

Thermo Retec
W.O. No. R0-10-167-7538

Bechtel Hanford Inc.
SDG H1105

Case Narrative

Page 1 of 1

1.0 GENERAL

Bechtel Hanford Inc. (BHI) Sample Delivery Group H1105 was composed of three water samples designated under SAF No. C01-004 with a Project Designation of: 200 UP1 IAM GW Monitoring, October 2000.

The samples were received as stated on the Chain-of-Custody documents. Any discrepancies are noted on the Thermo Retec Sample Receipt Checklist.

2.0 ANALYSIS NOTES

2.1 Technetium-99 Analyses

No problems were encountered during the course of the analyses.

Case Narrative Certification Statement

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

Melissa Mannion
Melissa C. Mannion
Program Manager

12/20/00
Date



RECEIVED
JAN 22 2001

EDMC

TMA/RICHMOND
SAMPLE DELIVERY GROUP H1105

SAMPLE SUMMARY

SDG 7538
 Contact Melissa C. Mannion

Client Hanford
 Contract TRC-SBB-207925
 Case no SDG H1105

CLIENT SAMPLE ID	LOCATION	MATRIX	LEVEL	LAB SAMPLE ID	SAF NO	CHAIN OF CUSTODY	COLLECTED
B109K5	Hanford Site	WATER		R010167-01	C01-004	C01-004-9	10/26/00 09:42
B109K6	Hanford Site	WATER		R010167-04	C01-004	C01-004-17	10/26/00 09:42
B109K8	Hanford Site	WATER		R010167-02	C01-004	C01-004-10	10/26/00 10:56
B109L3	Hanford Site	WATER		R010167-03	C01-004	C01-004-17	10/26/00 09:05
Method Blank		WATER		R010167-06	C01-004		
Lab Control Sample		WATER		R010167-05	C01-004		
Duplicate (R010167-02)	Hanford Site	WATER		R010167-07	C01-004		10/26/00 10:56

Lab id TMANC
 Protocol Hanford
 Version Ver 1.0
 Form DVD-CS
 Version 3.06
 Report date 12/20/00

TMA/RICHMOND
SAMPLE DELIVERY GROUP H1105

SDG 7538
 Contact Melissa C. Mannion

Client Hanford
 Contract TRC-SBB-207925
 Case no SDG H1105

QC SUMMARY

QC BATCH	CHAIN OF CUSTODY	CLIENT SAMPLE ID	MATRIX	% SOLIDS	SAMPLE AMOUNT	BASIS AMOUNT	DAYS SINCE RECEIVED	COLL	LAB SAMPLE ID	DEPARTMENT SAMPLE ID
7538	C01-004-10	B109K8	WATER				10/27/00	1	R010167-02	7538-002
	C01-004-17	B109K6	WATER				10/27/00	1	R010167-04	7538-004
		B109L3	WATER				10/27/00	1	R010167-03	7538-003
	C01-004-9	B109K5	WATER				10/27/00	1	R010167-01	7538-001
		Method Blank	WATER						R010167-06	7538-006
		Lab Control Sample	WATER						R010167-05	7538-005
		Duplicate (R010167-02)	WATER				10/27/00	1	R010167-07	7538-007

Lab id TMANC
 Protocol Hanford
 Version Ver 1.0
 Form DVD-QS
 Version 3.06
 Report date 12/20/00

TMA/RICHMOND
SAMPLE DELIVERY GROUP H1105

SDG 7538
 Contact Melissa C. Mannion

PREP BATCH SUMMARY

Client Hanford
 Contract TRC-SBB-207925
 Case no SDG_H1105

TEST	MATRIX	METHOD	PREPARATION ERROR		PLANCHETS ANALYZED				QUALI-	
			BATCH	2σ %	CLIENT	MORE	RE	BLANK		LCS
Beta Counting										
TC	WATER	Technetium 99 in Water	6962-025	10.0	4			1	1	1/1

Duplicates and Matrix Spikes are those with original (Client) sample in this Sample Delivery Group.
 Blank and LCS planchets are those in the same preparation batch as some Client, Duplicate or Spike sample.

Lab id TMANC
 Protocol Hanford
 Version Ver 1.0
 Form DVD-PBS
 Version 3.06
 Report date 12/20/00

TMA/RICHMOND
SAMPLE DELIVERY GROUP H1105

SDG 7538
 Contact Melissa C. Mannion

Client Hanford
 Contract TRC-SBB-207925
 Case no SDG H1105

WORK SUMMARY

CLIENT SAMPLE ID	LOCATION	MATRIX	LAB SAMPLE ID COLLECTED	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
B109K5	Hanford Site	WATER	R010167-01	7538-001	TC		12/16/00	12/20/00	MCM	Technetium 99 in Water
	C01-004-9	C01-004	10/26/00							
			10/27/00							
B109K6	Hanford Site	WATER	R010167-04	7538-004	TC		12/19/00	12/20/00	MCM	Technetium 99 in Water
	C01-004-17	C01-004	10/26/00							
			10/27/00							
B109K8	Hanford Site	WATER	R010167-02	7538-002	TC		12/12/00	12/20/00	MCM	Technetium 99 in Water
	C01-004-10	C01-004	10/26/00							
			10/27/00							
B109L3	Hanford Site	WATER	R010167-03	7538-003	TC		12/12/00	12/20/00	MCM	Technetium 99 in Water
	C01-004-17	C01-004	10/26/00							
			10/27/00							
Method Blank		WATER	R010167-06	7538-006	TC		12/16/00	12/20/00	MCM	Technetium 99 in Water
	C01-004									
Lab Control Sample		WATER	R010167-05	7538-005	TC		12/16/00	12/20/00	MCM	Technetium 99 in Water
	C01-004									
Duplicate (R010167-02)		WATER	R010167-07	7538-007	TC		12/19/00	12/20/00	MCM	Technetium 99 in Water
	C01-004		10/26/00							
			10/27/00							

COUNTS OF TESTS BY SAMPLE TYPE

TEST	SAF No	METHOD	REFERENCE	CLIENT	MORE	RE	BLANK	LCS	DUP	SPIKE	TOTAL
TC	C01-004	Technetium 99 in Water	TC99_TR_SEP_LSC	4			1	1	1		7
TOTALS				4			1	1	1		7

WORK SUMMARY

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SUMMARY DATA SECTION

Page 6

Lab id TMANC
 Protocol Hanford
 Version Ver 1.0
 Form DVD-CWS
 Version 3.06
 Report date 12/20/00

TMA / RICHMOND
SAMPLE DELIVERY GROUP H1105

R010167-06

Method Blank

METHOD BLANK

SDG <u>7538</u>	Client/Case no <u>Hanford</u>	<u>SDG H1105</u>
Contact <u>Melissa C. Mannion</u>	Contract <u>TRC-SBB-207925</u>	
Lab sample id <u>R010167-06</u>	Client sample id <u>Method Blank</u>	
Dept sample id <u>7538-006</u>	Material/Matrix <u>WATER</u>	
	SAF No <u>C01-004</u>	

ANALYTE	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Technetium 99	14133-76-7	-3.49	3.5	13	15	U	TC

200 UP1 IAM GW Monitoring, Oct. 2000

QC-BLANK 36500

Lab id <u>TMANC</u>
Protocol <u>Hanford</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/20/00</u>

TMA/RICHMOND
SAMPLE DELIVERY GROUP H1105

R010167-05

Lab Control Sample

LAB CONTROL SAMPLE

SDG <u>7538</u>	Client/Case no <u>Hanford</u>	<u>SDG H1105</u>
Contact <u>Melissa C. Mannion</u>	Case no <u>TRC-SBB-207925</u>	
Lab sample id <u>R010167-05</u>	Client sample id <u>Lab Control Sample</u>	
Dept sample id <u>7538-005</u>	Material/Matrix <u>WATER</u>	
	SAF No <u>C01-004</u>	

ANALYTE	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST	ADDED pCi/L	2σ ERR pCi/L	REC %	3σ LMTS (TOTAL)	PROTOCOL LIMITS
Technetium 99	2230	54	13	15		TC	2180	87	102	83-117	80-120

200 UP1 IAM GW Monitoring, Oct. 2000

QC-LCS 36499

Lab id <u>TMANC</u>
Protocol <u>Hanford</u>
Version <u>Ver 1.0</u>
Form <u>DVD-LCS</u>
Version <u>3.06</u>
Report date <u>12/20/00</u>

TMA/RICHMOND
SAMPLE DELIVERY GROUP H1105

R010167-07

B109K8

DUPLICATE

SDG <u>7538</u>	Client/Case no <u>Hanford</u>	SDG <u>H1105</u>
Contact <u>Melissa C. Mannion</u>	Case no <u>TRC-SBB-207925</u>	
DUPLICATE	ORIGINAL	
Lab sample id <u>R010167-07</u>	Lab sample id <u>R010167-02</u>	Client sample id <u>B109K8</u>
Dept sample id <u>7538-007</u>	Dept sample id <u>7538-002</u>	Location/Matrix <u>Hanford Site</u> <u>WATER</u>
	Received <u>10/27/00</u>	Collected <u>10/26/00 10:56</u>
		Custody/SAF No <u>C01-004-10</u> <u>C01-004</u>

ANALYTE	DUPLICATE pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST	ORIGINAL pCi/L	2σ ERR (COUNT)	MDA pCi/L	QUALI- FIERS	RPD %	3σ TOT	PROT LIMIT
Technetium 99	736	31	14	15		TC	794	32	14		8	23	

200 UP1 IAM GW Monitoring, Oct. 2000

QC-DUP#2 36501

T M A / R I C H M O N D
S A M P L E D E L I V E R Y G R O U P H 1 1 0 5

R010167-01

B109K5

D A T A S H E E T

SDG <u>7538</u>	Client/Case no <u>Hanford</u>	SDG <u>H1105</u>
Contact <u>Melissa C. Mannion</u>	Contract <u>TRC-SBB-207925</u>	
Lab sample id <u>R010167-01</u>	Client sample id <u>B109K5</u>	
Dept sample id <u>7538-001</u>	Location/Matrix <u>Hanford Site</u>	<u>WATER</u>
Received <u>10/27/00</u>	Collected <u>10/26/00 09:42</u>	
	Custody/SAF No <u>C01-004-9</u>	<u>C01-004</u>

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Technetium 99	14133-76-7	591	23	14	15		TC

200 UP1 IAM GW Monitoring, Oct. 2000

Lab id <u>TMANC</u>
Protocol <u>Hanford</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/20/00</u>

TMA / RICHMOND
SAMPLE DELIVERY GROUP H1105

R010167-04

B109K6

DATA SHEET

SDG <u>7538</u>	Client/Case no <u>Hanford</u>	SDG <u>H1105</u>
Contact <u>Melissa C. Mannion</u>	Contract <u>TRC-SBB-207925</u>	
Lab sample id <u>R010167-04</u>	Client sample id <u>B109K6</u>	
Dept sample id <u>7538-004</u>	Location/Matrix <u>Hanford Site</u>	<u>WATER</u>
Received <u>10/27/00</u>	Collected <u>10/26/00 09:42</u>	
	Custody/SAF No <u>C01-004-17</u>	<u>C01-004</u>

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Technetium 99	14133-76-7	558	24	11	15		TC

200 UP1 IAM GW Monitoring, Oct. 2000

Lab id <u>TMANC</u>
Protocol <u>Hanford</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/20/00</u>

T M A / R I C H M O N D
S A M P L E D E L I V E R Y G R O U P H 1 1 0 5

R010167-02

B109K8

D A T A S H E E T

SDG <u>7538</u>	Client/Case no <u>Hanford</u>	SDG <u>H1105</u>
Contact <u>Melissa C. Mannion</u>	Contract <u>TRC-SBB-207925</u>	
Lab sample id <u>R010167-02</u>	Client sample id <u>B109K8</u>	
Dept sample id <u>7538-002</u>	Location/Matrix <u>Hanford Site</u> <u>WATER</u>	
Received <u>10/27/00</u>	Collected <u>10/26/00 10:56</u>	
	Custody/SAF No <u>C01-004-10</u> <u>C01-004</u>	

ANALYTE	CAS NO	RESULT pCi/L	2 σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Technetium 99	14133-76-7	794	32	14	15		TC

200 UPl IAM GW Monitoring, Oct. 2000

Lab id <u>TMANC</u>
Protocol <u>Hanford</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/20/00</u>

T M A / R I C H M O N D
S A M P L E D E L I V E R Y G R O U P H 1 1 0 5

R010167-03

B109L3

D A T A S H E E T

SDG <u>7538</u>	Client/Case no <u>Hanford</u>	SDG <u>H1105</u>
Contact <u>Melissa C. Mannion</u>	Contract <u>TRC-SBB-207925</u>	
Lab sample id <u>R010167-03</u>	Client sample id <u>B109L3</u>	
Dept sample id <u>7538-003</u>	Location/Matrix <u>Hanford Site</u>	<u>WATER</u>
Received <u>10/27/00</u>	Collected <u>10/26/00 09:05</u>	
	Custody/SAF No <u>C01-004-17</u>	<u>C01-004</u>

ANALYTE	CAS NO	RESULT pCi/L	2σ ERR (COUNT)	MDA pCi/L	RDL pCi/L	QUALI- FIERS	TEST
Techneium 99	14133-76-7	281	19	15	15		TC

200 UP1 IAM GW Monitoring, Oct. 2000

Lab id <u>TMANC</u>
Protocol <u>Hanford</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/20/00</u>

TMA/RICHMOND
SAMPLE DELIVERY GROUP H1105

METHOD SUMMARY
TECHNETIUM 99 IN WATER
BETA COUNTING

Test TC Matrix WATER
SDG 7538
Contact Melissa C. Mannion

Client Hanford
Contract TRC-SBB-207925
Contract SDG_H1105

RESULTS

CLIENT SAMPLE ID	LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	Technetium 99
Preparation batch 6962-025					
B109K5	R010167-01			7538-001	591
B109K6	R010167-04			7538-004	558
B109K8	R010167-02			7538-002	794
B109L3	R010167-03			7538-003	281
BLK (QC ID=36500)	R010167-06			7538-006	U
LCS (QC ID=36499)	R010167-05			7538-005	ok
Duplicate (R010167-02)	R010167-07			7538-007	ok

Nominal values and limits from method RDLs (pCi/L) 15
200 UP1 IAM GW Monitoring, Oct. 2000

METHOD PERFORMANCE

CLIENT SAMPLE ID	LAB SAMPLE ID	RAW TEST	SUF-FIX	MDA pCi/L	ALIQ L	PREP FAC	DILU- TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	ANAL- YZED	DETECTOR
Preparation batch 6962-025 2σ prep error 10.0 % Reference Lab Notebook 6962 pg. 025															
B109K5	R010167-01			14	0.0500			72	50			51	11/29/00	12/16	GRB-217
B109K6	R010167-04			11	0.0500			79	60			54	11/29/00	12/19	GRB-220
B109K8	R010167-02			14	0.0500			75	50			47	11/29/00	12/12	GRB-207
B109L3	R010167-03			15	0.0500			79	50			47	11/29/00	12/12	GRB-208
BLK (QC ID=36500)	R010167-06			13	0.0500			77	50				11/29/00	12/16	GRB-230
LCS (QC ID=36499)	R010167-05			13	0.0500			86	50				11/29/00	12/16	GRB-229
Duplicate (R010167-02) (QC ID=36501)	R010167-07			14	0.0500			71	50			54	11/29/00	12/19	GRB-218

Nominal values and limits from method 15 0.0500 20-105 50 180

Lab id TMANC
Protocol Hanford
Version Ver 1.0
Form DVD-CMS
Version 3.06
Report date 12/20/00

TMA/RICHMOND
SAMPLE DELIVERY GROUP H1105

METHOD SUMMARY, cont.
TECHNETIUM 99 IN WATER
BETA COUNTING

Test TC Matrix WATER
SDG 7538
Contact Melissa C. Mannion

Client Hanford
Contract TRC-SBB-207925
Contract SDG H1105

PROCEDURES	REFERENCE	TC99_TR_SEP_LSC
CP-021	Preparation of Tc-99m Tracer, rev 0	
CP-002	Q.C. Preparation, rev 2	
CP-003	Tracing, rev 2	
CP-541	Technetium-99 Purification (Water) by Extraction Chromatography, rev 0	
CP-008	Heavy Element Electroplating, rev 3	

AVERAGES \pm 2 SD	MDA <u>13</u> \pm <u>2.5</u>
FOR 7 SAMPLES	YIELD <u>77</u> \pm <u>10</u>

Collector: KB HULSE	Contact/Requester JH KESSNER <i>H1105 (7538)</i>	Telephone No. MSIN FAX <i>(509) 376-4688</i>
SAF No. C01-004	Sampling Origin HANFORD SITE	Purchase Order/Charge Code
Project Title 200 UPLIAM GW MONITORING OCTOBER 2000	Logbook No. <i>WIN SAWS-H37</i>	Ice Chest No. Temp. <i>6WS-119</i>
Shipped To (Lab) TMA/RECRA	Method of Shipment GOVT VEHICLE	Bill of Lading/Air Bill No. <i>4235-7954-0040</i>
Protocol CERCLA	Data Turnaround 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
* * *

SPECIAL INSTRUCTIONS Hold Time
Submit deliverables & invoices to JH Kessner
FAX TMA log-in to JH Kessner (372-9487) & DL Stewart (372-1704)

Total Activity Exemption: Yes No

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B109K5		W	10/26/00	0942	1x20-mL P	Activity Scan ✓	None
B109K5		W	↓	↓	1x1000-mL GP	Technetium-99 ✓	HCl to pH <2
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Relinquished By KB HULSE	Print <i>KB Hulse</i>	Sign <i>KB Hulse</i>	Date/Time <i>10-26-00</i>	Received By D. P. CONNOLLY	Print <i>DP Connolly</i>	Sign <i>DP Connolly</i>	Date/Time <i>10-26-00</i>	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liqui SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By D. P. CONNOLLY	Date/Time <i>10-26-00</i>	Received By <i>Federal Express</i>	Date/Time <i>10/26/00</i>					
Relinquished By <i>FED. EXPRESS</i>	Date/Time <i>10/27/00</i>	Received By <i>E. Leguero</i>	Date/Time <i>10/27/00</i>					
Relinquished By	Date/Time	Received By	Date/Time					

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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

C01-004-17

Page 1 of 1

Collector D. P. CONNOLLY	Contact/Requester JH KESSNER H1105 (7538)	Telephone No. (509) 376-4688	MSIN	FAX
SAF No. C01-004	Sampling Origin HANFORD SITE	Purchase Order/Charge Code		
Project Title 200 UPLIAM GW MONITORING OCTOBER 2000	Logbook No. WM-3AWS-H39	Ice Chest No. GWS-119	Temp.	
Shipped To (Lab) TMA/RECRA	Method of Shipment GOVT VEHICLE	Bill of Lading/Air BHI No. 4235-7854-0040		
Protocol CERCLA	Data Turnaround 45 Days	Offsite Property No.		

POSSIBLE SAMPLE HAZARDS/REMARKS
* * *

SPECIAL INSTRUCTIONS **Hold Time** **Total Activity Exemption:** Yes No
 Submit deliverables & invoices to JH Kessner
 FAX TMA log-in to JH Kessner (372-9487) & DL Stewart (372-1704)

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B109K8		W	10/26/00	1056	1x20-mL P	Activity Scan ✓	None
B109K8		W	1	1	1x1000-mL G/P	Technetium-99 ✓	HCl to pH <2

Relinquished By Print Sign D. P. CONNOLLY <i>[Signature]</i>	Date/Time OCT 28 2000 1406	Received By Print Sign Federal Express	Date/Time 10/26/00	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By Date/Time FedEx Express 10/27/00	Received By Date/Time E. [Signature] 10/27/00			
Relinquished By Date/Time	Received By Date/Time			
Relinquished By Date/Time	Received By Date/Time			

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

C.O.C. #

C01-004-31

Page 1 of 1

Collector D. P. CONNOLLY	Contact/Requester JH KESSNER H1105 (7538)	Telephone No. (509) 376-4688	MSIN FAX
SAF No. C01-004	Sampling Origin HANEFORD SITE	Purchase Order/Charge Code	
Project Title 200 LIPLIAM GW MONITORING OCTOBER 2000	Logbook No. WM-BAWS-439	Ice Chest No. GWS-119	Temp.
Shipped To (Lab) TMA/RECRA	Method of Shipment GOVT VEHICLE	Bill of Lading/Air Bill No. 4235-7954-0040	
Protocol CERCLA	Data Turnaround 45 Days	Offsite Property No.	

POSSIBLE SAMPLE HAZARDS/REMARKS
* * *

SPECIAL INSTRUCTIONS Hold Time
Submit deliverables & invoices to JH Kessner
FAX TMA log-in to JH Kessner (372-9487) & DL Stewart (372-1704)
Total Activity Exemption: Yes No

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B109L3		W	10/26/00	0905	1x20-ml P	Activity Scan ✓	None
B109L3		W			1x1000-ml GP	Technetium-99 ✓	HCl to pH <2
<i>DSP</i> 10/26/00							

Relinquished By D. P. CONNOLLY <i>[Signature]</i>	Print Sign	Date/Time OCT 26 2000	Received By Federal Express	Print Sign	Date/Time 10/24/00	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liqu T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By Fed-Express	Print Sign	Date/Time 10/27/00	Received By E. [Signature]	Print Sign	Date/Time 10/27/00	
Relinquished By	Print Sign	Date/Time	Received By	Print Sign	Date/Time	
Relinquished By	Print Sign	Date/Time	Received By	Print Sign	Date/Time	

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

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#

C01-004-10

Page 1 of 1

Collector KB HULSE	Contact/Requester JH KESSNER H1105 (7538)	Telephone No. (509) 376-4688	MSIN FAX
SAF No. C01-004	Sampling Origin HANEFORD SITE	Purchase Order/Charge Code	
Project Title 200 UPLIAM GW MONITORING, OCTOBER 2000	Logbook No. WM-SAWS-1137	Ice Chest No. SWS-119	Temp.
Shipped To (Lab) TMA/RECRA	Method of Shipment GOVT VEHICLE	Bill of Lading/Air Bill No. 4235-784-0040	
Protocol CERCLA	Data Turnaround 45 Days	Offsite Property No.	

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS Hold Time
Submit deliverables & invoices to JH Kessner
FAX TMA log-in to JH Kessner (372-9487) & DL Stewart (372-1704)
Total Activity Exemption: Yes No

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B109K6		W	10/26/00	0942	1x20-mL P	Activity Scan	None
B109K6		W	↓	↓	1x1000-mL G/P	Technetium-99	HCl to pH <2

Relinquished By KB HULSE	Print <i>KB Hulse</i>	Sign <i>KB Hulse</i>	Date/Time 10-26-00	Received By D.P. CONNOLLY	Sign <i>D.P. Connolly</i>	Date/Time 10-26-00	Matrix *
Relinquished By D.P. CONNOLLY	Print <i>D.P. Connolly</i>	Sign <i>D.P. Connolly</i>	Date/Time OCT 26 2000	Received By Federal Express	Sign	Date/Time 10/26/00	<ul style="list-style-type: none"> S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solid DL = Drum Liquid T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By FED- Express	Print	Sign	Date/Time 10/27/00	Received By <i>E. Aguirre</i>	Sign	Date/Time 10/27/00	
Relinquished By	Print	Sign	Date/Time	Received By	Sign	Date/Time	

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

Use one form per shipment. Refer to Thermometer Correction Log for correction factor.

Customer: (WMTS)

Date:

Ice chest # or description	GWS-119					
Thermometer: time in	10:15					
Thermometer: time out	11:15					
Thermometer reading	4°C					
Thermometer number	6536					
Correction factor	None					
Actual temperature*	—					
Custody seals on ice chest intact?	No					
Custody seals dated?	—					
Custody seals signed?	—					
Custody seals on samples?	Yes					
Ice chest scanned for activity?	Yes					

* Temperature is in degrees centigrade.

Technician: _____

Comments: _____

SAMPLE RECEIPT CHECKLIST

SAMPLE RECEIPT

Client: WM TSI BECHTEL HANPOD Date/Time received 10/27/00 10: AM

CoC No. COI-004-9, COI-004-10, COI-004-12, AND COI-004-3

Container I.D. No. _____ Requested TAT (Days) 45 P.O. Received Yes [] No []

INSPECTION

1. Custody seals on shipping container intact? Yes [] No [] N/A []
2. Custody seals on shipping container dated & signed? Yes [] No [] N/A []
3. Custody seals on sample containers intact? Yes [] No [] N/A []
4. Custody seals on sample containers dated & signed? Yes [] No [] N/A []
5. Cooler Temperature: _____ Packing material is: Wet [] Dry []
6. Number of samples in shipping container: 4 x 2 = (8 containers)
7. Number of containers per sample: (2 EACH) (Or see CoC _____)
8. Paperwork agrees with samples? Yes [] No []
9. Samples have: Tape [] Hazard labels [] Rad labels [] Appropriate sample labels []
10. Samples are: In good condition [] Leaking [] Broken Container [] Missing []
11. Describe any anomalies: _____
13. Was P.M. notified of any anomalies? Yes [] No [] Date _____
14. Received by E. Seguro Date: 10/27/00 Time: 10: AM

Customer Sample No.	cpm	mr/hr	Customer Sample No.	Cpm	mr/hr
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Ion Chamber Ser. No. _____ Calibration date _____

Survey Meter Ser No. _____ Calibration date _____