

CONTROLLED
NON-CONFORMANCE REPORT

Initiated by LCB Date 6/21/04

Method/Procedure LSC-Pb 210

Reason: Non-Conformance

Work Orders Affected 0405063

Client Inquiry

PB 040523-1

Other _____

Clients New Horizons

SECTION I TYPE OF EVENT (circle as appropriate)

- 1. (LCS) / Surrogate / IS / Tracer or Chemical Yield Criteria Not Met
- 2. Calibration Criteria Not Met (ICAL, ICV, CCV)
- 3. Method Requirements Not Met (HTV, MB, _____)
- 4. Deviation from LQAP / SOP (i.e., PAI criteria not met)
- 5. Client Criteria Not Met (MDC, DER, _____)
- 6. Equipment Failure or Laboratory Incident / Error
- 7. Other _____

Explanation: The percent recovery for the laboratory control sample associated with this batch was above the upper control ^{LCB 6/21/04} sample limit of 130% at 173%.

Actions to Prevent Recurrence (Retrain, etc.): _____

SECTION II NOTIFICATION

Client Contacted? (Y / N) Name: _____ Date: _____ Time: _____

SECTION III CORRECTIVE ACTIONS

- 1. Submit for Re-Prep. or Clean-up
- 2. Re-analyze
- 3. Resubmit Data (hc, edd, narrative)
- 4. Document in Narrative
- 5. Other _____

Approved by: _____ DPM _____ PM

SECTION IV REQUEST FOR REWORK

Initial Batch ID: _____ Date: _____

Reworked Batch ID: _____ Date: _____

Outcome: _____

Approved by: _____

Matrix Effect or Elevated / Sample Activity Suspected? (circle applicable)

SECTION V DISPOSITION

Use as is Repair Reject

SECTION VI COMMENTS

SECTION VII APPROVAL SIGNATURES

Project Manager (PM) _____ Date _____

Department Manager (DPM) _____ Date _____ (Verification of Disposition)

QA Manager _____ Date _____

SECTION VIII DISTRIBUTION _____ PM _____ Dept. Manager _____ Lab Director _____ Rpt.Group or _____ Rad

Lead-210 Analysis by Liquid Scintillation Raw Data Report

Laboratory Name: Paragon Analytics
PAI Work Order: 0405063

Prep SOP: PAI 726
Analytical SOP: PAI 704

Reported on: Saturday, June 19, 2004
8:09:54 AM

Sample ID QC Type	Nuclide Type	Sample Date/Time	Prep Batch QC Batch ID	Ingrowth Date / Time	Quench Factor % Lum	Matrix % Moist	Samp Aliq Analy Aliq	Inst ID Det ID	AnRunID File Name	Count Date/Time	GrossCPM BkgCPM	BaseEff ProgEff	CntDur(min) Yield	Activity +/- 2 s TPU	MDC Declav	ReportUnits ReportBasis	DER RPD	%Spk. Recov Flags
0405063-2 SMP	Pb-210 Trg. Analyte	4/28/2004 3:15:00 PM	PB040523-1 PB040523-1-1	5/28/2004 3:50:00 PM	SOIL NA	SOIL NA	2.02 g 1.95 g	Q 1220 01-01	pb040523-1a Manual Entry	6/17/2004 8:42 PM	8,935 2,382	40.59% NA	177.7 66.4%	5.6 1.4	0.5 NA	pCi/g Dry Weight	NA NA	NA NA
0405063-2 DUP	Pb-210 Trg. Analyte	4/28/2004 3:15:00 PM	PB040523-1 PB040523-1-1	5/28/2004 3:50:00 PM	SOIL NA	SOIL NA	2.01 g 1.95 g	Q 1220 02-01	pb040523-1a Manual Entry	6/18/2004 12:45 AM	8,551 2,376	41.84% NA	236.9 61.3%	5.6 1.4	0.4 NA	pCi/g Dry Weight	0.01 NA	NA NA
0405063-3 SMP	Pb-210 Trg. Analyte	4/30/2004 10:10:00 AM	PB040523-1 PB040523-1-1	5/28/2004 3:50:00 PM	SOIL NA	SOIL NA	2.01 g 1.95 g	Q 1220 03-01	pb040523-1a Manual Entry	6/18/2004 3:47 AM	4,946 2,359	43.33% NA	177.7 65.5%	2.11 0.61	0.45 NA	pCi/g Dry Weight	NA NA	NA NA
0405063-5 SMP	Pb-210 Trg. Analyte	5/4/2004 10:39:00 AM	PB040523-1 PB040523-1-1	5/28/2004 3:50:00 PM	SOIL NA	SOIL NA	2.09 g 2.02 g	Q 1220 04-01	pb040523-1a Manual Entry	6/18/2004 7:50 AM	4,816 2,369	43.26% NA	236.9 63.5%	1.89 0.56	0.39 NA	pCi/g Dry Weight	NA NA	NA NA
0405063-7 SMP	Pb-210 Trg. Analyte	5/4/2004 10:50:00 AM	PB040523-1 PB040523-1-1	5/28/2004 3:50:00 PM	SOIL NA	SOIL NA	2.05 g 1.99 g	Q 1220 05-01	pb040523-1a Manual Entry	6/18/2004 11:53 AM	17,633 2,361	45.10% NA	236.9 58.7%	13.1 3.2	0.4 NA	pCi/g Dry Weight	NA NA	NA NA
0405063-9 SMP	Pb-210 Trg. Analyte	5/5/2004 2:30:00 PM	PB040523-1 PB040523-1-1	5/28/2004 3:50:00 PM	SOIL NA	SOIL NA	2.01 g 1.95 g	Q 1220 06-01	pb040523-1a Manual Entry	6/18/2004 1:55 PM	15,639 2,360	45.20% NA	118.5 83.1%	8.2 2.0	0.4 NA	pCi/g Dry Weight	NA NA	NA NA
0405063-11 SMP	Pb-210 Trg. Analyte	5/4/2004 2:31:00 PM	PB040523-1 PB040523-1-1	5/28/2004 3:50:00 PM	SOIL NA	SOIL NA	2.09 g 2.02 g	Q 1220 07-01	pb040523-1a Manual Entry	6/18/2004 4:28 PM	13,167 2,346	48.20% NA	148.1 77.5%	6.5 1.6	0.4 NA	pCi/g Dry Weight	NA NA	NA NA
PB040523-1 MB	Pb-210 Trg. Analyte	5/23/2004 3:08:26 PM	PB040523-1 PB040523-1-1	5/28/2004 3:50:00 PM	SOIL NA	SOIL NA	2.09 g 2.03 g	Q 1220 08-01	pb040523-1a Manual Entry	6/18/2004 8:30 PM	2,701 2,401	36.83% NA	236.9 56.9%	0.32 0.32	0.51 NA	pCi/g Dry Weight	NA NA	U 173
PB040523-1 LCS	Pb-210 Trg. Analyte	5/23/2004 3:08:26 PM	PB040523-1 PB040523-1-1	5/28/2004 3:50:00 PM	SOIL NA	SOIL NA	2.01 g 1.95 g	Q 1220 09-01	pb040523-1a Manual Entry	6/18/2004 9:33 PM	17,314 2,382	40.73% NA	59.3 68.1%	12.5 3.1	0.8 NA	pCi/g Dry Weight	NA NA	HM3 HM3

Comments:

Data Package ID: pb2100405063-1

Qualifiers/Flags:

- U - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- D - DER is greater than Control Limit of 2.13
- + - Duplicate RPD not within limits.
- [T - Result is less than Request MDC, greater than sample specific MDC
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.

Notes:

- 1) The Tracer results are not yield corrected (i.e. activity measured not activity added).
- 2) Where sample time is not available, 12:00 PM (Mountain) is used for decay correction.

Abbreviations:

- TR - Tracer
- TA - Target Analyte
- TPU - Total Propagated Uncertainty (see PAI SOP 743)
- MDC - Minimum Detectable Concentration (see PAI SOP 769)
- DER - Duplicate Error Ratio
- BDL - Below Detection Limit