

START 9613471.2857

Environmental
Restoration
Contractor

ERC Team

Interoffice Memorandum



FS0007
024487

0045093

Job No. 22192
Written Response Required? NO
Closes CCN: N/A
OU: 200-UP-1
TSD: N/A
ERA: N/A
Subject Code: 8630

TO: C. D. Wittreich, H9-12

DATE: December 14, 1995

COPIES: See Below

FROM: Duane Jacques
Analytical Services/Field Services
H9-10/372-9400

SUBJECT: **200-UP-1 IRM IMPLEMENTATION SAMPLING, MONTHLY GROUNDWATER RESULTS, NOVEMBER 1995, REV 0**

REFERENCES:

1. BHI, 1995a, *Field Screening (On-Site Measurements) Quality Assurance Plan*, BHI-EE-08. Bechtel Hanford, Inc., Richland, Washington.
2. BHI, 1995b, *Field Screening Procedures*, BHI-EE-05, Bechtel Hanford, Inc., Richland, Washington.
3. BHI, 1995, *200-UP-1 Field Screening Support Logbook*, EL-1277, Bechtel Hanford, Inc., Richland, Washington.
4. ChemChek, 1994, *Operation and Service Manual, Kinetic Phosphorescence Analyzer KPA-11*, ChemChek Instruments, Inc., Richland, Washington.

This data package contains field screening results for groundwater samples analyzed to support the 200-UP-1 IRM Implementation Sampling program. The Quality Assurance level for this work corresponds to QA-2 as specified in the reference 1 (BHI 1995a). The samples were managed under SAF B96-003.

Attachment 1 contains Volatile Organic Compound (VOC), total uranium, and technetium-99 results for groundwater samples collected to support the referenced project. The VOC results were generated using a Photovac 10S Plus portable gas chromatograph in accordance with Field Screening Procedure (FSP) 1.1, *Aqueous Headspace Analysis of Volatile Organic Compounds in Water* (BHI 1995b). Information concerning operation of the gas chromatograph is contained in the instrument logbook EL-1269.

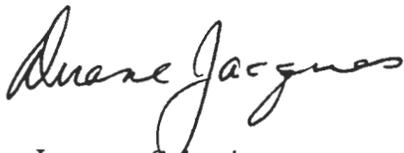
The total uranium results were generated using a ChemChek KPA-11a Kinetic Phosphorescence Analyzer. The KPA-11a was calibrated and operated in accordance with the instrument operating manual (ChemChek 1994). Information concerning use of the ChemChek KPA-11a as well as preparation of VOC calibration standards and samples is contained in the referenced field logbook EL-1277, pages 28 through 35.

C. D. Wittreich, H9-12

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The technetium-99 analyses were conducted at the 222-S Laboratory. The results are included in this data package for information only. Questions concerning the analyses and results should be directed to the laboratory.

Please contact me if you have any questions on this information.



Duane Jacques, Scientist

QA Review by: Paul E Duerksen

IDJ:idj

Attachments: Attachment 1. 200-UP-1 IRM Implementation Sampling, Monthly Groundwater Results, November 1995
Attachment 2. Sample Chain of Custody Sheets

Copies:

Analytical Services Project Files, X2-10, w/a
C. W. Denslow, H9-02, w/attachment 1 only
A. Hopkins, H9-11, w/attachment 1 only
J. A. Lerch, B1-35, w/a
D. A. Myers, H9-11, w/attachment 1 only
R. O. Mahood, H9-11, w/attachment 1 only
W. S. Thompson, N1-28, w/attachment 1 only
IDJ - File, w/attachment 1 only
BHI Document Control, H4-79, w/a

200-UP-1 IRM Implementation Sampling
Monthly Groundwater Results, November 1995
SAF B96-003

Sample Location	HEIS Number	Sample Date	Analysis Date	Chloroform (µg/L)	Carbon TetraCl (µg/L)	TCE (µg/L)	Uranium (µg/L)	Technecium-99 (pCi/L)
299-W19-20	BOGRH5	12/1/95	12/5/95	NA	NA	NA	NA	8460
299-W19-20	BOGRH6	12/1/95	12/6/95	NA	NA	NA	130	NA
299-W19-20	BOGRH7	12/1/95	12/5/95	6.2	57	2.8	NA	NA
299-W19-23	BOGRH8	12/1/95	12/6/95	NA	NA	NA	NA	22300
299-W19-23	BOGRH9	12/1/95	12/6/95	NA	NA	NA	630	NA
299-W19-23	BOGRJ0	12/1/95	12/5/95	5.2	100	<2.0	NA	NA
299-W19-24	BOGRJ1	12/1/95	12/11/95	NA	NA	NA	NA	10900
299-W19-24	BOGRJ2	12/1/95	12/6/95	NA	NA	NA	2640	NA
299-W19-24	BOGRJ3	12/1/95	12/5/95	5.5	103	2.9	NA	NA
299-W19-28	BOGRJ7	11/27/95	12/4/95	NA	NA	NA	NA	11300
299-W19-28	BOGRJ8	11/27/95	12/6/95	NA	NA	NA	1880	NA
299-W19-28	BOGRJ9	11/27/95	11/30/95	<4.0	72	<2.0	NA	NA
299-W19-29	BOGT01	11/27/95	12/4/95	NA	NA	NA	NA	980
299-W19-29	BOGT02	11/27/95	12/6/95	NA	NA	NA	870	NA
299-W19-29	BOGT03	11/27/95	11/30/95	<4.0	5.4	<2.0	NA	NA
Field Blank @ 299-W19-29	BOGT22	11/27/95	12/11/95	NA	NA	NA	NA	<110
Field Blank @ 299-W19-29	BOGT23	11/27/95	12/6/95	NA	NA	NA	<1.0	NA
Field Blank @ 299-W19-29	BOGT24	11/27/95	11/30/95	<4.0	<2.0	<2.0	NA	NA
299-W19-30	BOGT04	11/27/95	12/4/95	NA	NA	NA	NA	34300
299-W19-30	BOGT05	11/27/95	12/6/95	NA	NA	NA	580	NA
299-W19-30	BOGT06	11/27/95	11/30/95	<4.0	99	<2.0	NA	NA
299-W19-34A	BOGT07	11/27/95	12/4/95	NA	NA	NA	NA	470
299-W19-34A	BOGT08	11/27/95	12/6/95	NA	NA	NA	150	NA
299-W19-34A	BOGT09	11/27/95	11/30/95	4.2	50	<2.0	NA	NA
Duplicate @ 299-W19-34A	BOGT19	11/27/95	12/11/95	NA	NA	NA	NA	190
Duplicate @ 299-W19-34A	BOGT20	11/27/95	12/6/95	NA	NA	NA	54	NA
Duplicate @ 299-W19-34A	BOGT21	11/27/95	11/30/95	4.8	64	2.0	NA	NA
299-W19-37	BOGT10	11/28/95	12/4/95	NA	NA	NA	NA	17600
299-W19-37	BOGT11	11/28/95	12/6/95	NA	NA	NA	3800	NA
299-W19-37	BOGT12	11/28/95	11/30/95	4.1	170	<2.0	NA	NA
299-W19-38	BOGT13	11/28/95	12/11/95	NA	NA	NA	NA	550
299-W19-38	BOGT14	11/28/95	12/6/95	NA	NA	NA	240	NA
299-W19-38	BOGT15	11/28/95	11/30/95	<4.0	49	<2.0	NA	NA
299-W19-40	BOGT16	11/28/95	12/11/95	NA	NA	NA	NA	4420
299-W19-40	BOGT17	11/28/95	12/6/95	NA	NA	NA	310	NA
299-W19-40	BOGT18	11/28/95	11/30/95	4.0	37	2.5	NA	NA
Trip Blank	BOGT25	11/27/95	11/30/95	<4.0	<2.0	<2.0	NA	NA
Trip Blank	BOGT26	11/28/95	11/30/95	<4.0	<2.0	<2.0	NA	NA
Trip Blank	BOGT27	12/1/95	12/5/95	<4.0	<2.0	<2.0	NA	NA

NA - Not Analyzed

u - Value less than practical quantitation limit

VOA Analyst:

Richard B. Kerkow
R. B. Kerkow

Uranium Analyst:

ID Jacques 12-14-95
I. D. Jacques

VOA Instrument: Photovac 10S Plus GC, Serial # BJDG203

Method: 5 mL/min HP Air, 11.7 eV lamp, 250 uL injection

Logbook: Photovac Instrument Log, EL-1269, pgs 1, 2

Uranium Instrument: ChemChek KPA-11a, Serial # 9445050065

Method: Kinetic Phosphorescence

Logbook: 200-UP-1 Project Log, EL-1277, pgs 32 - 35

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fehling / M. Mankin</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>ERC-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl									
	Type of Container	Gs									
	No. of Container(s)	1									
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume 40mL	VOA - TCL								
SAMPLE ANALYSIS											

Sample No.	Matrix*	Date Sampled	Time Sampled								
BOGRH7	W	<i>11-30-95</i>	<i>1130</i>	<i>X</i>							
<i>BOGT27</i>	W	<i>11-30-95</i>	<i>0750</i>	<i>X</i>							

CHAIN OF POSSESSION	Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix* S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
	Relinquished By <i>A. Rizzo</i>	Date/Time <i>12-4-95 1430</i>	Received By <i>ED</i>	Date/Time <i>12-9-95</i>	Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.		
	Relinquished By <i>B. Fehling</i>	Date/Time <i>12-5-95</i>	Received By <i>D. Jacques</i>	Date/Time <i>12-5-95</i>			
	Relinquished By	Date/Time	Received By	Date/Time			

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

0613171-2060

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround

- Priority
- Normal

Collector <i>A. R. 22, B. Fenick / M. McHale</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>ERC-113</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl																
	Type of Container	Gs																
	No. of Container(s)	1																
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL															
SAMPLE ANALYSIS		VOA -																
	TCL																	

Sample No.	Matrix*	Date Sampled	Time Sampled																
BOGRJO	W	<i>11/30/97</i>	<i>1327</i>	<i>6</i>															

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS	Matrix*
Relinquished By <i>A.R. 22</i>	Date/Time <i>12-4-97 1430</i>	Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.	<ul style="list-style-type: none"> S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other
Received By <i>ERC</i>	Date/Time <i>12-4-97</i>		
Relinquished By <i>B. Fenick</i>	Date/Time <i>12-5-97</i>		
Received By <i>ERC</i>	Date/Time <i>12-5-97</i>		
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fenberg / m. menth...</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>ERC-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl																
	Type of Container	Gs																
	No. of Container(s)	1																
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL															
SAMPLE ANALYSIS		VOA - TCL																

Sample No.	Matrix*	Date Sampled	Time Sampled															
BOGRJ3	W	11/30/95	1231	<i>8</i>														

CHAIN OF POSSESSION	Sign/Print Names		SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.										Matrix*		
Relinquished By <i>A.G. Rizzo (ERC)</i>	Date/Time <i>12-4-95</i>	<i>430</i>	Received By <i>ERC</i>	Date/Time <i>1/4/96</i>											S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other
Relinquished By <i>ERC</i>	Date/Time <i>0955</i>		Received By <i>D. Jacques</i>	Date/Time <i>0955</i>											
Relinquished By <i>Bechtel</i>	Date/Time <i>12-5-95</i>		Received By <i>ERC</i>	Date/Time <i>12-5-95</i>											
Relinquished By	Date/Time		Received By	Date/Time											

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

20021145196

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo / B. Fehlbauer</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>EFL-1155</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl										
	<i>W19-28</i>	Type of Container	Gs									
	No. of Container(s)	1										
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL										
SAMPLE ANALYSIS		VOA - TCL										

Sample No.	Matrix*	Date Sampled	Time Sampled										
BOGRJ9	W	<i>11/27/95</i>	<i>1050</i>	<i>Y</i>									

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By <i>AK</i>	Date/Time <i>0830</i>	Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques. <i>AL R. 200 was unavailable</i>
Received By <i>RB Kerker</i>	Date/Time <i>0845 11-30-95</i>	
Relinquished By	Date/Time	
Received By	Date/Time	
Relinquished By	Date/Time	
Relinquished By	Date/Time	

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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo / B. Felkner</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>EC-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl												
<i>W19-29</i>	Type of Container	Gs												
	No. of Container(s)	1												
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL												
SAMPLE ANALYSIS		VOA - TCL												

Sample No.	Matrix*	Date Sampled	Time Sampled											
BOGT03	W	<i>11/30/95</i>	<i>11:28</i>	<i>Y</i>										

CHAIN OF POSSESSION	Sign/Print Names		SPECIAL INSTRUCTIONS		Matrix* S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other	
	Relinquished By <i>GR</i>	Date/Time <i>0830</i>	Received By <i>RB Rarke</i>	Date/Time <i>0845 11-30-95</i>		Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques. <i>AL Rizzo was unavailable</i>
	Relinquished By <i>FOR AL Rizzo</i>	Date/Time <i>11-30-95</i>	Received By <i>RB Rarke</i>	Date/Time <i>0845 11-30-95</i>		
	Relinquished By	Date/Time	Received By	Date/Time		

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround

- Priority
 Normal

Collector <i>A. Rizzo / B. Fehlberg</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No.	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks <i>W19-30 GT06</i> <i>TRW BLK GT25</i>	Preservation	HCl																	
	Type of Container	Gs																	
	No. of Container(s)	1																	
	Volume	40mL																	

Special Handling and/or Storage Maintain samples between 2°C and 6°C.	VOA - TCL																		
--	--------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample No.	Matrix*	Date Sampled	Time Sampled																
BOGT06	W	11/27/95	0940	P															
BOGT25	W	11/27/95	0800	P															

CHAIN OF POSSESSION	Sign/Print Names		SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.										Matrix*			
	Relinquished By <i>GR</i>	Date/Time 0830	Received By <i>RB Karkow</i>	Date/Time 0845 11-30-95	<i>AL R.220 was unavailable</i>										<ul style="list-style-type: none"> S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other 	
	Relinquished By	Date/Time	Received By	Date/Time												
	Relinquished By	Date/Time	Received By	Date/Time												
Relinquished By	Date/Time	Received By	Date/Time													

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo, B. Kerkov</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>EFL-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks <i>W-19-34A</i>	Preservation	HCI																		
	Type of Container	Gs																		
	No. of Container(s)	1																		
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL																	
SAMPLE ANALYSIS		VOA - TCL																		

Sample No.	Matrix*	Date Sampled	Time Sampled																		
BOGT09	W	<i>1/27/95</i>	<i>1250</i>	<i>X</i>																	

CHAIN OF POSSESSION	Sign/Print Names				SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques. <i>AL RIZZO WAS UNAVAILABLE</i>	Matrix* S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other
	Relinquished By <i>AL Rizzo</i>	Date/Time <i>0830</i>	Received By <i>RB Kerkov</i>	Date/Time <i>0845 11-30-95</i>		
	Relinquished By	Date/Time	Received By	Date/Time		
	Relinquished By	Date/Time	Received By	Date/Time		

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround

- Priority
 Normal

Collector <i>A. Rizzo / B. Fenwick</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>EFL-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl																		
	Type of Container	Gs																		
	No. of Container(s)	1																		
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL																	
SAMPLE ANALYSIS		VOA - TCL																		

Sample No.	Matrix*	Date Sampled	Time Sampled																	
B0GT12	W	11/28/95	1005	φ																
B0GT26	W	11-28-95	0740	κ																

CHAIN OF POSSESSION	Sign/Print Names		SPECIAL INSTRUCTIONS										Matrix* S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other		
	Relinquished By <i>Eric</i>	Date/Time <i>0830</i>	Received By <i>RB Kurkan</i>	Date/Time <i>0845 11-30-95</i>	Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.										
	Relinquished By <i>for AL Rizzo</i>	Date/Time <i>11-30-95</i>	Received By <i>RB Kurkan</i>	Date/Time <i>0845 11-30-95</i>	<i>AL Rizzo was unavailable</i>										
	Relinquished By	Date/Time	Received By	Date/Time											
LABORATORY SECTION	Received By	Title										Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By										Date/Time			

Bachtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Fenley</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>EFL-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks <i>W19-38</i>	Preservation	HCl																
	Type of Container	Gs																
	No. of Container(s)	1																
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL															

SAMPLE ANALYSIS		VOA -																
		TCL																

Sample No.	Matrix*	Date Sampled	Time Sampled															
BOGT15	W	<i>11/28/95</i>	<i>1125</i>	<i>Y</i>														

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS	Matrix*
Relinquished By <i>GRE</i> Date/Time <i>0830</i>	Received By <i>R.B. Karkow</i> Date/Time <i>0845 11-30-95</i>	Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques. <i>AL Rizzo was unavailable</i>	<ul style="list-style-type: none"> S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By <i>For AL Rizzo 11-30-95</i>	Received By <i>R.B. Karkow</i> Date/Time <i>0845 11-30-95</i>		
Relinquished By	Received By		
Relinquished By	Received By		

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. Kenner</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>E.F. 1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl											
	Type of Container	Gs											
	No. of Container(s)	1											
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL											
SAMPLE ANALYSIS		VOA - TCL											

Sample No.	Matrix*	Date Sampled	Time Sampled										
BOGT18	W	<i>11/20/95</i>	<i>1225</i>	<i>Y</i>									

CHAIN OF POSSESSION	Sign/Print Names		SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques. <i>AL-Rizzo WAS UNAVAILABLE</i>	Matrix* S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other
	Relinquished By <i>EM</i> Date/Time <i>0830</i>	Received By <i>RB Kenner</i> Date/Time <i>0845 11-20-95</i>		
	Relinquished By <i>For AL Rizzo</i> Date/Time <i>11-30-95</i>	Received By <i>RB Kenner</i> Date/Time <i>0845 11-30-95</i>		
	Relinquished By _____ Date/Time _____	Received By _____ Date/Time _____		

LABORATORY SECTION	Received By _____ Title _____ Date/Time _____
FINAL SAMPLE DISPOSITION	Disposal Method _____ Disposed By _____ Date/Time _____

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo / B. Kurlan</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>SFL 1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	HCl											
	Type of Container	Gs											
	No. of Container(s)	1											
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL											
SAMPLE ANALYSIS		VOA - TCL											

Sample No.	Matrix*	Date Sampled	Time Sampled										
BOGT21	W	<i>11-30-95</i>	<i>1250</i>	<i>Y</i>									

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques.	Matrix*
Relinquished By <i>Eric [Signature]</i>	Date/Time <i>0430</i>	Received By <i>RB. Kurlan</i>	<ul style="list-style-type: none"> S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other
<i>For AL R-220</i>	<i>11-30-95</i>	<i>RB. Kurlan</i>	
Relinquished By	Date/Time	Received By	
Relinquished By	Date/Time	Received By	
Relinquished By	Date/Time	Received By	

ALL R-220 WAS UNAVAILABLE

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

06/30/97 11:20:10

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>EFL-1135</i>	Method of Shipment Hand Delivered
Shipped To Duane Jacques	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks <i>FLO BLK W19-29</i>	Preservation	HCl																	
	Type of Container	Gs																	
	No. of Container(s)	1																	
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	40mL																
SAMPLE ANALYSIS		VOA - TCL																	

Sample No.	Matrix*	Date Sampled	Time Sampled																
BOGT24	W	<i>11/27/95</i>	<i>1050</i>	<i>E</i>															

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS	Matrix*
Relinquished By <i>ERL</i>	Date/Time <i>0930</i>	Hold all VOA samples at 4701-C until project is completed. Then deliver to Duane Jacques. <i>AL R.220 WAS UNAVAILABLE</i>	S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other
Received By <i>RB Kerker</i>	Date/Time <i>0845 11-30-95</i>		
Relinquished By <i>For AL R.220</i>	Date/Time <i>11-30-95</i>		
Received By <i>RB Kerker</i>	Date/Time <i>0845 11-30-95</i>		
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo / Bickler / M. Muhlstein</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>EF2-1135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None																
	Type of Container	P/G																
	No. of Container(s)	1																
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL															
SAMPLE ANALYSIS			Total Uranium															

Sample No.	Matrix*	Date Sampled	Time Sampled															
BOGRH6	W	11-30-95	1120	4														

CHAIN OF POSSESSION	Sign/Print Names				SPECIAL INSTRUCTIONS Hold all Total Uranium samples at 4701-C until project is complete. Then deliver samples to Frank Gustafson.	Matrix* S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
	Relinquished By <i>A. Rizzo</i>	Date/Time <i>12-4-95</i>	Received By <i>EC</i>	Date/Time <i>12-5-95</i>		
	Relinquished By <i>A. Rizzo (Ea)</i>	Date/Time <i>12-5-95</i>	Received By <i>Bickler</i>	Date/Time <i>12-5-95</i>		
	Relinquished By <i>EC</i>	Date/Time <i>12-5-95</i>	Received By <i>Jacques</i>	Date/Time <i>12-5-95</i>		
Relinquished By <i>Bickler</i>	Date/Time <i>12-5-95</i>	Received By <i>EC</i>	Date/Time <i>12-5-95</i>			
Relinquished By	Date/Time	Received By	Date/Time			

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo B. Fehlbeg, m. Archibald</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>SL-1135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None																		
	Type of Container	P/G																		
	No. of Container(s)	1																		
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL																	
SAMPLE ANALYSIS		Total Uranium																		

Sample No.	Matrix*	Date Sampled	Time Sampled																		
BOGRH9	W	<i>11-30-95</i>	<i>13:27</i>	<i>Y</i>																	

CHAIN OF POSSESSION	Sign/Print Names		SPECIAL INSTRUCTIONS Hold all Total Uranium samples at 4701-C until project is complete. Then deliver samples to Frank Gustafson.										Matrix* S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other		
	Relinquished By <i>A.R. Rizzo</i>	Date/Time <i>12-15-95</i>	Received By <i>C.D. Wittreich</i>	Date/Time <i>12-15-95</i>											
	Relinquished By <i>B. Fehlbeg</i>	Date/Time <i>12-5-95</i>	Received By <i>D. Jacquez</i>	Date/Time <i>12-5-95</i>											
	Relinquished By <i>M. Archibald</i>	Date/Time <i>12-5-95</i>	Received By <i>ERC</i>	Date/Time <i>12-5-95</i>											
LABORATORY SECTION	Received By	Title										Date/Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By										Date/Time			

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo / B. Fenibew / M. Mankonen</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>ERC-1135-</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None																		
	Type of Container	P/G																		
	No. of Container(s)	1																		
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL																	

SAMPLE ANALYSIS				Total Uranium																
Sample No.	Matrix*	Date Sampled	Time Sampled																	
BOGRJ2	W	11/30/95	1231	0																

CHAIN OF POSSESSION	Sign/Print Names				SPECIAL INSTRUCTIONS Hold all Total Uranium samples at 4701-C until project is complete. Then deliver samples to Frank Gustafson.	Matrix* S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air DS - Drum Solids DL - Drum Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other
	Relinquished By <i>A.R. Rizzo</i>	Date/Time <i>1245</i>	Received By <i>Frank Gustafson</i>	Date/Time <i>1245</i>		
	Relinquished By <i>Eric</i>	Date/Time <i>0955</i>	Received By <i>Dr. Jacobs</i>	Date/Time <i>0955</i>		
	Relinquished By <i>Michelle Bechtel</i>	Date/Time <i>12-5-95</i>	Received By <i>Dr. Jacobs</i>	Date/Time <i>12-5-95</i>		

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround

- Priority
- Normal

Collector <i>A. Rizzo / B. Fehling</i>	Company Contact C. D. Wittraich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>EF-1135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None									
	Type of Container	P/G									
	No. of Container(s)	1									
	Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL								

SAMPLE ANALYSIS				Total Uranium											
Sample No.	Matrix*	Date Sampled	Time Sampled												
BOGRJ8	W	<i>11/27/95</i>	<i>1030</i>	<i>Y</i>											

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
Relinquished By <i>ERC</i>	Date/Time <i>1020</i>	Hold all Total Uranium samples at 4701-C until project is complete. Then deliver samples to Frank Gustafson. <i>AL Rizzo was unavailable</i>
Received By <i>ID Jacques</i>	Date/Time <i>1020</i>	
Relinquished By <i>For AL Rizzo</i>	Date/Time <i>11-29-95</i>	
Received By <i>ERC</i>	Date/Time <i>11-29-95</i>	
Relinquished By	Date/Time	Matrix*
Relinquished By	Date/Time	S = Soil
Relinquished By	Date/Time	SE = Sediment
Relinquished By	Date/Time	SO = Solid
Relinquished By	Date/Time	SL = Sludge
Relinquished By	Date/Time	W = Water
Relinquished By	Date/Time	O = Oil
Relinquished By	Date/Time	A = Air
Relinquished By	Date/Time	DS = Drum Solids
Relinquished By	Date/Time	DL = Drum Liquids
Relinquished By	Date/Time	T = Tissue
Relinquished By	Date/Time	WI = Wipe
Relinquished By	Date/Time	L = Liquid
Relinquished By	Date/Time	V = Vegetation
Relinquished By	Date/Time	X = Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

Bechtel Hanford, Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Data Turnaround
 Priority
 Normal

Collector <i>A. Rizzo / B. F. H. / G. H.</i>	Company Contact C. D. Wittreich	Telephone (509) 372-9315
Project Designation 200-UP-1 IRM Implementation Sampling - Round 2	Sampling Location 200 West	SAF No. B96-003
Ice Chest No.	Field Logbook No. <i>ERC-135</i>	Method of Shipment Hand Delivered
Shipped To Frank Gustafson	Offsite Property No. NA	Bill of Lading/Air Bill No. NA

Possible Sample Hazards/Remarks	Preservation	None																		
	Type of Container	P/G																		
	No. of Container(s)	1																		
Special Handling and/or Storage Maintain samples between 2°C and 6°C.	Volume	20mL																		

SAMPLE ANALYSIS

Sample No.	Matrix*	Date Sampled	Time Sampled	Total Uranium																
BQGT02	W	<i>11/27/95</i>	<i>1128</i>	<i>4</i>																

CHAIN OF POSSESSION	Sign/Print Names		SPECIAL INSTRUCTIONS Hold all Total Uranium samples at 4701-C until project is complete. Then deliver samples to Frank Gustafson.										Matrix* S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other		
	Relinquished By <i>Eric</i>	Date/Time <i>1020</i>	Received By <i>ID Jacques</i>	Date/Time <i>1020</i>	<i>AL AR20 was unamitable</i>										
	Relinquished By <i>Vij White</i>	Date/Time <i>11-29-95</i>	Received By <i>DB Jacques</i>	Date/Time <i>11-29-95</i>											
	Relinquished By	Date/Time	Received By	Date/Time											
Relinquished By	Date/Time	Received By	Date/Time												
Relinquished By	Date/Time	Received By	Date/Time												

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time