

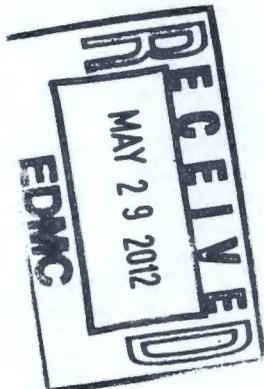
**WSCF  
ANALYTICAL RESULTS REPORT**

for

**Groundwater Remediation Program**

**Richland, WA 99354**

**Attention: Steve Trent A0-21**



Analytical:

*Markus Stankus*

Client Services:

*John Trechter John Trechter*

*All results are reported on an "as received" basis unless otherwise noted in the comment section.*

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Contract#: FH-EIS-2003-MEM-001  
Report#: WSCF20060821  
Report Date: 27-jul-2006  
Report WGPP/ver. 1.3  
Groundwater Remediation Program

## W13q Worklist/Batch/QC Report for Group# WSCF20060821

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
29185	1	29551	33452	BLANK		Tritium by Liq. Scint.
29185	4	29551	33452	LCS		Tritium by Liq. Scint.
29185	3	29551	33452	DUP	W060002277	Tritium by Liq. Scint.
29185	2	29551	33452	MS	W060002277	Tritium by Liq. Scint.
29185	5	29551	33452	SAMPLE	W060002277	Tritium by Liq. Scint.

# WSCF

## ANALYTICAL RESULTS REPORT

**Attention:** Steve Trent A0-21  
**Project:** F06-048: F06-048

**Group #:** WSCF20060821

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze Sample Receive		
					Method	RQ							
<b>Radiochemistry</b>													
W060002277	B1K7H6 TRENT	10028-17-8	Tritium	SOIL	LA-508-421	U	0.0370	pCi/g	1.00	0.20	07/27/06	07/25/06	07/25/06
W060002277	B1K7H6 TRENT	E,T,C	H-3 Rel. % Count Error	SOIL	LA-508-421		+ - 0.063	pCi/g	1.00	0.0	07/27/06	07/25/06	07/25/06

**MDL=Minimum Detection Limit**  
**RQ=Result Qualifier**

U - Analyzed for but not detected above limiting criteria.

**DF=Dilution Factor**

\* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.3

Groundwater Remediation Program

# WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20060821  
 Matrix: SOLID  
 Test: Tritium by Liq. Scint.

SAF Number: F06-048  
 Sample Date: 07/25/06  
 Receive Date: 07/25/06

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W060002277									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Tritium	10028-17-8	U5.9E-01	n/a	RPD	07/27/06	0.000	20.000	
DUP	H-3 Rel. % Count Error	E,T,C	n/a	n/a	RPD	07/27/06	0.000	1000.000	
MS	Tritium	10028-17-8	189.42	94.333	% Recov	07/27/06	75.000	125.000	
MS	H-3 Rel. % Count Error	E,T,C	n/a	n/a	% Recov	07/27/06	0.000	1000.000	
BATCH QC									
BLANK	Tritium	10028-17-8	-2.1e-02	-0.021	pCi/g	07/27/06	-10.000	400.000	
BLANK	H-3 Rel. % Count Error	E,T,C	n/a	n/a	Percent	07/27/06	0.000	1000.000	
LCS	Tritium	10028-17-8	1700.0	97.338	% Recov	07/27/06	75.000	125.000	

# WSCF ANALYTICAL COMMENT REPORT

Attention:  
Project Number

Group #: 20060821

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Sample #	Client ID	Lab Area	Test	Comment
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Lab Areas: VALGROUP - Group Validation  
LOGSAMP - Login for Sample

VALTEST - Test Validation  
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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**WSCF**  
**TENTATIVELY IDENTIFIED PEAK REPORT**

**Attention:**  
**Project Number** :

**Group #:** 20060821

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Sample #	Client ID	Test Name	Peak Name	CAS#	RT	RQ	Result	Units
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RQ=Result Qualifier

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# WSCF

## METHOD REFERENCES REPORT

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The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

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<b>LA-508-421</b>	Tritium Analysis by Liquid Scintillation Counting for WSCF None	No reference to any industry method.
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Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at <\\ap006\aspdocs\WSCF\Sample Mgmt\ProcedureMethodCrossReference.pdf>. This document includes on-line links to full-text versions of the procedures and methods, where available.

Report Date: 27-jul-2006

Report#: WSCF20060821

Report WGPPM/O

Fluor Hanford Inc. <sup>7/27</sup>		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F06-048-002	PAGE 1 OF 1
COLLECTOR DURATEK J. G. HOGAN	COMPANY CONTACT REIDEL, S	TELEPHONE NO. 376-9932	PROJECT COORDINATOR TRENT, SJ		PRICE CODE 1C	DATA TURNAROUND 72 Hours / 15 Days
SAMPLING LOCATION C4998, 518.5 BGS	PROJECT DESIGNATION WTP Seismic Borehole - Water and Drilling Mud Samples		SAF NO. F06-048	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO. Guss 6	FIELD LOGBOOK NO. ES-WTP-H110	COA 122273E520	METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.			

MATRIX*	SPECIAL HANDLING AND/OR STORAGE			POSSIBLE SAMPLE HAZARDS/ REMARKS				
SAMPLE NO.	LAB ID	MATRIX*	SAMPLE DATE	SAMPLE TIME	NO./TYPE CONTAINER(S)	ANALYSIS	PRESERVATION	
B1K7H6	W060002277	OS	7-25-06	1335	1X500mL G	Tritium - H3;	None	

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM DURATEK J. G. HOGAN	DATE/TIME 1425 JUL 25 2006	RECEIVED BY/STORED IN TA BRAZIER	DATE/TIME 1425 7-25-06	** Water samples for GEA and total activity require preservation with HNO3 to pH <2.  ** All samples received at WSCF that resemble mud should be logged in and reported as "Other Solid".	
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		

NOT ICED  
 Initial  
 7-25-06 Date

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

Waste Sampling and Characterization Facility  
P.O. BOX 1970 S3-30, Richland, WA 99352  
PHONE: (509) 373-7004/FAX: (509) 373-7134

7/27/06

ACKNOWLEDGMENT OF SAMPLES RECEIVED

FILE KB

Groundwater Remediation Program

Richland, WA 99354  
Attn: Steve Trent A0-21

Customer Code: GPP  
PO#: 122273/ES20  
Group#: 20060821  
Project#: F06-048  
Proj Mgr: Steve Trent A0-21  
Phone: 373-5869



The following samples were received from you on 07/25/06. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W060002277	B1K7H6	TRENT @H3-31	Solid, or handle as if solid	07/25/06

Test Acronym Description

Test Acronym	Description
@H3-31	Tritium by Liq. Scint.

### GENERATOR KNOWLEDGE INFORMATION

1. Chain of Custody Number F06-048-002 CACN/COA 122273/ESLO Customer Identification Number F06-048

2. List generator knowledge or description of process that produced sample. Or list description of sample source:  
MUD FROM WTP SEISMIC BORRHOZE C4998

MSDS Available?  No  Yes Hanford MSDS No. \_\_\_\_\_

3. List all waste codes and constituents associated with the waste or media that was sampled, regardless of CERCLA status.

a) Does the sample contain any of the following listed waste codes?  
**By checking "unknown" the customer understands that no knowledge is available following a careful search.**

List Federal Waste Code(s):	List Constituent(s):	
P Codes: _____	_____	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown
U Codes: _____	_____	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown
K Codes: _____	_____	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown
F Codes: _____	_____	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown

b) List applicable characteristic waste codes, flash point, pH, constituents, and concentrations as appropriate.

D001: <input type="checkbox"/> FP <100°F	<input type="checkbox"/> FP ≥100 <140°F	<input type="checkbox"/> DOT Oxidizer	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown
D002: <input type="checkbox"/> pH ≤2	<input type="checkbox"/> pH ≥12.5	<input type="checkbox"/> Solid Corrosive (WSC2)	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown
D003: <input type="checkbox"/> Cyanide	<input type="checkbox"/> Sulfide	<input type="checkbox"/> Water Reactive	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown
D004-D043 (Identify applicable waste codes and concentrations):		<input type="checkbox"/> Other _____ (i.e., peroxide former, explosive, air reactive)	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Unknown

c) If characteristic, list any known underlying hazardous constituents (UHCs) reasonably expected to be present, and their concentrations that may be present above the LDR treatment standard (40 CFR 268.46):

d) List any known Land Disposal Restrictions (LDR) subcategories, if applicable (40 CFR 268.40):

e) List any applicable Washington State dangerous waste codes: (not required if federally regulated)

WT01: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown	WP01: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown
WT02: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown	WP02: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown
W001: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown	WP03: <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown
List constituents and concentrations:	F003:* <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown

(\*State mixture rule for ignitability)

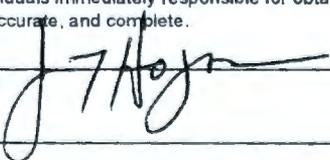
4. Is this material TSCA regulated for PCBs?  Yes  No  Unknown  Analysis Requested

List concentration if applicable: \_\_\_\_\_  
 If yes, what is the source of the PCBs? (see TSCA PCB Hanford Site User Guide, DOE/RL-2001-50)

<input type="checkbox"/> PCB Liquid Waste	<input type="checkbox"/> PCB Bulk Product Waste	<input type="checkbox"/> PCB Transformer ≥500 ppm	<input type="checkbox"/> Unknown
<input type="checkbox"/> PCB Remediation Waste	<input type="checkbox"/> PCB R&D Waste	<input type="checkbox"/> PCB contaminated electrical equipment (capacitor/ballast) <500 ppm	
<input type="checkbox"/> PCB Spill Material	<input type="checkbox"/> PCB Item	<input type="checkbox"/> Other PCB Waste (list) _____	

5. Is this material TRU?  Yes  No  Unknown

6. ACCURACY OF INFORMATION  
 Based on my inquiry of those individuals immediately responsible for obtaining this information, that to the best of my knowledge, the information entered in this document is true, accurate, and complete.

Print & Sign DURATEK  
J. G. HOGAN  Date JUL 25 2006