

Quality Assurance Program Plan QAPP

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Scrap Metal General Permit Monitoring and Reporting Program

- ✓ **Monitoring Program**
 - **Individual Monitoring Program**
 - **Group Monitoring Program**
- ✓ **Visual Inspections**
- ✓ **Runoff Analysis and Sampling**
 - **Quality Assurance Program Plan (QAPP)**
- ✓ **Reporting and Record Keeping**

Scrap Metal General Permit Monitoring Program

- ✓ **Individual Monitoring Program**
 - **Quality Assurance Program Plan (QAPP)**
 - **Certified Person**
- ✓ **Group Monitoring Program**
 - **Quality Assurance Program Plan (QAPP)**
 - **Certified Person equivalent**

Scrap Metal General Permit Visual Inspections

- ✓ **Monthly Inspections**
 - **At least 15 days apart**
 - **Assess if any materials, activity, machinery, etc. may contribute pollutants to stormwater runoff**
- ✓ **Inspection Reduction**
 - **Process to reduce inspections frequency**

Scrap Metal General Permit Runoff and Sampling Analysis

- ✓ **Sampling Frequency**
 - Four storm events per reporting year
 - Reporting year: July 1 through June 30
- ✓ **Sample as soon as possible**
- ✓ **Sampling Reduction**
 - Process to reduce sampling frequency

Scrap Metal General Permit Quality Assurance Program Plan

- ✓ **Quality Assurance Program Plan (QAPP)**
 - **Scrap Metal QAPP equivalent to SWAMP QAPP guidelines**
- ✓ **TMDL Quality Assurance Plans supersede the Scrap Metal QAPP**

Scrap Metal General Permit Quality Assurance Program Plan

- ✓ **Quality Assurance Program Plan (QAPP)**
 - **Prepare for sampling**
 - **Sample**
 - **Evaluate sample results**
 - **Record Keeping and Reporting**

Scrap Metal General Permit Quality Assurance Program Plan

Quality Assurance Project Plan

for

Sector-Specific General Permit for Storm Water Runoff
Associated with Industrial Activities from Scrap Metal Recycling Facilities
within the Santa Ana Region,
Order No. R8-2012-0012, NPDES Permit NO. CAG 618001

Owner: *name of owner*

Facility: *name of facility*

Facility Address

WDID Number

Date Finalized:

Revision Number:

Legally Responsible Person: signature of Legally Responsibility Person

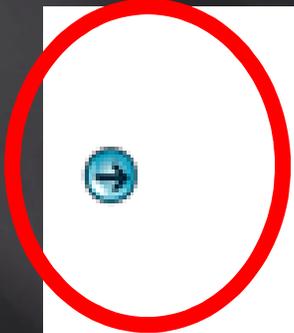
Date: _____

Quality Assurance Officer: signature of Quality Assurance Officer

Date: _____

Scrap Metal General Permit Quality Assurance Program Plan

B. Person(s) Responsible for Collecting the Samples

- 
- a. Certified Person: *[name of Certified Person, See Section VI.B.2, Page 57/65, of the Permit]* will be responsible for sample collection, handling and chain-of-custody through delivery to the laboratory. See Appendices B, C and D for relationships and lines of authority, reporting, and communication among all project personnel.
 - a. Project Manager: The Project Manager is responsible for all aspects of the monitoring program, including organizing sampling and coordinating with the contract laboratory.
 - b. Quality Assurance Officer: The Quality Assurance Officer is responsible for the quality assurance and quality control procedures found in this QAPP as part of the sampling and field analysis.

The Certified Person, Project Manager and Quality Assurance Officer may be the same person.

Scrap Metal General Permit QAPP - Step 1: Preparation

- ✓ Prepare for Sampling - Administrative
 - Compliance Option I or II
 - Individual or Group Monitoring
 - Responsible Individuals
 - Project Manager
 - Quality Assurance Officer
 - Certified Person

Scrap Metal General Permit QAPP - Step 1: Preparation

- ✓ Prepare for Sampling - Sampling
 - Certified Laboratory
 - Sampling Locations
 - Sampling Frequency
 - Constituents
 - Sample Collection
 - Sample Handling

Scrap Metal General Permit QAPP - Step 1: Preparation

- ✓ Prepare for Sampling - Sampling
 - Sample Collection
 - Safety supplies
 - Bottles
 - Sampling Handling
 - Sample preservation
 - Bottle labels
 - Chain of Custody (COC) forms
 - Transport to laboratory

Scrap Metal General Permit QAPP - Step 1: Preparation

- ✓ Prepare for Sampling - Field Analysis
 - Constituents
 - Field analysis instrument(s)
 - Batteries
 - Calibration and maintenance

Scrap Metal General Permit

QAPP - Step 2: Sampling

- ✓ **When to Sample**
- ✓ **Documentation**
- ✓ **Sample Collection**
 - **methods**
 - **labeling and chain-of-custody**
 - **sample handling**
- ✓ **Field measurements**
 - **calibration**
 - **triplicate measurements**

Scrap Metal General Permit QAPP - Step 3: Evaluation

✓ Data Quality Indicators

- accuracy
- precision
- recovery
- completeness

Scrap Metal General Permit QAPP – Step 3: Evaluation

✓ Field Measurements – Accuracy

- e.g., pH

Known pH calibration solution: 10.0 pH

pH field instrument measurement: 9.9 pH

$10.0 - 9.9 = 0.1$ pH unit

- Data Quality Indicator: +/- 0.2 pH unit

$0.1 < 0.2$, so accuracy acceptable

Scrap Metal General Permit QAPP – Step 3: Evaluation

- ✓ **Field Measurements – Precision**
 - e.g., turbidity

Triplicate sample:

167 NTU, 169 NTU, 166 NTU

Scrap Metal General Permit QAPP – Step 3: Evaluation

**Turbidity Measurements:
167 NTU, 169 NTU, 166 NTU**

Find geometric average

Number of sample result values: 3

Geometric Mean:

(value 1 * value 2 * value 3) ¹ / number of values

(167 * 169 * 166) ^{1/3} = 4,685,018 ^{1/3} = 167.33

Scrap Metal General Permit QAPP - Step 3: Evaluation

Turbidity Measurements:

167 NTU, 169 NTU, 166 NTU

Geometric average: 167.33 NTU

Data Quality Indicator: +/- 2 NTU

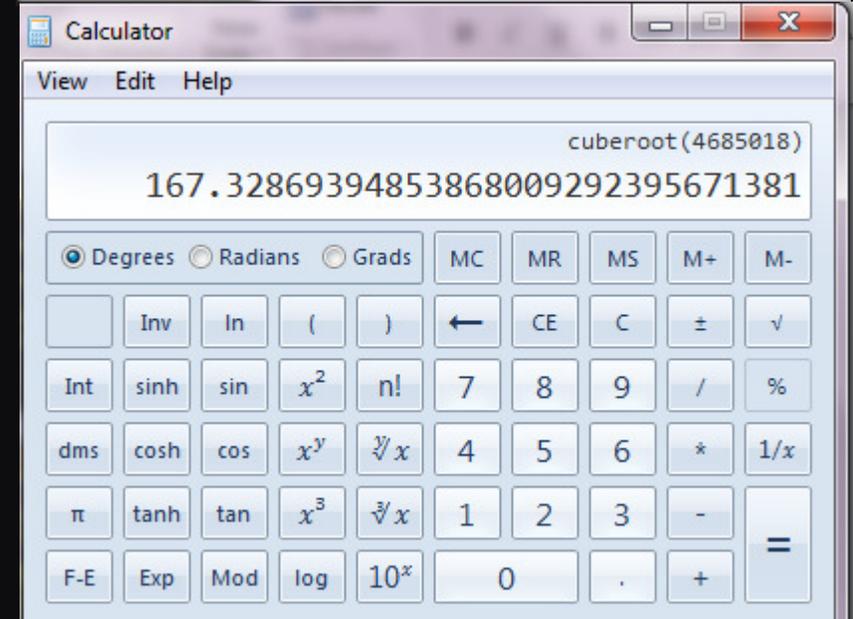
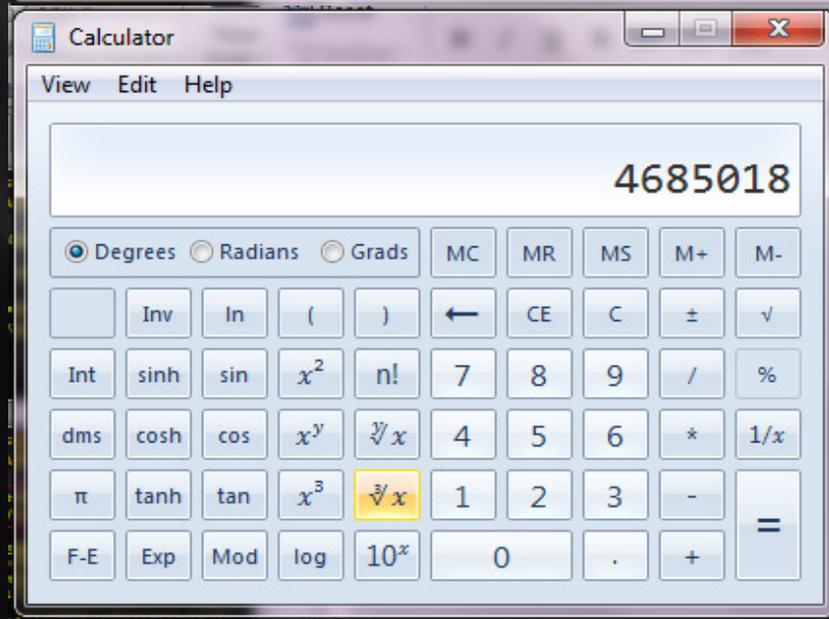
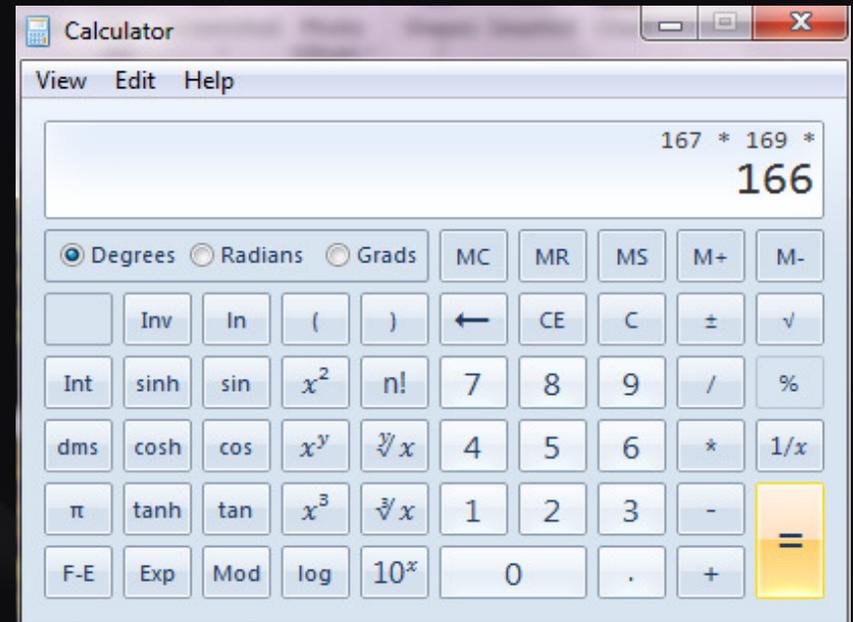
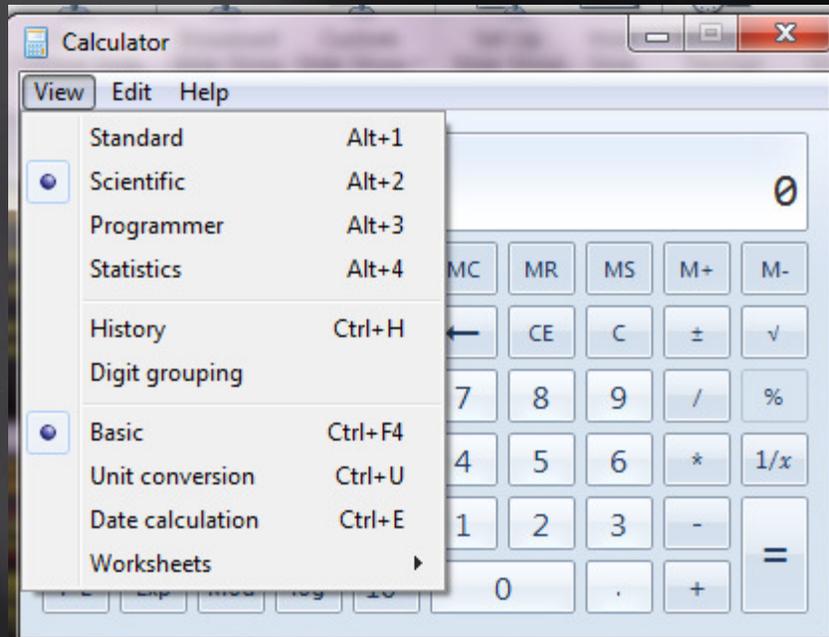
+/- 2 NTU range from average:

165.3 NTU to 169.3 NTU

165.3 NTU ← 166, 167, 169 → 169.3 NTU

Turbidity precision is acceptable

(value 1 * value 2 * value 3) ¹ / number of values
(167 * 169 * 166) ¹/₃ = 4,685,018 ¹/₃ = 167.33



Scrap Metal General Permit QAPP – Step 3: Evaluation

- ✓ **Permit Requirements – Option 1**
 - **Numeric Action Level**
 - **Twice the Numeric Action Level?**
 - **pH more acidic than 5.5 pH units,
more basic than 9.5 pH units?**

Scrap Metal General Permit

QAPP – Step 4: Records & Reporting

✓ Reporting

- Non-compliance: 24 hours
- Sample results: 30 days
- Annual Report: annually by August 1

✓ Record Keeping

- 5 years from origination

Questions?

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