

Fluor Hanford
WSCF Analytical Chemistry
P.O. Box 1000
Richland, WA 99352
Telephone 373-7495
Telefax 372-0456

FLUOR

Memorandum

To: H. Hampt E6-35 Date: M4W41-SLF-07-456
July 11, 2007

From: S. L. Fitzgerald, Manager *[Signature]*
WSCF Analytical Chemistry

cc: w/Attachments
 T. F. Dale S3-30 S. J. Trent E6-35
 H. K. Mezmarich S3-30 D. D. Wright S3-30
 P. D. Mix S3-30 File/LB
 J. E. Trechter S3-30

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20071108 – SAF NUMBER F07-045

Reference: (1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001, October 31, 2002
 (2) HNF-SD-CD-QAPP-017, Rev. 8, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF20071108:

- Cover Sheet (Attachment 1)
- Narrative (Attachment 2)
- Analytical Results (Attachment 3)
- Sample Receipt Information (Attachment 4)

SLF/grf

Attachments 4

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 JUN 26 2008
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M4W41-SLF-07-456

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20071108
Data Deliverable Date: 30-jul-2007
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F07-045	B1NF47 T	W07GR01565	WATER
	B1NF48 T	W07GR01566	WATER
	B1NF49 T	W07GR01567	WATER
	B1NF50 T	W07GR01568	WATER
	B1NF77 T	W07GR01559	WATER
	B1NF78 T	W07GR01560	WATER
	B1NF79 T	W07GR01561	WATER
	B1NF80 T	W07GR01562	WATER

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ATTACHMENT 2

NARRATIVE

Consisting of 3 pages
Including cover page

Sample Delivery Group	WSCF20071108
Sample Matrix	Water
Data Deliverable	Summary Report

Introduction

Eight (8) samples groundwater samples were received at the WSCF Laboratory during the May 2007 timeframe. All of the samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was stamped “iced” and initialed by the WSCF Laboratory Sample Custodian during sample receiving, indicating the presence of ice in the sample container.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report*, page 10, for a complete listing of approved analytical methods.

Radiochemistry Comments

Rad Chem – There are no hold times associated with WSCF’s radiochemical methods. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. See page 19 for QC details. Analytical Note:

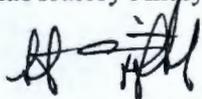
- Compliant to COC special instructions, Tc-99 by liquid scintillation counting (LSC) analyses were deferred until direction was provided by the GRP on June 13, 2007. The following Cross Reference is offered for additional detail regarding samples chosen for Tc-99 LSC analyses.

Cross Reference
GRP Samples from Well 299-W15-44 Requiring Tc99 by LSC
SDG# 20071108

SAF	Original SDG No.	Original WSCF Sample No.	New WSCF Sample No.	HEIS No.	Date Sampled	Date Received
F07-045	20070761	W07GR00864	W07GR01559	B1NF77	5/3/07	5/3/07
F07-045	20070796	W07GR00912	W07GR01560	B1NF78	5/10/07	5/10/07
F07-045	20070842	W07GR00999	W07GR01561	B1NF79	5/17/07	5/17/07
F07-045	20070893	W07GR01084	W07GR01562	B1NF80	5/24/07	5/24/07
F07-045	20070761	W07GR00863	W07GR01565	B1NF47	5/3/07	5/3/07
F07-045	20070796	W07GR00911	W07GR01566	B1NF48	5/10/07	5/10/07
F07-045	20070842	W07GR00997	W07GR01567	B1NF49	5/17/07	5/17/07
F07-045	20070893	W07GR01083	W07GR01568	B1NF50	5/24/07	5/24/07

All QC controls are within the established limits.

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.



Scot L. Fitzgerald
 WSCF Analytical Laboratory Manager



Pauline D. Mix
 WSCF Client Services

Abbreviations

Hg – mercury
 IC – ion chromatography
 ICP – inductively coupled plasma
 ICP/AES – ICP/atomic emission spectroscopy
 ICP/MS – ICP/mass spectrometry
 Total U – total uranium
 AT/TB – total alpha/total beta
 AEA – Alpha Energy Analysis
 WTPH-G – Total Hydrocarbons-Gasoline

Am – americium
 Cm – curium
 Pu – plutonium
 Np – neptunium
 GEA – gamma energy analysis
 H3 – Tritium
 Sr – Strontium 89, 90
 WTPH-D – Total Hydrocarbons-Diesel
 TSS – Total Suspended Solids

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ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 13 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: S. Fitzgerald 7/11/07

Client Services: P. D. Mix 7/11/2007

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

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Contract#: FH-EIS-2003-MEM-001

Report#: WSCF20071108

Report Date: 10-jul-2007

Report WGPP/ver. 5.2

Groundwater Remediation Program

W13q Worklist/Batch/QC Report for Group# WSCF20071108

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
32473	1	32864	36942	BLANK		TC99 by Liquid Scin.
32473	4	32864	36942	LCS		TC99 by Liquid Scin.
32473	3	32864	36942	DUP	W07GR01559	TC99 by Liquid Scin.
32473	2	32864	36942	MS	W07GR01559	TC99 by Liquid Scin.
32473	5	32864	36942	SAMPLE	W07GR01559	TC99 by Liquid Scin.
32473	6	32864	36942	SAMPLE	W07GR01560	TC99 by Liquid Scin.
32473	7	32864	36942	SAMPLE	W07GR01561	TC99 by Liquid Scin.
32473	8	32864	36942	SAMPLE	W07GR01562	TC99 by Liquid Scin.
32473	9	32864	36942	SAMPLE	W07GR01565	TC99 by Liquid Scin.
32473	10	32864	36942	SAMPLE	W07GR01566	TC99 by Liquid Scin.
32473	11	32864	36942	SAMPLE	W07GR01567	TC99 by Liquid Scin.
32473	12	32864	36942	SAMPLE	W07GR01568	TC99 by Liquid Scin.

WSCF

METHOD REFERENCES REPORT

Department: Radiochemistry

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.

LA-508-421	LA-508-421: OPERATION OF THE TRI-CARB MODEL 2500TR LIQUID SCINTILLATION ANALYZER
HEIS ALPHA_LSC	A/B Liquid Scintillation
HEIS BETA_LSC	A/B Liquid Scintillation
HEIS TC99_3MDSK_LSC	TC99 by Liquid Scintillation
HEIS TRITIUM_EIE_LSC	Tritium Liquid Scintillation

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at <http://www2.rl.gov/phmc/as-dol>.

Report Date: 10-jul-2007
Report#: WSCF20071108
Report WGPPM/5.2

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-045
Sample # W07GR01559
Client ID: B1NF77

TRENT - TC99
 WSCF

Matrix: WATER

Group #: WSCF20071108
Department: Radiochemistry
Sampled: 05/03/07
Received: 05/03/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421	U	-2.20	pCi/L	+ -2.20	pCi/L	1.00	2.5		07/07/07

MDL = Minimum Detection Limit U - Analyzed for but not detected above limiting criteria(inorg)

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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

Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent

SAF Number: F07-045

Sample # W07GR01560

Client ID: BIN78 TREN - TC99

WSCF

Matrix: WATER

Group #: WSCF20071108

Department: Radiochemistry

Sampled: 05/10/07

Received: 05/10/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421	U	-1.00	pCi/L	+ -1.44	pCi/L	1.00	2.5		07/07/07

MDL = Minimum Detection Limit

U - Analyzed for but not detected above limiting criteria(inorg)

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-045
Sample # W07GR01561
Client ID: B1NF79

TRENT - TC99
 WSCF

Matrix: WATER

Group #: WSCF20071108
Department: Radiochemistry
Sampled: 05/17/07
Received: 05/17/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin. Technetium-99	14133-76-7	LA-508-421	U	-1.10	pCi/L	+ -1.55	pCi/L	1.00	2.5		07/07/07

MDL=Minimum Detection Limit U - Analyzed for but not detected above limiting criteria(inorg)

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

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

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-045
Sample # W07GR01562
Client ID: B1NF80

TRENT - TC99
WSCF

Matrix: WATER

Group #: WSCF20071108
Department: Radiochemistry
Sampled: 05/24/07
Received: 05/24/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-78-7	LA-508-421	U	-0.800	pCi/L	+ -1.47	pCi/L	1.00	2.5		07/07/07

MDL=Minimum Detection Limit U - Analyzed for but not detected above limiting criteria(inorg)

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

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

Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-045
Sample # W07GR01565
Client ID: B1NF47 TREN - TC99
WSCF

Matrix: WATER

Group #: WSCF20071108
Department: Radiochemistry
Sampled: 05/03/07
Received: 05/03/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.	14133-76-7	LA-508-421		1.90e+03	pCi/L	+-.380	pCi/L	1.00	2.5		07/07/07
Technetium-99											

MDL=Minimum Detection Limit U - Analyzed for but not detected above limiting criteria(inorg)
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

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

Report WGPP/ver. 5.2
Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F07-045
Sample # W07GR01568
Client ID: B1NF50

TRENT - TC99
 WSCF

Matrix: WATER

Group #: WSCF20071108
Department: Radiochemistry
Sampled: 05/24/07
Received: 05/24/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Technetium-99	14133-76-7	LA-508-421		1.80e+03	pCi/L	+ -360	pCi/L	1.00		2.5	07/07/07

MDL = Minimum Detection Limit U - Analyzed for but not detected above limiting criteria(inorg)
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

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

Report WGPP/ver. 5.2
 Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20071108
 Matrix: WATER
 Test: TC99 by Liquid Scin.

Sample Date: 05/03/07
 Receive Date: 05/03/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR01559											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Technetium-99	14133-76-7	U-0.4		RPD			n/a	20.000		07/07/07
MS	Technetium-99	14133-76-7	92.2	94.758	% Recov	75.000	125.000				07/07/07
BATCH QC											
BLANK	Technetium-99	14133-76-7	U-2.1	n/a	pCi/L	-10.000	10.000				07/07/07
LCS	Technetium-99	14133-76-7	124.9	102.714	% Recov	80.000	120.000				07/07/07

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ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 10 pages
Including cover page

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

File

ACKNOWLEDGMENT OF SAMPLES RECEIVED

07/30/07

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 122597/ES10
Group#: 20071108
Project#: F07-045
Proj Mgr: Steve Trent G6-35
Phone: 373-5869

The following samples were received from you on 05/03/07. 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
W07GR01559	B1NF77	TRENT - TC99 @TC99-30	Water	05/03/07
W07GR01560	B1NF78	TRENT - TC99 @TC99-30	Water	05/10/07
W07GR01561	B1NF79	TRENT - TC99 @TC99-30	Water	05/17/07
W07GR01562	B1NF80	TRENT - TC99 @TC99-30	Water	05/24/07
W07GR01565	B1NF47	TRENT - TC99 @TC99-30	Water	05/03/07
W07GR01566	B1NF48	TRENT - TC99 @TC99-30	Water	05/10/07
W07GR01567	B1NF49	TRENT - TC99 @TC99-30	Water	05/17/07
W07GR01568	B1NF50	TRENT - TC99 @TC99-30	Water	05/24/07

Test Acronym Description

Test Acronym	Description
@TC99-30	TC99 by Liquid Scin.

COLLECTOR Mehrer/Hocking 2007076	COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 7N	TUR 45 Days 45 Days
SAMPLING LOCATION 1-44-eff-3	PROJECT DESIGNATION PuroLite Resin Treatability Test - 200-ZP-1 OU	SAF NO. F07-045	AIR QUALITY		

ICE CHEST NO.	FIELD LOGBOOK NO.	COA 122597ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE
---------------	-------------------	-------------------	--

SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A
---	-----------------------------	------------------------------------

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	HCl or H2SO4 to pH <2/Cool 4C	Cool 4C	Cool 4C	None	HCl to pH <2
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	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)		EGs*	P	G/P	G/P	G/P
		NO. OF CONTAINER(S)	43 234 5/3/07	1	1	1	2
		VOLUME	40mL	120mL	120mL	120mL	1000mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	VOA - 82608 (TCL) (Carbon tetrachloride)	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Alkalinity - 310.1;	pH - 150.1;	Technetium-99 (Technetium-99)

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME					
B1NF77	WATER	5/3/07	1250	✓	✓	✓	✓	✓
<p>864 W07GRU1559 - Tc-99 only SDG 80071108</p>								

ICED
Initial
Date

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM M J Hocking	RECEIVED BY/STORED IN B. C. Barber	** WSCF will NOT initiate liquid scintillation analysis of Tc-99 samples until directed to do so by S&GRP Sample and Data Management.
DATE/TIME 5/3/07 1430	DATE/TIME 5/3/07 1430	** WSCF will be provided with samples to be used for the development of the Tc-99 by ICP/MS method. S&GRP will not be charged for this method development work. (1)IC Anions - 300.0 (Bromide, Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate)
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	

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

COPY

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COLLECTOR Mehrer/Hocking 20070796	COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 7N	DATA TURNAROUND 45 Days / 48 Days
SAMPLING LOCATION I-44-ett-5	PROJECT DESIGNATION PuroLite Resin Treatability Test - 200-ZP-1 OU	SAF NO. F07-045	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 122597ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	HCl or H2SO4 to pH <2/Cool 4C	Cool 4C	Cool 4C	None	HCl to pH <2				
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	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)	TYPE OF CONTAINER	gGs*	P	G/P	G/P	G/P				
		NO. OF CONTAINER(S)	3	1	1	1	2				
		VOLUME	40mL	120mL	120mL	120mL	1000mL				
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	HQA - 82608 (TCL) (Carbon tetrachloride)	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Alkalinity - 310.1;	pH - 150.1;	Technique-99 (Technique-99)				

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B1NF78 912	WATER	5-10-07	1030	✓	✓	✓	✓	✓	✓
W076R01560 - Tc-99 only									
SDG 20071108									

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	** WSCF will NOT initiate liquid scintillation analysis of Tc-99 samples until directed to do so by S&GRP Sample and Data Management. ** WSCF will be provided with samples to be used for the development of the Tc-99 by ICP/MS method. S&GRP will not be charged for this method development work. (1)IC Anions - 300.0 (Bromide, Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate)	
J. Mehre	5-10-07 1125	TAFMEHR	5-10-07 1125		
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		

ICED
Initial
Date

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

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COPY

Mehrer/Hocking **20070842** Trent, SJ 373-5869 TRENT, SJ PRICE CODE 7/N TURNAROUND 45 Days / 45 Days

SAMPLING LOCATION 1-44-eff-7 PROJECT DESIGNATION Purolite Resin Treatability Test - 200-ZP-1 OU SAF NO. F07-045 AIR QUALITY METHOD OF SHIPMENT GOVERNMENT VEHICLE

ICE CHEST NO. FIELD LOGBOOK NO. COA 122597ES10 SHIPPED TO Waste Sampling & Characterization OFFSITE PROPERTY NO. N/A BILL OF LADING/AIR BILL NO. N/A

MATRIX* 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	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 HCl or H2SO4 to pH <2/Cool 4C	Cool 4C	Cool 4C	None	HCl to pH <2			
		TYPE OF CONTAINER 8Gs*	P	G/P	G/P	G/P			
		NO. OF CONTAINER(S) 43 43H 515102	1	1	1	2			
		VOLUME 40mL	120mL	120mL	120mL	1000mL			
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS VOA - 8260B (TCL) (Carbon tetrachloride)	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Alkalinity - 310.1;	pH - 150.1;	Technetium-99 (Technetium-99)			

ICED
 Initial Date

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B1NF79	WATER	5-17-07	1000	/	/	/	/	/	/
92101									
W07601561	TcSS only								
SDG		20071108							

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	** WSCF will NOT initiate liquid scintillation analysis of Tc-99 samples until directed to do so by S&GRP Sample and Data Management. ** WSCF will be provided with samples to be used for the development of the Tc-99 by ICP/MS method. S&GRP will not be charged for this method development work. (1)IC Anions - 300.0 {Bromide, Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate}	
J. Mehre	5-17-07 1205	[Signature]	5/17/07 1205		
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		

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

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COPY

Mehrer/Hocking **20070893** Trent, SJ 373-5869 TRENT, SJ PRICE CODE 7N
 SAMPLING LOCATION PROJECT DESIGNATION SAF NO. AIR QUALITY TURNAROUND
 I-44-eif-9 Puroite Resin Treatability Test - 200-ZP-1 OU F07-045 45 Days / 45 Days

ICE CHEST NO. FIELD LOGBOOK NO. COA 122597ES10 METHOD OF SHIPMENT GOVERNMENT VEHICLE

SHIPPED TO Waste Sampling & Characterization OFFSITE PROPERTY NO. N/A BILL OF LADING/AIR BILL NO. N/A

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WJ=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	HCl or H2SO4 to pH <2/Cool 4C	Cool 4C	Cool 4C	None	HCl to pH <2				
		TYPE OF CONTAINER	gGs*	P	G/P	G/P	G/P				
		NO. OF CONTAINER(S)	4	1	1	1	2				
		VOLUME	40mL	120mL	120mL	120mL	1000mL				
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	VCA - 82608 (TCL) (Carbon tetrachloride)	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Alkalinity - 310.1;	pH - 150.1;	Technetium-99 (Technetium-99)				

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
BINF80 1084	WATER	5-24-07	0930				
WOTG 201562 Tc99 only SDG 2007108							

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
J. Mehnert	5-24-07 1215	[Signature]	5/24/07	** WSCF will NOT initiate liquid scintillation analysis of Tc-99 samples until directed to do so by S&GRP Sample and Data Management.	
				** WSCF will be provided with samples to be used for the development of the Tc-99 by ICP/MS method. S&GRP will not be charged for this method development work. (1)IC Anions - 300.0 {Bromide, Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate}	
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		

ICED Initial Date
 [Signature]

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

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COPY

COLLECTOR Mehrer/Hocking		COMPANY CONTACT Trent, SJ		TELEPHONE NO. 373-5869		PROJECT COORDINATOR Trent, SJ		PRICE CODE 7N					
SAMPLING LOCATION I-44-In-3		PROJECT DESIGNATION PuroLite Resin Treatability Test - 200-ZP-1 OU		SAF NO. F07-045		AIR QUALITY <input type="checkbox"/>		45 Da, 45 Days					
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 122597ES10		METHOD OF SHIPMENT GOVERNMENT VEHICLE							
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A									
MATRIX* 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		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 HCl or H2SO4 to pH <2/Cool 4C		Cool 4C		Cool 4C		None		HCl to pH <2	
				TYPE OF CONTAINER aGs*		P		G/P		G/P		G/P	
				NO. OF CONTAINER(S) 3 AS-3.07 X3		1		1		1		2	
				VOLUME 40mL		120mL		120mL		120mL		100mL	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS VDA - 82608 (TCL) (Carbon tetrachloride)		SEE ITEM (1) IN SPECIAL INSTRUCTIONS		Alkalinity - 3.0.1;		pH - 150.1;		Technetium-99 (Technetium-99)			
SAMPLE NO.		MATRIX*		SAMPLE DATE		SAMPLE TIME		ICED		Initial Date			
B1NF47		WATER		5/3/07		1300							
863		W07GRO1S65		TC99 only									
SDG 20071108													
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM MJ Hocking		DATE/TIME 5/3/07 1430		RECEIVED BY/STORED IN [Signature]		DATE/TIME 5/3/07 1430		** WSCF will NOT initiate liquid scintillation analysis of Tc-99 samples until directed to do so by S&GRP Sample and Data Management.					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		** WSCF will be provided with samples to be used for the development of the Tc-99 by ICP/MS method. S&GRP will not be charged for this method development work. (1)IC Anions - 300.0 {Bromide, Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate}					
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							
LABORATORY SECTION		RECEIVED BY		TITLE		DATE/TIME							
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD		DISPOSED BY		DATE/TIME							

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COPY

COLLECTOR Mehrer/Hocking 20070796	COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION I-44-In-5	PROJECT DESIGNATION Purolite Resin Treatability Test - 200-ZP-1 OU	SAF NO. F07-045	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 122597ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	HCl or H2SO4 to pH <2/Cool 4C	Cool 4C	Cool 4C	None	HCl to pH <2
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	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)	TYPE OF CONTAINER	gS*	P	G/P	G/P	G/P
		NO. OF CONTAINER(S)	J. M. 07 5/13	1	1	1	2
		VOLUME	40mL	120mL	120mL	120mL	1000mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	MOA - 42508 (TCL) (Carbon tetrachloride)	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Alkalinity - 310.1;	pH - 150.1;	Technetium-99 (Technetium-99)

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B1NF48 911	WATER	5-10-07	1030	-	-	-	-
W07601566 Tc 99 only SDG 20071108							

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM J. Mehler	DATE/TIME 5-10-07 1125	RECEIVED BY/STORED IN TA FRAZIER
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN

** WSCF will NOT initiate liquid scintillation analysis of Tc-99 samples until directed to do so by S&GRP Sample and Data Management.

** WSCF will be provided with samples to be used for the development of the Tc-99 by ICP/MS method. S&GRP will not be charged for this method development work. (1)IC Anions - 300.0 (Bromide, Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate)

ICED
 Initial Date

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

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COPY

Mehner/Hodding	Trent, NJ	373-5869	TRENT, NJ	PRICE CODE 7N	TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION L-44-In-7 20070842	PROJECT DESIGNATION Purolite Resin Treatability Test - 200-ZP-1 OU	SAF NO. F07-045	AIR QUALITY		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 122597ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

MATRIX* 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	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	HCl or H2SO4 to pH <2/Cool 4C	Cool 4C	Cool 4C	None	HCl to pH <2		
		TYPE OF CONTAINER	gCs*	P	G/P	G/P	G/P	G/P	
		NO. OF CONTAINER(S)	4-5 Yes # 27-5/1-2	1	1	1	2		
		VOLUME	40mL	120mL	120mL	120mL	1000mL		
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	VOA - 8260B (TCL) (Carbon tetrachloride)	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Alkalinity - 310.1;	pH - 150.1;	Technetium-99 (Technetium-99)	

ICED
Initial Date

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME					
B1NF49	WATER	5-17-07	1000	✓	✓	✓	✓	✓
W07GR00997								
W07GR4108								
W07GR01567	SDG	20071108						

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM J. Mehner	DATE/TIME 5-17-07 1005	RECEIVED BY/STORED IN [Signature]	DATE/TIME 5/17/07 1205	** WSCF will NOT initiate liquid scintillation analysis of Tc-99 samples until directed to do so by S&GRP Sample and Data Management. ** WSCF will be provided with samples to be used for the development of the Tc-99 by ICP/MS method. S&GRP will not be charged for this method development work. (1) IC Anions - 300.0 {Bromide, Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate}
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	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

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COPY

Mehrner/Hocking 20070893	Trent, NJ 373-5869	TRENT, NJ	TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION 1-44-in-9	PROJECT DESIGNATION Purolite Resin Treatability Test - 200-ZP-1 OU	SAF NO. F07-045	AIR QUALITY <input type="checkbox"/>
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 122597E510	METHOD OF SHIPMENT GOVERNMENT VEHICLE
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A	

MATRIX* A=Air DL=Drum L=Liquid DS=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	HCl or H2SO4 to pH <2/Cool 4C	Cool 4C	Cool 4C	None	HCl to pH <2	
		TYPE OF CONTAINER	ggs*	P	G/P	G/P	G/P	G/P
		NO. OF CONTAINER(S)	4	1	1	1	2	
		VOLUME	40ml	120ml	120ml	120ml	1000ml	
		SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	NDA - 62608 (TOL) (Carbon tetrachloride)	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Alkalinity - 310.3;	pH - 150.1;	Technetium-99 (Technetium-99)

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B1NF50 1083	WATER	5-24-07	0930				
W076.R01568 - Tc 99 only SDG 20071108							

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. Mehrner	5-24-07 1215	[Signature]	5/21/07 1215
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** WSCF will NOT initiate liquid scintillation analysis of Tc-99 samples until directed to do so by S&GRP Sample and Data Management.

** WSCF will be provided with samples to be used for the development of the Tc-99 by ICP/MS method. S&GRP will not be charged for this method development work. (1)IC Anions - 300.0 (Bromide, Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate)

ICED
 [Signature]
 Date

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

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COPY