

Environmental
Restoration
Contractor

ERC Team

Interoffice Memorandum



037173

0052021

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: October 7, 1996

J. A. Lerch, B1-35

COPIES: See Below

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

46830

SUBJECT: **200-UP-1 IRM IMPLEMENTATION SAMPLING, MONTHLY GROUNDWATER RESULTS, SEPTEMBER 1996, REV 0**

REFERENCES:

1. BHI, 1996, *On-Site Measurements Quality Assurance Plan*, BHI-00852, REV 0, Bechtel Hanford, Inc., Richland, Washington.
2. BHI, 1995, *Field Screening Procedures*, BHI-EE-05, Bechtel Hanford, Inc., Richland, Washington.
3. BHI, 1995a, *200-UP-1 Field Screening Support Logbook*, EL-1277, Bechtel Hanford, 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-1 as specified in the reference 1 (BHI 1996). The samples were managed under SAF B96-153.

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 Hewlett Packard 5890 gas chromatograph with a headspace autosampler operated in accordance with Field Screening Procedure (FSP) 1.1, *Aqueous Headspace Analysis of Volatile Organic Compounds in Water* (BHI 1995). Information concerning operation and calibration of the gas chromatograph is contained in the instrument logbook EL-1329.

The total uranium results were generated using a ChemChek KPA-11a Kinetic Phosphorescence Analyzer operated in accordance with FSP 1.22, *Kinetic Phosphorescence Analysis of Total Uranium in Water* (BHI 1995). Information concerning operation and calibration of the ChemChek KPA-11a is contained in 200-UP-1 field logbook EL-1277.

10/14/96

**CCN# 037173 HAS BEEN REDISTRIBUTED TO INCLUDE THE
CORRECT ATTACHMENTS. PLEASE DESTROY PREVIOUS
COPY.**

THANK YOU

*Done on 10/15/96
by P Ayres.*

C. D. Wittreich, H9-12

Page 2

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

IDJ:idj

Attachments:

Attachment 1. 200-UP-1 IRM Implementation Sampling, Monthly Groundwater Results, September 1996

Attachment 2. Sample Chain of Custody Sheets

Copies:

R. T. Coffman, H9-11, w/attachment 1 only

C. W. Denslow, H9-02, w/attachment 1 only

A. Hopkins, H9-11, w/attachment 1 only

T. D. LeFrancois, H9-03, w/attachment 1 only

D. A. Myers, H9-11, w/attachment 1 only

R. O. Mahood, H9-11, w/attachment 1 only

BHI Document Control, H4-79, w/original attachments

200-UP-1 IRM Implementation Sampling
Monthly Groundwater Results, September 1996
SAF B96-153

Sample Location	HEIS Number	Sample Date	Analysis Date (VOA)	Chloroform (µg/L)	Carbon TetraCl (µg/L)	TCE (µg/L)	Uranium (µg/L)	Technetium-99 (pCi/L)
299-W19-18	BOJOF9	9/17/96	NA	NA	NA	NA	NA	<100
299-W19-18	BOJOG0	9/17/96	9/23/96	3.3	290	<2.0	716	NA
299-W19-20	BOJOG1	9/17/96	NA	NA	NA	NA	NA	7260
299-W19-20	BOJOG2	9/17/96	9/23/96	5.4	200	9.5	1730	NA
299-W19-24	BOJOG5	9/19/96	NA	NA	NA	NA	NA	<788
299-W19-24	BOJOG6	9/19/96	9/24/96	4.1	150	3.9	2960	NA
299-W19-28	BOJOG7	9/18/96	NA	NA	NA	NA	NA	2300
299-W19-28	BOJ1V3	9/18/96	9/24/96	<2.0	2.6	<2.0	374	NA
299-W19-29	BOJ1V4	9/18/96	NA	NA	NA	NA	NA	<100
299-W19-29	BOJ1V5	9/18/96	9/24/96	<2.0	<2.0	<2.0	30.2	NA
299-W19-30	BOJ1V6	9/17/96	NA	NA	NA	NA	NA	4220
299-W19-30	BOJ1V7	9/17/96	9/23/96	<2.0	23	<2.0	723	NA
299-W19-34A	BOJ1V8	9/18/96	NA	NA	NA	NA	NA	174
299-W19-34A	BOJ1V9	9/18/96	9/24/96	6.9	57	3.9	1.65	NA
299-W19-35	BOJ1W0	9/17/96	NA	NA	NA	NA	NA	473
299-W19-35	BOJ1W1	9/17/96	9/23/96	3.0	190	15	41.8	NA
299-W19-37	BOJ1W2	9/18/96	NA	NA	NA	NA	NA	3900
299-W19-37	BOJ1W3	9/18/96	9/24/96	2.5	42	<2.0	1810	NA
Duplicate @ 299-W19-37	BOJ1W8	9/18/96	NA	NA	NA	NA	NA	3520
Duplicate @ 299-W19-37	BOJ1W9	9/18/96	9/24/96	2.2	35	<2.0	1830	NA
Field Blank @ 299-W19-37	BOJ1X0	9/18/96	NA	NA	NA	NA	NA	<100
Field Blank @ 299-W19-37	BOJ1X1	9/18/96	9/24/96	<2.0	<2.0	<2.0	<1.0	NA
299-W19-38	BOJ1W4	9/19/96	NA	NA	NA	NA	NA	1070
299-W19-38	BOJ1W5	9/19/96	9/24/96	6.3	130	2.7	184	NA
299-W19-40	BOJ1W6	9/19/96	NA	NA	NA	NA	NA	11100
299-W19-40	BOJ1W7	9/19/96	9/24/96	6.3	39	<2.0	144	NA
Trip Blank	BOJ1X2	9/17/96	9/23/96	<2.0	<2.0	<2.0	NA	NA
Trip Blank	BOJ1X3	9/19/96	9/24/96	<2.0	<2.0	<2.0	NA	NA
Trip Blank	BOJ1X4	9/18/96	9/24/96	<2.0	<2.0	<2.0	NA	NA

NA - Not Analyzed

j - Value less than practical quantitation limit

Analyst:

 R. T. Coffman

I. D. Jacques

 I. D. Jacques

VOA Instrument: Hewlett Packard 5890 GC, Serial # 3235A47685
 Method: Dual DB-VRX columns, ECD/FID, 1mL headspace injection
 Logbook: 200-UP-1 Field Logbook, EL-1277, pgs 144 to 145

Uranium Instrument: ChemChek KPA-11a, Serial # 9445050065
 Method: Kinetic Phosphorescence
 Logbook: 200-UP-1 Field Logbook, EL-1277, pgs 141 to 143

Collector <i>A. Rizzo</i>	Company Contact <i>C. D. Wirthrich</i>	Telephone No. <i>372-9315</i>	Data Turnaround Field
Project Designation 200-UP-1 Limited Field Investigation	Sampling Location <i>200 W</i>	SAF No. B96-153	
Ice Chest No.	Field Logbook No. <i>EF 1135</i>	Method of Shipment <i>Hand Delivered</i>	
Shipped To Mobile Laboratory	Offsite Property No.	Bill of Lading/Air Bill No. <i>N/A</i>	

POSSIBLE SAMPLE HAZARDS/REMARKS	Preservation	None	HCl to pH <2															
	Type of Container	P	Gs*															
	No. of Container(s)	1	1															

Special Handling and/or Storage <i>Maintain samples between 2-6 degrees C.</i>	Volume	20ml	40ml															
---	--------	------	------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SAMPLE ANALYSIS				URANIUM TOTAL	See item (1) in Special Instructions.													
-----------------	--	--	--	---------------	---------------------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample No.	Matrix *	Sample Date	Sample Time															
BOJ0G0	Water	9-17-96	0923	X	X													
BOJ1X2	W	9-17-96	0730		X													
BOJ0G2	W	9-17-96	1006	X	X													
BOJ1W1	W	9-17-96	1053	X	X													
BOJ1V2	W	9-17-96	1137	X	X													
<i>9/17/96 (102)</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.G. Rizzo (ERB)</i>	Date/Time <i>9/17/96</i>	Received By <i>R.T. [Signature]</i>	Date/Time <i>9/17/96</i>	(1) VOA BY FIELD GC - Chlorinated Hydrocarbon (Carbon tetrachloride)										
	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

Collector <i>A. Rizzo</i>	Company Contact C. D. Wittreich	Telephone No. (509) 372-9315	Data Turnaround Field
Project Designation 200-UP-1 Limited Field Investigation	Sampling Location 200 W	SAF No. B96-153	
Ice Chest No.	Field Logbook No. <i>EL-1135</i>	Method of Shipment Hand Delivered	
Shipped To Mobile Laboratory	Offsite Property No. NA	Bill of Lading/Air Bill No. NA	

POSSIBLE SAMPLE HAZARDS/REMARKS	Preservation	None	HCl to pH <2															
	Type of Container	P	Gs*															
	No. of Container(s)	1	1															
	Special Handling and/or Storage Maintain samples between 2 degrees C and 6 degrees C.	Volume	20ml	40ml														

SAMPLE ANALYSIS				URANIUM TOTAL	See item (1) in Special Instructions.													
-----------------	--	--	--	---------------	---------------------------------------	--	--	--	--	--	--	--	--	--	--	--	--	--

Sample No.	Matrix *	Sample Date	Sample Time															
BOJ1V3	Water	9-18-96	0930	X	X													
BOJ1X4	W	9-18-96	0730		X													
BOJ1V5	W	9-18-96	1006	X	X													
BOJ1V9	W	9-18-96	1057	X	X													
BOJ1W8	W	9-18-96	1152	X	X													
BOJ1W3	W	9-18-96	1152	X	X													
BOJ1X1	W	9-18-96	1120	X	X													

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>AGRE (ER)</i>	Date/Time 9/18/96	Received By <i>RT COFFMAN</i>	Date/Time 12/15	(1) VOA BY FIELD GC -- Chlorinated Hydrocarbon (Carbon tetrachloride)										
	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

Collector <i>A. Rizzo</i>	Company Contact C. D. Wittreich	Telephone No. (509) 372-9315	Data Turnaround Field
Project Designation 200-UP-1 Limited Field Investigation	Sampling Location 200 W	SAF No. B96-153	
Ice Chest No.	Field Logbook No. <i>EFL 1135</i>	Method of Shipment Hand Delivered	
Shipped To Mobile Laboratory	Offsite Property No. NA	Bill of Lading/Atr Bill No. NA	

POSSIBLE SAMPLE HAZARDS/REMARKS	Preservation	None	HCl to pH <2										
	Type of Container	P	Gs*										
	No. of Container(s)	1	1										
Special Handling and/or Storage Maintain samples between 2 degrees C and 6 degrees C.	Volume	20ml	40ml										

SAMPLE ANALYSIS	URANIUM TOTAL	See item (1) in Special instructions.											

Sample No.	Matrix *	Sample Date	Sample Time										
B0J1W5	Water	9.19.96	0905	X	X								
B0J1X3	W	9.19.96	0740		X								
B0J1W7	W	9.19.96	0941	X	X								
B0J0G6	W	9.19.96	1030	X	X								
B0J0G4	W	9.19.96		X	X								

CHAIN OF POSSESSION	Sign/Print Names				SPECIAL INSTRUCTIONS (1) VOA BY FIELD GC -- Chloronated Hydrocarbon (Carbon tetrachloride)								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 9/19/96 12:00	Received By <i>R. COFFMAN</i>	Date/Time 9/19/96										
	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