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD	REMARKS														
										1		10/06/22	13:25	CTS-L-30-SY +100-01	SL	1	x	x						
2		10/06/22	13:25	CTS-L-30-SY +100-02	SL	1	x	x																12.34 g
3		10/06/22	13:25	CTS-L-30-SY +140	SL	1	x	x	x															24.22 g, MS/MSD for metals
4		10/06/22	13:25	CTS-L-30-SY +200	SL	1	x	x																44.76 g
5		10/06/22	13:25	CTS-L-30-SY +270	SL	1	x	x																22.93 g
6		10/04/22	15:31	CTS-0-SL-01 +25	SL	1	x	x																6.88 g
7		10/04/22	15:31	CTS-0-SL-01 +50	SL	1	x	x																11.73 g
8		10/04/22	15:31	CTS-0-SL-01 +100	SL	1	x	x																32.09 g
9		10/04/22	15:31	CTS-0-SL-01 +140	SL	1	x	x																35.57 g
10		10/04/22	15:31	CTS-0-SL-01 +200	SL	1	x	x																43.80 g
11		10/04/22	15:31	CTS-0-SL-01 +270	SL	1	x	x																36.63 g
12		10/04/22	15:31	CTS-0-SL-01 -270	SL	1	x	x																143.58 g
13		10/11/22	9:30	CTS-M-4-SY +25	SL	1	x	x																3.16 g
14		10/11/22	9:30	CTS-M-4-SY +50	SL	1	x	x																17.48 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/26/22	15:40			

SHIPPING INFO <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier Secure Dropoff</i>		MATRIX CODES Water WT Soil SL Solid SD Filter FT Other OT		TURN AROUND TIMES Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <small>Rush & Urgent Surcharges will be applied</small>		COMPLIANCE INFORMATION Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Sample Disposal: Lab Client <input checked="" type="checkbox"/>		ADDITIONAL REMARKS Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium compositing sheet attached	
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Page **8** of **11**

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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.wy.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	
REMARKS							

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS										REMARKS	
							Metals by 6010/602	Ra 226 by 901.1	MS/MSD									
1		10/11/22	9:30	CTS-M-4-SY +100	SL	1	x	x										38.16 g
2		10/11/22	9:30	CTS-M-4-SY +140	SL	1	x	x										31.44 g
3		10/11/22	9:30	CTS-M-4-SY +200	SL	1	x	x										41.30 g
4		10/11/22	9:30	CTS-M-4-SY +270	SL	1	x	x										23.83 g
5		10/11/22	NO TIME	CTS-M-8-SY +25	SL	1	x	x										3.02 g
6		10/11/22	NO TIME	CTS-M-8-SY +50	SL	1	x	x										14.55 g
7		10/11/22	NO TIME	CTS-M-8-SY +100-01	SL	1	x	x										18.58 g
8		10/11/22	NO TIME	CTS-M-8-SY +100-02	SL	1	x	x										18.57 g
9		10/11/22	NO TIME	CTS-M-8-SY +140	SL	1	x	x	x									29.31 g, <i>ms/msd for metals</i>
10		10/11/22	NO TIME	CTS-M-8-SY +200	SL	1	x	x										40.04 g
11		10/11/22	NO TIME	CTS-M-8-SY +270	SL	1	x	x										24.08 g
12		10/13/22	8:00	CTS-M-30-SY +25	SL	1	x	x										2.01 g
13		10/13/22	8:00	CTS-M-30-SY +50	SL	1	x	x										13.28 g
14		10/13/22	8:00	CTS-M-30-SY +100	SL	1	x	x										35.74 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> Andrew Halverson	10/26/22	15:40			

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water WT	Check desired service		<input checked="" type="checkbox"/> Standard turnaround		Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.	
<input type="checkbox"/> FedEx	Soil SL	<input type="checkbox"/> RUSH - 5 Working Days		<input type="checkbox"/> URGENT - < 2 Working Days		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.	
<input type="checkbox"/> USPS	Solid SD	<i>Rush & Urgent Surcharges will be applied</i>				PWSID / Permit #		Radium compositing sheet attached	
<input type="checkbox"/> Hand Carried	Filter FT					Chlorinated?	Y / N		
<input checked="" type="checkbox"/> Other <i>Lab Courier Secure Dropoff</i>	Other OT					Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>	



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Page 10 of 11

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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291		
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS				REMARKS
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.usa.com</i>						
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #		

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS										REMARKS
							Metals by 6010/602	Ra 226 by 901.1	MS/MSD								
1		10/13/22	11:30	CTS-H-4-SY +140	SL	1	x	x	x								32.10 g, MS/MSD for metals
2		10/13/22	11:30	CTS-H-4-SY +200	SL	1	x	x									53.85 g
3		10/13/22	11:30	CTS-H-4-SY +270	SL	1	x	x									21.57 g
4		10/13/22	10:00	CTS-H-8-SY +25	SL	1	x	x									2.32 g
5		10/13/22	10:00	CTS-H-8-SY +50	SL	1	x	x									13.89 g
6		10/13/22	10:00	CTS-H-8-SY +100	SL	1	x	x									36.49 g
7		10/13/22	10:00	CTS-H-8-SY +140	SL	1	x	x									33.89 g
8		10/13/22	10:00	CTS-H-8-SY +200	SL	1	x	x									58.84 g
9		10/13/22	10:00	CTS-H-8-SY +270	SL	1	x	x									25.93 g
10		10/12/22	8:40	CTS-H-0-SL-01 +25	SL	1	x	x									8.76 g
11		10/12/22	8:40	CTS-H-0-SL-01 +50	SL	1	x	x									13.34 g
12		10/12/22	8:40	CTS-H-0-SL-01 +100	SL	1	x	x									36.25 g
13		10/12/22	8:40	CTS-H-0-SL-01 +140	SL	1	x	x									36.46 g
14		10/12/22	8:40	CTS-H-0-SL-01 +200	SL	1	x	x									59.96 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/26/22	15:40			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <small>Rush & Urgent Surcharges will be applied</small>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium compositing sheet attached



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Page **11** of **11**

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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291		
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS				REMARKS
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com/anderson@disa.usa.ca</i>						
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922				
		Quote #						

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS										REMARKS
							Metals by 6010/602	Ra 226 by 901.1	MS/MSD								
1		10/12/22	8:40	CTS-H-0-SL-01 +270	SL	1	x	x									40.03 g
2		10/12/22	8:40	CTS-H-0-SL-01 -270	SL	1	x	x									199.00 g
3		10/17/22	9:53	CTS-H-30-SY +25	SL	1	x	x									1.34 g
4		10/17/22	9:53	CTS-H-30-SY +50	SL	1	x	x									12.84 g
5		10/17/22	9:53	CTS-H-30-SY +100-01	SL	1	x	x									16.53 g
6		10/17/22	9:53	CTS-H-30-SY +100-02	SL	1	x	x									16.52 g
7		10/17/22	9:53	CTS-H-30-SY +140	SL	1	x	x	x								31.06 g <i>ms/msd for metals</i>
8		10/17/22	9:53	CTS-H-30-SY +200	SL	1	x	x									35.64 g
9		10/17/22	9:53	CTS-H-30-SY +270	SL	1	x	x									37.82 g
10																	
11																	
12																	
13																	
14																	

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> Andrew Halverson	10/24/22	15:40			

<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Secure Courier</i>		MATRIX CODES Water WT Soil SL Solids SD Filter FT Other OT		TURN AROUND TIMES Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>		COMPLIANCE INFORMATION Compliance Monitoring? <input type="checkbox"/> Y / <input type="checkbox"/> N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <input type="checkbox"/> Y / <input type="checkbox"/> N Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>		ADDITIONAL REMARKS Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium compositing sheet attached	
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Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection Agency

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

Table A-13. Aqueous Radionuclide Analytical Parameter Summary for SPLP Extract

Analyte	CAS Number	Analytical Method	MDC ¹ (pCi/L)	Requested MDC ¹ (pCi/L)	USEPA MCL ² (pCi/L)	ORNL Ecological Screening Level (pCi/L)
Radium-226	13982-63-3	Alpha Scint USEPA 903.1	0.2	0.1	5 *	160
Radium-228	15262-20-1	GFPC USEPA 904.0	1.0	0.1	5 *	NV

Notes:

- ¹ MDCs requested from laboratories based on the expertise of the certified health physicist and project chemist.
² MCLs from USEPA National Primary Drinking Water Regulations (USEPA 2009).
* The MCL for radium-226 and radium-228 is defined on a combined basis. The MCL for total radium (radium-226 + radium-228) is 5 pCi/L.

- CAS Chemical Abstracts Service
GFPC Gas flow proportional counting
MCL Maximum contaminant level
MDC Minimum detectable concentration
NV No value
ORNL Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory (Bechtel Jacobs Company 1998)
pCi/L Picocurie per liter
Scint Scintillation
SPLP Synthetic precipitation leaching procedure
USEPA U.S. Environmental Protection Agency

Sources:

- Bechtel Jacobs Company. 1998. "Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory, Oak Ridge, Tennessee."
U.S. Environmental Protection Agency (USEPA). 2009. "National Primary Drinking Water Regulations." EPA 816-F-09-004. May.

Ra 226 Sample Compositing Summary

Legend
Duplicate

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet.
2 duplicates and 2 MSD for metals have already been indicated for those samples

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	124.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.26	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	82.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	138.19	After metals split, analyze remaining mass for Ra 226

3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
6	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226

8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from -140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226

8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 227
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226

Package Survey From

Date: 10/24/2022 Time: 16:40 Surveyor Name: Andrew Halverson

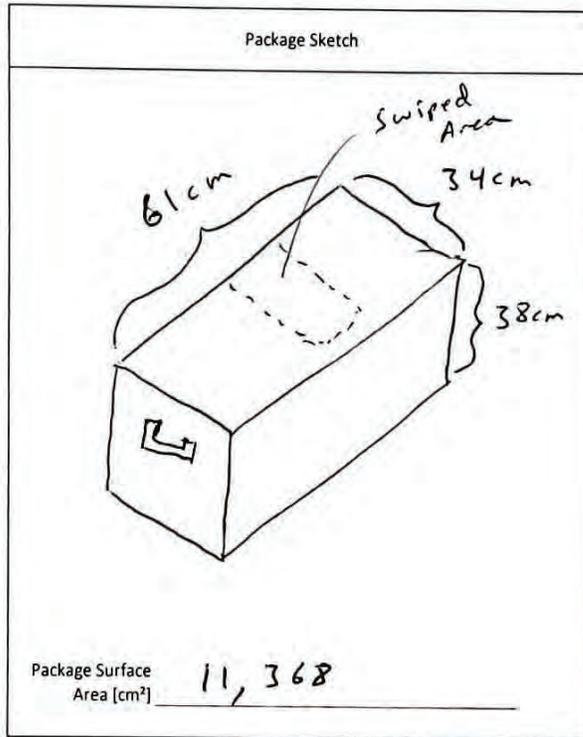
Package Description	<u>Cooler with <18 lb of <200 ppm Unat Soil</u>
Package Destination	<u>Pace Labs 1673 Terra Avenue Sheridan, WY 82801</u>

Unat Specific Activity 7.1e-7 Ci/g
Limits
Exempt: 2.7e-11 Ci/g AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g
A1 [Ci]: Unlimited
A2 [Ci]: Unlimited
0.5 mRem/hr
~500 µR/hr
Alpha: 24 dpm/cm ²
Beta: 240 dpm/cm ²

Contents	<u><200 ppm Unat Soil</u>	Exempt (Y/N)	<u>N</u>
Material Specific Activity	<u><1.42e-10 Ci/g</u>	UN2910 Excepted (Y/N)	<u>Y</u>
Contents Mass	<u><18 lb</u>		
Contents Total Activity	<u><1.2e-6 Ci</u>		

Instrument	
Manufacturer	<u>Ludlum</u>
Model	<u>19</u>
Serial No.	<u>268865</u>
Cal Due Date	<u>12/19/2022</u>
FC Passed (Y/N)	<u>Y</u>
Background	<u>9 µR/hr</u>

Location	Gross	Net
Top	<u>13</u>	<u>4</u>
Bottom	<u>14</u>	<u>5</u>
Side 1	<u>16</u>	<u>7</u>
Side 2	<u>15</u>	<u>6</u>
Side 3	<u>9</u>	<u>-</u>
Side 4	<u>15</u>	<u>6</u>



Meter	
Manufacturer	<u>Ludlum</u>
Model	<u>2929</u>
Serial No.	<u>208319</u>
Cal Due Date	<u>04/27/2023</u>

Detector	
Manufacturer	<u>Ludlum</u>
Model	<u>43-10-1</u>
Serial No.	<u>PK215938</u>
Cal Due Date	<u>06/27/2023</u>

FC Passed (Y/N)	<u>Y</u>
BKG Alpha (cpm)	<u>0</u>
Beta/Gamma (cpm)	<u>55</u>
300 cm ² Surveyed (Y/N)	<u>Y</u>
Entire Package Surveyed (Y/N)	<u>N</u>

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²		
Swipe 1	<u>6</u>	<u>6</u>	<u>0.1</u>	<u>1.1</u>	<u>85</u>	<u>30</u>	<u>0.1</u>	<u>12.5</u>	<u>AH</u>	 Surveyor Signature Released Date: <u>10/26/22</u> Time: <u>17:50</u>
Swipe 2	<u>6</u>	<u>6</u>	<u>0.1</u>	<u>1.1</u>	<u>69</u>	<u>14</u>	<u>0.1</u>	<u>5.8</u>	<u>AH</u>	
Swipe 3	<u>6</u>	<u>6</u>	<u>0.1</u>	<u>1.1</u>	<u>69</u>	<u>14</u>	<u>0.1</u>	<u>5.8</u>	<u>AH</u>	

note: Wiped down and 3rd swipe taken



Package Survey From

Date: 10/26/2022 Time: 16:40 Surveyor Name: Andrew Halverson

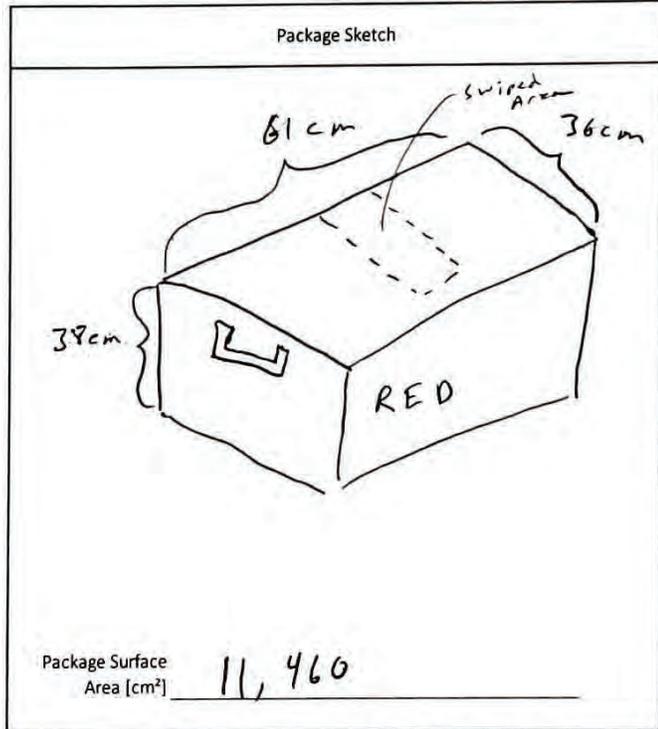
Package Description	cooler with water and <16 lb of <2000 ppm Unat Soil
Package Destination	Face Labs 1673 Terra Avenue Sheridan, WY 82801

Unat Specific Activity	7.1e-7 Ci/g
Limits	Exempt: 2.7e-11 Ci/g AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g	A1 [Ci]: Unlimited
A2 [Ci]: Unlimited	0.5 mRem/hr
~500 µR/hr	Alpha: 24 dpm/cm ²
Beta: 240 dpm/cm ²	

Contents	<2000ppm Unat Soil	Exempt (Y/N)	N
Material Specific Activity	<1.5e-9 Ci/g	UN2910 Excepted (Y/N)	Y
Contents Mass	<16 lb		
Contents Total Activity	<1e-5 Ci		

Instrument	
Manufacturer	Ludlum
Model	19
Serial No.	268865
Cal Due Date	12/19/2022
FC Passed (Y/N)	Y
Background	9 mB/hr

Location	Gross	Net
Top	16	7
Bottom	42	33
Side 1	17	8
Side 2	15	6
Side 3	50	41
Side 4	24	15



Meter	
Manufacturer	Ludlum
Model	2929
Serial No.	208319
Cal Due Date	06/27/2023

Detector	
Manufacturer	Ludlum
Model	43-10-1
Serial No.	PR215938
Cal Due Date	06/27/2023

FC Passed (Y/N)	Y
BKG Alpha (cpm)	0
BKG Beta/Gamma	53
300 cm ² Surveyed (Y/N)	Y
Entire Package Surveyed (Y/N)	N

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled	AH
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²			
Swipe 1	19	19	0.1	3.6	87	34	0.1	14.2	AH	 Released	
Swipe 2	16	16	0.1	3	96	43	0.1	17.9	AH		
			0.1				0.1			Date: <u>10/26/22</u>	
			0.1				0.1			Time: <u>17:50</u>	



Package Survey From

Date: 10/26/22 Time: 16:40

Surveyor Name: Andrew Halverson

Package Description	<u>Cooler with water and < 9 lb of < 6000 ppm Unat soil</u>
Package Destination	<u>Pace Labs 1673 English Tern Avenue Sheridan, WY 82801</u>

Unat Specific Activity	7.1e-7 Ci/g
Limits	Exempt: 2.7e-11 Ci/g AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g	A1 [Ci]: Unlimited A2 [Ci]: Unlimited
	0.5 mRem/hr ~500 µR/hr
Alpha:	24 dpm/cm ²
Beta:	240 dpm/cm ²

Contents	<u>< 6000 ppm Unat Soil</u>	Exempt (Y/N)	<u>N</u>
Material Specific Activity	<u>4.3e-9 Ci/g</u>	UN2910 Excepted (Y/N)	<u>Y</u>
Contents Mass	<u>< 9 lb</u>		
Contents Total Activity	<u>< 1.8e-5 Ci</u>		

Instrument	
Manufacturer	<u>Ludlum</u>
Model	<u>19</u>
Serial No.	<u>268865</u>
Cal Due Date	<u>12/19/2022</u>
FC Passed (Y/N)	<u>Y</u>
Background	<u>9 µR/hr</u>

Package Sketch

Package Surface Area [cm²] 10,580

Location	Gross	Net
Top	<u>46</u>	<u>37</u>
Bottom	<u>32</u>	<u>23</u>
Side 1	<u>48</u>	<u>39</u>
Side 2	<u>30</u>	<u>21</u>
Side 3	<u>24</u>	<u>15</u>
Side 4	<u>24</u>	<u>15</u>

Meter	
Manufacturer	<u>Ludlum</u>
Model	<u>2929</u>
Serial No.	<u>208319</u>
Cal Due Date	<u>06/27/2023</u>

Detector	
Manufacturer	<u>Ludlum</u>
Model	<u>43-10-1</u>
Serial No.	<u>PR215938</u>
Cal Due Date	<u>06/27/2023</u>

FC Passed (Y/N)	<u>Y</u>
BKG Alpha (cpm)	<u>1</u>
BKG Beta/Gamma	<u>56</u>
300 cm ² Surveyed (Y/N)	<u>Y</u>
Entire Package Surveyed (Y/N)	<u>N</u>

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²		
Swipe 1	<u>1</u>	<u>—</u>	<u>0.1</u>	<u>—</u>	<u>76</u>	<u>20</u>	<u>0.1</u>	<u>8.3</u>	<u>AH</u>	<u>Andrew Halverson</u> Surveyor Signature: Released
Swipe 2	<u>10</u>	<u>9</u>	<u>0.1</u>	<u>1.7</u>	<u>88</u>	<u>32</u>	<u>0.1</u>	<u>13.3</u>	<u>AH</u>	
			<u>0.1</u>				<u>0.1</u>			Date: <u>10/26/22</u>
			<u>0.1</u>				<u>0.1</u>			Time: <u>17:50</u>













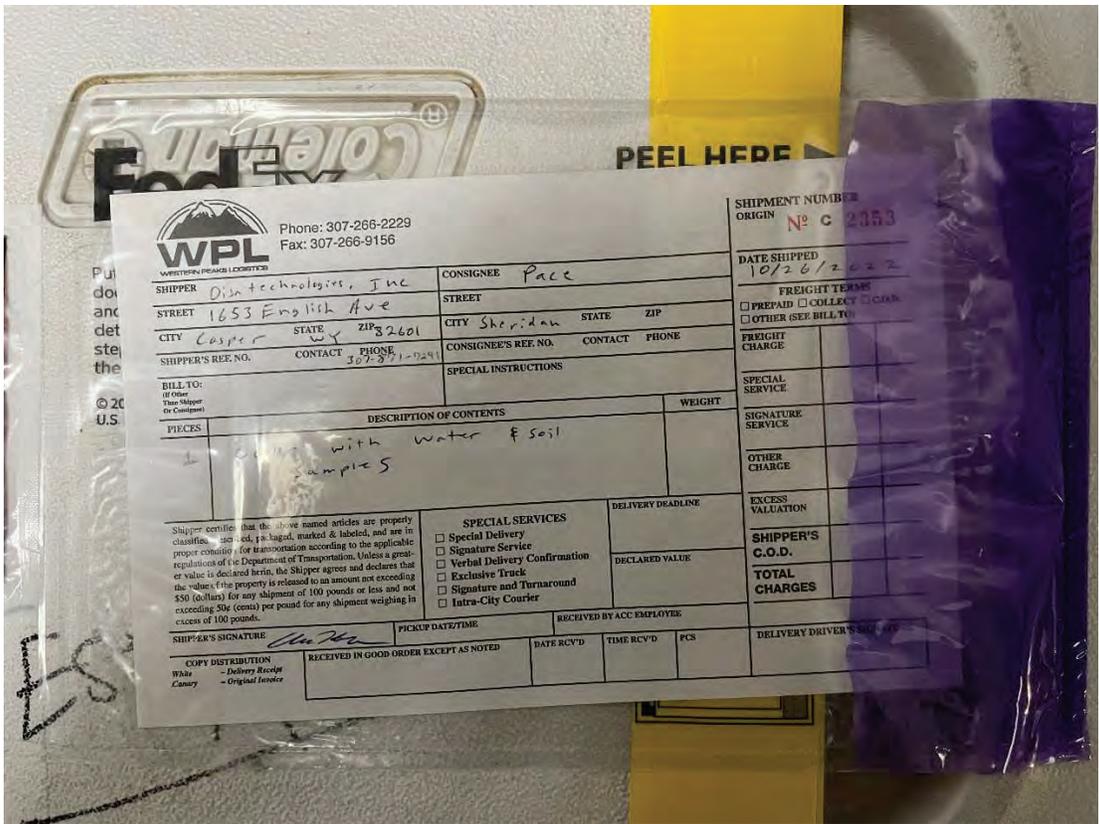
PROPERTY OF
Common Cents Food Stores, Inc.
NOT FOR FOOD USE

CAUTION
FOR LABORATORY USE ONLY
DO NOT USE FOR FOOD

23813
CIS M-500 samples
Wednesday

CAUTION
-5-
LABORATORY USE ONLY





FEDEX PEEL HERE

WPL Phone: 307-266-2229 Fax: 307-266-9156
WESTERN PEAKS LOGISTICS

SHIPMENT NUMBER ORIGIN **Nº C 2355**

SHIPPER <i>Disa Technologies, Inc.</i>		CONSIGNEE <i>Pace</i>	
STREET <i>7653 English Ave</i>		STREET	
CITY <i>Casper</i>	STATE <i>WY</i> ZIP <i>82601</i>	CITY <i>Sheridan</i>	STATE ZIP
SHIPPER'S REF. NO.	CONTACT PHONE <i>307-871-0291</i>	CONSIGNEE'S REF. NO.	CONTACT PHONE
BILL TO: <small>(If Other Than Shipper or Consignee)</small>	SPECIAL INSTRUCTIONS		

DATE SHIPPED <i>10/26/2022</i>	FREIGHT TERMS <input type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT <input type="checkbox"/> C <input type="checkbox"/> OTHER (SEE BILL TO)
FREIGHT CHARGE	
SPECIAL SERVICE	
SIGNATURE SERVICE	
OTHER CHARGE	
EXCESS VALUATION	
SHIPPER'S C.O.D.	
TOTAL CHARGES	

PIECES	DESCRIPTION OF CONTENTS	WEIGHT
<i>1</i>	<i>Cooler with Soil Samples</i>	

Shipper certifies that the above named contents are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to applicable regulations of the Department of Transportation. If a greater value is declared herein, the Shipper agrees and warrants that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES
 Special Delivery
 Signature Service
 Verbal Delivery Confirmation
 Exclusive Truck
 Signature and Turnaround
 Intra-City Courier

DELIVERY DEADLINE
DECLARED VALUE

SHIPPER'S SIGNATURE *[Signature]* PICKUP DATE/TIME RECEIVED BY ACC EMPLOYER

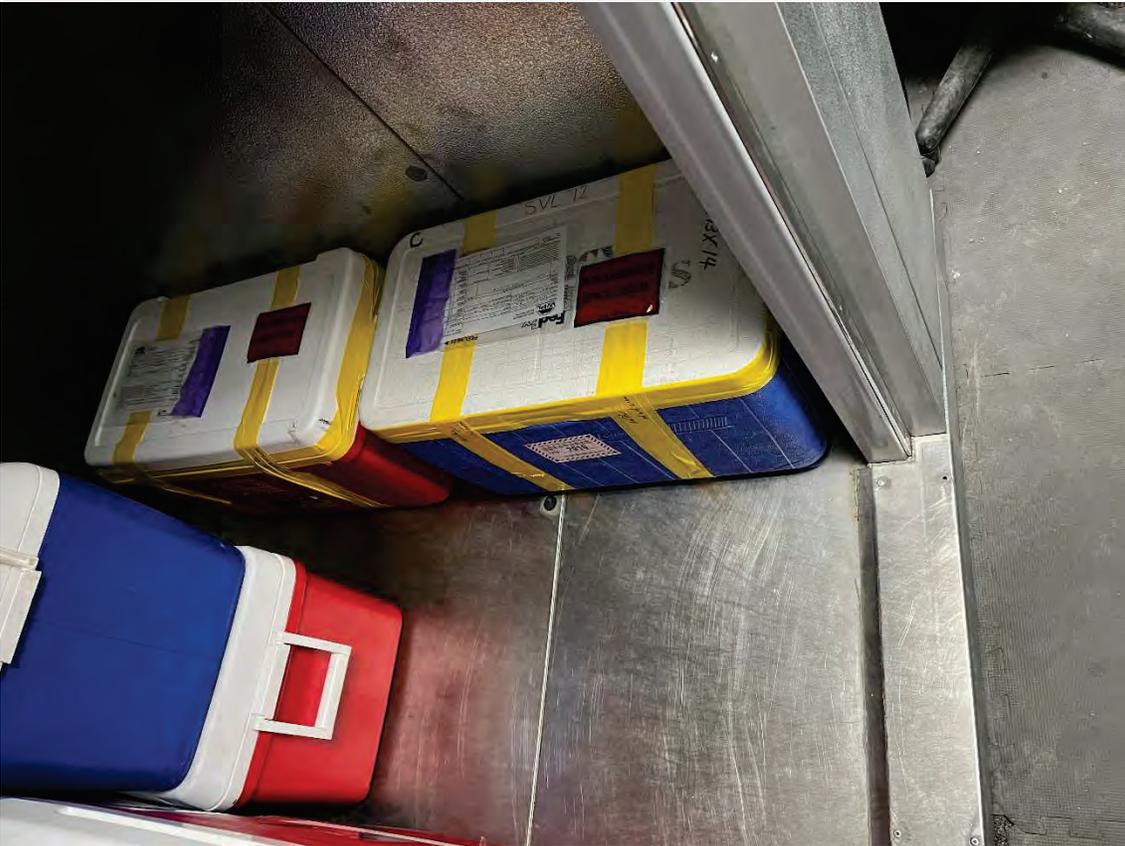
COPY DISTRIBUTION
 White - Delivery Receipt
 Canary - Original Invoice

RECEIVED IN GOOD ORDER EXCEPT AS NOTED DATE RCV'D TIME RCV'D PCS DELIVERY DRIVER'S SIGNATURE













Pace Analytical Services, LLC
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page 2 of 11

All shaded fields must be completed.
This is a legal document: any misrepresentation may be construed as fraud.

196921

Client Name <i>Tetra Tech/Disa</i>	Project Identification <i>RAEST033/20365440033.03.01</i>	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>	Telephone # <i>307-871-7291</i>
Report Address <i>Tetra Tech/Disa</i>	Contact Name <i>Mike Dahlquist / Andrew Halverson</i>	ANALYSES / PARAMETERS	
Invoice Address <i>Tetra Tech</i>	Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.usace</i>		
	Phone <i>510-302-6310 / 307-871-7291</i>	Total Metals by Calc/6020 As 226 Total Ba 76.230 Total	REMARKS <i>Water Only</i>
	Purchase Order # <i>1150922</i>		
	Quote #		

ITEM	LAB ID (Lab Use Only)	DATE	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by Calc/6020	As 226 Total	Ba 76.230 Total	REMARKS
1	<i>2210H50-001</i>	<i>10/13/22</i>	<i>NO TIME</i>	<i>CR Fractionation Water</i>	<i>WT</i>	<i>5</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>Unfiltered, Not preserved</i>
2	<i>-002</i>	<i>10/11/22</i>	<i>NO TIME</i>	<i>QV Fractionation Water</i>	<i>WT</i>	<i>5</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>Unfiltered, Not preserved</i>
3	<i>-003</i>	<i>10/18/22</i>	<i>NO TIME</i>	<i>CTS Fractionation Water</i>	<i>WT</i>	<i>5</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>Unfiltered, Not preserved</i>
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
<i>rel wells OK 5.80C R01 5.10C 2.00C R07</i>	<i>[Signature] / Andrew Halverson</i>	<i>10/26/22</i>	<i>15:40</i>	<i>[Signature] Daniel Flynn</i>	<i>10/27/22</i>	<i>12:01</i>

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier</i> <small>Page 519 of 521</small>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>Water Samples in 2 separate coolers, Soil Samples divided into 3 coolers.</i> S2210450001



DC#_Title: ENV-FRM-SHRT-0033 v00_Condition Upon Receipt Form Terra Lab

Effective Date: 05/13/2022

Survey Meter # Model 2241-2; SN 182115
pH strip lot # HC293085
Thermometer SN# 27130475

Condition Upon Receipt (Attach to COC)

Sample Receipt

1 Number of ice chests/packages received: 23 ROI? Yes No

2 Temperature of cooler/samples. (if more than 8 coolers, please write on back)

Table with 2 rows: Temps Observed (°C) and Temps Corrected (°C). Values include 5.8, 5.1, 2.0, 3.7, 3.0, 1.9.

Acceptable is: 0.1° to 10°C for Bacteria; and 0.1° to 6°C for most other water parameters. Samples may not have had adequate time to cool following collection. Indicate ROI (Received on Ice) for iced samples received on the same day as sampled, in addition to temperature at receipt.

Client contact for temperatures outside method criteria must be documented below.

- 3 Emission rate of samples for radiochemical analyses < 0.5mR/hr? Yes No N/A
4 COC Number (if applicable): 196 921
5 Do the number of bottles agree with the COC? Yes No N/A
6 Were the samples received intact? (no broken bottles, leaks, etc.) Yes No N/A
7 Were the sample custody seals intact? Yes No N/A
8 Is the COC properly completed, legible, and signed? Yes No N/A

Sample Verification, Labeling & Distribution

- 1 Were all requested analyses understood and appropriate? Yes No
2 Did the bottle labels correspond with the COC information? Yes No
3 Samples collected in method-prescribed containers? Yes No
4 Sample Preservation:

Table with 3 columns: pH at Receipt, Final pH (if added in lab), Preservative/Lot#. Rows include Total Metals, Diss Metals, Nutrient, Cyanide, Sulfide, Phenol, SDWA Rads.

Date/Time Added: 10/29/22 15:00
Filtered and preserved in metals

Preservative Lot #
111 HNO3: M-072722-2
112 H2SO4: Chem 2-71-3
NaOH: Wet-3-40-1

- 5 VOA vials have <6mm headspace? Yes No N/A
6 Were all analyses within holding time at the time of receipt? Yes No
7 Have rush or project due dates been checked and accepted? Yes No N/A
8 Do samples require subcontracted analyses? Yes No

If "Yes", which type of subcontracting is required? General Customer-Specified Certified

Sample Receipt, Verification, Login, Labeling & Distribution completed by (Initials): [Signature] Set ID: 52210450

Discrepancy Documentation (use back of sheet for notes on discrepancies)

Any items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: Method of Contact: Phone:
Initiated By: Date/Time: Email:
Problem:
Resolution:

DC#_Title: Excel Form Template

Effective Date:

COC Review

Initials/Date: WN 11/2/22

COC #: 196921

Log Review
Yes No N/A

1	Original COC attached, signed and dated		<input checked="" type="checkbox"/>		
2	Sample(s) received within temperature		<input checked="" type="checkbox"/>		
3	Parameter(s) requested		<input checked="" type="checkbox"/>		
4	Client		<input checked="" type="checkbox"/>		
5	Report recipient/address		<input checked="" type="checkbox"/>		
6	Invoice recipient/address		<input checked="" type="checkbox"/>		
7	Project and RLs Requested changes to Project must be communicated to Project Mgr.				<input checked="" type="checkbox"/>
8	Prices may need to be adjusted prior to invoicing			<input checked="" type="checkbox"/>	
9	P. O. number		<input checked="" type="checkbox"/>		
10	Sample IDs		<input checked="" type="checkbox"/>		
11	Sample dates		<input checked="" type="checkbox"/>		
12	Date received		<input checked="" type="checkbox"/>		
13	Date due		<input checked="" type="checkbox"/>		
14	Matrix		<input checked="" type="checkbox"/>		
15	PWSID included for safe drinking water compliance samples				<input checked="" type="checkbox"/>
16	Field data entered appropriately				<input checked="" type="checkbox"/>
17	Special requests indicated in "Comments" section of Work Order summary		<input checked="" type="checkbox"/>		
18	All "No" responses on Condition Upon Receipt form have been resolved		<input checked="" type="checkbox"/>		

Data Review

Report Review

1	Automated QC (Check Data button) review performed, discrepancies resolved.		<input checked="" type="checkbox"/>		
2	Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.		<input checked="" type="checkbox"/>		
3	Results compared to historical data if applicable		<input checked="" type="checkbox"/>		
4	Analysis date and time		<input checked="" type="checkbox"/>		
5	Analytical method		<input checked="" type="checkbox"/>		
6	Appropriate units of measure		<input checked="" type="checkbox"/>		
7	Analyst's initials		<input checked="" type="checkbox"/>		
8	Field data entered matches lab data				<input checked="" type="checkbox"/>
9	Subcontracted analyses identified as such with qualifier or as attachment to lab report				<input checked="" type="checkbox"/>
10	Subcontracted report reviewed				<input checked="" type="checkbox"/>
11	Invoice parameters match those on COC		<input checked="" type="checkbox"/>		

Final Review

1	Report appears complete and appropriate		<input checked="" type="checkbox"/>		
2	Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report		<input checked="" type="checkbox"/>		
3	All necessary analytical qualifiers included in report		<input checked="" type="checkbox"/>		
4	Copies of report sent to all recipients requested on COC (circle) Email Hard Copy		<input checked="" type="checkbox"/>		
5	Copies of report sent to Regulator (ex. PWS ID)				<input checked="" type="checkbox"/>
6	All special requests listed on COC, or attached parameter list, honored.		<input checked="" type="checkbox"/>		
7	Special report format per client request		<input checked="" type="checkbox"/>		
8	Case Narrative signed and includes completion date		<input checked="" type="checkbox"/>		



Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com/a.halverson@disa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	SPLP by Table A-12	SPLP by Table A-13	MS/MSD	REMARKS
1	<u>S2210477-001</u>	10/05/22	10:32	CTS-L-4-SY Combined +25/270	SL	1	x	x		363.88 g
2	<u>002</u>	10/06/22	9:45	CTS-L-8-SY Combined +25/270	SL	1	x	x		297.88 g
3	<u>003</u>	10/06/22	13:25	CTS-L-30-SY Combined +25/270	SL	1	x	x		253.43 g
4	<u>004</u>	10/11/22	9:30	CTS-M-4-SY Combined +25/270	SL	1	x	x		308.72 g
5	<u>005</u>	10/11/22	NO TIME	CTS-M-8-SY Combined +25/270	SL	1	x	x		294.18 g
6	<u>006</u>	10/13/22	8:00	CTS-M-30-SY Combined +25/270	SL	1	x	x		281.39 g
7	<u>007</u>	10/13/22	11:30	CTS-H-4-SY Combined +25/270	SL	1	x	x		311.15 g
8	<u>008</u>	10/13/22	10:00	CTS-H-8-SY Combined +25/270	SL	1	x	x		338.53 g
9	<u>009</u>	10/17/22	9:53	CTS-H-30-SY Combined +25/270	SL	1	x	x		298.63 g
10	<u>010</u>	10/03/22	14:40	QV-H-8-SY Combined +25/+270	SL	1	x	x	x	1012.12 g, <i>MS/MSD for SPLP</i>
11	<u>011</u>	10/03/22	21:20	QV-H-30-SY Combined +25/+270-01	SL	1	x	x		414.54 g
12	<u>012</u>	10/03/22	21:20	QV-H-30-SY Combined +25/+270-02	SL	1	x	x		413.32 g
13										
14										

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
<i>Lead = 500 mR/h</i>	<i>[Signature] / Andrew Halverson</i>	10/26/22	15:40	<i>[Signature] Daniel S/100</i>	10/27/22	10:01

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service		Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.		
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.		
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #		Table A-12 and A-13 from Work Plan attached		
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated?	Y / N			
<input checked="" type="checkbox"/> Other <i>Lab Courier secured dropoff</i>	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>		Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>		

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection Agency

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

COC Review

Initials/Date: WN 9/28/22

Log Review
Yes No N/A

1	Original COC attached, signed and dated	COC #: <u>WEB</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Sample(s) received within temperature		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Parameter(s) requested		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Client		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Report recipient/address		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Invoice recipient/address		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Project and RLs	Requested changes to Project must be communicated to Project Mgr.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	Prices may need to be adjusted prior to invoicing		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	P. O. number		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Sample IDs		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Sample dates		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Date received		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Date due		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Matrix		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	PWSID included for safe drinking water compliance samples		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Field data entered appropriately		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17	Special requests indicated in "Comments" section of Work Order summary		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	All "No" responses on Condition Upon Receipt form have been resolved		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Data Review

Report Review

1	Automated QC (Check Data button) review performed, discrepancies resolved.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Results compared to historical data if applicable		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Analysis date and time		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Analytical method		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Appropriate units of measure		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Analyst's initials		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Field data entered matches lab data		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Subcontracted analyses identified as such with qualifier or as attachment to lab report		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Subcontracted report reviewed		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Invoice parameters match those on COC		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final Review

1	Report appears complete and appropriate		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	All necessary analytical qualifiers included in report		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Copies of report sent to all recipients requested on COC (circle)	Email	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Copies of report sent to Regulator (ex. PWS ID)	Hard Copy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	All special requests listed on COC, or attached parameter list, honored.		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Special report format per client request		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Case Narrative signed and includes completion date		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table A-13. Aqueous Radionuclide Analytical Parameter Summary for SPLP Extract

Analyte	CAS Number	Analytical Method	MDC ¹ (pCi/L)	Requested MDC ¹ (pCi/L)	USEPA MCL ² (pCi/L)	ORNL Ecological Screening Level (pCi/L)
Radium-226	13982-63-3	Alpha Scint USEPA 903.1	0.2	0.1	5 *	160
Radium-228	15262-20-1	GFPC USEPA 904.0	1.0	0.1	5 *	NV

Notes:

- ¹ MDCs requested from laboratories based on the expertise of the certified health physicist and project chemist.
- ² MCLs from USEPA National Primary Drinking Water Regulations (USEPA 2009).
- * The MCL for radium-226 and radium-228 is defined on a combined basis. The MCL for total radium (radium-226 + radium-228) is 5 pCi/L.

CAS Chemical Abstracts Service
 GFPC Gas flow proportional counting
 MCL Maximum contaminant level
 MDC Minimum detectable concentration
 NV No value
 ORNL Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory (Bechtel Jacobs Company 1998)
 pCi/L Picocurie per liter
 Scint Scintillation
 SPLP Synthetic precipitation leaching procedure
 USEPA U.S. Environmental Protection Agency

Sources:

Bechtel Jacobs Company. 1998. "Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory, Oak Ridge, Tennessee."
 U.S. Environmental Protection Agency (USEPA). 2009. "National Primary Drinking Water Regulations." EPA 816-F-09-004. May.



Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.usa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	
REMARKS							

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	TCLP by Table A-12								
1	52210480-001	10/24/22	18:35	QV-L-4-SY -270 Concentrate	SL	1	x	x	x								280.73 g
2	002	10/24/22	18:45	QV-L-8-SY -270 Concentrate	SL	1	x	x	x								362.72 g
3	003	10/24/22	18:55	QV-L-30-SY -270 Concentrate	SL	1	x	x	x								394.32 g
4	004	10/24/22	19:04	QV-M-4-SY -270 Concentrate	SL	1	x	x	x								375.01 g
5	005	10/24/22	19:08	QV-M-8-SY -270 Concentrate	SL	1	x	x	x								393.39 g
6	006	10/24/22	19:10	QV-M-30-SY -270 Concentrate	SL	1	x	x	x								404.61 g
7	007	10/24/22	19:21	QV-H-4-SY -270 Concentrate	SL	1	x	x	x								470.18 g
8	008	10/24/22	19:26	QV-H-8-SY -270 Concentrate	SL	1	x	x	x								470.56 g
9	009	10/24/22	19:30	QV-H-30-SY -270 Concentrate	SL	1	x	x	x								459.77 g
10	010	10/24/22	19:38	CR-L-4-SY -270 Concentrate	SL	1	x	x	x								298.92 g
11	011	10/24/22	19:43	CR-L-8-SY -270 Concentrate	SL	1	x	x	x								309.37 g
12	012	10/24/22	19:46	CR-L-30-SY -270 Concentrate	SL	1	x	x	x								333.14 g
13	013	10/24/22	19:57	CR-M-4-SY -270 Concentrate	SL	1	x	x	x								271.70 g
14	014	10/24/22	20:02	CR-M-8-SY -270 Concentrate	SL	1	x	x	x								334.43 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/24/22	15:40	<i>[Signature]</i>	10/28/22	15:42

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier see w/dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached



Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291		
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS				REMARKS
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@d isausa. cc m</i>						
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #		

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	TCLP by Table A-12	MS/MSD									
																			1
2	016	10/13/22	11:30	CTS-H-4-SY -270-01	SL	1	x	x	x										304.81 g
3	017	10/13/22	11:30	CTS-H-4-SY -270-02	SL	1	x	x	x										301.03 g
4	018	10/13/22	10:00	CTS-H-8-SY -270	SL	1	x	x	x										659.54 g
5	019	10/17/22	9:53	CTS-H-30-SY -270	SL	1	x	x	x	x									699.81 g <i>MS/MSD to metals and TCLP</i>
6	020	10/24/22	20:14	CR-H-4-SY -270 Concentrate	SL	1	x	x	x										241.01 g
7	021	10/24/22	20:17	CR-H-8-SY -270 Concentrate	SL	1	x	x	x										343.28 g
8	022	10/24/22	20:22	CR-H-30-SY -270 Concentrate	SL	1	x	x	x										358.80 g
9	023	10/11/22	9:30	CTS-M-4-SY -270	SL	1	x	x	x										546.55 g
10	024	10/11/22	NO TIME	CTS-M-8-SY -270	SL	1	x	x	x										571.44 g
11	025	10/13/22	8:00	CTS-M-30-SY -270	SL	1	x	x	x										596.81 g
12	026	10/05/22	10:32	CTS-L-4-SY -270	SL	1	x	x	x										591.53 g
13	027	10/06/22	8:45	CTS-L-8-SY -270-01	SL	1	x	x	x										303.14 g
14	028	10/06/22	8:45	CTS-L-8-SY -270-02	SL	1	x	x	x										297.70 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	Andrew Halverson	10/26/22	15:40		10/28/	1542

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service			Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.	
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround	Program (SDWA, NPDES,...)				Report preliminary metals before radionuclides.	
<input type="checkbox"/> USPS	Solid	SD	<input checked="" type="checkbox"/> RUSH - 5 Working Days	PWSID / Permit #				Table A-12 from Work Plan attached	
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days	Chlorinated?	Y / N				
<input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>	Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>			



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Page **5** of **11**

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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson				ANALYSES / PARAMETERS	
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disausa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS				REMARKS
							Metals by 6010/602	Ra 226 by 901.1	TCLP by Table A-12	MS/MSD	
1	<i>52210480-028</i>	10/06/22	13:25	CTS-L-30-SY -270	SL	1	x	x	x	x	667.67 g <i>MS/MSD for Metals and TCLP</i>
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	/ Andrew Halverson	10/24/22	15:40		10/28/22	15:42

SHIPPING INFO <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier Secure Dropoff</i>		MATRIX CODES Water WT Soil SL Solid SD Filter FT Other OT		TURN AROUND TIMES Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>		COMPLIANCE INFORMATION Compliance Monitoring? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab <u>Client</u> <input checked="" type="checkbox"/>		ADDITIONAL REMARKS Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached	
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Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection Agency

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>



Report Review Checklist

Log Review

COC Review Information on COC matches that on report; spelling accurate.

Initials/Date:

WN 1/2/22

- 1 Original COC attached, signed and dated.
2 Samples received within temperature
2 Parameters requested.
3 Client.
4 Report recipient/address.
5 Invoice recipient/address.
6 Project. Requested changes to Project must be communicated to Project Mgr.
7 Appropriate detection limits (RLs) assigned.
8 Prices may need to be adjusted prior to invoicing. (circle)
9 P. O. number.
10 Sample IDs.
11 Sample dates.
12 Date received.
13 Date due.
14 Matrix.
15 PWSID included for safe drinking water compliance samples.
16 Field data entered appropriately (Log Review); matches lab data (Report Review).
17 Special requests indicated in "Comments" section of Work Order summary.
18 All "No" responses on Condition Upon Receipt form have been resolved

Data Review

Report Review

- 1 Automated QC (Check Data button) review performed, discrepancies resolved.
2 Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.
3 Worksheet/instrument data compared to report results for calculation, transcription and data entry errors.
4 Results compared to historical data if applicable.
5 Analysis date and time.
6 Analytical method.
7 Appropriate detection limits (RLs) assigned.
8 Appropriate units of measure.
9 Analyst's initials.
10 Calculations checked?
11 Subcontracted analyses identified as such with qualifier or as attachment to lab report
12 Subcontracted report reviewed
13 Invoice parameters match those on COC.

Final Review

- 1 Report appears complete and appropriate.
2 Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report.
3 All necessary qualifiers included in report.
4 Qualifiers referenced in case narrative; which includes descriptions of all sample/analysis anomalies.
5 Anomalies, including reason for report reissue, explained in Case Narrative.
6 Copies of report sent to all recipients requested on COC. (circle) Copy to Regulator Hard Copy Email
7 All special requests listed on COC, or attached parameter list, honored.
8 Special report format per client request.
9 Report pages signed.



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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>Mike.Dahlquist@tetratech.com / andrew.halverson@disa.usa.af.mil</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD									REMARKS
2		10/05/22	10:32	CTS-L-4-SY +50	SL	1	x	x										22.83 g
3		10/05/22	10:32	CTS-L-4-SY +100	SL	1	x	x										42.21 g
4		10/05/22	10:32	CTS-L-4-SY +140	SL	1	x	x										32.19 g
5		10/05/22	10:32	CTS-L-4-SY +200	SL	1	x	x										41.97 g
6		10/05/22	10:32	CTS-L-4-SY +270	SL	1	x	x										36.12 g
7		10/06/22	8:45	CTS-L-8-SY +25	SL	1	x	x										2.06 g
8		10/06/22	8:45	CTS-L-8-SY +50	SL	1	x	x										13.37 g
9		10/06/22	8:45	CTS-L-8-SY +100	SL	1	x	x										32.59 g
10		10/06/22	8:45	CTS-L-8-SY +140	SL	1	x	x										28.84 g
11		10/06/22	8:45	CTS-L-8-SY +200	SL	1	x	x										48.94 g
12		10/06/22	8:45	CTS-L-8-SY +270	SL	1	x	x										25.12 g
13		10/06/22	13:25	CTS-L-30-SY +25	SL	1	x	x										1.40 g
14		10/06/22	13:25	CTS-L-30-SY +50	SL	1	x	x										8.52 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/26/22	15:40	<i>[Signature]</i>	10/28/22	13:00

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier Secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium compositing sheet attached



Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disausa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS										REMARKS
							Metals by 6010/602	Ra 226 by 901.1	MS/MSD								
1		10/06/22	13:25	CTS-L-30-SY +100-01	SL	1	x	x									12.34 g
2		10/06/22	13:25	CTS-L-30-SY +100-02	SL	1	x	x									12.34 g
3		10/06/22	13:25	CTS-L-30-SY +140	SL	1	x	x	x								24.22 g, MS/MSD for metals
4		10/06/22	13:25	CTS-L-30-SY +200	SL	1	x	x									44.76 g
5		10/06/22	13:25	CTS-L-30-SY +270	SL	1	x	x									22.93 g
6		10/04/22	15:31	CTS-0-SL-01 +25	SL	1	x	x									6.88 g
7		10/04/22	15:31	CTS-0-SL-01 +50	SL	1	x	x									11.73 g
8		10/04/22	15:31	CTS-0-SL-01 +100	SL	1	x	x									32.09 g
9		10/04/22	15:31	CTS-0-SL-01 +140	SL	1	x	x									35.57 g
10		10/04/22	15:31	CTS-0-SL-01 +200	SL	1	x	x									43.80 g
11		10/04/22	15:31	CTS-0-SL-01 +270	SL	1	x	x									36.63 g
12		10/04/22	15:31	CTS-0-SL-01 -270	SL	1	x	x									143.58 g
13		10/11/22	9:30	CTS-M-4-SY +25	SL	1	x	x									3.16 g
14		10/11/22	9:30	CTS-M-4-SY +50	SL	1	x	x									17.48 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/26/22	15:40	<i>[Signature]</i>	10/28/22	13:00

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service			Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.	
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround	Program (SDWA, NPDES,...)				Report preliminary metals before radionuclides.	
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days	PWSID / Permit #				Radium compositing sheet attached	
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days	Chlorinated?		Y / N			
<input checked="" type="checkbox"/> Other <i>Lab Courier Secure Dropoff</i>	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>	Sample Disposal: Lab		Client	<input checked="" type="checkbox"/>		



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Page 9 of 11

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Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com/a.halverson@disausa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD									REMARKS
2		10/13/22	8:00	CTS-M-30-SY +200	SL	1	x	x										42.68 g
3		10/13/22	8:00	CTS-M-30-SY +270	SL	1	x	x										20.75 g
4		10/11/22	8:00	CTS-M-0-SL-01 +25	SL	1	x	x										8.34 g
5		10/11/22	8:00	CTS-M-0-SL-01 +50	SL	1	x	x										17.33 g
6		10/11/22	8:00	CTS-M-0-SL-01 +100	SL	1	x	x										38.48 g
7		10/11/22	8:00	CTS-M-0-SL-01 +140	SL	1	x	x										36.91 g
8		10/11/22	8:00	CTS-M-0-SL-01 +200	SL	1	x	x										48.80 g
9		10/11/22	8:00	CTS-M-0-SL-01 +270	SL	1	x	x										30.95 g
10		10/11/22	8:00	CTS-M-0-SL-01 -270	SL	1	x	x										155.64 g
11		10/13/22	11:30	CTS-H-4-SY +25	SL	1	x	x										2.07 g
12		10/13/22	11:30	CTS-H-4-SY +50	SL	1	x	x										11.82 g
13		10/13/22	11:30	CTS-H-4-SY +100-01	SL	1	x	x										17.87 g
14		10/13/22	11:30	CTS-H-4-SY +100-02	SL	1	x	x										17.88 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/24/22	15:40	<i>[Signature]</i>	10/28/22	13:00

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium Compositing sheet attached



Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.usa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS										REMARKS
							Metals by 6010/602	Ra 226 by 901.1	MS/MSD								
1		10/13/22	11:30	CTS-H-4-SY +140	SL	1	x	x	x								32.10 g, MS/MSD for Metals
2		10/13/22	11:30	CTS-H-4-SY +200	SL	1	x	x									53.85 g
3		10/13/22	11:30	CTS-H-4-SY +270	SL	1	x	x									21.57 g
4		10/13/22	10:00	CTS-H-8-SY +25	SL	1	x	x									2.32 g
5		10/13/22	10:00	CTS-H-8-SY +50	SL	1	x	x									13.89 g
6		10/13/22	10:00	CTS-H-8-SY +100	SL	1	x	x									36.49 g
7		10/13/22	10:00	CTS-H-8-SY +140	SL	1	x	x									33.89 g
8		10/13/22	10:00	CTS-H-8-SY +200	SL	1	x	x									58.84 g
9		10/13/22	10:00	CTS-H-8-SY +270	SL	1	x	x									25.93 g
10		10/12/22	8:40	CTS-H-0-SL-01 +25	SL	1	x	x									8.76 g
11		10/12/22	8:40	CTS-H-0-SL-01 +50	SL	1	x	x									13.34 g
12		10/12/22	8:40	CTS-H-0-SL-01 +100	SL	1	x	x									36.25 g
13		10/12/22	8:40	CTS-H-0-SL-01 +140	SL	1	x	x									36.46 g
14		10/12/22	8:40	CTS-H-0-SL-01 +200	SL	1	x	x									59.96 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> Andrew Halverson	10/26/22	15:40	<i>[Signature]</i>	10/28/22	13:00

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service		Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.		
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.		
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #		Radium compositing sheet attached		
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated?	Y / N			
<input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>		Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>		



- CHAIN OF CUSTODY RECORD -

All shaded fields must be completed.

This is a legal document; any misrepresentation may be construed as fraud.

#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson				ANALYSES / PARAMETERS	
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@edisusa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD							REMARKS
2		10/12/22	8:40	CTS-H-0-SL-01 -270	SL	1	x	x								199.00 g
3		10/17/22	9:53	CTS-H-30-SY +25	SL	1	x	x								1.34 g
4		10/17/22	9:53	CTS-H-30-SY +50	SL	1	x	x								12.84 g
5		10/17/22	9:53	CTS-H-30-SY +100-01	SL	1	x	x								16.53 g
6		10/17/22	9:53	CTS-H-30-SY +100-02	SL	1	x	x								16.52 g
7		10/17/22	9:53	CTS-H-30-SY +140	SL	1	x	x	x							31.06 g <i>ms/msd for metals</i>
8		10/17/22	9:53	CTS-H-30-SY +200	SL	1	x	x								35.64 g
9		10/17/22	9:53	CTS-H-30-SY +270	SL	1	x	x								37.82 g
10																
11																
12																
13																
14																

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> Andrew Halverson	10/24/22	15:40	<i>[Signature]</i>	10/28/22	13:00

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Carrier Secure Dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab <u>Client</u> <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium compositing sheet attached

Ra 226 Sample Compositing Summary

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet.
2 duplicates and 2 MSD for metals have already been indicated for those samples

Legend	
	Duplicate

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	124.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.26	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	82.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	136.19	After metals split, analyze remaining mass for Ra 226

3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
6	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226

8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from -140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226

8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 227
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226

8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 227
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226

8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from -140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226

Ra 226 Sample Compositing Summary

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet, 2 duplicates and 2 MSD for metals have already been indicated for those samples

Legend	
	Duplicate

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	124.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.26	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	82.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	138.19	After metals split, analyze remaining mass for Ra 226

3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
6	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226



Report Review Checklist

		Log Review
COC Review	Information on COC matches that on report; spelling accurate.	Initials/Date: WP 11/2/22
1	Original COC attached, signed and dated.	✓
2	Samples received within temperature	✓
2	Parameters requested.	✓
3	Client.	✓
4	Report recipient/address.	✓
5	Invoice recipient/address.	✓
6	Project. Requested changes to Project must be communicated to Project Mgr.	NA
7	Appropriate detection limits (RLs) assigned.	✓
8	Prices may need to be adjusted prior to invoicing. (circle)	Yes or No
9	P. O. number.	✓
10	Sample IDs.	✓
11	Sample dates.	✓
12	Date received.	✓
13	Date due.	✓
14	Matrix.	✓
15	PWSID included for safe drinking water compliance samples.	NA
16	Field data entered appropriately (Log Review); matches lab data (Report Review).	NA
17	Special requests indicated in "Comments" section of Work Order summary.	NA
18	All "No" responses on Condition Upon Receipt form have been resolved	Yes or No

Data Review	Report Review	
1	Automated QC (Check Data button) review performed, discrepancies resolved.	✓
2	Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.	✓
3	Worksheet/instrument data compared to report results for calculation, transcription and data entry errors.	✓
4	Results compared to historical data if applicable.	✓
5	Analysis date and time.	✓
6	Analytical method.	✓
7	Appropriate detection limits (RLs) assigned.	✓
8	Appropriate units of measure.	✓
9	Analyst's initials.	✓
10	Calculations checked?	✓
11	Subcontracted analyses identified as such with qualifier or as attachment to lab report	NA
12	Subcontracted report reviewed	NA
13	Invoice parameters match those on COC.	✓

Final Review		
1	Report appears complete and appropriate.	✓
2	Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report.	✓
3	All necessary qualifiers included in report.	✓
4	Qualifiers referenced in case narrative; which includes descriptions of all sample/analysis anomalies.	✓
5	Anomalies, including reason for report reissue, explained in Case Narrative.	✓
6	Copies of report sent to all recipients requested on COC. (circle) Copy to Regulator Hard Copy	Email
7	All special requests listed on COC, or attached parameter list, honored.	✓
8	Special report format per client request.	✓
9	Report pages signed.	✓