

JANUARY 08, 2008

Lionville Laboratory, Inc.  
PEST/PCB ANALYTICAL DATA PACKAGE FOR  
TNUHANFORD F03-015 H3564

DATE RECEIVED: 08/31/07

LVL LOT # :0708L838

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B1PKK6	001	SO	07LE0503	08/28/07	09/04/07	09/10/07
B1PKK6	001 MS	SO	07LE0503	08/28/07	09/04/07	09/10/07
B1PKK6	001 MSD	SO	07LE0503	08/28/07	09/04/07	09/14/07
B1PKK9	002	SO	07LE0524	08/28/07	09/13/07	09/14/07

LAB QC:

PBLKFT	MB1	S	07LE0503	N/A	08/04/07	09/10/07
PBLKFT	MB1 BS	S	07LE0503	N/A	08/04/07	09/10/07
PBLKGJ	MB1	S	07LE0524	N/A	09/13/07	09/14/07
PBLKGJ	MB1 BS	S	07LE0524	N/A	09/13/07	09/14/07



00001



Case Narrative  
\*\*REVISION\*\*

**Client:** TNU-HANFORD F03-015  
**LVL #:** 0708L838  
**SDG/SAF #** H3564 / F03-015

**W.O. #:** 11343-606-001-9999-00  
**Date Received:** 08-31-2007

### CHLORINATED PESTICIDES

\*\*Package revised to correct extraction date\*\*

Two (2) soil samples were collected on 08-28-2007.

The samples and their associated QC samples were extracted on 09-04,13-2007 and analyzed according to Lionville Laboratory SOPs based on SW846, 3rd Edition procedure on 09-10,14-2007. The extraction procedure was based on method 3540C and the extracts were analyzed based on method 8081A.

All soil samples are reported on a dry weight basis unless requested by the client, required by the method, or noted otherwise. The following is a summary of the QC results accompanying the sample results. Lionville Laboratory Inc (LvLI) certifies that all test results meet the requirements of NELAC except as noted below:

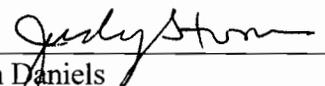
1. All results presented in this report are derived from a sample that met LvLI's sample acceptance policy.
2. Sample 002 was extracted 2 days outside of recommended hold time. A copy of the Sample Discrepancy Report (SDR) has been enclosed.
3. The method blank was below the reporting limits for all target compounds.
4. All surrogate recoveries were within acceptance criteria.
5. Two (2) of forty (40) blank spike recoveries were outside acceptance criteria. A copy of the Sample Discrepancy Report (SDR) has been enclosed.
6. Two (2) of forty (40) matrix spike recoveries were outside acceptance criteria. A copy of the Sample Discrepancy Report (SDR) has been enclosed.
7. All of the samples required a 4-fold instrument dilution due to matrix.

r:\group\data\pest\tnu hanford\0708-838ks2\_rev.pst.doc

The results presented in this report relate only to the analytical testing and conditions of the samples at 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 14 pages.



8. The initial calibrations associated with this data set were within acceptance criteria.
9. The continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.
10. LvLI is NELAP accredited by the State of Pennsylvania. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.
11. 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 data package has been authorized by the laboratory Manager or a designee, as verified by the following signature.

  
Iain Daniels  
Laboratory Manager  
Lionville Laboratory Incorporated

10/18/07  
Date

JANUARY 08, 2008

Lionville Laboratory Sample Discrepancy Report (SDR)

SDR #: 0760240

Initiator: CAC  
Date: 9-18-07  
Client: TNU

Batch: 0709L905 + 0708L 838  
Samples: BS  
Method: SWB46/MCAWW/CLPI

Parameter: 0608Hj  
Matrix: SOIL  
Prep Batch: 07LE0524

1. Reason for SDR

a. COC Discrepancy  Tech Profile Error  Client Request  Sampler Error on C-O-C  
 Transcription Error  Wrong Test Code  Other \_\_\_\_\_

b. General Discrepancy

Missing Sample/Extract  Container Broken  Wrong Sample Pulled  Label ID's Illegible  
 Hold Time Exceeded  Insufficient Sample  Preservation Wrong  Received Past Hold  
 Improper Bottle Type  Not Amenable to Analysis

Note\*: Verified by [Log-In] or [Prep Group] (circle)...signature/date: \_\_\_\_\_

c. Problem (Include all relevant specific results; attach data if necessary)

*4,4 DDE out high*

2. Known or Probable Causes(s)

3. Discussion and Proposed Action

Other Description:

- Re-log
- Entire Batch
- Following Samples: \_\_\_\_\_
- Re-leach
- Re-extract
- Re-digest
- Revise EDD
- Change Test Code to \_\_\_\_\_
- Place On/Take Off Hold (circle)

*NO DDE in samples*  
*No impact on data*  
*Narrate 28.*

4. Project Manager Instructions...signature/date: \_\_\_\_\_

- Concur with Proposed Action
- Disagree with Proposed Action; See Instruction
- Include in Case Narrative
- Client Contacted:
- Date/Person \_\_\_\_\_
- Add
- Cancel

5. Final Action...signature/date: KAD 10-11-07

Other Explanation:

- Verified re-[log][leach][extract][digest][analysis] (circle)
- Included in Case Narrative
- Hard Copy COC Revised
- Electronic COC Revised
- EDD Corrections Completed

When Final Action has been recorded, forward original to QA Specialist for distribution and filing.

Route Distribution of Completed SDR

- Initiator
- Lab General Manager: M. Taylor
- Project Mgr. Stone/Johnson
- Data Management: Stilwell
- Sample Prep: Beegle/Kiger

Route Distribution of Completed SDR

- Metals: Beegle
- Inorganic: Perrone
- GC/LC: Kiger
- MS: Rychlak/Daley
- Log-in: Perry
- Admin: \_\_\_\_\_
- Other: \_\_\_\_\_



JANUARY 08, 2008

Lionville Laboratory Sample Discrepancy Report (SDR)

SDR # 076C242

Initiator: CAL  
Date: 9-18-07  
Client: TNU

Batch: 07082838  
Samples: 00/MS + BS  
Method: SW846/MCAWW/CLPI

Parameter: 0608Hj  
Matrix: 301C  
Prep Batch: 07LE0503

1. Reason for SDR

a. COC Discrepancy  Tech Profile Error  Client Request  Sampler Error on C-O-C  
 Transcription Error  Wrong Test Code  Other \_\_\_\_\_

b. General Discrepancy

Missing Sample/Extract  Container Broken  Wrong Sample Pulled  Label ID's Illegible  
 Hold Time Exceeded  Insufficient Sample  Preservation Wrong  Received Past Hold  
 Improper Bottle Type  Not Amenable to Analysis

Note: Verified by [Log-In] or [Prep Group] (circle)...signature/date: \_\_\_\_\_

c. Problem (Include all relevant specific results; attach data if necessary)

*Several spikes outside recovery limits*

2. Known or Probable Causes(s)

3. Discussion and Proposed Action

Other Description:

- Re-log
- Entire Batch
- Following Samples: \_\_\_\_\_
- Re-leach
- Re-extract
- Re-digest
- Revise EDD
- Change Test Code to \_\_\_\_\_
- Place On/Take Off Hold (circle)

*BS OK for all but DDE.  
DDE not detected in any samples*

*No impact on data  
A. K. Korte 10/12/07*

4. Project Manager Instructions...signature/date: \_\_\_\_\_

- Concur with Proposed Action
- Disagree with Proposed Action; See Instruction
- Include in Case Narrative
- Client Contacted:
- Date/Person \_\_\_\_\_
- Add
- Cancel

5. Final Action...signature/date: KAL 10-11-07

Other Explanation:

- Verified re-[log][leach][extract][digest][analysis] (circle)
- Included in Case Narrative
- Hard Copy COC Revised
- Electronic COC Revised
- EDD Corrections Completed

When Final Action has been recorded, forward original to QA Specialist for distribution and filing.

Route Distribution of Completed SDR  
 Initiator  
 Lab General Manager: M. Taylor  
 Project Mgr. Stone/Johnson  
 Data Management: Stilwell  
 Sample Prep: Beegle/Kiger

Route Distribution of Completed SDR  
 Metals: Beegle  
 Inorganic: Perrone  
 GC/LC: Kiger  
 MS: Rychlak/Daley  
 Log-in: Perry  
 Admin: \_\_\_\_\_  
 Other: \_\_\_\_\_



GLOSSARY OF DATA

DATA QUALIFIERS

- U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).
- J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
- B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.
- E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- I = Interference.
- .I = Indicates an interference on one analytical column only. Result is reported from remaining analytical column.

ABBREVIATIONS

- BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.
- BSD = Indicates blank spike duplicate.
- MS = Indicates matrix spike.
- MSD = Indicates matrix spike duplicate.
- DL = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.
- NA = Not Applicable.
- DF = Dilution Factor.
- NR = Not Required.
- NS = Not Spiked.
- SP = Indicates Spiked Compound.
- P = This flag is used for an PESTICIDE/PCB target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".
- D = This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- C = This flag applies to a compound that has been confirmed by GC/MS.
- NPM = No pattern match for multi-component target analytes.

Sample Information: RFW#: 001 Matrix: SOLID D.F.: 4.00 Units: UG/KG  
 Cust ID: B1PKK6 B1PKK6 B1PKK6 B1PKK6 B1PKK9 PBLKFT PBLKFT BS  
 001 MS 001 MSD 002 07LE0503-MB1 07LE0503-MB1  
 4.00 UG/KG 4.00 UG/KG 4.00 UG/KG 4.00 UG/KG 4.00 UG/KG 1.00 UG/KG 1.00 UG/KG

Surrogate:	Tetrachloro-m-xylyene	Decachlorobiphenyl	Alpha-BHC	gamma-BHC (Lindane)	Beta-BHC	Heptachlor	Delta-BHC	Aldrin	Heptachlor epoxide	gamma-Chlordane	Endosulfan I	alpha-Chlordane	4,4'-DDE	Dieldrin	Endrin	4,4'-DDD	Endosulfan II	4,4'-DDT	Endrin aldehyde	Endosulfan sulfate	Methoxychlor	Endrin ketone	Toxaphene
	107	117	11	4.8	8.0	12	2.1	2.1	2.1	2.1	7.5	2.1	3.6	2.1	2.1	2.1	2.1	2.1	2.1	2.1	5.7	2.1	21
	%	%	%	J.I	J.I	.I	U	U	U	U	J.I	U	J	U	U	U	U	U	U	U	J.I	U	U
	91	108	91	104	97	58	101	110	109	92	95	103	128	105	108	110	113	98	104	112	118	114	21
	%	%	%	%	%	*	%	%	%	%	%	%	*	%	%	%	%	%	%	%	%	%	%
	89	102	89	96	118	69	107	99	109	104	100	101	108	104	106	114	113	102	104	110	99	111	21
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	100	83	100	1.9	1.9	2.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	19
	%	%	%	U	U	J.I	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	102	105	102	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	3.3
	%	%	%	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
	97	101	97	103	108	100	106	113	113	116	114	116	124	117	106	117	108	116	83	107	103	96	3.3
	%	%	%	%	%	%	%	%	%	%	%	%	*	%	%	%	%	%	%	%	%	%	%

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.  
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. \*= Outside of EPA CLP QC

RFW Batch Number: 07081838

Client: TNUHANFORD F03-015 H3564

Report Date: 10/11/07 14:50

Monville Laboratory, Inc.  
Pesticide/PCBs by GC, CLP List

Cust ID: PBLKJ PBLKJ BS

Sample Information RPM#: 071E0524-MB1 071E0524-MB1

Matrix: SOIL SOIL

D.F.: 1.00 1.00

Units: UG/KG UG/KG

Surrogate:	Tetrachloro-m-xylene	97	%	97	%
Decachlorobiphenyl	82	%	87	%	
Alpha-BHC	0.33	U	100	%	
gamma-BHC (Lindane)	0.33	U	104	%	
Beta-BHC	0.33	U	111	%	
Heptachlor	0.33	U	113	%	
Delta-BHC	0.33	U	108	%	
Aldrin	0.33	U	114	%	
Heptachlor epoxide	0.33	U	115	%	
gamma-Chlordane	0.33	U	115	%	
Endosulfan I	0.33	U	116	%	
alpha-Chlordane	0.33	U	114	%	
4,4'-DDE	0.33	U	121	%	
Dieldrin	0.33	U	119	%	
Endrin	0.33	U	120	%	
4,4'-DDD	0.33	U	117	%	
Endosulfan II	0.33	U	115	%	
4,4'-DDT	0.33	U	128	%	
Endrin aldehyde	0.33	U	89	%	
Endosulfan sulfate	0.33	U	89	%	
Methoxychlor	0.33	U	116	%	
Endrin ketone	0.33	U	112	%	
Toxaphene	3.3	U	3.3	U	

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.  
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. \*= Outside of EPA CLP QC



**COLLECTOR**  
Characterizational Sampler

**AMPLING LOCATION**  
ModuTanks Sample Zone 1

**CE CHEST NO.**  
RRP-03.017

**SHIPPED TO**  
Jorville Laboratory Incorporated

**MATRIX\***  
=Air  
=L-Drum  
=Liquids  
=S-Drum  
=Liquids  
=Oil  
=Soil  
=Sediment  
=Tissue  
=Vegetation  
=Water  
=Wipe  
=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)

**SPECIAL HANDLING AND/OR STORAGE**  
Radioactive to B1PKK3

**DATE**  
JANUARY 08, 2008

**HAND OF POSSESSION**

**COMPANY CONTACT**  
TRENT, SJ  
373-5869

**TELEPHONE NO.**  
373-5869

**PROJECT DESIGNATION**  
Modu Tank - Sludge Sampling

**FIELD LOGBOOK NO.**  
COA  
122541ES10

**OFFSITE PROPERTY NO.**  
See PTR  
28151

**PRESERVATION**  
Cool-to-C

**TYPE OF CONTAINER**  
a/c

**NO. OF CONTAINER(S)**  
1

**VOLUME**  
250ml

**SAMPLE ANALYSIS**  
pesticides - 8091, Herbicides - 8150A.

**SAMPLE DATE**  
8/28/07

**SAMPLE TIME**  
1225

**SIGN/ PRINT NAMES**

**RECEIVED BY/STORER IN**  
M. A. Baechler  
DATE/TIME  
8/30/2007 1100

**ELINQUISHED BY/REMOVED FROM**  
3. PC15TS2  
DATE/TIME  
8/28/07 1500

**ELINQUISHED BY/REMOVED FROM**  
A. Baechler  
DATE/TIME  
8/31/07 0945

**RECEIVED BY/STORER IN**  
M. A. Baechler  
DATE/TIME  
8/30/2007 1100

**RECEIVED BY/STORER IN**  
A. Baechler  
DATE/TIME  
8/31/07 0945

**ELINQUISHED BY/REMOVED FROM**

**RECEIVED BY**

**RECEIVED BY/STORER IN**

**PROJECT COORDINATOR**  
TRENT, SJ

**PRICE CODE**  
9N

**AIR QUALITY**

**METHOD OF SHIPMENT**  
FEDERAL EXPRESS

**DATA TURNAROUND**  
45 Days / 45 Days

**BILL OF LADING/AIR BILL NO.**  
See PTR  
28151

**SPECIAL INSTRUCTIONS**

**TITLE**

**DISPOSED BY**

**DATE/TIME**

COLLECTOR

Characterizational Sampler

SAMPLING LOCATION

Modu Tanks Sample Zone 2

CE CHEST NO.

SRP-03-017

HIPPED NO.

Jonville Laboratory Incorporated

MATRIX\* 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)

SPECIAL HANDLING AND/OR STORAGE Radioactive Ite to B1PKK3

COMPANY CONTACT

TRENT, SJ

TELEPHONE NO.

373-5869

PROJECT COORDINATOR

TRENT, SJ

PRICE CODE 9N

AIR QUALITY

DATA TURNAROUND 45 Days / 45 Days

PROJECT DESIGNATION

Modu Tank - Sludge Sampling

FIELD LOGBOOK NO.

COA 12254ES10

METHOD OF SHIPMENT FEDERAL EXPRESS

BILL OF LADING/AIR BILL NO. 20151

OFFSITE PROPERTY NO. 20151

See PTR

See PTR

PRESERVATION Cool--4C

TYPE OF CONTAINER ag

NO. OF CONTAINER(S) 1

VOLUME 250ml

SAMPLE ANALYSIS

Pesticides - 8081; Herbicides - 8150A;

SAMPLE DATE 8-28-07

SAMPLE TIME 1300

X

DATE OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

ELIMQUISHED BY/REMOVED FROM

PRSTY/ 8/28/07

DATE/TIME 1500

RECEIVED BY/STORED IN

MO-745 FR16

DATE/TIME 8/28/07

1500

ELIMQUISHED BY/REMOVED FROM

10-745 FR16

DATE/TIME AUG 30 2007

RECEIVED BY/STORED IN

M. A. Bacchler

DATE/TIME 8/28/07

1100

ELIMQUISHED BY/REMOVED FROM

A. Bacchler

DATE/TIME 8/31/07

RECEIVED BY/STORED IN

FR16

DATE/TIME 8/31/07

0940

ELIMQUISHED BY/REMOVED FROM

ELIMQUISHED BY/REMOVED FROM

ELIMQUISHED BY/REMOVED FROM

LABORATORY SECTION

RECEIVED BY

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

TITLE

DISPOSED BY

DATE/TIME

DATE/TIME

JANUARY 08, 2008

000000012

JANUARY 08, 2008

Lionville Laboratory Incorporated  
SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: TNU HANFORD  
Project/SAF/SOW/Release #: F03-015

Date: 8/31/07

LvLI Batch #: 0708L838

Sample Custodian: [Signature]

NOTE: EXPLAIN ALL DISCREPANCIES

- |   |  |  |
|---|--|--|
| 1. Samples Hand Delivered or <u>Shipped?</u>  | Carrier <u>Fed Ex</u>  | Airbill # <u>790817791053</u>  |
| 2. Custody Seals on coolers or shipping containers intact, signed & dated?  | <input checked="" type="checkbox"/> Yes  | <input type="checkbox"/> No <input type="checkbox"/> No Seals                                      |
| 3. Outside of coolers or shipping containers are free from damage?  | <input checked="" type="checkbox"/> Yes  | <input type="checkbox"/> No <input type="checkbox"/> Comments:                                     |
| 4. All expected paperwork received (COC & other client specific information) sealed in plastic bag and easily accessible?                   | <input checked="" type="checkbox"/> Yes  | <input type="checkbox"/> No  |
| 5. Samples received cooled or ambient?  | Temp <u>4.8</u> °C   | Cooler # <u>GRP-03-017</u>   |
| How was the temperature taken?  | <input checked="" type="checkbox"/> IR   | <input type="checkbox"/> Temp. Blank <input type="checkbox"/> Other (Specify):                     |
| Is the Temp. Criteria met for these samples? (Hg in soils @ 4°C)  | <input checked="" type="checkbox"/> Yes  | <input type="checkbox"/> No  |
| 6. Custody seals on sample containers intact, signed and dated?   | <input checked="" type="checkbox"/> Yes  | <input type="checkbox"/> No <input type="checkbox"/> No Seals                                      |
| 7. COC (Client & LvLI) signed & dated?  | <input checked="" type="checkbox"/> Yes  | <input type="checkbox"/> No  |
| 8. Sample containers are intact?  | <input checked="" type="checkbox"/> Yes  | <input type="checkbox"/> No  |
| 9. All samples on COC received?<br>All samples received on COC?   | <input checked="" type="checkbox"/> Yes<br><input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No<br><input type="checkbox"/> No   |
| 10. All sample label information matches COC?   | <input checked="" type="checkbox"/> Yes  | <input type="checkbox"/> No <u>Soils Have layer of water</u>                                       |
| 11. Samples properly preserved? (if #5 is no, then this is no.)   | <input checked="" type="checkbox"/> Yes  | <input type="checkbox"/> No  |
| 12. Samples received within hold times?<br>Short holds taken to wet lab?  | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> Yes            | <input type="checkbox"/> No<br><input type="checkbox"/> No <input checked="" type="checkbox"/> N/A |
| 13. VOA, TOC, TOX free of headspace?  | <input type="checkbox"/> Yes   | <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A                                |
| 14. QC stickers placed on bottles designated by client?   | <input type="checkbox"/> Yes   | <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A                                |
| 15. Shipment meets LvLI Sample Acceptance Policy? (Identify all bottles that do not meet the policy, which is on the reverse of this page.) | <input checked="" type="checkbox"/> Yes  | <input type="checkbox"/> No  |
| 16. Project Manager contacted concerning any discrepancies?<br>Person Contacted _____   | <input type="checkbox"/> Yes   | <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A<br>Date _____                  |



SAMPLE EXTRACTION RECORD

Sheet no. : 1

Extract. Date: 09/04/07      Extraction Batch No: 07LE0503      Analyst: MF      Method: \*\*\*\* *505324*

Test: 0608      Cleanup Date:      Analyst:      Client: TNUHANFORD F03-015 H3564

LIMS Report Date: 09/06/07      Solvent: DCM/ACETONE,HEXANE      Adsorbent:

Sample No:	Client Name	Client ID	pH	Initial	Surr.	Spike	Final	Final	Final	Split	GPC	%	C/D
				WT/VOL	Mult.	Mult.	VOL	VOL	VOL	Mult.	Y/N	Solids	FACTOR
07081838-	TNUHANFORD	F03-015	H3564										
001 H	B1PKK6			30.0	1.0	1.0	10	10	10	1.0	N	62.29	535.1
001 HS	B1PKK6			30.0	1.0	1.0	10	10	10	1.0	N	62.29	535.1
001 HT	B1PKK6			30.0	1.0	1.0	10	10	10	1.0	N	62.29	535.1
07LE0503-MB1 H	PBLKFT			30.0	1.0	1.0	10	10	10	1.0	N	100.00	333.3
07LE0503-MB1 HS	PBLKFT			30.0	1.0	1.0	10	10	10	1.0	N	100.00	333.3

Comments:  
 Surrogate: 250 UL OLM PSURR 89916109  
 Spike: 250 UL FULL LIST PEST SPIKE 89915506

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer
<i>all</i>	<i>SW</i>	<i>9/7/07 08:50</i>	<i>52</i>	<i>9/07/07</i>	<i>GC</i>

SAMPLE EXTRACTION RECORD

Sheet no.: 1

Extract. Date: 09/13/07      Extraction Batch No: 07LE0524      Analyst: MF      Method: \*\*\*\*  
 Test: 0608      Cleanup Date:      Analyst:      Client: TNU-HANFORD F03-015  
 LIMS Report Date: 10/11/07      Solvent: DCM/ACETONE,HEXANE      Adsorbent:

Sample No:	Client Name	Client ID	pH	Initial Surr.	Spike	Final	Final	Split	GPC	%	Vis	C/D	Sulfur
			WT/VOL	Mult.	Mult.	VOL	VOL	Mult.	Y/N	Solid	H2O	FACTOR	Clean?
0708L838 -	TNU-HANFORD	F03-015											
002 H	BIPKK9		30.0	1.0		10		1.0	N	70.84		470.5	
0709L905 -	TNUHANFORD	RC-031 K0958											
001 H	J15JB0		30.0	1.0		10		1.0	N	95.23		350.0	
001 HS	J15JB0		30.0	1.0		10		1.0	N	95.23		350.0	
001 HT	J15JB0		30.0	1.0		10		1.0	N	95.23		350.0	
07LE0524-MB1 H			30.0	1.0		10		1.0	N	100.00		333.3	
07LE0524-MB1 HS			30.0	1.0		10		1.0	N	100.00		333.3	

Comments:  
 Surrogate: 250 UL OLM PSURR 89916109  
 Spike: 250 UL FULL LIST PEST SPIKE 89915506

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

The following peaks were manually integrated:

LVLI#:	<u>07081838-0015</u> <i>CUP2</i>	RT: <u>9.153</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>10.425</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>10.284</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>11.686</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>11.789</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>11.939</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>13.030</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>15.061</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>15.697</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>16.205</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>16.352</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>16.904</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>17.286</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>18.286</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>18.860</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>19.027</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>19.890</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>20.195</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>21.127</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	<u>07081838-0015</u> <i>CUP</i>	RT: <u>7.315</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>8.303</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>8.736</u>	Reason: (PI) MP SP CB OTHER: _____
LVLI#:	_____	RT: <u>9.183</u>	Reason: (PI) MP SP CB OTHER: _____
		<u>9.794</u>	Reason: (PI) MP SP CB OTHER: _____

PI - Proper Integration MP - Missing peak SP - Split Peak CB - Coelution / Background

JANUARY 08, 2008

**Ayres, Doris E**

---

**From:** Widrig, Dana L  
**Sent:** Tuesday, January 08, 2008 12:26 PM  
**To:** Ayres, Doris E  
**Subject:** FW: P&D H3563 and H3564

Sorry!

-----Original Message-----

From: Orlette Johnson [mailto:johnsono@lionvillelab.com]  
Sent: Monday, January 07, 2008 1:57 PM  
To: Widrig, Dana L  
Subject: P&D H3563 and H3564

Dana,

For H3563 and H3564 please note:

93-65-2 and 94-74-6 the laboratory did not calibrate for these constituents as they are not included in the standard Fluor request

57-74-9: per the standard Fluor requests isomers alpha chlordane and gamma chlordane were reported

87-86-2: pentachlorophenol is a standard herbicide for us we will remove it from your list; a revised EDD will be reloaded tomorrow

On Wed, October 24, 2007 1:45 pm, Widrig, Dana L said:

> Orlette,  
>  
> Attached is a P&D with details on missing data and added data that we  
> didn't request. Do you mind finding the missing data and re-reporting  
> the data without the added constituent to us in hardcopy and EDD  
> format?  
>  
> Thanks,  
>  
> Dana  
>

-----  
Statement of confidentiality: This e-mail message and any accompanying attachments may contain information that is CONFIDENTIAL and subject to legal privilege. If you are not the intended recipient, do not read, use, disseminate, distribute or copy this message or attachments. If you have received this message in error, please notify the sender immediately and delete this message.

**Problems and Discrepancies**

SDG H3564

RLNP

1. For SDG H3564 3 constituents, CAS #s 93-65-2, 94-74-6 and 57-74-9 are missing. One constituent, CAS # 87-86-5 is reported and was not requested. Please reissue this data in hardcopy and EDD format along with missing data and without added constituents.

JANUARY 08, 2008

Lionville Laboratory, Inc.  
HBGX ANALYTICAL DATA PACKAGE FOR  
TNUHANFORD F03-015 H3564

DATE RECEIVED: 08/31/07

LVL LOT # :0708L838

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B1PKK6	001	SO	07LE0523	08/28/07	09/13/07	09/17/07
B1PKK9	002	SO	07LE0523	08/28/07	09/13/07	09/17/07
B1PKK9	002 MS	SO	07LE0523	08/28/07	09/13/07	09/17/07
B1PKK9	002 MSD	SO	07LE0523	08/28/07	09/13/07	09/17/07

LAB QC:

PBLKGK	MB1	S	07LE0523	N/A	09/13/07	09/17/07
PBLKGK	MB1 BS	S	07LE0523	N/A	09/13/07	09/17/07
PBLKGK	MB1 BSD	S	07LE0523	N/A	09/13/07	09/17/07





Case Narrative

**Client:** TNU-HANFORD F03-015  
**LVL #:** 0708L838  
**SDG/SAF #** H3563/F03-015

**W.O. #:** 11343-606-001-9999-00  
**Date Received:** 08-31-2007

**HERBICIDE**

Two (2) solid samples were collected on 08-28-2007.

The samples and their associated QC samples were extracted on 09-13-2007 and analyzed according to Lionville Laboratory SOPs based on SW846, 3rd Edition procedure on 09-17-2007. The extraction and analysis procedures were based on method 8151A.

All solid samples are reported on a dry weight basis unless requested by the client, required by the method, or noted otherwise. The following is a summary of QC results accompanying the sample results. Lionville Laboratory Inc (LvLI) certifies that all test results meet the requirements of NELAC except as noted below:

1. The samples were extracted 2 day outside of recommended hold time.
2. The method blank was below the reporting limits for all target compounds.
3. One (1) of seven (7) surrogate recoveries was outside acceptance criteria. However, the surrogate recovery acceptance criteria were met (i.e. no more than one outlier per sample).
4. All blank spike recoveries were within acceptance criteria.
5. One (1) of eighteen (18) matrix spike recoveries was outside acceptance criteria.
6. The initial calibrations associated with this data set were within acceptance criteria.
7. The continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.



8. LvLI is NELAP accredited by the State of Pennsylvania. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.
  
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 data package has been authorized by the laboratory Manager or a designee, as verified by the following signature.

  
\_\_\_\_\_  
Iain Daniels  
Laboratory Manager  
Lionville Laboratory Incorporated

10/12/07  
Date



GLOSSARY OF DATA

DATA QUALIFIERS

- U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).
- J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
- B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.
- E = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- I = Interference.
- .I = Indicates an interference on one analytical column only. Result is reported from remaining analytical column.

ABBREVIATIONS

- BS = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spiking solutions and carried through all the steps in the method. Spike recoveries are reported.
- BSD = Indicates blank spike duplicate.
- MS = Indicates matrix spike.
- MSD = Indicates matrix spike duplicate.
- DL = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.
- NA = Not Applicable.
- DF = Dilution Factor.
- NR = Not Required.
- NS = Not Spiked.
- SP = Indicates Spiked Compound.
- P = This flag is used for an PESTICIDE/PCB target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".
- D = This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- C = This flag applies to a compound that has been confirmed by GC/MS.
- NPM = No pattern match for multi-component target analytes.

5500000000

RFW Batch Number: 07081838

Sample Information	RFM#: 001	Matrix: SOLID	D.F.: 1.00	Units: ug/kg	Cust ID: B1PKK6	B1PKK9	B1PKK9	B1PKK9	PB1KGG	PB1KGG BS
						002	002 MS	002 MSD	07LE0523-MB1	07LE0523-MB1
									SOLL	SOLL

Surrogate:	DCAA	30	*	%	57	%	61	%	52	%	58	%	60	%
Dalapon	17	J			9.3	J	44	%	25	*	33	U	47	%
Dicamba	54	U			33	U	66	%	73	%	33	U	89	%
Dichloroprop	54	U			33	U	79	%	59	%	33	U	81	%
2,4-D	54	U			33	U	72	%	70	%	33	U	94	%
2,4,5-TP (Silvex)	27	U			17	U	82	%	115	%	17	U	92	%
2,4,5-T	27	U			17	U	88	%	83	%	17	U	94	%
Dinoseb	27	U			17	U	89	%	80	%	17	U	66	%
2,4-DB	27	U			17	U	83	%	79	%	17	U	96	%
Pentachlorophenol	27	U			17	U	86	%	80	%	17	U	67	%

Cust ID: PB1KGG BSD

Sample Information  
 RFM#: 07LE0523-MB1  
 Matrix: SOLL  
 D.F.: 1.00  
 Units: ug/kg

Surrogate:	DCAA	62	%	46	%	85	%	83	%	88	%	86	%	86	%	63	%	87	%	58	%
Dalapon	46	%																			
Dicamba	85	%																			
Dichloroprop	83	%																			
2,4-D	88	%																			
2,4,5-TP (Silvex)	86	%																			
2,4,5-T	86	%																			
Dinoseb	63	%																			
2,4-DB	87	%																			
Pentachlorophenol	58	%																			

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.  
 %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. \*= Outside of EPA CLP QC



COLLECTOR  
Characterizational Sampler

AMPLING LOCATION  
ModuTank Sample Zone 1

CE CHEST NO.  
HIPPED TO

**BRP-03.017**

Lionville Laboratory Incorporated

MATRIX\*  
=Air  
=L-Drum  
=Quids  
=S-Drum  
=Liquid  
=OH  
=SOil  
=Sediment  
=Issue  
=Vegetation  
=Water  
=Wipe  
=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)

SPECIAL HANDLING AND/OR STORAGE  
Radioactive be to BLPK3

SAMPLE NO.  
1PKK6

MATRIX\*

OTHER SOLID

**JANUARY 08, 2008**

CHAIN OF POSSESSION

COMPANY CONTACT  
TRENT, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
TRENT, SJ

PRICE CODE  
9N

DATA  
TURNAROUND  
45 Days /  
45 Days

PROJECT DESIGNATION  
Modu Tank - Sludge Sampling

FIELD LOGBOOK NO.

COA  
122541ES10

METHOD OF SHIPMENT  
FEDERAL EXPRESS

OFFSITE PROPERTY NO.  
See PTR

**20151**

BILL OF LADING/AIR BILL NO.  
See PTR  
**20151**

PRESERVATION

Code--4C

TYPE OF CONTAINER

AG

NO. OF CONTAINER(S)

1

VOLUME

250ML

SAMPLE ANALYSIS

Pesticides -  
8081;  
Herbicides -  
8150A;

SAMPLE DATE  
8/28/07

SAMPLE TIME  
1225

OTHER SOLID

V

SIGN/ PRINT NAMES

RECEIVED BY/STORED IN

DATE/TIME

**M.A. Baehler**

**8/28/07**

**1500**

RECEIVED BY/STORED IN

**M.A. Baehler**

**8/28/07**

**1100**

RECEIVED BY/STORED IN

**M.A. Baehler**

**8/28/07**

**0945**

RECEIVED BY/STORED IN

**M.A. Baehler**

**8/28/07**

**0945**

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

TITLE

DATE/TIME

DISPOSED BY

DATE/TIME

LABORATORY SECTION

RECEIVED BY

DATE/TIME

DATE/TIME

DATE/TIME

DISPOSAL METHOD

COLLECTOR

Characterizational Sampler

SAMPLING LOCATION

Modu Tanks Sample Zone 2

CHEST NO.

GRP-03-017

IONVILLE LABORATORY INCORPORATED

MATRIX\* 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)

Matrix types: Air, Drum, Liquid, Soil, Sediment, Tissue, Vegetation, Water, Wipe, Other

SPECIAL HANDLING AND/OR STORAGE: Radioactive tie to B1PK3

COMPANY CONTACT

TRENT, SJ

TELEPHONE NO.

373-5869

PROJECT COORDINATOR

TRENT, SJ

PRICE CODE

9N

DATA TURNAROUND

45 Days / 45 Days

PROJECT DESIGNATION

Modu Tank - Sludge Sampling

FIELD LOGBOOK NO.

COA 122541E510

METHOD OF SHIPMENT

FEDERAL EXPRESS

OFFSITE PROPERTY NO.

See PTR 20151

BILL OF LADING/AIR BILL NO.

See PTR 20151

PRESERVATION

Cool-d/C

TYPE OF CONTAINER

bag

NO. OF CONTAINER(S)

1

VOLUME

250ml

SAMPLE ANALYSIS

Pesticides: 8081, Herbicides: 8150A

SAMPLE DATE: 8-28-07

SAMPLE TIME: 1300

OTHER SOLID

X

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RECEIVED BY/STORER IN

DATE/TIME

DATE/TIME

JANUARY 08, 2008

0000000000

JANUARY 08, 2008

Lionville Laboratory Incorporated  
SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: TNU HANFORD  
Project/SAFE/SOW/Release #: F03-015

Date: 8/31/07

LvLI Batch #: 0708L838

Sample Custodian: Paul H &

NOTE: EXPLAIN ALL DISCREPANCIES

1. Samples Hand Delivered or <u>Shipped?</u>	Carrier: <u>Fed Ex</u>	Airbill #: <u>790817791053</u>
2. Custody Seals on coolers or shipping containers intact, signed & dated?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> No Seals
3. Outside of coolers or shipping containers are free from damage?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Comments:
4. All expected paperwork received (coc & other client specific information) sealed in plastic bag and easily accessible?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Samples received cooled or ambient?	Temp: <u>4.8</u> °C	Cooler #: <u>GRP-03-017</u>
How was the temperature taken?	<input checked="" type="checkbox"/> IR <input type="checkbox"/> Temp. Blank	<input type="checkbox"/> Other (Specify):
Is the Temp. Criteria met for these samples? (Hg in soils @ 4°C)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
6. Custody seals on sample containers intact, signed and dated?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> No Seals
7. COC (Client & LvLI) signed & dated?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
8. Sample containers are intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
9. All samples on COC received? All samples received on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
10. All sample label information matches COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>Soils Have layer of water</u>
11. Samples properly preserved? (if #5 is no, then this is no.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
12. Samples received within hold times? Short holds taken to wet lab?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
13. VOA, TOC, TOX free of headspace?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
14. QC stickers placed on bottles designated by client?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
15. Shipment meets LvLI Sample Acceptance Policy? (Identify all bottles that do not meet the policy, which is on the reverse of this page.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
16. Project Manager contacted concerning any discrepancies? Person Contacted _____	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A Date: _____



Extract. Date: 09/13/07      Extraction Batch No: 071E0523      Analyst: MF      Method: SONC3550  
 Test: OHBG      Cleanup Date:      Analyst:      Client: STOLLER QXP02218K1A  
 LIMS Report Date: 10/11/07      Solvent: DCM/ACETONE,HEXANE      Adsorbent:

Sample No:	Client Name	Client ID	pH	Initial Surr.	Spike Mult.	Final VOL	Final VOL	Split GPC	% Solid	C/D FACTOR
07081813-	STOLLER QXP02218K1A									
001 T	WP082207-1		30.0	1.0	10	10	1.0	N	0.0	333.3
002 T	WP082207-2		30.0	1.0	10	10	1.0	N	0.0	333.3
07081838-	TNUHANFORD F03-015	H3564								
001 X	B1PKK6		30.0	1.0	10	10	1.0	N	62.29	535.1
002 X	B1PKK9		30.0	1.0	10	10	1.0	N	70.84	333.3
002 XS	B1PKK9		30.0	1.0	10	10	1.0	N	70.84	333.3
002 XT	B1PKK9		30.0	1.0	10	10	1.0	N	70.84	333.3
07091884-	MANAR INC.									
001 X	GUARSAR 201		30.0	1.0	10	10	1.0	N	0.0	333.3
002 X	ISAGUAR 501		30.0	1.0	10	10	1.0	N	0.0	333.3
003 X	GUAR GUM 71/71		30.0	1.0	10	10	1.0	N	0.0	333.3
004 X	GUAR GUM 31/71		30.0	1.0	10	10	1.0	N	0.0	333.3
005 X	GUAR GUM DA VISCO DG		30.0	1.0	10	10	1.0	N	0.0	333.3
006 X	GUAR GUM PROCOLU		30.0	1.0	10	10	1.0	N	0.0	333.3
007 X	NEWMARK 1 ULV-50		30.0	1.0	10	10	1.0	N	0.0	333.3
008 X	NEWMARK 2 FG60/70		30.0	1.0	10	10	1.0	N	0.0	333.3
071E0523-MB1 T			30.0	1.0	10	10	1.0	N	100.00	333.3
071E0523-MB1 TS			30.0	1.0	10	10	1.0	N	100.00	333.3
071E0523-MB1 TT			30.0	1.0	10	10	1.0	N	100.00	333.3
071E0523-MB1 X			30.0	1.0	10	10	1.0	N	100.00	333.3
071E0523-MB1 XS			30.0	1.0	10	10	1.0	N	100.00	333.3
071E0523-MB1 XT			30.0	1.0	10	10	1.0	N	100.00	333.3

Comments:  
 Surrogate: 250 UL OLM PSTURR 89916109  
 Spike: 100 UL HERB SPIKE 89916301

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer

SAMPLE EXTRACTION RECORD

Sheet no.: 1

Extract. Date: 09/13/07      Extraction Batch No: 07LE0523      Analyst: MF      Method: SONC3550  
 Test: OHBG      Cleanup Date:      Analyst:      Client: STOLLER QXP02218K1A  
 LIMS Report Date: 09/14/07      Solvent: DCM/ACETONE,HEXANE      Adsorbent:

Sample No:	Client Name	Client ID	PH	Initial	Surr.	Spike	Final	Final	Split	GPC	%	C/D
			WT/VOL	Mult.	Mult.	Mult.	VOL	VOL	Mult.	Y/N	Solids	FACTOR

0708L813-	STOLLER QXP02218K1A											
001 T	WP082207-1		30.0	1.0			10		1.0	N	0.0	333.3
002 T	WP082207-2		30.0	1.0			10		1.0	N	0.0	333.3
0708L838-	TNUHANFORD F03-015 H3564											
001 X	B1PKK6		30.0	1.0			10		1.0	N	62.29	535.1
002 X	B1PKK9		30.0	1.0			10		1.0	N	0.0	333.3
002 XS	B1PKK9		30.0	1.0			10		1.0	N	0.0	333.3
002 XT	B1PKK9		30.0	1.0			10		1.0	N	0.0	333.3
0709L884-	MANAR INC.											
001 X	GUARSAR 201		30.0	1.0			10		1.0	N	0.0	333.3
002 X	ISAGUAR 501		30.0	1.0			10		1.0	N	0.0	333.3
003 X	GUAR GUM 71/71		30.0	1.0			10		1.0	N	0.0	333.3
004 X	GUAR GUM 31/71		30.0	1.0			10		1.0	N	0.0	333.3
005 X	GUAR GUM DA VISCO DG		30.0	1.0			10		1.0	N	0.0	333.3
006 X	GUAR GUM PROCOLU		30.0	1.0			10		1.0	N	0.0	333.3
007 X	NEWARK 1 ULV-50		30.0	1.0			10		1.0	N	0.0	333.3
008 X	NEWARK 2 FG60/70		30.0	1.0			10		1.0	N	0.0	333.3
07LE0523-MB1 T	PBLK GK		30.0	1.0			10		1.0	N	100.00	333.3
07LE0523-MB1 TS	PBLK GK		30.0	1.0			10		1.0	N	100.00	333.3
07LE0523-MB1 TT	PBLK GK		30.0	1.0			10		1.0	N	100.00	333.3
07LE0523-MB1 X	PBLK GK		30.0	1.0			10		1.0	N	100.00	333.3
07LE0523-MB1 XS	PBLK GK		30.0	1.0			10		1.0	N	100.00	333.3
07LE0523-MB1 XT	PBLK GK		30.0	1.0			10		1.0	N	100.00	333.3

Comments:  
 Surrogate: 250 UL OLM PSURR 89916109  
 Spike: 100 UL HERB SPIKE 89916301

Extracts Transferred	Relinquished By	Date Time	Received By	Date Time	Reason for Transfer
<i>all</i>	<i>VF</i>	<i>9/14/07 1440</i>	<i>AK</i>	<i>allison</i>	<i>GC</i>

The following peaks were manually integrated:

FX-200	LVL#:	<u>070523-031-5</u>	RT:	<u>17.893</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>17.969</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>070523-031-7</u>	RT:	<u>17.503</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>17.978</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
FX-35	LVL#:	<u>07091838-001</u>	RT:	<u>18.444</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>19.940</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>20.654</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
FX-200	LVL#:	<u>07091838-001</u>	RT:	<u>20.909</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>22.656</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
FX-35	LVL#:	<u>07091838-002</u>	RT:	<u>19.966</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>20.627</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>21.257</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
FX-200	LVL#:	<u>07081878-002</u>	RT:	<u>16.667</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>17.905</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>19.444</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
FX-35	LVL#:	<u>07091838-002-5</u>	RT:	<u>21.800</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>23.247</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
FX-200	LVL#:	<u>┆</u>	RT:	<u>17.901</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>17.974</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
FX-35	LVL#:	<u>07081878-002-T</u>	RT:	<u>23.260</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
FX-200	LVL#:	<u>┆</u>	RT:	<u>17.914</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	<u>┆</u>	RT:	<u>17.987</u>	Reason:	<u>PI</u>	MP	SP	CB	OTHER:	_____
	LVL#:	_____	RT:	_____	Reason:	PI	MP	SP	CB	OTHER:	_____

PI - Proper Integration MP - Missing peak SP - Split Peak CB - Coelution / Background

JANUARY 08, 2008



October 19, 2007

Mr. Steve Trent  
Fluor Hanford Inc.  
825 Jadwin Avenue  
Richland, WA 99352

Reference: **P.O. #630**  
**Eberline Services R7-09-003-7679, SDG H3564**

Dear Mr. Trent:

Enclosed is the data report for two solid (other solid) samples designated under SAF No. F03-015 received at Eberline Services on August 31, 2007. The samples were analyzed according to the accompanying chain-of-custody documents.

Please call if you have any questions concerning this report.

Sincerely,

Melissa C. Mannion  
Senior Program Manager

*mcm*  
*1/27/08*

MCM/njv

Enclosure: Data Package

00000001

Analytical Services  
2030 Wright Avenue  
P.O. Box 4040  
Richmond, California 94804-0040  
(510) 235-2633 Fax (510) 235-0438  
Toll Free (800) 841-5487  
[www.eberlineservices.com](http://www.eberlineservices.com)

Eberline Services  
W.O. No. R7-09-003-7679

Fluor Hanford Inc.  
SDG H3564

Case Narrative

Page 1 of 1

**1.0 GENERAL**

Fluor Hanford Inc. (FH) Sample Delivery Group H3564 was composed of two solid (other solid) samples designated under SAF No. F03-015 with a Project Designation of: ModuTank-Sludge Sampling.

The samples were received as stated on the Chain-of-Custody document. Any discrepancies are noted on the Eberline Services Sample Receipt Checklist.

**2.0 ANALYSIS NOTES**

**2.1 Tritium Analysis**

No problems were encountered during the course of the analyses.

**2.2 Iodine-129 Analysis**

No problems were encountered during the course of the analyses.

**3.0 Case Narrative Certification Statement**

**"I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."**

  
\_\_\_\_\_  
**Melissa C. Mannion**  
**Senior Program Manager**

10/19/17  
\_\_\_\_\_  
**Date**

JANUARY 08, 2008

EBRLINE SERVICES / RICHMOND  
SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

Client Hanford  
Contract No. 630  
Case no SDG H3564

S U M M A R Y   D A T A   S E C T I O N

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*n. J. Smith*  
Prepared by

*Melissa Mannion*  
Reviewed by

Lab id EBRLNE  
Protocol Hanford  
Version Ver 1.0  
Form DVD-TOC  
Version 3.06  
Report date 10/19/07

JANUARY 08, 2008

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford  
Contract No. 630  
Case no SDG\_H3564

ABOUT THE DATA SUMMARY SECTION

The Data Summary Section of a Data Package has all data, in several useful orders, necessary for first level, routine review of the data package for a Sample Delivery Group (SDG). This section follows the Data Package Narrative, which has an overview of the data package and a discussion of special problems. It is followed by the Raw Data Section, which has full details.

The Data Summary Section has several groups of reports:

SAMPLE SUMMARIES

The Sample and QC Summary Reports show all samples, including QC samples, reported in one SDG. These reports cross-reference client and lab sample identifiers.

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches (lab groupings reflecting how work was organized) relevant to the reported SDG with information necessary to check the completeness and consistency of the SDG.

WORK SUMMARY

The Work Summary Report shows all samples and work done on them relevant to the reported SDG.

METHOD BLANKS

The Method Blank Reports, one for each Method Blank relevant to the SDG, show all results and primary supporting information for the blanks.

LAB CONTROL SAMPLES

The Lab Control Sample Reports, one for each Lab Control Sample relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

REPORT GUIDES

Page 1

SUMMARY DATA SECTION

Page 1

Lab id EBRLNE  
Protocol Hanford  
Version Ver 1.0  
Form DVD-RG  
Version 3.06  
Report date 10/19/07

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JANUARY 08, 2008

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

GUIDE , c o n t .

Client Hanford  
Contract No. 630  
Case no SDG\_H3564

ABOUT THE DATA SUMMARY SECTION

DUPLICATES

The Duplicate Reports, one for each Duplicate and Original sample pair relevant to the SDG, show all results, differences and primary supporting information for these QC samples.

MATRIX SPIKES

The Matrix Spike Reports, one for each Spiked and Original sample pair relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DATA SHEETS

The Data Sheet Reports, one for each client sample in the SDG, show all results and primary supporting information for these samples.

METHOD SUMMARIES

The Method Summary Reports, one for each test used in the SDG, show all results, QC and method performance data for one analyte on one or two pages. (A test is a short code for the method used to do certain work to the client's specification.)

REPORT GUIDES

The Report Guides, one for each of the above groups of reports, have documentation on how to read the associated reports.

REPORT GUIDES

Page 2

SUMMARY DATA SECTION

Page 2

Lab id EBRLNE  
Protocol Hanford  
Version Ver 1.0  
Form DVD-RG  
Version 3.06  
Report date 10/19/07

00000005

JANUARY 08, 2008

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3564

SDG 7679

Contact Melissa C. Mannion

LAB SAMPLE SUMMARY

Client Hanford

Contract No. 630

Case no SDG H3564

LAB						CHAIN OF	
SAMPLE ID	CLIENT SAMPLE ID	LOCATION	MATRIX	LEVEL	SAF NO	CUSTODY	COLLECTED
R709003-01	B1PKK6	ModuTanks Sample Zone 1	SOLID		F03-015	F03-015-032	08/28/07 12:25
R709003-02	B1PKK9	ModuTanks Sample Zone 2	SOLID		F03-015	F03-015-039	08/28/07 13:00
R709003-03	Lab Control Sample		SOLID		F03-015		
R709003-04	Method Blank		SOLID		F03-015		
R709003-05	Duplicate (R709003-01)	ModuTanks Sample Zone 1	SOLID		F03-015		08/28/07 12:25

LAB SUMMARY

Page 1

SUMMARY DATA SECTION

Page 3

Lab id EBRLNE  
Protocol Hanford  
Version Ver 1.0  
Form DVD-LS  
Version 3.06  
Report date 10/19/07

00000006

JANUARY 08, 2008

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3564

SDG 7679

Contact Melissa C. Mannion

QC SUMMARY

Client Hanford

Contract No. 630

Case no SDG H3564

QC BATCH	CHAIN OF CUSTODY	CLIENT SAMPLE ID	MATRIX	% SOLIDS	SAMPLE AMOUNT	BASIS AMOUNT	DAYS SINCE RECEIVED	LAB COLL	DEPARTMENT SAMPLE ID
7679	F03-015-032	B1PKK6	SOLID	100.0	69 g		08/31/07 3	R709003-01	7679-001
	F03-015-039	B1PKK9	SOLID	100.0	75 g		08/31/07 3	R709003-02	7679-002
		Method Blank	SOLID					R709003-04	7679-004
		Lab Control Sample	SOLID					R709003-03	7679-003
		Duplicate (R709003-01)	SOLID	100.0	69 g		08/31/07 3	R709003-05	7679-005

QC SUMMARY

Page 1

SUMMARY DATA SECTION

Page 4

Lab id EBRLNE  
 Protocol Hanford  
 Version Ver 1.0  
 Form DVD-QS  
 Version 3.06  
 Report date 10/19/07

00000007

JANUARY 08, 2008

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

PREP BATCH SUMMARY

Client Hanford  
Contract No. 630  
Case no SDG H3564

TEST	MATRIX	METHOD	PREPARATION ERROR		PLANCHETS ANALYZED				QUALI-	
			BATCH	2 $\sigma$ %	CLIENT	MORE	RE	BLANK		LCS
Gamma Spectroscopy										
I	SOLID	Iodine 129 in Solids	6116-199	10.0	2		1	1	1/1	
Liquid Scintillation Counting										
H	SOLID	Tritium in Solids	6116-199	10.0	2		1	1	1/1	

Duplicates and Matrix Spikes are those with original (Client) sample in this Sample Delivery Group.  
Blank and LCS planchets are those in the same preparation batch as some Client, Duplicate or Spike sample.

PREP BATCH SUMMARY

Page 1

SUMMARY DATA SECTION

Page 5

Lab id EBRINE  
Protocol Hanford  
Version Ver 1.0  
Form DVD-PBS  
Version 3.06  
Report date 10/19/07

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JANUARY 08, 2008

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3564

SDG 7679  
 Contact Melissa C. Mannion

LAB WORK SUMMARY

Client Hanford  
 Contract No. 630  
 Case no SDG H3564

LAB SAMPLE RECEIVED	CLIENT SAMPLE ID LOCATION CUSTODY	MATRIX SAF No	PLANCHET	TEST	SUF- FIX	ANALYZED	REVIEWED	BY	METHOD
709003-01 08/28/07 08/31/07	B1PKK6 ModuTanks Sample Zone 1 F03-015-032 F03-015	SOLID	7679-001	H I		10/11/07 10/04/07	10/15/07 10/09/07	BW BW	Tritium in Solids Iodine 129 in Solids
709003-02 08/28/07 08/31/07	B1PKK9 ModuTanks Sample Zone 2 F03-015-039 F03-015	SOLID	7679-002	H I		10/11/07 10/05/07	10/15/07 10/09/07	BW BW	Tritium in Solids Iodine 129 in Solids
709003-03 08/28/07 08/31/07	Lab Control Sample F03-015	SOLID	7679-003	H I		10/11/07 10/05/07	10/15/07 10/09/07	BW BW	Tritium in Solids Iodine 129 in Solids
709003-04 08/28/07 08/31/07	Method Blank F03-015	SOLID	7679-004	H I		10/11/07 10/05/07	10/15/07 10/09/07	BW BW	Tritium in Solids Iodine 129 in Solids
709003-05 08/28/07 08/31/07	Duplicate (R709003-01) ModuTanks Sample Zone 1 F03-015	SOLID	7679-005	H I		10/11/07 10/08/07	10/15/07 10/09/07	BW BW	Tritium in Solids Iodine 129 in Solids

COUNTS OF TESTS BY SAMPLE TYPE

TEST	SAF No	METHOD	REFERENCE	CLIENT	MORE	RE	BLANK	LCS	DUP SPIKE	TOTAL
H	F03-015	Tritium in Solids	TRITIUM_COX_LSC	2			1	1	1	5
I	F03-015	Iodine 129 in Solids	I129_SEP_LEPS_GS	2			1	1	1	5
<b>TOTALS</b>				4			2	2	2	10

WORK SUMMARY

Page 1

SUMMARY DATA SECTION

Page 6

Lab id EBRLNE  
 Protocol Hanford  
 Version Ver 1.0  
 Form DVD-LWS  
 Version 3.06  
 Report date 10/19/07

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JANUARY 08, 2008

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP H3564

7679-004

Method Blank

METHOD BLANK

SDG <u>7679</u>	Client/Case no <u>Hanford</u>	<u>SDG H3564</u>
Contact <u>Melissa C. Mannion</u>	Contract No. <u>630</u>	
Lab sample id <u>R709003-04</u>	Client sample id <u>Method Blank</u>	
Dept sample id <u>7679-004</u>	Material/Matrix <u>SOLID</u>	
	SAF No <u>F03-015</u>	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALIFIERS	TEST
Tritium	10028-17-8	-6.45	35	60.0	400	U	H
Iodine 129	15046-84-1	-0.239	0.42	0.965	2.00	U	I

ModuTank-Sludge Sampling

QC-BLANK #62716
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METHOD BLANKS

Page 1

SUMMARY DATA SECTION

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Lab id <u>EBRLNE</u>
Protocol <u>Hanford</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>10/19/07</u>

00000010

JANUARY 08, 2008

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3564

7679-003

Lab Control Sample

LAB CONTROL SAMPLE

SDG <u>7679</u>	Client/Case no <u>Hanford</u>	<u>SDG H3564</u>
Contact <u>Melissa C. Mannion</u>	Contract No. <u>630</u>	
Lab sample id <u>R709003-03</u>	Client sample id <u>Lab Control Sample</u>	
Dept sample id <u>7679-003</u>	Material/Matrix <u>SOLID</u>	
	SAF No <u>F03-015</u>	

ANALYTE	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS TEST	ADDED pCi/g	2σ ERR pCi/g	REC %	3σ LMTS (TOTAL)	PROTOCOL LIMITS
Tritium	8140	160	56.2	400	H	8470	340	96	84-116	80-120
Iodine 129	145	1.7	<u>2.12</u>	2.00	I	127	5.1	114	82-118	80-120

ModuTank-Sludge Sampling

QC-LCS #62715
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LAB CONTROL SAMPLES

Page 1

SUMMARY DATA SECTION

Page 8

Lab id <u>EBRLNE</u>
Protocol <u>Hanford</u>
Version <u>Ver 1.0</u>
Form <u>DVD-LCS</u>
Version <u>3.06</u>
Report date <u>10/19/07</u>

00000011

JANUARY 08, 2008

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3564

7679-005

B1PKK6

DUPLICATE

SDG <u>7679</u>	Client/Case no <u>Hanford</u>	SDG <u>H3564</u>
Contact <u>Melissa C. Mannion</u>	Contract No. <u>630</u>	
<b>DUPLICATE</b>	<b>ORIGINAL</b>	
Lab sample id <u>R709003-05</u>	Lab sample id <u>R709003-01</u>	Client sample id <u>B1PKK6</u>
Dept sample id <u>7679-005</u>	Dept sample id <u>7679-001</u>	Location/Matrix <u>ModuTanks Sample Zone 1 SOLID</u>
	Received <u>08/31/07</u>	Collected/Weight <u>08/28/07 12:25 69 g</u>
% solids <u>100.0</u>	% solids <u>100.0</u>	Custody/SAF No <u>F03-015-032 F03-015</u>

ANALYTE	DUPLICATE pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST	ORIGINAL pCi/g	2σ ERR (COUNT)	MDA pCi/g	QUALI- FIERS	RPD %	3σ TOT	DER σ
Tritium	-3.68	32	54.8	400	U	H	22.6	33	54.2	U	-	1.1	
Iodine 129	-0.143	0.46	1.05	2.00	U	I	-0.378	0.58	1.32	U	-	0.6	

ModuTank-Sludge Sampling

QC-DUP#1 62717

DUPLICATES

Page 1

SUMMARY DATA SECTION

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Lab id <u>EBRLNE</u>
Protocol <u>Hanford</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DUP</u>
Version <u>3.06</u>
Report date <u>10/19/07</u>

00000012

JANUARY 08, 2008

EBERLINE SERVICES / RICHMOND  
SAMPLE DELIVERY GROUP H3564

7679-001

B1PKK6

DATA SHEET

SDG <u>7679</u>	Client/Case no <u>Hanford</u>	SDG <u>H3564</u>
Contact <u>Melissa C. Mannion</u>	Contract No. <u>630</u>	
Lab sample id <u>R709003-01</u>	Client sample id <u>B1PKK6</u>	
Dept sample id <u>7679-001</u>	Location/Matrix <u>ModuTanks Sample Zone 1 SOLID</u>	
Received <u>08/31/07</u>	Collected/Weight <u>08/28/07 12:25 69 g</u>	
% solids <u>100.0</u>	Custody/SAF No <u>F03-015-032 F03-015</u>	

ANALYTE	CAS NO	RESULT pCi/g	2 $\sigma$ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	22.6	33	54.2	400	U	H
Iodine 129	15046-84-1	-0.378	0.58	1.32	2.00	U	I

ModuTank-Sludge Sampling

Lab id <u>EBRLNE</u>
Protocol <u>Hanford</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>10/19/07</u>

00000013

JANUARY 08, 2008

EBERLINE SERVICES / RICHMOND  
SAMPLE DELIVERY GROUP H3564

7679-002

B1PKK9

DATA SHEET

SDG <u>7679</u>	Client/Case no <u>Hanford</u>	SDG <u>H3564</u>
Contact <u>Melissa C. Mannion</u>	Contract No. <u>630</u>	
Lab sample id <u>R709003-02</u>	Client sample id <u>B1PKK9</u>	
Dept sample id <u>7679-002</u>	Location/Matrix <u>ModuTanks Sample Zone 2</u>	<u>SOLID</u>
Received <u>08/31/07</u>	Collected/Weight <u>08/28/07 13:00</u>	<u>75 g</u>
% solids <u>100.0</u>	Custody/SAF No <u>F03-015-039</u>	<u>F03-015</u>

ANALYTE	CAS NO	RESULT pCi/g	2 $\sigma$ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	14.4	27	44.5	400	U	H
Iodine 129	15046-84-1	0.027	0.62	1.40	2.00	U	I

ModuTank-Sludge Sampling

DATA SHEETS

Page 2

SUMMARY DATA SECTION

Page 11

Lab id <u>EBRLNE</u>
Protocol <u>Hanford</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>10/19/07</u>

00000014

JANUARY 08, 2008

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3564

Test I Matrix SOLID
SDG 7679
Contact Melissa C. Mannion

LAB METHOD SUMMARY

IODINE 129 IN SOLIDS
GAMMA SPECTROSCOPY

Client Hanford
Contract No. 630
Contract SDG H3564

RESULTS

Table with columns: LAB, RAW, SUF-, SAMPLE ID, TEST FIX, PLANCHET, CLIENT SAMPLE ID, Iodine 129. Includes preparation batch 6116-199 and sample data rows.

Nominal values and limits from method RDLs (pCi/g) 2.00
ModuTank-Sludge Sampling

METHOD PERFORMANCE

Table with columns: LAB, RAW, SUF-, SAMPLE ID, TEST FIX, CLIENT SAMPLE ID, MDA, ALIQ, PREP, DILU-, YIELD, EFF, COUNT, FWHM, DRIFT, DAYS, ANAL-, YZED, DETECTOR. Includes preparation batch 6116-199 and performance data rows.

Nominal values and limits from method 2.00 1.00 20-105 300 180

PROCEDURES REFERENCE I129\_SEP\_LEPS\_GS
SPP-062 Sample Aliquoting, rev 0
CP-024 Iodine-129, Sample Dissolution, rev 5
CP-530 Iodine-129 Purification, rev 1

AVERAGES ± 2 SD MDA 1.37 ± 0.912
FOR 5 SAMPLES YIELD 70 ± 34

METHOD SUMMARIES

Page 1

SUMMARY DATA SECTION

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Lab id EBRLINE
Protocol Hanford
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 10/19/07

00000015

JANUARY 08, 2008

EBERLINE SERVICES/RICHMOND

SAMPLE DELIVERY GROUP H3564

Test H Matrix SOLID
SDG 7679
Contact Melissa C. Mannion

LAB METHOD SUMMARY

TRITIUM IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client Hanford
Contract No. 630
Contract SDG H3564

RESULTS

Table with columns: LAB, RAW, SUF-, SAMPLE ID, TEST FIX, PLANCHET, CLIENT SAMPLE ID, Tritium. Includes preparation batch 6116-199 and sample data rows.

Nominal values and limits from method RDLs (pCi/g) 400
ModuTank-Sludge Sampling

METHOD PERFORMANCE

Table with columns: LAB, RAW, SUF-, SAMPLE ID, TEST FIX, CLIENT SAMPLE ID, MDA, ALIQ, PREP, DILU-, YIELD, EFF, COUNT, FWHM, DRIFT, DAYS, ANAL-, YZED, DETECTOR. Includes preparation batch 6116-199 and performance data rows.

Nominal values and limits from method 400 0.0300 25 180

PROCEDURES REFERENCE TRITIUM\_COX\_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 8

AVERAGES + 2 SD MDA 53.9 + 11.5
FOR 5 SAMPLES YIELD 100 + 0

Lab id EBRLINE
Protocol Hanford
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 10/19/07

00000016

JANUARY 08, 2008

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford  
Contract No. 630  
Case no SDG H3564

SAMPLE SUMMARY

The Sample and QC Summary Reports show all samples, including QC samples, reported in one Sample Delivery Group (SDG).

The Sample Summary Report fully identifies client samples and gives the corresponding lab sample identification. The QC Summary Report shows at the sample level how the lab organized the samples into batches and generated QC samples. The Preparation Batch and Method Summary Reports show this at the analysis level.

The following notes apply to these reports:

- \* LAB SAMPLE ID is the lab's primary identification for a sample.
- \* DEPARTMENT SAMPLE ID is an alternate lab id, for example one assigned by a radiochemistry department in a lab.
- \* CLIENT SAMPLE ID is the client's primary identification for a sample. It includes any sample preparation done by the client that is necessary to identify the sample.
- \* QC BATCH is a lab assigned code that groups samples to be processed and QCed together. These samples should have similar matrices.

QC BATCH is not necessarily the same as SDG, which reflects samples received and reported together.

- \* All Lab Control Samples, Method Blanks, Duplicates and Matrix Spikes are shown that QC any of the samples. Due to possible reanalyses, not all results for all these QC samples may be relevant to the SDG. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

REPORT GUIDES

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SUMMARY DATA SECTION

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Lab id EBRLNE  
Protocol Hanford  
Version Ver 1.0  
Form DVD-RG  
Version 3.06  
Report date 10/19/07

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EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford  
Contract No. 630  
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PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches in one Sample Delivery Group (SDG) with information necessary to check the completeness and consistency of the SDG.

The following notes apply to this report:

- \* The preparation batches are shown in the same order as the Method Summary Reports are printed.
- \* Only analyses of planchets relevant to the SDG are included.
- \* Each preparation batch should have at least one Method Blank and LCS in it to validate client sample results.
- \* The QUALIFIERS shown are all qualifiers other than U, J, B, L and H that occur on any analysis in the preparation batch. The Method Summary Report has these qualifiers on a per sample basis.

These qualifiers should be reviewed as follows:

- X Some data has been manually entered or modified. Transcription errors are possible.
- P One or more results are 'preliminary'. The data is not ready for final reporting.
- 2 There were two or more results for one analyte on one planchet imported at one time. The results in DVD may not be the same as on the raw data sheets.

Other lab defined qualifiers may occur. In general, these should be addressed in the SDG narrative.

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Lab id EBRLNE  
Protocol Hanford  
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JANUARY 08, 2008

EBERLINE SERVICES / RICHMOND

SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

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Client Hanford  
Contract No. 630  
Case no SDG\_H3564

WORK SUMMARY

The Work Summary Report shows all samples, including QC samples, and all relevant analyses in one Sample Delivery Group (SDG). This report is often useful as supporting documentation for an invoice.

The following notes apply to this report:

- \* TEST is a code for the method used to measure associated analytes. Results and related information for each analyte are on the Data Sheet Report. In special cases, a test code used in the summary data section is not the same as in associated raw data. In this case, both codes are shown on the Work Summary.
- \* SUFFIX is the lab's code to distinguish multiple analyses (recounts, reworks, reanalyses) of a fraction of the sample. The suffix indicates which result is being reported. An empty suffix normally identifies the first attempt to analyze the sample.
- \* The LAB SAMPLE ID, TEST and SUFFIX uniquely identify all supporting data for a result. The Method Summary Report for each TEST has method performance data, such as yield, for each lab sample id and suffix and procedures used in the method.
- \* PLANCHET is an alternate lab identifier for work done for one test. It, combined with the TEST and SUFFIX, may be the best link to raw data.
- \* For QC samples, only analyses that directly QC some regular sample are shown. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.
- \* The SAS (Special Analytical Services) Number is a client or lab assigned code that reflects special processing for samples, such as rapid turn around. Counts of tests done are lists by SAS number since it is likely to affect prices.

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SUMMARY DATA SECTION

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Lab id EBRLNE  
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SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

REPORT GUIDE

Client Hanford  
Contract No. 630  
Case no SDG\_H3564

DATA SHEET

The Data Sheet Report shows all results and primary supporting information for one client sample or Method Blank. This report corresponds to both the CLP Inorganics and Organics Data Sheet.

The following notes apply to this report:

- \* TEST is a code for the method used to measure an analyte. If the TEST is empty, no data is available; the analyte was not analyzed for.
- \* The LAB SAMPLE ID and TEST uniquely identify work within the Summary Data Section of a Data Package. The Work Summary and Method Summary Reports further identify raw data that underlies this work.

The Method Summary Report for each TEST has method performance data, such as yield, for each Lab Sample ID and a list of procedures used in the method.

- \* ERRORS can be labeled TOTAL or COUNT. TOTAL implies a preparation (non-counting method) error has been added, as square root of sum of squares, to the counting error denoted by COUNT. The preparation errors, which may vary by preparation batch, are shown on the Method Summary Report.
- \* A RESULT can be 'N.R.' (Not Reported). This means the lab did this work but chooses not to report it now, possibly because it was reported at another time.
- \* When reporting a Method Blank, a RESULT can be 'N.A.' (Not Applicable). This means there is no reported client sample work in the same preparation batch as the Blank's result. This is likely to occur when the Method Blank is associated with reanalyses of selected work for a few samples in the SDG.

The following qualifiers are defined by the DVD system:

- U The RESULT is less than the MDA (Minimum Detectable Activity).

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SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

GUIDE, cont.

Client Hanford  
Contract No. 630  
Case no SDG H3564

DATA SHEET

If the MDA is blank, the ERROR is used as the limit.

- J The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.
- B A Method Blank associated with this sample had a result without a U flag and, after correcting for possibly different aliquots, that result is greater than or equal to the MDA for this sample.  
  
Normally, B is not assigned if U is. When method blank subtraction is shown on this report, B flags are assigned based on the unsubtracted values while U's are assigned based on the subtracted ones. Both flags can be assigned in this case.  
  
For each sample result, all Method Blank results in the same preparation batch are compared. The Method Summary Report documents this and other QC relationships.
- L Some Lab Control Sample that QC's this sample had a low recovery. The lab can disable assignment of this qualifier.
- H Similar to 'L' except the recovery was high.
- P The RESULT is 'preliminary'.
- X Some data necessary to compute the RESULT, ERROR or MDA was manually entered or modified.
- 2 There were two or more results available for this analyte. The reported result may not be the same as in the raw data.

Other qualifiers are lab defined. Definitions should be in the SDG narrative.

The following values are underlined to indicate possible problems:

- \* An MDA is underlined if it is bigger than its RDL.

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SAMPLE DELIVERY GROUP H3564

SDG 7679  
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DATA SHEET

- \* An ERROR is underlined if the 1.645 sigma counting error is bigger than both the MDA and the RESULT, implying that the MDA may not be a good estimate of the 'real' minimum detectable activity.
- \* A negative RESULT is underlined if it is less than the negative of its 2 sigma counting ERROR.
- \* When reporting a Method Blank, a RESULT is underlined if greater than its MDA. If the MDA is blank, the 2 sigma counting error is used in the comparison.

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Lab id EBRLNE  
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SDG 7679  
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Contract No. 630  
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LAB CONTROL SAMPLE

The Lab Control Sample Report shows all results, recoveries and primary supporting information for one Lab Control Sample.

The following notes apply to this report:

- \* All fields in common with the Data Sheet Report have similar usage. Refer to its Report Guide for details.
- \* An amount ADDED is the lab's value for the actual amount spiked into this sample with its ERROR an estimate of the error of this amount.

An amount added is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

- \* REC (Recovery) is RESULT divided by ADDED expressed as a percent.
- \* The first, computed limits for the recovery reflect:
  1. The error of RESULT, including that introduced by rounding the result prior to printing.  
  
If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.
  2. The error of ADDED.
  3. A lab specified, per analyte bias. The bias changes the center of the computed limits.
- \* The second limits are protocol defined upper and lower QC limits for the recovery.
- \* The recovery is underlined if it is outside either of these ranges.

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DUPLICATE

The Duplicate Report shows all results, differences and primary supporting information for one Duplicate and associated Original sample.

The following notes apply to this report:

- \* All fields in common with the Data Sheet Report have similar usage. This applies both to the Duplicate and Original sample data. Refer to the Data Sheet Report Guide for details.

If the Duplicate has data for a TEST and the lab did not do this test to the Original, the Original's RESULTS are underlined.

- \* The RPD (Relative Percent Difference) is the absolute value of the difference of the RESULTS divided by their average expressed as a percent.

If both RESULTS are less than their MDAs, no RPD is computed and a '-' is printed.

For an analyte, if the lab did work for both samples but has data for only one, the MDA from the sample with data is used as the other's result in the RPD.

- \* The first, computed limit is the sum, as square root of sum of squares, of the errors of the results divided by the average result as a percent, hence the relative error of the difference rather than the error of the relative difference. The errors include those introduced by rounding the RESULTS prior to printing.

If this limit is labeled TOT, it includes the preparation error in the RESULTS. If labeled CNT, it does not.

This value reported for this limit is at most 999.

- \* The second limit for the RPD is the larger of:

1. A fixed percentage specified in the protocol.

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DUPLICATE

2. A protocol factor (typically 2) times the average MDA as a percent of the average result. This limit applies when the results are close to the MDAs.

- \* The RPD is underlined if it is greater than either limit.
- \* If specified by the lab, the second limit column is replaced by the Difference Error Ratio (DER), which is the absolute value of the difference of the results divided by the quadratic sum of their one sigma errors, the same errors as used in the first limit.

Except for differences due to rounding, the DER is the same as the RPD divided by the first RPD limit with the limit scaled to 1 sigma.

- \* The DER is underlined if it is greater than the sigma factor, typically 2 or 3, shown in the header for the first RPD limit.

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Lab id EBRINE  
Protocol Hanford  
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SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

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Client Hanford  
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MATRIX SPIKE

The Matrix Spike Report shows all results, recoveries and primary supporting information for one Matrix Spike and associated Original sample.

The following notes apply to this report:

- \* All fields in common with the Data Sheet Report have similar usage. This applies both to the Spiked and Original sample data. Refer to the Data Sheet Report Guide for details.

If the Spike has data for a TEST and the lab did not do this test to the Original, the Original's RESULTS are underlined.

- \* An amount ADDED is the lab's value for the actual amount spiked into the Spike sample with its ERROR an estimate of the error of this amount.

An amount is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

- \* REC (Recovery) is the Spike RESULT minus the Original RESULT divided by ADDED expressed as a percent.

- \* The first, computed limits for the recovery reflect:

1. The errors of the two RESULTS, including those introduced by rounding them prior to printing.

If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.

2. The error of ADDED.

3. A lab specified, per analyte bias. The bias changes the center of the computed limits.

- \* The second limits are protocol defined upper and lower QC limits

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Lab id EBRLNE  
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SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

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Contract No. 630  
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M A T R I X   S P I K E

for the recovery.

These limits are left blank if the Original RESULT is more than a protocol defined factor (typically 4) times ADDED. This is a way of accounting for that when the spike is small compared to the amount in the original sample, the recovery is unreliable.

- \* The recovery is underlined (out of spec) if it is outside either of these ranges.

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Lab id EBRLNE  
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JANUARY 08, 2008

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SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

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Client Hanford  
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Case no SDG H3564

METHOD SUMMARY

The Method Summary Report has two tables. One shows up to five results measured using one method. The other has performance data for the method. There is one report for each TEST, as used on the Data Sheet Report.

The following notes apply to this report:

- \* Each table is subdivided into sections, one for each preparation batch. A preparation batch is a group of aliquots prepared at roughly the same time in one work area of the lab using the same method.

There should be Lab Control Sample and Method Blank results in each preparation batch since this close correspondence makes the QC meaningful. Depending on lab policy, Duplicates need not occur in each batch since they QC sample dependencies such as matrix effects.

- \* The RAW TEST column shows the test code used in the raw data to identify a particular analysis if it is different than the test code in the header of the report. This occurs in special cases due to method specific details about how the lab labels work.

The Lab Sample or Planchet ID combined with the (Raw) Test Code and Suffix uniquely identify the raw data for each analysis.

- \* If a result is less than both its MDA and RDL, it is replaced by just 'U' on this report. If it is greater than or equal to the RDL but less than the MDA, the result is shown with a 'U' flag.

The J and X flags are as on the data sheet.

- \* Non-U results for Method Blanks are underlined to indicate possible contamination of other samples in the preparation batch. The Method Blank Report has supporting data.
- \* Lab Control Sample and Matrix Spike results are shown as: ok, No data, LOW or HIGH, with the last two underlined. 'No data'

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Protocol Hanford  
Version Ver 1.0  
Form DVD-RG  
Version 3.06  
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JANUARY 08, 2008

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SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

GUIDE , cont .

Client Hanford  
Contract No. 630  
Case no SDG H3564

METHOD SUMMARY

means no amount ADDED was specified. 'LOW' and 'HIGH' correspond to when the recovery is underlined on the Lab Control Sample or Matrix Spike Report. See these reports for supporting data.

- \* Duplicate sample results are shown as: ok, No data, or OUT, with the last two underlined. 'No data' means there was no original sample data found for this duplicate. 'OUT' corresponds to when the RPD is underlined on the Duplicate Report. See this report for supporting data.
- \* If the MDA column is labeled 'MAX MDA', there was more than one result measured by the reported method and the MDA shown is the largest MDA. If not all these results have the same RDL, the MAX MDA reflects only those results with RDL equal to the smallest one.  
  
MDAs are underlined if greater than the printed RDL.
- \* Aliquots are underlined if less than the nominal value specified for the method.
- \* Preparation factors are underlined if greater than the nominal value specified for the method.
- \* Dilution factors are underlined if greater than the nominal value specified for the method.
- \* Residues are underlined if outside the range specified for the method. Residues are not printed if yields are.
- \* Yields, which may be gravimetric, radiometric or some type of recovery depending on the method, are underlined if outside the range specified for the method.
- \* Efficiencies are underlined if outside the range specified for the method. Efficiencies are detector and geometry dependent so this test is only approximate.

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SUMMARY DATA SECTION

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Lab id EBRLNE  
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SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

GUIDE , cont .

Client Hanford  
Contract No. 630  
Case no SDG H3564

METHOD SUMMARY

- \* Count times are underlined if less than the nominal value specified for the method.
- \* Resolutions (as FWHM; Full Width at Half Max) are underlined if greater than the method specified limit.
- \* Tracer drifts are underlined if their absolute values are greater than the method specified limit. Tracer drifts are not printed if percent moistures are.
- \* Days Held are underlined if greater than the holding time specified in the protocol.
- \* Analysis dates are underlined if before their planchet's preparation date or, if a limit is specified, too far after it.

For some methods, ratios as percentages and error estimates for them are computed for pairs of results. A ratio column header like '1-3' means the ratio of the first result column and the third result column.

Ratios are not computed for Lab Control Sample, Method Blank or Matrix Spike results since their matrices are not necessarily similar to client samples'.

The error estimate for a ratio of results from one planchet reflects only counting errors since other errors should be correlated. For a ratio involving different planchets, if QC limits are computed based on total errors, the error for the ratio allows for the preparation errors for the planchets.

The ratio is underlined (out of spec) if the absolute value of its difference from the nominal value is greater than its error estimate. If no nominal value is specified, this test is not done.

For Gross Alpha or Gross Beta results, there may be a column showing the sum of other Alpha or Beta emitters. This sum includes all relevant

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SAMPLE DELIVERY GROUP H3564

SDG 7679  
Contact Melissa C. Mannion

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Client Hanford  
Contract No. 630  
Case no SDG H3564

METHOD SUMMARY

results in the DVD database, whether reported or not. Results in the sum are weighted by a particles/decay value specified by the lab for each relevant analyte. Results less than their MDA are not included. No sums are computed for Lab Control, Method Blank or Matrix Spike samples since their various planchets may not be physically related.

If a ratio of total isotopic to Gross Alpha or Beta is shown, the error for the ratio reflects both the error in the Gross result and the sum, as square root of sum of squares, of the errors in the isotopic results.

For total elemental uranium or thorium results, there may be a column showing the total weight computed from associated isotopic results. Ignoring results less than their MDAs, this is a weighted sum of the isotopic results. The weights depend on the molecular weight and half-life of each isotope so as to convert activities (decays) to weight (atoms).

If a ratio of total computed to measured elemental uranium or thorium is shown, the error for the ratio reflects the errors in all the measurements.

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Lab id EBRLNE  
Protocol Hanford  
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00000031



COLLECTOR  
Characterizational Sampler

COMPANY CONTACT  
TRENT, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
TRENT, SJ

PRICE CODE  
9N

DATA  
TURNAROUND  
45 Days /  
45 Days

SAMPLING LOCATION  
ModuTanks Sample Zone 2

PROJECT DESIGNATION  
Modu Tank - Sludge Sampling

FIELD LOGBOOK NO.

SAF NO.  
F03-015

AIR QUALITY

METHOD OF SHIPMENT  
FEDERAL EXPRESS

ICE CHEST NO.  
GRP-03-027

OFFSITE PROPERTY NO.  
20166

COA  
122541ES10

BILL OF LADING/AIR BILL NO.  
See PTR 20166

NO. OF CONTAINER(S)  
1

See PTR

SHIPPED TO  
Eberline Services

PRESERVATION  
None

TYPE OF CONTAINER  
G

VOLUME  
40ml

SAMPLE ANALYSIS  
Tritium-H3,  
Iodine 129,

SAMPLE DATE  
8-28-07

MATRIX\*  
A=Air

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)

SPECIAL HANDLING AND/OR STORAGE  
Radioactive tie to BIPKK3

MATRIX\*  
OTHER SOLID

SAMPLE TIME  
1306

X

RELINQUISHED BY/REMOVED FROM  
M.A. Baechler

RECEIVED BY/STORED IN  
M.A. Baechler

DATE/TIME  
8/28/07 1500

RELINQUISHED BY/REMOVED FROM  
M.A. Baechler

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JANUARY 08, 2008

RICHMOND, CA LABORATORY



SAMPLE RECEIPT CHECKLIST

*Handwritten initials/signature*

Client: F. HANFORD City: MCHLAND State: WA

Date/Time received: 08/21/07 7:40 CoC No: F03-015-032, 039

Container I.D. No: SCP 03-027 Requested TAT (Days): 45 P.C. Received Yes  No

INSPECTION

1 Custody seals on shipping container intact? Yes  No  N/A

2 Custody seals on shipping container gated & signed? Yes  No  N/A

3 Custody seals on sample containers intact? Yes  No  N/A

4 Custody seals on sample containers gated & signed? Yes  No  N/A

5 Packing materials Wet  Dry

6 Number of samples in shipping container: 2 Sample Matrix

7 Number of containers per sample: 1 (Or see CoC \_\_\_\_\_)

8 Samples are in correct container? Yes  No

9 Paperwork agrees with samples? Yes  No

10 Samples have Tape  Hazard labels  Rad labels  Appropriate sample labels

11 Samples are in good condition  Leaking  Broken Container  Missing

12 Samples are Preserved  Not preserved  Preservative \_\_\_\_\_

13 Describe any anomalies  
\_\_\_\_\_  
\_\_\_\_\_

14 Was P.M. notified of any anomalies? Yes  No  Date \_\_\_\_\_

15 Inspected by: MFm Date: 09/04/07 Time: 9:15

Customer Sample No	CoC	mR/n	Wide	Customer Sample No	CoC	mR/n	Wide

Ion Chamber Ser. No. \_\_\_\_\_ Calibration date \_\_\_\_\_  
Alpha Meter Ser. No. \_\_\_\_\_ Calibration date \_\_\_\_\_  
Beta/Gamma Meter Ser. No. \_\_\_\_\_ Calibration date \_\_\_\_\_

00000034

JANUARY 08, 2008



"Trent, Stephen J"  
<Stephen\_J\_Trent@RL.gov>  
01/04/2008 03:01 PM

To <mmannion@eberlineservices.com>  
cc  
bcc

Subject Missing Data Package

History:  This message has been replied to.

Melissa,

It appears that we have "misplaced" H3564. Can you send me another copy...

Thanks,

Steve

00000035

**Ayres, Doris E**

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**From:** Ayres, Doris E  
**Sent:** Wednesday, October 24, 2007 10:45 AM  
**To:** Widrig, Dana L  
**Cc:** Hampt, Heidi; Trent, Stephen J  
**Subject:** Missing Constituents

**Tracking:**

Recipient	Read
Widrig, Dana L	Read: 10/24/2007 11:11 AM
Hampt, Heidi	Read: 10/24/2007 10:49 AM
Trent, Stephen J	Read: 10/24/2007 11:07 AM

Dana -

Our list for method 8150\_HERBICIDE\_GC includes 93-65-2 and 94-74-6 which were not reported for H3564. In addition, they reported 87-86-5 which is not part of the list.

Our list for method 8081\_PEST\_GC includes 57-74-9 which was not reported for H3564.

Doris