**CONTROLLED**
**NON-CONFORMANCE REPORT**

Initiated by: [ICB] Date: 6/21/04
Method/Procedure: LSC - Pb 210

Reason: _Non-Conformance_
- Client Inquiry
- Other

**SECTION I**  TYPE OF EVENT (circle as appropriate)

1. (X) LCS / Surrogate / IS / Tracer or Chemical Yield Criteria Not Met
   Explanation: The percent recovery for the laboratory control sample associated with this batch was above the upper control limit of 130% at 173%.

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 _______________________________

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

FORM 313r14.doc (3/8/04)
# Lead-210 Analysis by Liquid Scintillation Raw Data Report

**Laboratory Name:** Paragon Analytics  
**PAI Work Order:** 0405063  
**Reported on:** Saturday, June 19, 2004  
**Prep SOP:** PAI 726  
**Analytical SOP:** PAI 704  
**Date Printed:** Saturday, June 19, 2004  

## Data Package ID: pb2100405063-1

**Qualifiers/Flags:**
- **U** - Result is less than the sample specific MDC.  
- **Y1** - Chemical Yield is In control at 100±10%. 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.  
- **LT** - Result is less than Requested MDC, greater than sample specific MDC  
- **A** - Aliquot Basis is 'As Recovered' while the Report Basis is 'Dry Weight'  
- **8** - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Recovered'.  

**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 700)  
- **DER** - Duplicate Error Ratio  
- **BDL** - Below Detection Limit

## Table: Lead-210 Analysis by Liquid Scintillation Raw Data Report

| Sample ID | Nucleide Type | Sample Date/Time | Prep Batch QC/GhatchID | Ingrowth Date/Time | Quench Factor % | Molal | Sample/Alq Analyt Aq | IsotId | ID Del | ID Del | AnalystID Flno | Count Date/Time | GrossCPM | BaseLine/ProEdge | CofD [n.m] | Activity +/- 2 s TPU | MDC Declor | Report/Unils Report/Basis | DER | %Spk. Recovery | Flags |
|-----------|---------------|------------------|------------------------|--------------------|-----------------|-------|----------------------|--------|--------|--------|----------------|----------------|----------|-------------------|----------|-------------------|--------|----------------------|------|-------------------|
| 0405063-2 | SMF PM-1210 | 4/28/2004, 3:15:00 PM | F0405023-1 | 5/20/2004 | 1 | 2.02 | C 1220 | m0405023 | 1 | 6/17/2004 | 6.023 | 45.59 | 177.7 | 5.6 | 0.5 | pCi/g | NA |
| 0405063-2 | DPM PM-1210 | 4/28/2004, 3:15:00 PM | F0405023-1 | 5/20/2004 | 1 | 2.02 | C 1220 | m0405023 | 1 | 6/17/2004 | 6.023 | 45.59 | 177.7 | 5.6 | 0.5 | pCi/g | NA |
| 0405063-3 | DPM PM-1210 | 4/28/2004, 3:15:00 PM | F0405023-1 | 5/20/2004 | 1 | 2.02 | C 1220 | m0405023 | 1 | 6/17/2004 | 6.023 | 45.59 | 177.7 | 5.6 | 0.5 | pCi/g | NA |
| 0405063-3 | SMF PM-1210 | 4/28/2004, 3:15:00 PM | F0405023-1 | 5/20/2004 | 1 | 2.02 | C 1220 | m0405023 | 1 | 6/17/2004 | 6.023 | 45.59 | 177.7 | 5.6 | 0.5 | pCi/g | NA |
| 0405063-4 | SMF PM-1210 | 4/28/2004, 3:15:00 PM | F0405023-1 | 5/20/2004 | 1 | 2.02 | C 1220 | m0405023 | 1 | 6/17/2004 | 6.023 | 45.59 | 177.7 | 5.6 | 0.5 | pCi/g | NA |
| 0405063-4 | SMF PM-1210 | 4/28/2004, 3:15:00 PM | F0405023-1 | 5/20/2004 | 1 | 2.02 | C 1220 | m0405023 | 1 | 6/17/2004 | 6.023 | 45.59 | 177.7 | 5.6 | 0.5 | pCi/g | NA |

**Comments:**

**PAI Analytics**  
**LIMS Version:** 5.032A