

Quivira Low Concentration Sample Tracking

1

| Collected Bulk Material | | | |
|-------------------------|------------|--------------|------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-L-Unscreened-01 | 2.2 | 61 | 58.8 |
| QV-L-Unscreened-02 | 2.2 | 58.4 | 56.2 |
| Totals | 4.4 | 119.4 | 115 |

Referenced Documents:
Attachment B-7

Sample Screening Over 1/4-inch sieve

| Material Retained on 1/4-inch | | | |
|-------------------------------|------------|------------|------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-L->1/4-inch-01 | 2.2 | 6.8 | 4.6 |
| Totals | 2.2 | 6.8 | 4.6 |

Referenced Documents:
Attachment B-7

| Material Passing 1/4 inch | | | |
|---------------------------|------------|--------------|------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-L-<1/4-inch-01 | 2.2 | 59.8 | 57.6 |
| QV-L-<1/4-inch-02 | 2.2 | 54.6 | 52.4 |
| Totals | 4.4 | 114.4 | 110 |

Referenced Documents:
Attachment B-7

+1/4-inch Material Crushed

Material Recombined

Continued on Quivira Low Concentration Sample Tracking 2

Material Pre-Cutting Over 270-mesh 12-inch Screen

Material Passing 270-mesh 12-inch Screen Collected in Drum. Allowed to Settle for ~24 hours

Referenced Documents:
Attachment B-7

Material Retained on 270-mesh Screen Placed in tin foil and stainless pans for quick drying and processing

Referenced Documents:
Attachment B-7

| Samples Collected from Drums | | | |
|------------------------------|------------|-------------|-------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-L-0-F-01 | 2.2 | 47 | 44.8 |
| QV-L-0-F-WT | 1.2 | 15.6 | 14.4 |
| Totals | 3.4 | 62.6 | 59.2 |

Referenced Documents:
Attachment B-2A

HPSA Processing

Referenced Documents:
Attachment B-7

Continued on Quivira Low Concentration Sample Tracking 2

Fines Samples Dewatered and Dried for Total Mass.

Referenced Documents:
Attachment B-7
Attachment C-5

Water Discharge into Troughs, Then Discharge On-Site

2 HPSA System Rinses with ~30 Gallons of Makeup Water Each

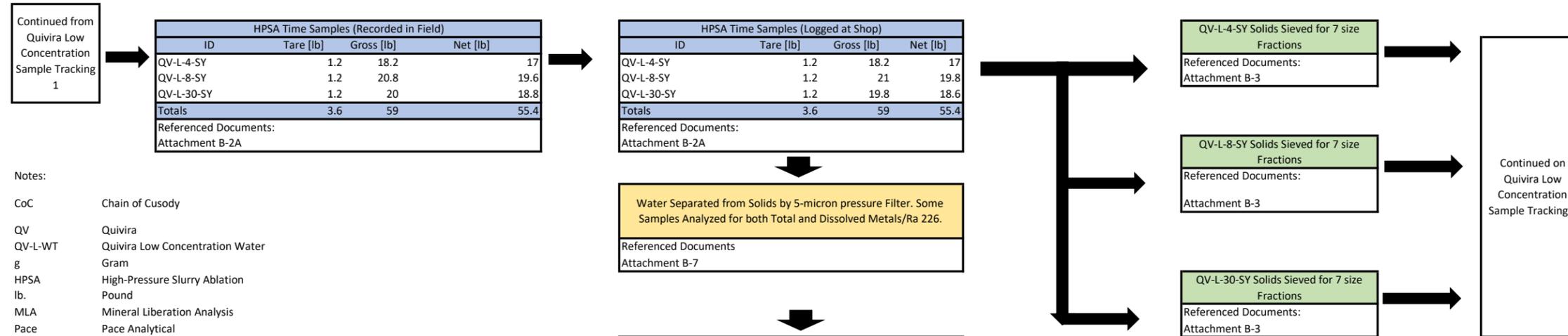
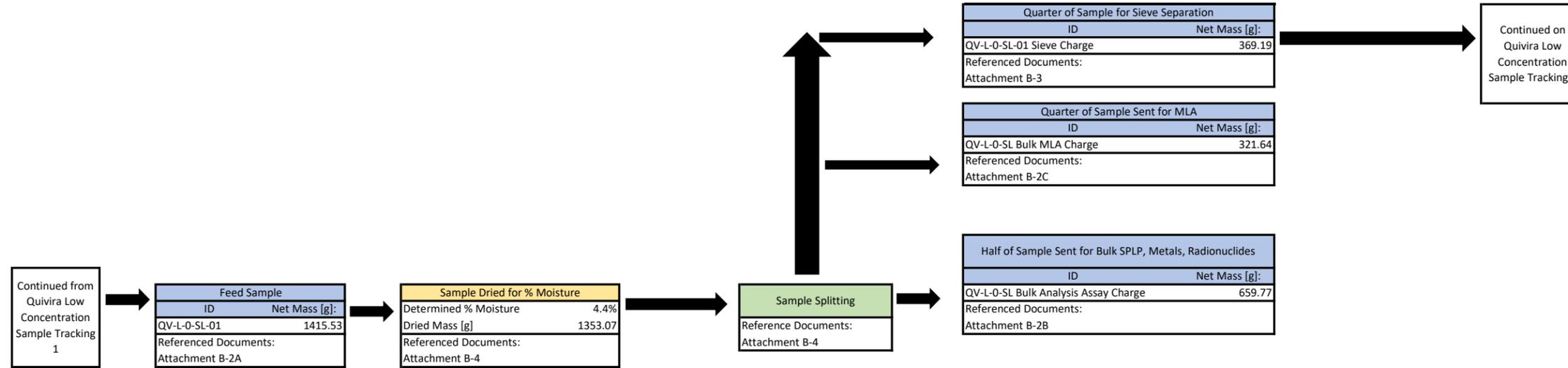
| Samples Collected After Drying | | | |
|--------------------------------|-----------|------------|-------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-L-0-F Dried Pans | - | - | 12.0 |
| QV-L-0-F Unsettled Water Mass | - | - | 35.19 grams |

Mass Balance Calculated for Proper Mixing of Concentrate Fractions. Fine samples Analyzed with XRF prior to and after mixing with SY PSD -270 fractions.

Referenced Documents
Attachment B-7
Attachment B-8
Attachment C-5

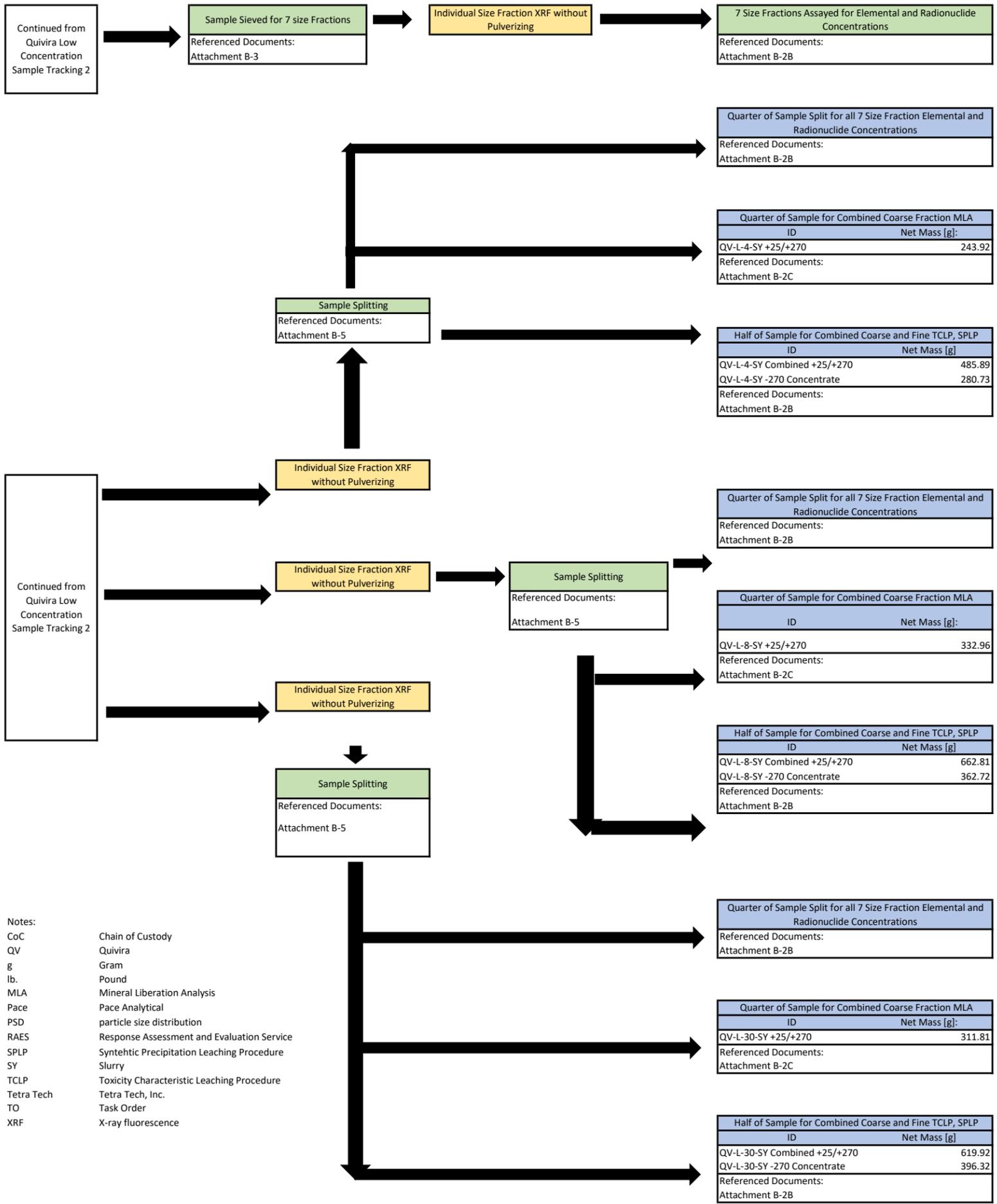
- Notes:
- CoC Chain of Custody
 - QV Quivira
 - QV-L Quivira Low Concentration
 - HPSA High-Pressure Slurry Ablation
 - lb. Pound
 - PSD particle size distribution
 - SY slurry
 - XRF X-ray fluorescence

Quivira Low Concentration Sample Tracking
2



- Notes:
- CoC Chain of Custody
 - QV Quivira
 - QV-L-WT Quivira Low Concentration Water
 - g Gram
 - HPSA High-Pressure Slurry Ablation
 - lb. Pound
 - MLA Mineral Liberation Analysis
 - Pace Pace Analytical
 - PSD particle size distribution
 - QAQC Quality assurance quality control
 - Ra-226 Radium-226
 - RAES Response Assessment and Evaluation Services
 - SL Soil
 - SY Slurry
 - Tetra Tech Tetra Tech, Inc.
 - TO Task Order
 - WT Water

Quivira Low Concentration Sample Tracking
3



- Notes:
- CoC Chain of Custody
 - QV Quivira
 - g Gram
 - lb. Pound
 - MLA Mineral Liberation Analysis
 - Pace Pace Analytical
 - PSD particle size distribution
 - RAES Response Assessment and Evaluation Service
 - SPLP Syntehtic Precipitation Leaching Procedure
 - SY Slurry
 - TCLP Toxicity Characteristic Leaching Procedure
 - Tetra Tech Tetra Tech, Inc.
 - TO Task Order
 - XRF X-ray fluorecence

Quivira Medium Concentration Sample Tracking

1

| Collected Bulk Material | | | |
|-------------------------|------------|--------------|------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-M-Unscreened-01 | 2.2 | 56.8 | 54.6 |
| QV-M-Unscreened-02 | 2.2 | 55.6 | 53.4 |
| Totals | 4.4 | 112.4 | 108 |

Referenced Documents:
Attachment B-7

Sample Screening Over 1/4-inch sieve

| Material Retained on 1/4-inch | | | |
|-------------------------------|------------|------------|------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-M->1/4-inch-01 | 2.2 | 4.6 | 2.4 |
| Totals | 2.2 | 4.6 | 2.4 |

Referenced Documents:
Attachment B-7

| Material Passing 1/4 inch | | | |
|---------------------------|------------|--------------|--------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-M-<1/4-inch-01 | 2.2 | 58 | 55.8 |
| QV-M-<1/4-inch-02 | 2.2 | 51.8 | 49.6 |
| Totals | 4.4 | 109.8 | 105.4 |

Referenced Documents:
Attachment B-7

+1/4-inch Material Crushed

Material Recombined

Material Pre-Cutting Over 270-mesh 12-inch Screen

Material Passing 270-mesh 12-inch Screen Collected in Drum. Allowed to Settle for ~24 hours

Referenced Documents:
Attachment B-7

Material Retained on 270-mesh Screen Placed in tin foil and stainless pans for quick drying and processing

Referenced Documents:
Attachment B-7

| Samples Collected from Drums | | | |
|------------------------------|------------|------------|-------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-M-0-F-01 | 2.2 | 49.4 | 47.2 |
| QV-M-0-F-02 | 2.2 | 18 | 15.8 |
| QV-M-0-F-WT | 1.2 | 18.6 | 17.4 |
| Totals | 5.6 | 86 | 80.4 |

Referenced Documents:
Attachment B-7

HPSA Processing

Referenced Documents:
Attachment B-7

Fines Samples Dewatered and Dried for Total Mass.

Referenced Documents:
Attachment B-7
Attachment C-5

Water Discharge into Troughs, Then Discharge On-Site

2 HPSA System Rinses with ~30 Gallons of Makeup Water Each

| Samples Collected After Drying | | | |
|--------------------------------|-----------|------------|-------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-M-0-F Dried Pans | - | - | 13.0 |
| QV-M-0-F Unsettled Water Mass | - | - | 74.39 grams |

Mass Balance Calculated for Proper Mixing of Concentrate Fractions. Fine samples Analyzed with XRF prior to and after mixing with SY PSD -270 fractions.

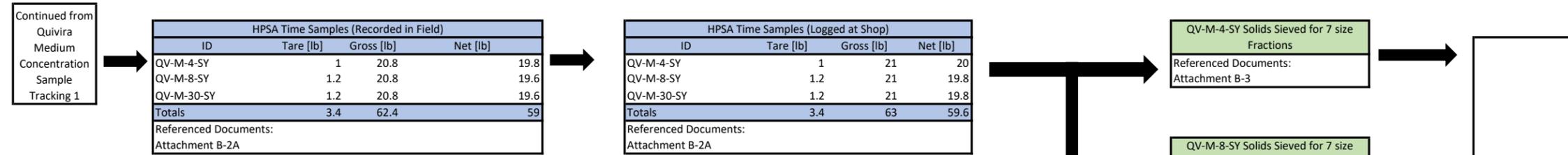
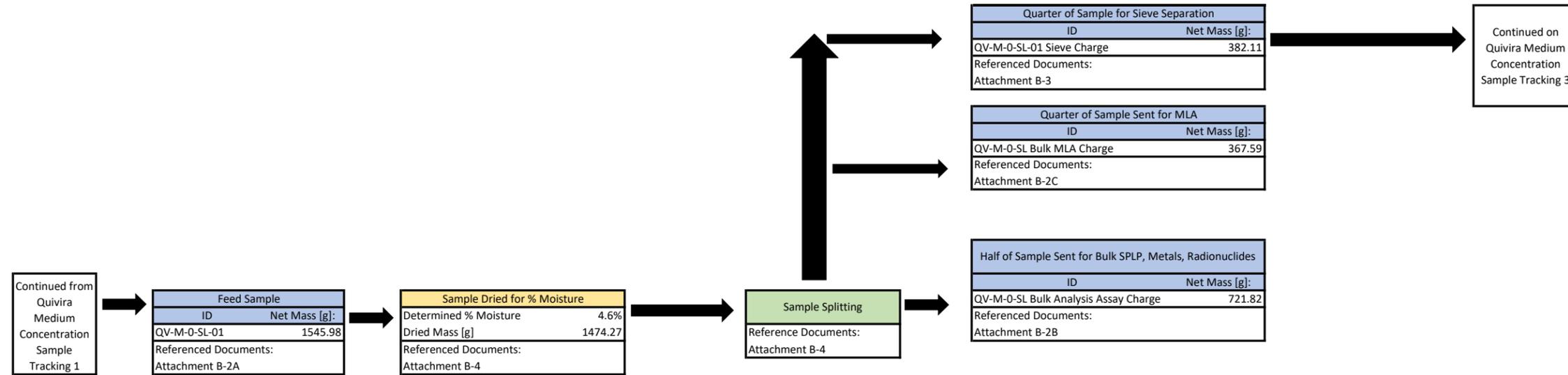
Referenced Documents:
Attachment B-7
Attachment B-8
Attachment C-5

- Notes:
- CoC Chain of Custody
 - QV Quivira
 - QV-M Quivira Medium Concentration
 - HPSA High-Pressure Slurry Ablation
 - lb. Pound
 - PSD particle size distribution
 - SY slurry
 - XRF X-ray fluorescence

Continued on Quivira Medium Concentration Sample Tracking 2

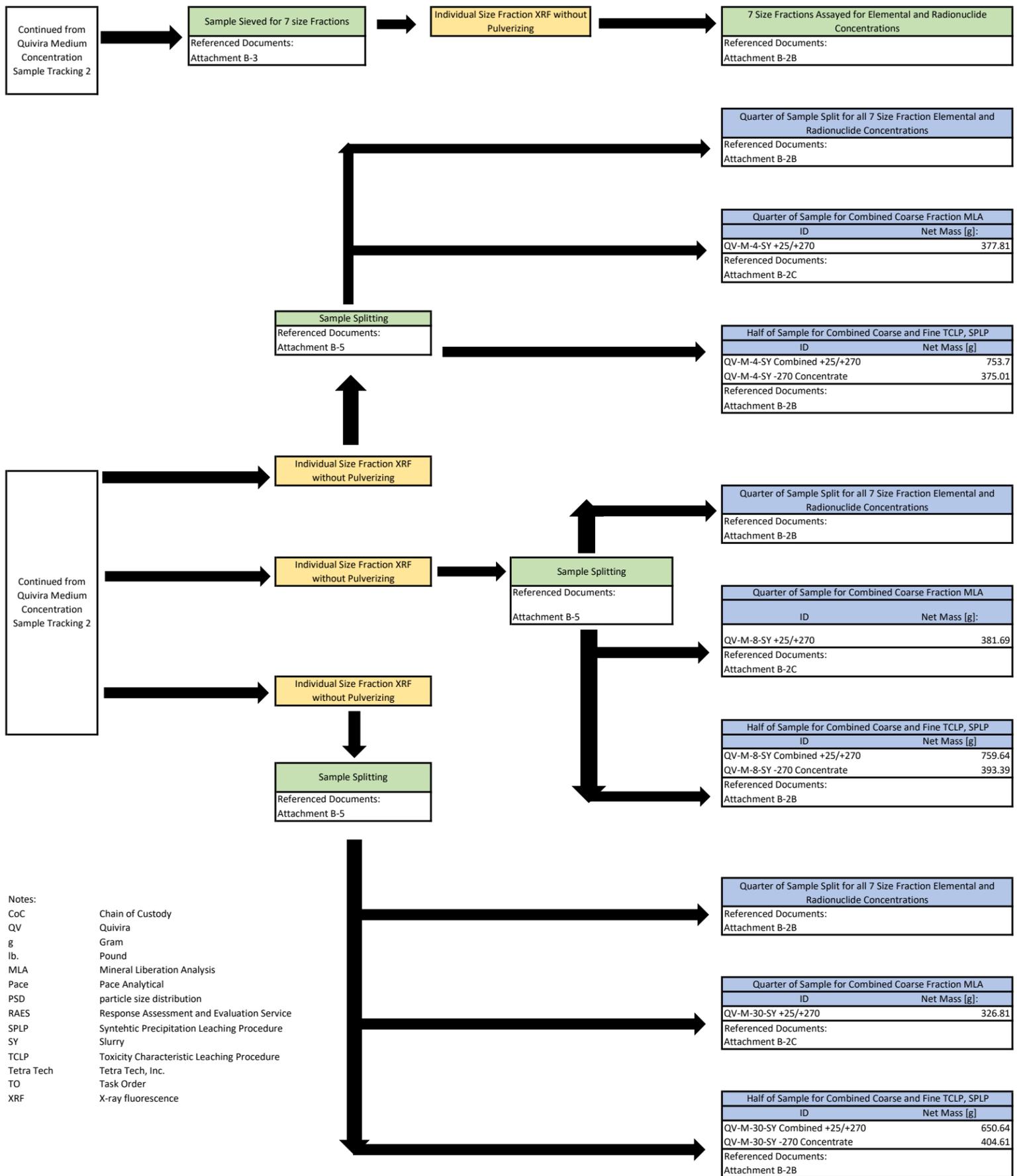
Continued on Quivira Medium Concentration Sample Tracking 2

Quivira Medium Concentration Sample Tracking
2



- Notes:
- CoC Chain of Custody
 - QV Quivira
 - QV-M-WT Quivira Medium Concentration Water
 - g Gram
 - HPSA High-Pressure Slurry Ablation
 - lb. Pound
 - MLA Mineral Liberation Analysis
 - Pace Pace Analytical
 - PSD particle size distribution
 - QAQC Quality assurance quality control
 - Ra-226 Radium-226
 - RAES Response Assessment and Evaluation Services
 - SL Soil
 - SY Slurry
 - Tetra Tech Tetra Tech, Inc.
 - TO Task Order
 - WT Water

Quivira Medium Concentration Sample Tracking
3



- Notes:
- CoC Chain of Custody
 - QV Quivira
 - g Gram
 - lb. Pound
 - MLA Mineral Liberation Analysis
 - Pace Pace Analytical
 - PSD particle size distribution
 - RAES Response Assessment and Evaluation Service
 - SPLP Synthetic Precipitation Leaching Procedure
 - SY Slurry
 - TCLP Toxicity Characteristic Leaching Procedure
 - Tetra Tech Tetra Tech, Inc.
 - TO Task Order
 - XRF X-ray fluorescence

Quivira High Sample Concentration Tracking

1

| Collected Bulk Material | | | |
|-------------------------|------------|--------------|--------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-H-Unscreened-01 | 2.2 | 68.6 | 66.4 |
| QV-H-Unscreened-02 | 2.2 | 69.2 | 67 |
| Totals | 4.4 | 137.8 | 133.4 |

Referenced Documents:
Attachment B-7

Sample Screening Over 1/4-inch sieve

| Material Retained on 1/4-inch | | | |
|-------------------------------|------------|------------|------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-H->1/4-inch-01 | 2.2 | 5.6 | 3.4 |
| Totals | 2.2 | 5.6 | 3.4 |

Referenced Documents:
Attachment B-7

| Material Passing 1/4 inch | | | |
|---------------------------|------------|--------------|--------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-H-<1/4-inch-01 | 2.2 | 62 | 59.8 |
| QV-H-<1/4-inch-02 | 2.2 | 57.8 | 55.6 |
| QV-H-<1/4-inch-03 | 2.2 | 15.6 | 13.4 |
| Totals | 6.6 | 135.4 | 128.8 |

Referenced Documents:
Attachment B-7

+1/4-inch Material Crushed

Material Recombined

Material Pre-Cutting Over 270-mesh 12-inch Screen

Continued on Quivira High Concentration Sample Tracking 2

Material Passing 270-mesh 12-inch Screen Collected in Drum. Allowed to Settle for ~24 hours

Referenced Documents:
Attachment B-7

Material Retained on 270-mesh Screen Placed in tin foil and stainless pans for quick drying and processing

Referenced Documents:
Attachment B-7

| Samples Collected from Drums | | | |
|------------------------------|------------|-------------|-------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-H-0-F-01 | 2.2 | 47 | 44.8 |
| QV-H-0-F-02 | 2.2 | 21 | 18.8 |
| QV-H-0-F-WT | 1.2 | 17.2 | 16 |
| Totals | 5.6 | 85.2 | 79.6 |

Referenced Documents:
Attachment B-2A

HPSA Processing

Referenced Documents:
Attachment B-7

Continued on Quivira High Concentration Sample Tracking 2

Water Discharge into Troughs, Then Discharge On-Site

Fines Samples Dewatered and Dried for Total Mass.

Referenced Documents:
Attachment B-7
Attachment C-5

2 HPSA System Rinses with ~30 Gallons of Makeup Water Each

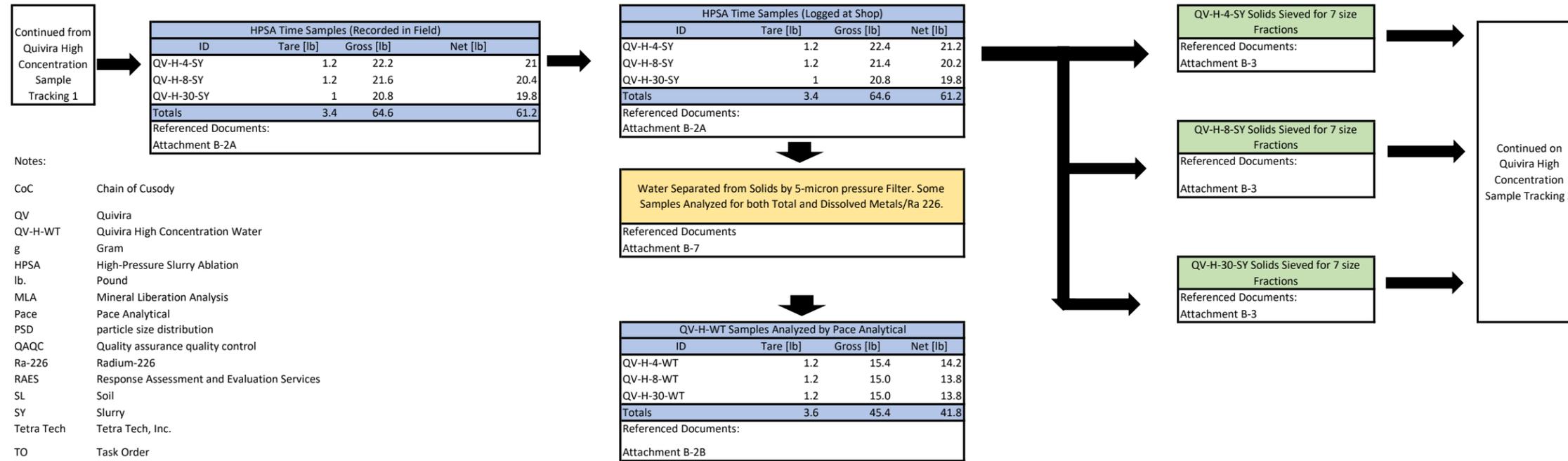
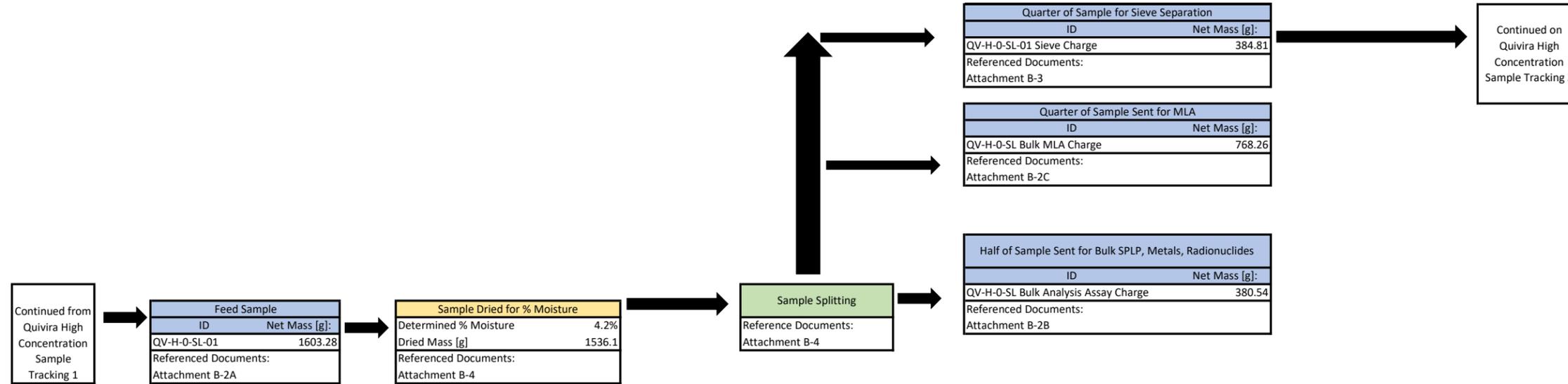
| Samples Collected After Drying | | | |
|--------------------------------|-----------|------------|--------------|
| ID | Tare [lb] | Gross [lb] | Net [lb] |
| QV-H-0-F Dried Pans | - | - | 13.0 |
| QV-H-0-F Unsettled Water Mass | - | - | 121.64 grams |

- Notes:
- CoC Chain of Custody
 - QV Quivira
 - QV-H Quivira High Concentration
 - HPSA High-Pressure Slurry Ablation
 - lb. Pound
 - PSD particle size distribution
 - SY slurry
 - XRF X-ray fluorescence

Mass Balance Calculated for Proper Mixing of Concentrate Fractions. Fine samples Analyzed with XRF prior to and after mixing with SY PSD -270 fractions.

Referenced Documents:
Attachment B-7
Attachment B-8
Attachment C-5

Quivira High Sample Concentration Tracking
2



- Notes:
- CoC Chain of Custody
 - QV Quivira
 - QV-H-WT Quivira High Concentration Water
 - g Gram
 - HPSA High-Pressure Slurry Ablation
 - lb. Pound
 - MLA Mineral Liberation Analysis
 - Pace Pace Analytical
 - PSD particle size distribution
 - QAQC Quality assurance quality control
 - Ra-226 Radium-226
 - RAES Response Assessment and Evaluation Services
 - SL Soil
 - SY Slurry
 - Tetra Tech Tetra Tech, Inc.
 - TO Task Order
 - WT Water

Quivira High Sample Concentration Tracking
3

