

Lionville Laboratory, Inc.
 INORGANIC ANALYTICAL DATA PACKAGE FOR
 TNUHANFORD W03-008 H2312

DATE RECEIVED: 08/18/03

LVL LOT # :0308L218

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
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B179X9

TOTAL ORGANIC CARBON	001	W	03LTC032	08/13/03	09/02/03	09/02/03
TOTAL ORGANIC CARBON	001 REP	W	03LTC032	08/13/03	09/02/03	09/02/03
TOTAL ORGANIC CARBON	001 MS	W	03LTC032	08/13/03	09/02/03	09/02/03

B179Y3

TOTAL ORGANIC CARBON	002	W	03LTC032	08/13/03	09/02/03	09/02/03
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LAB QC:

TOTAL ORGANIC CARBON	MB1	W	03LTC032	N/A	09/02/03	09/02/03
TOTAL ORGANIC CARBON	MB1 BS	W	03LTC032	N/A	09/02/03	09/02/03

Lionville Laboratory, Inc.
 INORGANIC ANALYTICAL DATA PACKAGE FOR
 TNUHANFORD W03-008 H2312

DATE RECEIVED: 08/19/03

LVL LOT # :0308L228

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B179Y0						
TOTAL ORGANIC CARBON	001	W	03LTC032	08/14/03	09/02/03	09/02/03
B179Y1						
TOTAL ORGANIC CARBON	002	W	03LTC032	08/14/03	09/02/03	09/02/03
B179Y2						
TOTAL ORGANIC CARBON	003	W	03LTC032	08/14/03	09/02/03	09/02/03
B179Y6						
TOTAL ORGANIC CARBON	004	W	03LTC032	08/14/03	09/02/03	09/02/03

LAB QC:

TOTAL ORGANIC CARBON	MB1	W	03LTC032	N/A	09/02/03	09/02/03
TOTAL ORGANIC CARBON	MB1 BS	W	03LTC032	N/A	09/02/03	09/02/03



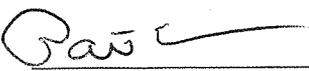
Analytical Report

Client: TNU-HANFORD W03-008 H2312
LVL#: 0308L218 and 0308L228

W.O.#: 11343-606-001-9999-00
Date Received: 08-18,19-03

INORGANIC NARRATIVE

1. This narrative covers the analysis of 6 water samples.
2. The samples were prepared and analyzed in accordance with the methods indicated on the attached glossary.
3. Sample holding times as required by the method and/or contract were met.
4. The results presented in this report are derived from samples that met LvLI's sample acceptance policy with the exception of samples B179X9 and B179Y3 as noted on the Sample Receipt Checklist.
5. The method blank was within the method criteria.
6. The Laboratory Control Sample (LCS) was within the laboratory control limits.
7. The matrix spike recovery for sample B179X9 was within the 75-125% control limits.
8. The replicate analysis for sample B179X9 was within the 20% Relative Percent Difference (RPD) control limit.
9. I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard copy package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.



Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

njp\08-218,228

09-05-03

Date

The results presented in this report relate to the analytical testing and conditions of the samples upon receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 24 pages.

Lionville Laboratory Incorporated

WET CHEMISTRY

METHODS GLOSSARY FOR WATER SAMPLE ANALYSIS

	<u>EPA /600</u>	<u>SW846</u>	<u>OTHER</u>
Acidity	305.1		
___ Alkalinity ___ Bicarbonate ___ Carbonate	310.1		
BOD	405.1		___ 5210B (b)
Ion Chromatography:			
___ Bromide ___ Chloride ___ Fluoride	300.0	___ 9056	
___ Nitrate ___ Nitrite ___ Phosphate	300.0	___ 9056	
___ Sulfate ___ Formate ___ Acetate ___ Oxalate	300.0	___ 9056	
Chloride	325.2	___ 9251	
Chlorine, Residual	330.5 (mod)		
Cyanide, Amenable to Chlorination	335.2	___ 9010B	
Cyanide, Total	335.2	___ 9010B	___ 9014 ___ ILMO4.0 (e)
Cyanide, Weak Acid Dissociable			___ 412 (a) ___ 4500CN-I (b)
COD	410.4(mod)		___ 5220C (b)
Color	110.2		
Corrosivity by Coupon		___ 1110(mod)	
Chromium VI		___ 7196A	___ 3500Cr-D (b)
Fluoride	340.2		___ 4500-FC
Hardness, Calcium	215.2		
Hardness, Total	130.2		
Iodide			___ ASTM D19P202 (1)
Surfactant	425.1		
___ Nitrate-Nitrite ___ Nitrate ___ Nitrite	353.2		
Ammonia	350.3		
Total ___ Kjeldahl ___ Organic Nitrogen	351.3		
Total ___ Organic ___ Inorganic Carbon	415.1	___ 9060	
Oil & Grease	413.1	___ 9070	
___ pH ___ pH; paper	150.1	___ 9040B ___ 9041A	
Petroleum Hydrocarbons, Total Recoverable	418.1		
Phenol	420.1	___ 420.2 ___ 9065 ___ 9066	
___ Ortho ___ Total Phosphate	365.2		___ 4500-P B ___ C ___ 210A (a) ___ 2520 (b)
Salinity			
Settleable Solids	160.5		
Sulfide	376.1		___ 9030B/9034 (acid soluble)
Reactive ___ Cyanide ___ Sulfide		___ Section 7.3 (___ 9014 ___ 9030B)	
Silica	370.1		
Sulfite	377.1		
Sulfate	375.4	___ 9038	
Specific Conductance	120.1	___ 9050A	
Specific Gravity			___ D5057-90 ___ 213E (a)
Synthetic Precipitation Leach		___ 1312	
Total ___ Dissolved ___ Suspended ___ Solids	160 ___ .1 ___ .2 ___ .3		
Total Organic Halides	450.1	___ 9020B	
Turbidity	180.1		
Volatile Solids:			
___ Total ___ Dissolved ___ Suspended	160.4		
Other:		Method:	

Lionville Laboratory Incorporated

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

- U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.
- * = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

- MB = Method or Preparation Blank.
MS = Matrix Spike.
MSD = Matrix Spike Duplicate.
REP = Sample Replicate
LC = Laboratory Control Sample.
NC = Not calculated.

A suffix of -R, -S, or -T following these codes indicate a replicate, spike or sample duplicate analysis respectively.

ANALYTICAL WET CHEMISTRY METHODS

1. ASTM Standard Methods.
2. USEPA Methods for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020).
3. Test Methods for Evaluating Solid Waste (USEPA SW-846).
 - a. Standard Methods for the Examination of Water and Waste, 16 ed, (1983).
 - b. Standard Methods for the Examination of Water and Waste, 17 ed, (1989)/18ed (1992).
 - c. Method of Soil Analysis, Part 1, Physical and Mineralogical Methods, 2nd ed, (1986).
 - d. Method of Soil Analysis, Part 2, Chemical and Microbiological Properties, Am. Soc. Agron., Madison, WI (1965).
 - e. USEPA Contract Laboratory Program, Statement of Work for Inorganic Analysis.
 - f. Code of Federal Regulations.

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 09/03/03

CLIENT: TNUHANFORD W03-008 H2312
WORK ORDER: 11343-606-001-9999-00

LVL LOT #: 0308L218

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
=====	=====	=====	=====	=====	=====	=====
-001	B179X9	Total Organic Carbon	0.50 u	MG/L	0.50	1.0
-002	B179Y3	Total Organic Carbon	0.69	MG/L	0.50	1.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 09/03/03

CLIENT: TNUHANFORD W03-008 H2312
WORK ORDER: 11343-606-001-9999-00

LVL LOT #: 0308L218

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
=====	=====	=====	=====	=====	=====	=====
BLANK10	03LTC032-MB1	Total Organic Carbon	0.50 u	MG/L	0.50	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 09/03/03

CLIENT: TNUHANFORD W03-008 H2312
WORK ORDER: 11343-606-001-9999-00

LVL LOT #: 0308L218

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR (SPK)
=====	=====	=====	=====	=====	=====	=====	=====
-001	B179X9	Total Organic Carbon	5.4	0.23	5.0	104.0	1.0
BLANK10	03LTC032-MB1	Total Organic Carbon	5.0	0.50u	5.0	99.1	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 09/03/03

CLIENT: TNUHANFORD W03-008 H2312
WORK ORDER: 11343-606-001-9999-00

LVL LOT #: 0308L218

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR (REP)
=====	=====	=====	=====	=====	=====	=====
-001REP	E179X9	Total Organic Carbon	0.50u	0.50u	NC	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 09/03/03

CLIENT: TNUHANFORD W03-008 H2312
WORK ORDER: 11343-606-001-9999-00

LVL LOT #: 0308L228

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
=====	=====	=====	=====	=====	=====	=====
-001	B179Y0	Total Organic Carbon	0.50 u	MG/L	0.50	1.0
-002	B179Y1	Total Organic Carbon	0.50 u	MG/L	0.50	1.0
-003	B179Y2	Total Organic Carbon	0.50 u	MG/L	0.50	1.0
-004	B179Y6	Total Organic Carbon	0.50 u	MG/L	0.50	1.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 09/03/03

CLIENT: TNUHANFORD W03-008 H2312
WORK ORDER: 11343-606-001-9999-00

LVL LOT #: 0308L228

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	03LTC032-MB1	Total Organic Carbon	0.50 u	MG/L	0.50	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 09/03/03

CLIENT: TNUHANFORD W03-008 H2312
WORK ORDER: 11343-606-001-9999-00

LVL LOT #: 0308L228

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR (SPK)
BLANK10	03LTC032-MB1	Total Organic Carbon	5.0	0.50u	5.0	99.1	1.0

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W03-008-311**

Page **1** of **1**

Collector D. R. BREWINGTON	Contact/Requester DL STEWART	Telephone No. 509-376-5056	MSIN FAX
SAF No. W03-008	Sampling Origin HANFORD SITE	Purchase Order/Charge Code	
Project Title RCRA GW MONITORING, AUGUST 2003	Logbook No. DFSNW-SAWS-1467	Ice Chest No. SAWS-011	Temp.
Shipped To (Lab) EBERLINE SERVICES (Formerly TMA)	Method of Shipment GOVT VEHICLE	Bill of Lading/Air Bill No.	
Protocol RCRA	Data Turnaround 45 Days	Offsite Property No. 7903 78492347	

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
Batch all PNNL GW samples submitted under 'W', 'S' and 'A' SAF's into one SDG, not to exceed SDG closure of 14 days. Total activity exemption applies unless otherwise stated.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B179X9		W	8-13-03	1253	1x20-mL P	Activity Scan	None
B179X9		W	↓	↓	1x250-mL aGs*	TOC - 9060	HCl or H2SO4 to pH <2 Cool 4C
<i>[Large handwritten signature and date 8-13-03 across the table]</i>							

Relinquished By D. R. BREWINGTON	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time AUG 13 2003 1450	Received By FED EX	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 8-14-03 1000	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liqui SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By FED EX	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 8-14 1600	Received By Eberline services	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 8-14-03 1000	
Relinquished By Service	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 8-14 1600	Received By SPerry	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 8/18/03 0935	
Relinquished By FedEx	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 8/18/03 0935	Received By SPerry	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time 8/18/03 0935	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process)

Disposed By **SPerry** Date/Time **8/18/03 0935**

Collector D. R. BREWINGTON	Contact/Requester DL STEWART	Telephone No. 509-376-5056	MSIN	FAX
SAF No. W03-008	Sampling Origin HANFORD SITE	Purchase Order/Charge Code		
Project Title RCRA GW MONITORING, AUGUST 2003	Logbook No. <i>DFSNW-SAW5-H67</i>	Ice Chest No. <i>SAWS-011</i>	Temp.	
Shipped To (Lab) EBERLINE SERVICES (Formerly TMA)	Method of Shipment GOVT VEHICLE	Bill of Lading/Air Bill No.		
Protocol RCRA	Data Turnaround 45 Days	Offsite Property No. <i>790378492347</i>		

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
Batch all PNNL GW samples submitted under 'W', 'S' and 'A' SAF's into one SDG, not to exceed SDG closure of 14 days. Total activity exemption applies unless otherwise stated.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B179Y3		W	<i>8-13-03</i>	<i>1025</i>	1x20-mL P	Activity Scan	None
B179Y3		W	<i>↓</i>	<i>↓</i>	1x250-mL aGs*	TOC - 9060	HCl or H2SO4 to pH <2 Cool 4C
<i>Deleted 8-13-03</i>							

Relinquished By <i>D. R. Brewington</i>	Print <i>D. R. Brewington</i>	Sign <i>[Signature]</i>	Date/Time <i>AUG 13 2003 14:00</i>	Received By <i>FED EX</i>	Print <i>FED EX</i>	Sign <i>[Signature]</i>	Date/Time <i>[Blank]</i>	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liqui SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By <i>FED EX</i>	Print <i>FED EX</i>	Sign <i>[Signature]</i>	Date/Time <i>8-14 1600</i>	Received By <i>[Signature]</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <i>8-14-03</i>	
Relinquished By <i>[Signature]</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <i>8-14 1600</i>	Received By <i>[Signature]</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <i>[Blank]</i>	
Relinquished By <i>FedEx</i>	Print <i>FedEx</i>	Sign <i>[Signature]</i>	Date/Time <i>8/18/03 0935</i>	Received By <i>[Signature]</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <i>8/18/03 0935</i>	

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

SDG # H2312

PAGE 1

Eberline Srvces

CHAIN OF CUSTODY

ORD # R3-08-076

08/14/03 13:10:59

WORK ID: SAF# W03-008 SDG H2312

RCVD: 08/14/03 DUE: 09/28/03

KEEP: 09/27/04 DISP: S

<u>CASH</u>	<u>SAMPLE IDENTIFICATION</u>	<u>STORED</u>	<u>TESTS</u>
01A-W	B179X9	LION	DISPOS E158
01B-W	B179X9 MS	LION	E158
01C-W	B179X9 DUP	LION	E158

02A-W	B179Y3	LION	DISPOS E158

<u>RELEASED BY</u>	<u>DATE</u>	<u>TRANSFERRED TO</u>	<u>DATE</u>	<u>RECEIVED BY</u>	<u>DATE</u>
<i>[Signature]</i>	8-14-03	LION VILP			

LIONVILLE LABORATORY INCORPORATED SAMPLE RECEIPT CHECKLIST

CLIENT: *TNU - Hartford*

DATE: *8/18/03*

Purchase Order/Project:

SAF# / SOW# / Release #: *W03-008*

Laboratory SDG #: *0308L218*

NOTE: ALL ENTRIES MARKED "NO" MUST BE EXPLAINED IN THE COMMENT SECTION

- | | | | | |
|--|---|--|---|--|
| 1. Custody seals on coolers or shipping container intact, signed and dated? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 2. Outside of coolers or shipping containers are free from damage? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 3. Airbill # recorded? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 4. All expected paperwork received (coc and other client specific: historical data, alpha/beta or other screening data as applicable)? (paperwork sealed in plastic bag and taped to inside lid) | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 5. Sample containers are intact? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 6. Custody seals on sample containers intact, signed and dated? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 7. All samples on coc received? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 8. All sample label information matches coc? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 9. Laboratory QC samples designated on coc? (QC stickers placed on bottles?) | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 10. Shipment meets LvLI Sample Acceptance Policy? (identify all bottles not within policy. See reverse side for policy) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> see Comment # <i>(4)</i> |
| 11. Where applicable, bar code labels are affixed to coc? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 12. coc signed and dated? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 13. coc will be faxed or emailed to client? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 14. Project Manager/Client contacted concerning discrepancies? (name/date) | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |

Cooler # / temp (°C) and Comments:

#SAWS 011 / 22°C

as voice mail @ 1005 on 8/18/03

(4) Samples very warm

Laboratory Sample Custodian: *J Purny 8/18/03*

Laboratory Project Manager:

Collector D. R. BREWINGTON	Contact/Requester DL STEWART <i>SDA H23TB kg</i>	Telephone No. MSIN FAX 509-376-5056
SAF No. W03-008	Sampling Origin HANFORD SITE <i>H2312</i>	Purchase Order/Charge Code
Project Title RCRA GW MONITORING, AUGUST 2003	Logbook No. <i>DESNW-3AWS-467</i>	Ice Chest No. Temp. <i>SACS-017</i>
Shipped To (Lab) EBERLINE SERVICES (Formerly TMA)	Method of Shipment GOVT VEHICLE	Bill of Lading/Air Bill No. <i>7929 4923 2268</i>
Protocol RCRA	Data Turnaround 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
* * *

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
Batch all PNNL GW samples submitted under 'W', 'S' and 'A' SAF's into one SDG, not to exceed SDG closure of 14 days. Total activity exemption applies unless otherwise stated.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B179Y0		W	<i>8-14-03</i>	<i>1137</i>	1x20-mL P	Activity Scan	None
B179Y0		W	<i>↓</i>	<i>↓</i>	1x250-mL aGs*	TOC - 9060	HCl or H2SO4 to pH <2 Cool 4C
<i>[Large diagonal signature and date 8-14-03 across the table]</i>							

Relinquished By D. R. BREWINGTON <i>[Signature]</i>	Date/Time AUG 14 2003 <i>1400</i>	Received By FED EX	Date/Time			Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liqui SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By FED EX	Date/Time	Received By <i>[Signature]</i>	Date/Time <i>8-18-03 1000</i>			
Relinquished By <i>[Signature]</i>	Date/Time <i>8-18-03 1600</i>	Received By	Date/Time			
Relinquished By FED EX	Date/Time <i>8-19-03 10:35</i>	Received By <i>[Signature]</i>	Date/Time <i>8-19-03 10:35</i>			
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By		Date/Time	

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

W03-008-313

Page 1 of 1

Collector KJ. YOUNG	Contact/Requester DL STEWART <i>SDG H2316</i>	Telephone No. 509-376-5056	MSIN FAX
SAF No. W03-008	Sampling Origin HANFORD SITE <i>H2312</i>	Purchase Order/Charge Code	
Project Title RCRA GW MONITORING AUGUST 2003	Logbook No. <i>DFSNO.SAWS H72</i>	Ice Chest No. <i>SAWS-017</i>	Temp.
Shipped To (Lab) EBERLINE SERVICES (Formerly TMA)	Method of Shipment GOVT VEHICLE	Bill of Lading/Air Bill No. <i>7929 4923 2268</i>	
Protocol RCRA	Data Turnaround 45 Days	Offsite Property No.	

POSSIBLE SAMPLE HAZARDS/REMARKS
** **

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
Batch all PNNL GW samples submitted under 'W', 'S' and 'A' SAF's into one SDG, not to exceed SDG closure of 14 days. Total activity exemption applies unless otherwise stated.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B179Y1		W	<i>8-14-03</i>	<i>1111</i>	1x20-mL P	Activity Scan	None
B179Y1		W	<i>↓</i>	<i>↓</i>	1x250-mL aGs*	TOC - 9060	HCl or H2SO4 to pH <2 Cool 4C
<i>[Large handwritten signature]</i>							
<i>8-14-03</i>							

Relinquished By KJ. YOUNG	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <i>1400</i>	Received By <i>Fed Ex</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time <i>1000 8-15-03</i>	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liqui SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By <i>Fed Ex</i>			Date/Time <i>AUG 14 2003</i>	Received By <i>[Signature]</i>			Date/Time <i>1000 8-15-03</i>	
Relinquished By <i>[Signature]</i>			Date/Time <i>8-18-03 1600</i>	Received By <i>[Signature]</i>			Date/Time <i>8-19-03 110:35</i>	
Relinquished By <i>Fed Ex</i>			Date/Time <i>8-19-03 10:35</i>	Received By <i>[Signature]</i>			Date/Time <i>8-19-03 110:35</i>	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By <i>[Signature]</i>	Date/Time

02

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

W03-008-314

Page 1 of 1

Collector D. R. BREWINGTON	Contact/Requester DL STEWART <i>SDG H2316</i>	Telephone No. 509-376-5056	MSIN FAX
SAF No. W03-008	Sampling Origin HANFORD SITE <i>H2312</i>	Purchase Order/Charge Code	
Project Title RCRA GW MONITORING AUGUST 2003	Logbook No. <i>DFSNW-GAWS-467</i>	Ice Chest No. <i>SAWS-017</i> Temp.	
Shipped To (Lab) EBERLINE SERVICES (Formerly TMA)	Method of Shipment GOVT VEHICLE	Bill of Lading/Air Bill No. <i>7929 4923 2268</i>	
Protocol RCRA	Data Turnaround 45 Days	Offsite Property No.	

POSSIBLE SAMPLE HAZARDS/REMARKS
* * *

SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes No
Batch all PNNL GW samples submitted under 'W', 'S' and 'A' SAF's into one SDG, not to exceed SDG closure of 14 days. Total activity exemption applies unless otherwise stated.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B179Y2		W	<i>8-14-03</i>	<i>1009</i>	1x20-mL P	Activity Scan	None
B179Y2		W	<i>↓</i>	<i>↓</i>	1x250-mL aGs*	TOC - 9060	HCl or H2SO4 to pH <2 Cool 4C
<i>[Large handwritten signature]</i>							
<i>8-14-03</i>							

Relinquished By D. R. BREWINGTON <i>[Signature]</i>	Date/Time AUG 14 2003 <i>1000</i>	Received By FED EX	Date/Time	Matrix * S = Soil DS = Drum Solid SE = Sediment DL = Drum Liqui SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By FED EX	Date/Time	Received By <i>[Signature]</i>	Date/Time 8-15-03 1000	
Relinquished By <i>[Signature]</i>	Date/Time 8-18-03 1600	Received By	Date/Time	
Relinquished By FED EX	Date/Time 8-19-03/10:35	Received By <i>[Signature]</i>	Date/Time 8-19-03/10:35	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Disposed By	Date/Time

<u>DASH</u>	<u>SAMPLE IDENTIFICATION</u>	<u>STORED</u>	<u>TESTS</u>
01A-W	B179Y0	LION	DISPOS E158
01B-W	B179Y0	LION	E_BTL
02A-W	B179Y1	LION	DISPOS E158
02B-W	B179Y1	LION	E_BTL
03A-W	B179Y2	LION	DISPOS E158
03B-W	B179Y2	LION	E_BTL
04A-W	B179Y6	LION	DISPOS E158
04B-W	B179Y6	LION	E_BTL
04C-W	B179Y6 MS	LION	E158
04D-W	B179Y6 DUP	LION	E158

<u>RELEASED BY</u>	<u>DATE</u>	<u>TRANSFERRED TO</u>	<u>DATE</u>	<u>RECEIVED BY</u>	<u>DATE</u>
<i>[Signature]</i>	8-18-03	LIONVILLE			

LIONVILLE LABORATORY INCORPORATED SAMPLE RECEIPT CHECKLIST

CLIENT: TNU Hanford
Purchase Order/Project:

DATE: 8-19-03

SAF# / SOW# / Release #: W03-008

Laboratory SDG #: 0308L228

NOTE: ALL ENTRIES MARKED "NO" MUST BE EXPLAINED IN THE COMMENT SECTION

- | | | | | |
|--|---|-----------------------------|-------------------------------------|--|
| | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A | <input type="checkbox"/> see Comment # |
| 1. Custody seals on coolers or shipping container intact, signed and dated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Outside of coolers or shipping containers are free from damage? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Airbill # recorded? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. All expected paperwork received (coc and other client specific: historical data, alpha/beta or other screening data as applicable)? (paperwork sealed in plastic bag and taped to inside lid) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Sample containers are intact? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Custody seals on sample containers intact, signed and dated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. All samples on coc received? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. All sample label information matches coc? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Laboratory QC samples designated on coc? (QC stickers placed on bottles?) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10. Shipment meets LvLI Sample Acceptance Policy? (identify all bottles not within policy. See reverse side for policy) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Where applicable, bar code labels are affixed to coc? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 12. coc signed and dated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. coc will be faxed or emailed to client? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Project Manager/Client contacted concerning discrepancies? (name/date) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler # / temp (°C) and Comments:

SAWS-017/1.2-

Laboratory Sample Custodian:

D. Smith

Laboratory Project Manager: