



U.S. DEPARTMENT OF  
**ENERGY**

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Prepared for the U.S. Department of Energy  
under Contract DE-AC05-76RL01830

# Analytical Data Report of Water Samples Collected From BP-5 Operable Unit C Well (C5859)

Michael Lindberg

July 2009



**Pacific Northwest**  
NATIONAL LABORATORY

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*under Contract DE-AC05-76RL01830*

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(9/2003)

# **Analytical Data Report of Water Samples Collected From BP-5 Operable Unit C Well (C5859)**

M Lindberg

July 2009

Prepared for the U.S. Department of Energy  
under Contract DE-AC05-76RL01830

Pacific Northwest National Laboratory  
Richland, Washington 99352

07/16/09 16:47

To: Dale Dykeman

From: Michael J. Lindberg

A handwritten signature in black ink, appearing to read 'MJL', is centered below the sender's name.

Environmental Sciences Laboratory  
Energy and Environment Directorate, Pacific Northwest National Laboratory

Subject: Analytical Data Report for Ground Water Samples Collected From Borehole C5989, Sample Delivery Group ESL080029, SAF Number F08-100

This letter contains the following information for sample delivery group ESL080029

- Cover Sheet
- Narrative
- Analytical Results
- Chain of Custodies

## **Introduction**

Between July 17, 2008 and July 24, 2008 groundwater samples were received from Borehole C5989 for chemical analysis.

## **Analytical Results/Methodology**

The analyses for this project were performed at the 325 building located in the 300 Area of the Hanford Site. The analyses were performed according to Pacific Northwest National Laboratory (PNNL) approved procedures and/or nationally recognized test procedures. The data sets include the sample identification numbers, analytical results, estimated quantification limits (EQL), and quality control data.

## **Quality Control**

The preparatory and analytical quality control requirements, calibration requirements, acceptance criteria, and failure actions are defined in the on-line QA plan "Conducting Analytical Work in Support of Regulatory Programs" (CAW). This QA plan implements the Hanford Analytical Services Quality Assurance Requirements Documents (HASQARD) for PNNL.

## **Definitions**

Dup	Duplicate
RPD	Relative Percent Difference
NR	No Recovery (percent recovery less than zero)
ND	Non-Detectable
%REC	Percent Recovery

## **Sample Receipt**

Samples were received with a chain of custody (COC) and were analyzed according to the sample identification numbers supplied by the client. All samples were refrigerated upon receipt until prepared for analysis.

All samples were received with custody seals intact unless noted in the Case Narrative.

## **Holding Times**

Holding time is defined as the time from sample preparation to the time of analyses. The prescribed holding times were met for all analytes unless noted in the Case Narrative.

## **Analytical Results**

All reported analytical results meet the requirements of the CAW or client specified SOW unless noted in the case narrative.

## Case Narrative Report

### **Hold Time:**

Due to the requirements of the statement of work and sampling events in the field, the 28 day and the 48 hr requirements could not be met. The statement of work requires samples to be selected at the completion of the borehole. All applicable hold times were started from the time of preparation and not the time of sampling.

### **Preparation Blank (PB):**

There were no preparations performed on these samples prior to analysis. No blanks were analyzed.

### **Duplicate (DUP):**

There were no preparations performed on these samples prior to analysis. No duplicates were analyzed.

### **Laboratory Control Samples (LCS):**

There were no preparations performed on these samples prior to analysis. No LCS were analyzed.

### **Post Spike (PS):**

There were no preparations performed on these samples prior to analysis. No post spikes were analyzed.

### **Matrix Spike (MS):**

Not applicable

### **Other QC Criteria:**

No discrepancies were noted.

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The following analyses were performed on the following samples included in this report:

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Anions By Ion Chromatography

Alkalinity, Titrimetic (pH 4.5)

Iodine 129 Water by ICPMS

Metals Water by ICPMS

Metals Water by ICPOES

pH of Waters By Electrode

Specific Conductance

Tc\_U Water by ICPMS

### SAMPLES ANALYZED IN THIS REPORT

<b>HEIS No.</b>	<b>Laboratory ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
B1V569	0807010-01	WATER	7/16/08 09:00	7/17/08 13:30
B1V570	0807010-02	WATER	7/16/08 09:00	7/17/08 13:30
B1V571	0807010-03	WATER	7/23/08 11:40	7/24/08 15:10

**Wet Chemistry**

**Alkalinity as CaCO<sub>3</sub> (ug/mL) by Standard Methods 2320B**

<b>Lab ID</b>	<b>HEIS No.</b>	<b>Results</b>	<b>EQL</b>	<b>Analyzed</b>	<b>Batch</b>
0807010-01	B1V569	1.03E2	N/A	7/18/08	8G18002
0807010-02	B1V570	1.04E2	N/A	7/18/08	8G18002
0807010-03	B1V571	1.09E2	N/A	8/11/08	8H11006



**Wet Chemistry**

**Specific Conductance (EC) (mS/cm) by EPA 120.1**

<b>Lab ID</b>	<b>HEIS No.</b>	<b>Results</b>	<b>EQL</b>	<b>Analyzed</b>	<b>Batch</b>
0807010-01	B1V569	9.64E-1	1.00E-2	7/18/08	8G18001
0807010-02	B1V570	9.61E-1	1.00E-2	7/18/08	8G18001
0807010-03	B1V571	1.04E0	1.00E-2	8/11/08	8H11006

### Wet Chemistry

#### pH (pH Units) by AGG-pH-001

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0807010-01	B1V569	8.06E0	N/A	7/18/08	8G18003
0807010-02	B1V570	8.06E0	N/A	7/18/08	8G18003
0807010-03	B1V571	8.10E0	N/A	8/11/08	8H11005

## Anions by Ion Chromatography

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1V569</b>	<b>Lab ID:</b>		<b>0807010-01</b>			
16984-48-8	Fluoride	<2.00E0	ug/mL	2.00E0	7/21/08	8G21003	AGG-IC-001
16887-00-6	Chloride	2.72E1	ug/mL	5.00E0	7/21/08	8G21003	AGG-IC-001
14797-65-0	Nitrite	1.02E1	ug/mL	1.00E1	7/21/08	8G21003	AGG-IC-001
14797-55-8	Nitrate	2.39E2	ug/mL	1.00E1	7/21/08	8G21003	AGG-IC-001
14808-79-8	Sulfate	1.41E2	ug/mL	1.50E1	7/21/08	8G21003	AGG-IC-001
14265-44-2	Phosphate	<1.50E1	ug/mL	1.50E1	7/21/08	8G21003	AGG-IC-001
<b>HEIS No.</b>	<b>B1V570</b>	<b>Lab ID:</b>		<b>0807010-02</b>			
16984-48-8	Fluoride	<2.00E0	ug/mL	2.00E0	7/21/08	8G21003	AGG-IC-001
16887-00-6	Chloride	2.58E1	ug/mL	5.00E0	7/21/08	8G21003	AGG-IC-001
14797-65-0	Nitrite	1.05E1	ug/mL	1.00E1	7/21/08	8G21003	AGG-IC-001
14797-55-8	Nitrate	2.38E2	ug/mL	1.00E1	7/21/08	8G21003	AGG-IC-001
14808-79-8	Sulfate	1.37E2	ug/mL	1.50E1	7/21/08	8G21003	AGG-IC-001
14265-44-2	Phosphate	<1.50E1	ug/mL	1.50E1	7/21/08	8G21003	AGG-IC-001
<b>HEIS No.</b>	<b>B1V571</b>	<b>Lab ID:</b>		<b>0807010-03</b>			
16984-48-8	Fluoride	<2.00E0	ug/mL	2.00E0	7/26/08	8G25002	AGG-IC-001
16887-00-6	Chloride	2.58E1	ug/mL	5.00E0	7/26/08	8G25002	AGG-IC-001
14797-65-0	Nitrite	<1.00E1	ug/mL	1.00E1	7/26/08	8G25002	AGG-IC-001
14797-55-8	Nitrate	3.09E2	ug/mL	1.00E1	7/26/08	8G25002	AGG-IC-001
14808-79-8	Sulfate	1.45E2	ug/mL	1.50E1	7/26/08	8G25002	AGG-IC-001
14265-44-2	Phosphate	<1.50E1	ug/mL	1.50E1	7/26/08	8G25002	AGG-IC-001

### Total Metals by PNNL-AGG-ICP-AES

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1V569</b>	<b>Lab ID:</b>		<b>0807010-01</b>			
7440-70-2	Calcium	1.02E5	ug/L	1.44E2	7/30/08	8G22003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<4.94E1	ug/L	4.94E1	7/30/08	8G22003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	1.56E4	ug/L	2.54E3	7/30/08	8G22003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.07E4	ug/L	2.50E1	7/30/08	8G22003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	3.56E4	ug/L	1.08E3	7/30/08	8G22003	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1V570</b>	<b>Lab ID:</b>		<b>0807010-02</b>			
7440-70-2	Calcium	1.08E5	ug/L	1.44E2	7/30/08	8G22003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<4.94E1	ug/L	4.94E1	7/30/08	8G22003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	1.65E4	ug/L	2.54E3	7/30/08	8G22003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.05E4	ug/L	2.50E1	7/30/08	8G22003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	3.76E4	ug/L	1.08E3	7/30/08	8G22003	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1V571</b>	<b>Lab ID:</b>		<b>0807010-03</b>			
7440-70-2	Calcium	1.26E5	ug/L	1.44E2	9/25/08	8I25001	PNNL-AGG-ICP-AES
7439-89-6	Iron	<4.94E1	ug/L	4.94E1	9/25/08	8I25001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	1.07E4	ug/L	2.54E3	9/25/08	8I25001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.61E4	ug/L	2.50E1	9/25/08	8I25001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	2.85E4	ug/L	1.08E3	9/25/08	8I25001	PNNL-AGG-ICP-AES

### Radionuclides By ICP-MS

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1V569</b>	<b>Lab ID: 0807010-01</b>					
15046-84-1	Iodine-129	<5.00E-2	ug/L	5.00E-2	11/10/08	8K07001	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1V570</b>	<b>Lab ID: 0807010-02</b>					
15046-84-1	Iodine-129	<5.00E-2	ug/L	5.00E-2	11/10/08	8K07001	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1V571</b>	<b>Lab ID: 0807010-03</b>					
15046-84-1	Iodine-129	<5.00E-2	ug/L	5.00E-2	11/10/08	8K07001	PNNL-AGG-415

## Radionuclides By ICP-MS

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1V569</b>	<b>Lab ID:</b>		<b>0807010-01</b>			
14133-76-7	Technetium-99	1.37E-1	ug/L	2.35E-2	7/22/08	8G22007	PNNL-AGG-415
	Uranium 238	2.16E2	ug/L	1.31E-1	7/22/08	8G22007	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1V570</b>	<b>Lab ID:</b>		<b>0807010-02</b>			
14133-76-7	Technetium-99	1.41E-1	ug/L	2.35E-2	7/22/08	8G22007	PNNL-AGG-415
	Uranium 238	2.18E2	ug/L	1.31E-1	7/22/08	8G22007	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1V571</b>	<b>Lab ID:</b>		<b>0807010-03</b>			
14133-76-7	Technetium-99	5.48E-1	ug/L	2.35E-2	8/19/08	8H11001	PNNL-AGG-415
	Uranium 238	2.11E-1	ug/L	1.31E-1	8/19/08	8H11001	PNNL-AGG-415

### RCRA Metals By PNNL-AGG-415

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1V569</b>	<b>Lab ID:</b>		<b>0807010-01</b>			
14092-98-9	Chromium	<1.21E0	ug/L	1.21E0	7/22/08	8G22009	PNNL-AGG-415
14119-06-3	Copper	6.72E0	ug/L	1.61E0	7/22/08	8G22009	PNNL-AGG-415
7440-38-2	Arsenic	<3.26E0	ug/L	3.26E0	7/22/08	8G22009	PNNL-AGG-415
14687-58-2	Selenium	1.28E1	ug/L	7.27E0	7/22/08	8G22009	PNNL-AGG-415
14378-37-1	Silver	<3.30E-1	ug/L	3.30E-1	7/22/08	8G22009	PNNL-AGG-415
14336-64-2	Cadmium	<7.24E-1	ug/L	7.24E-1	7/22/08	8G22009	PNNL-AGG-415
14265-72-6	Antimony	<6.52E-1	ug/L	6.52E-1	7/22/08	8G22009	PNNL-AGG-415
13966-28-4	Lead	<4.51E-1	ug/L	4.51E-1	7/22/08	8G22009	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1V570</b>	<b>Lab ID:</b>		<b>0807010-02</b>			
14092-98-9	Chromium	<1.21E0	ug/L	1.21E0	7/22/08	8G22009	PNNL-AGG-415
14119-06-3	Copper	6.83E0	ug/L	1.61E0	7/22/08	8G22009	PNNL-AGG-415
7440-38-2	Arsenic	<3.26E0	ug/L	3.26E0	7/22/08	8G22009	PNNL-AGG-415
14687-58-2	Selenium	1.30E1	ug/L	7.27E0	7/22/08	8G22009	PNNL-AGG-415
14378-37-1	Silver	<3.30E-1	ug/L	3.30E-1	7/22/08	8G22009	PNNL-AGG-415
14336-64-2	Cadmium	<7.24E-1	ug/L	7.24E-1	7/22/08	8G22009	PNNL-AGG-415
14265-72-6	Antimony	<6.52E-1	ug/L	6.52E-1	7/22/08	8G22009	PNNL-AGG-415
13966-28-4	Lead	<4.51E-1	ug/L	4.51E-1	7/22/08	8G22009	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1V571</b>	<b>Lab ID:</b>		<b>0807010-03</b>			
14092-98-9	Chromium	7.45E0	ug/L	1.21E0	8/08/08	8H08003	PNNL-AGG-415
14119-06-3	Copper	<1.61E0	ug/L	1.61E0	8/08/08	8H08003	PNNL-AGG-415
7440-38-2	Arsenic	3.45E0	ug/L	3.26E0	8/08/08	8H08003	PNNL-AGG-415
14687-58-2	Selenium	1.57E1	ug/L	7.27E0	8/08/08	8H08003	PNNL-AGG-415
14378-37-1	Silver	<3.30E-1	ug/L	3.30E-1	8/08/08	8H08003	PNNL-AGG-415
14336-64-2	Cadmium	<7.24E-1	ug/L	7.24E-1	8/08/08	8H08003	PNNL-AGG-415
14265-72-6	Antimony	<6.52E-1	ug/L	6.52E-1	8/08/08	8H08003	PNNL-AGG-415
13966-28-4	Lead	<4.51E-1	ug/L	4.51E-1	8/08/08	8H08003	PNNL-AGG-415

<b>COLLECTOR</b> NCO SAMPLER	Kevin Patterson Fluor Hanford	<b>COMPANY CONTACT</b> TRENT, SJ	<b>TELEPHONE NO.</b> 373-5689	<b>PROJECT COORDINATOR</b> WIDRIG, DL	<b>PRICE CODE</b> 7N	<b>DATA TURNAROUND</b> 45 Days / 45 Days
<b>SAMPLING LOCATION</b> C5989, I-135	<b>PROJECT DESIGNATION</b> 200-BP-5 OU Characterization for "C" Well - Groundwater		<b>SAF NO.</b> F08-100	<b>AIR QUALITY</b> <input type="checkbox"/>		
<b>ICE CHEST NO.</b>	<b>FIELD LOGBOOK NO.</b> HNF N 585 L	<b>ACTUAL SAMPLE DEPTH</b> 265'	<b>COA</b> 123513ES10	<b>METHOD OF SHIPMENT</b> GOVERNMENT VEHICLE		

<b>SHIPPED TO</b> Environmental Sciences Laboratory	<b>OFFSITE PROPERTY NO.</b> N/A	<b>BILL OF LADING/AIR BILL NO.</b> N/A
--	------------------------------------	---

<b>MATRIX*</b> A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	<b>POSSIBLE SAMPLE HAZARDS/ REMARKS</b> Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)	<b>PRESERVATION</b>	Cool~4C	None																
		<b>TYPE OF CONTAINER</b>	G/P	P																
		<b>NO. OF CONTAINER(S)</b>	1	1																
		<b>VOLUME</b>	1000mL	1L																
		<b>SPECIAL HANDLING AND/OR STORAGE</b> Radioactive Tie To: B1V513	<b>SAMPLE ANALYSIS</b>	KD - Batch;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS															

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME																
B1V569	WATER	7/16/08	0900	✓	✓														

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM Kevin Patterson Fluor Hanford	DATE/TIME 7-17-8 1100 RECEIVED BY/STORED IN D. Connolly DATE/TIME 7-17-8 1100	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1) URANIUM ISOTOPIIC RATIOS {Uranium-234/Uranium-238 ratio, Uranium-236/Uranium-238 Ratio, Uranium-238/Uranium-235 Ratio}
RELINQUISHED BY/REMOVED FROM D. Connolly	DATE/TIME 7-17-8 1330 RECEIVED BY/STORED IN C. Jouni DATE/TIME 7-17-8 1330	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	

<b>LABORATORY SECTION</b>	<b>RECEIVED BY</b>	<b>TITLE</b>	<b>DATE/TIME</b>
<b>FINAL SAMPLE DISPOSITION</b>	<b>DISPOSAL METHOD</b>	<b>DISPOSED BY</b>	<b>DATE/TIME</b>



Fluor Hanford Inc.			CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				F08-100-007	PAGE 1 OF 1
COLLECTOR NCO SAMPLER		Kevin Patterson Fluor Hanford	COMPANY CONTACT TRENT, SJ		TELEPHONE NO. 373-5689	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C5989, I-135-D			PROJECT DESIGNATION 200-BP-5 OU Characterization for "C" Well - Groundwater			SAF NO. F08-100	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.			FIELD LOGBOOK NO. HANF. N 585.2		ACTUAL SAMPLE DEPTH 265'		COA 123513ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory			OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A		
MATRIX* A=Air DL=Drum Liquids OS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		PRESERVATION		Cool~4C	None		
			TYPE OF CONTAINER		G/P	P		
			NO. OF CONTAINER(S)		1	1		
			VOLUME		1000mL	1L		
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1V513		SAMPLE ANALYSIS		KD - Batch;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS			

  

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B1V570	WATER	7/16/08	0900	✓	✓		
				631204	28688		

  

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1)URANIUM ISOTOPIC RATIOS {Uranium-234/Uranium-238 ratio, Uranium-236/Uranium-238 Ratio, Uranium-238/Uranium-235 Ratio}			
<i>Kevin Patterson</i>	7-17-8 1100	<i>D Connolly</i>	7-17-8 1100				
<i>Kevin Patterson</i>	7-17-8 1330	<i>C Jouni</i>	7-17-8 1330				

  

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

<b>COLLECTOR</b> NCO SAMPLER Kevin Patterson Fluor Hanford	<b>COMPANY CONTACT</b> TRENT, SJ	<b>TELEPHONE NO.</b> 373-5689	<b>PROJECT COORDINATOR</b> WIDRIG, DL	<b>PRICE CODE</b> 7N	<b>DATA TURNAROUND</b> 45 Days / 45 Days
<b>SAMPLING LOCATION</b> C5989, I-140	<b>PROJECT DESIGNATION</b> 200-BP-5 OU Characterization for "C" Well - Groundwater		<b>SAF NO.</b> F08-100	<b>AIR QUALITY</b> <input type="checkbox"/>	
<b>ICE CHEST NO.</b>	<b>FIELD LOGBOOK NO.</b> HWF N 585-6	<b>ACTUAL SAMPLE DEPTH</b> 270 5' / 267.5' <sup>FRAILE</sup>	<b>COA</b> 123513E510	<b>METHOD OF SHIPMENT</b> GOVERNMENT VEHICLE	
<b>SHIPPED TO</b> Environmental Sciences Laboratory		<b>OFFSITE PROPERTY NO.</b> N/A	<b>BILL OF LADING/AIR BILL NO.</b> N/A		

<b>MATRIX*</b> A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	<b>POSSIBLE SAMPLE HAZARDS/ REMARKS</b> Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)	<b>PRESERVATION</b>	Cool~4C	None							
		<b>TYPE OF CONTAINER</b>	G/P	P							
		<b>NO. OF CONTAINER(S)</b>	1	1							
		<b>VOLUME</b>	1000mL	1L							
		<b>SPECIAL HANDLING AND/OR STORAGE</b> Radioactive Tie To: B1V563	<b>SAMPLE ANALYSIS</b>	KD - Batch;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS						

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1V571	WATER	7/23/08	1140	✓	✓					

629409 →

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1)URANIUM ISOTOPIC RATIOS {Uranium-234/Uranium-238 ratio, Uranium-236/Uranium-238 Ratio, Uranium-238/Uranium-235 Ratio}
RELINQUISHED BY/REMOVED FROM Kevin Patterson Fluor Hanford	DATE/TIME 7/24/08 1510	RECEIVED BY/STORED IN C. Javir	DATE/TIME 7/24/08 1510	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

<b>LABORATORY SECTION</b>	<b>RECEIVED BY</b>	<b>TITLE</b>	<b>DATE/TIME</b>
<b>FINAL SAMPLE DISPOSITION</b>	<b>DISPOSAL METHOD</b>	<b>DISPOSED BY</b>	<b>DATE/TIME</b>