

**Draft Technical Report
for
Tentative Cleanup and Abatement
Order No. R9-2012-0024**

APPENDIX FOR SECTION 27

**TIER I SCREENING LEVEL RISK
ASSESSMENT FOR HUMAN HEALTH**

March 14, 2012

**SUMMARY OF TIER I HUMAN HEALTH RISK ASSESSMENT RESULTS
(RECREATIONAL ANGLER)**

| | Arsenic | | Cadmium | | Chromium | | Copper | | Mercury | |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) |
| NA06 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| NA11 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| NA12 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| NA20 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| SW04 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | No | -- | No | -- | Yes | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| SW08 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| SW13 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| SW21 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| SW28 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |

**SUMMARY OF TIER I HUMAN HEALTH RISK ASSESSMENT RESULTS
(RECREATIONAL ANGLER)**

| | Nickel | | Selenium | | Silver | | Zinc | | TBT | |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (ug/kg wet) | (ug/kg dry) |
| NA06 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| NA11 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| NA12 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| NA20 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| SW04 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| SW08 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| SW13 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| SW21 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| SW28 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |

**SUMMARY OF TIER I HUMAN HEALTH RISK ASSESSMENT RESULTS
(RECREATIONAL ANGLER)**

| | Benzo[a]pyrene (ug/kg wet) (ug/kg dry) | | Total PCBs (ng/g wet) (ng/g dry) | |
|----------------------------------|--|-----|--|-----|
| NA06 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| NA11 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| NA12 | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| NA20 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| SW04 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| SW08 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| SW13 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| SW21 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| SW28 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |

**SUMMARY OF TIER I HUMAN HEALTH RISK ASSESSMENT RESULTS
(SUBSISTENCE ANGLER)**

| | Arsenic | | Cadmium | | Chromium | | Copper | | Mercury | |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) |
| NA06 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| NA11 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| NA12 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| NA20 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| SW04 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | No | -- | No | -- | Yes | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| SW08 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| SW13 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| SW21 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |
| SW28 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | No | -- | No | -- | No | -- | No | -- |

**SUMMARY OF TIER I HUMAN HEALTH RISK ASSESSMENT RESULTS
(SUBSISTENCE ANGLER)**

| | Nickel | | Selenium | | Silver | | Zinc | | TBT | |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (mg/kg wet) | (mg/kg dry) | (ug/kg wet) | (ug/kg dry) |
| NA06 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| NA11 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| NA12 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| NA20 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| SW04 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | Yes | -- |
| SW08 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | Yes | -- |
| SW13 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| SW21 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |
| SW28 | | | | | | | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No | -- | No | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | No | -- | No | -- | No | -- | No | -- | No | -- |

**SUMMARY OF TIER I HUMAN HEALTH RISK ASSESSMENT RESULTS
(SUBSISTENCE ANGLER)**

| | Benzo[a]pyrene (ug/kg wet) (ug/kg dry) | | Total PCBs (ng/g wet) (ng/g dry) | |
|----------------------------------|--|-----|--|-----|
| NA06 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| NA11 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| NA12 | | | | |
| > 95% UPL Reference Pool | -- | No | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| NA20 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | No |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| SW04 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| SW08 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| SW13 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| SW21 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |
| SW28 | | | | |
| > 95% UPL Reference Pool | -- | Yes | -- | Yes |
| > HH Tissue Residue Guideline(s) | Yes | -- | Yes | -- |

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**COMPARISON OF SHIPYARD BIOACCUMULATION STATIONS TO RISK-BASED TISSUE SCREENING LEVELS
(RECREATIONAL ANGLER)**

| | Human Health Tissue Screening Level (ug/kg wet) | Shipyards Stations with <i>Macoma nasuta</i> Tissue Data (ug/kg wet) | | | | | | | | |
|---|---|--|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | NA06 | NA11 | NA12 | NA20 | SW04 | SW08 | SW13 | SW21 | SW28 |
| Metals | | | | | | | | | | |
| Arsenic, inorganic (RfD) | 1,000 | 116.8 | 119.2 | 108 | 112.8 | 143.2 | 110.4 | 113.6 | 123.2 | 123.2 |
| Arsenic, inorganic (CSF) | 22.22 | 116.8 | 119.2 | 108 | 112.8 | 143.2 | 110.4 | 113.6 | 123.2 | 123.2 |
| Cadmium | 3,000 | 40 | 40 | 30 | 30 | 40 | 30 | 30 | 40 | 40 |
| Chromium | 10,000 | 320 | 270 | 250 | 310 | 480 | 360 | 310 | 390 | 240 |
| Copper | 123,333 | 2280 | 1900 | 1860 | 1740 | 4840 | 3300 | 3660 | 2420 | 2100 |
| Mercury, total (except for Macoma tissue) | 300 | 20 | 20 | 20 | 20 | 20 | 20 | 10 | 20 | 20 |
| Nickel | 66,667 | 390 | 340 | 330 | 430 | 440 | 340 | 380 | 360 | 390 |
| Selenium | 20,000 | 300 | 280 | 300 | 220 | 240 | 200 | 280 | 280 | 250 |
| Silver | 16,667 | 40 | 50 | 30 | 20 | 30 | 40 | 40 | 50 | 40 |
| Zinc | 1,000,000 | 19600 | 16600 | 16200 | 17200 | 28800 | 15800 | 19200 | 19400 | 19400 |
| Organometallic Compounds | | | | | | | | | | |
| Tributyltin | 1,000 | 31.6 | 13.8 | 14.76 | 23.6 | 331 | 148 | 124.6 | 16.4 | 13 |
| Polycyclic Aromatic Hydrocarbons | | | | | | | | | | |
| Benzo[a]pyrene | 2.78 | 27 | 23 | 20 | 38 | 174 | 166 | 105.8 | 138 | 136 |
| Polychlorinated Biphenyls | | | | | | | | | | |
| Total PCB Aroclors (CSF) | 16.67 | 77.8 | 46.8 | 31.8 | 32 | 216 | 160 | 72.2 | 264 | 226 |
| Total PCB Aroclors (RfD) | 66.67 | 77.8 | 46.8 | 31.8 | 32 | 216 | 160 | 72.2 | 264 | 226 |

NOTE: Tissue concentrations bold faced and shaded are greater than the human health tissue screening levels.

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**COMPARISON OF SHIPYARD BIOACCUMULATION STATIONS TO RISK-BASED TISSUE SCREENING LEVELS
(SUBSISTENCE ANGLER)**

| | Human Health Tissue Screening Level (ug/kg wet) | Shipyards Stations with <i>Macoma nasuta</i> Tissue Data (ug/kg wet) | | | | | | | | |
|---|---|--|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | NA06 | NA11 | NA12 | NA20 | SW04 | SW08 | SW13 | SW21 | SW28 |
| Metals | | | | | | | | | | |
| Arsenic, inorganic (RfD) | 130 | 116.8 | 119.2 | 108 | 112.8 | 143.2 | 110.4 | 113.6 | 123.2 | 123.2 |
| Arsenic, inorganic (CSF) | 2.90 | 116.8 | 119.2 | 108 | 112.8 | 143.2 | 110.4 | 113.6 | 123.2 | 123.2 |
| Cadmium | 217 | 40 | 40 | 30 | 30 | 40 | 30 | 30 | 40 | 40 |
| Chromium | 1,304 | 320 | 270 | 250 | 310 | 480 | 360 | 310 | 390 | 240 |
| Copper | 16,087 | 2280 | 1900 | 1860 | 1740 | 4840 | 3300 | 3660 | 2420 | 2100 |
| Mercury, total (except for Macoma tissue) | 43 | 20 | 20 | 20 | 20 | 20 | 20 | 10 | 20 | 20 |
| Nickel | 8,696 | 390 | 340 | 330 | 430 | 440 | 340 | 380 | 360 | 390 |
| Selenium | 2,174 | 300 | 280 | 300 | 220 | 240 | 200 | 280 | 280 | 250 |
| Silver | 2,174 | 40 | 50 | 30 | 20 | 30 | 40 | 40 | 50 | 40 |
| Zinc | 130,435 | 19600 | 16600 | 16200 | 17200 | 28800 | 15800 | 19200 | 19400 | 19400 |
| Organometallic Compounds | | | | | | | | | | |
| Tributyltin | 130 | 31.6 | 13.8 | 14.76 | 23.6 | 331 | 148 | 124.6 | 16.4 | 13 |
| Polycyclic Aromatic Hydrocarbons | | | | | | | | | | |
| Benzo[a]pyrene | 0.36 | 27 | 23 | 20 | 38 | 174 | 166 | 105.8 | 138 | 136 |
| Polychlorinated Biphenyls | | | | | | | | | | |
| Total PCB Aroclors (CSF) | 2.17 | 77.8 | 46.8 | 31.8 | 32 | 216 | 160 | 72.2 | 264 | 226 |
| Total PCB Aroclors (RfD) | 8.70 | 77.8 | 46.8 | 31.8 | 32 | 216 | 160 | 72.2 | 264 | 226 |

NOTE: Tissue concentrations bold faced and shaded are greater than the human health tissue screening levels.

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COMPARISON OF SITE/REFERENCE MACOMA TISSUE CONCENTRATIONS

| | Total Solids (decimal wet) | Arsenic (mg/kg wet) | Control | Arsenic (mg/kg dry) | Cadmium (mg/kg wet) | Control | Cadmium (mg/kg dry) | Chromium (mg/kg wet) | Control | Chromium (mg/kg dry) | Copper (mg/kg wet) | Control |
|--------------------------|-------------------------------|------------------------|---------|------------------------|------------------------|---------|------------------------|-------------------------|---------|-------------------------|-----------------------|---------|
| NA06 | 0.147 | 3 | 3 | 20.41 | 0.032 | 0.031 | 0.22 | 0.33 | 0.78 | 2.24 | 2.3 | 1.5 |
| NA06 | 0.151 | 2.6 | 3.1 | 17.22 | 0.033 | 0.045 | 0.22 | 0.34 | 0.25 | 2.25 | 2.1 | 1.2 |
| NA06 | 0.128 | 2.7 | 2.7 | 21.09 | 0.056 | 0.04 | 0.44 | 0.29 | 0.77 | 2.27 | 2.3 | 0.99 |
| NA06 | 0.159 | 3 | 2.8 | 18.87 | 0.037 | 0.034 | 0.23 | 0.38 | 0.35 | 2.39 | 2.4 | 1.2 |
| NA06 | 0.167 | 3.3 | 3.2 | 19.76 | 0.051 | 0.037 | 0.31 | 0.25 | 0.19 | 1.50 | 2.3 | 0.97 |
| mean | 0.1504 | 2.92 | 2.96 | 19.47 | 0.0418 | 0.0374 | 0.28 | 0.318 | 0.468 | 2.13 | 2.28 | 1.172 |
| max | 0.167 | 3.3 | 3.2 | 21.09 | 0.056 | 0.045 | 0.4375 | 0.38 | 0.78 | 2.39 | 2.4 | 1.5 |
| > 95% UPL Reference Pool | -- | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |
| NA11 | 0.155 | 3.2 | 3 | 20.65 | 0.036 | 0.031 | 0.23 | 0.26 | 0.78 | 1.68 | 1.6 | 1.5 |
| NA11 | 0.148 | 2.6 | 3.1 | 17.57 | 0.028 | 0.045 | 0.19 | 0.23 | 0.25 | 1.55 | 1.8 | 1.2 |
| NA11 | 0.131 | 2.8 | 2.7 | 21.37 | 0.025 | 0.04 | 0.19 | 0.18 | 0.77 | 1.37 | 1.6 | 0.99 |
| NA11 | 0.155 | 3.7 | 2.8 | 23.87 | 0.052 | 0.034 | 0.34 | 0.34 | 0.35 | 2.19 | 2.6 | 1.2 |
| NA11 | 0.147 | 2.6 | 3.2 | 17.69 | 0.054 | 0.037 | 0.37 | 0.36 | 0.19 | 2.45 | 1.9 | 0.97 |
| mean | 0.1472 | 2.98 | 2.96 | 20.23 | 0.039 | 0.0374 | 0.26 | 0.274 | 0.468 | 1.85 | 1.9 | 1.172 |
| max | 0.155 | 3.7 | 3.2 | 23.87 | 0.054 | 0.045 | 0.3673469 | 0.36 | 0.78 | 2.45 | 2.6 | 1.5 |
| > 95% UPL Reference Pool | -- | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |
| NA12 | 0.14 | 2.8 | 3 | 20.00 | 0.02 | 0.031 | 0.14 | 0.2 | 0.78 | 1.43 | 1.7 | 1.5 |
| NA12 | 0.132 | 2.6 | 3.1 | 19.70 | 0.036 | 0.045 | 0.27 | 0.26 | 0.25 | 1.97 | 2 | 1.2 |
| NA12 | 0.152 | 2.6 | 2.7 | 17.11 | 0.031 | 0.04 | 0.20 | 0.26 | 0.77 | 1.71 | 1.5 | 0.99 |
| NA12 | 0.147 | 2.9 | 2.8 | 19.73 | 0.035 | 0.034 | 0.24 | 0.32 | 0.35 | 2.18 | 1.7 | 1.2 |
| NA12 | 0.142 | 2.6 | 3.2 | 18.31 | 0.028 | 0.037 | 0.20 | 0.19 | 0.19 | 1.34 | 2.4 | 0.97 |
| mean | 0.1426 | 2.7 | 2.96 | 18.97 | 0.03 | 0.0374 | 0.21 | 0.246 | 0.468 | 1.72 | 1.86 | 1.172 |
| max | 0.152 | 2.9 | 3.2 | 20.00 | 0.036 | 0.045 | 0.2727273 | 0.32 | 0.78 | 2.18 | 2.4 | 1.5 |
| > 95% UPL Reference Pool | -- | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |
| NA20 | 0.162 | 3 | 3 | 18.52 | 0.029 | 0.031 | 0.18 | 0.25 | 0.78 | 1.54 | 1.7 | 1.5 |
| NA20 | 0.136 | 2.2 | 3.1 | 16.18 | 0.023 | 0.045 | 0.17 | 0.27 | 0.25 | 1.99 | 1.6 | 1.2 |
| NA20 | 0.158 | 3.2 | 2.7 | 20.25 | 0.035 | 0.04 | 0.22 | 0.37 | 0.77 | 2.34 | 2 | 0.99 |
| NA20 | 0.158 | 3.2 | 2.8 | 20.25 | 0.035 | 0.034 | 0.22 | 0.37 | 0.35 | 2.34 | 2 | 1.2 |
| NA20 | 0.147 | 2.5 | 3.2 | 17.01 | 0.029 | 0.037 | 0.20 | 0.3 | 0.19 | 2.04 | 1.4 | 0.97 |
| mean | 0.1522 | 2.82 | 2.96 | 18.44 | 0.0302 | 0.0374 | 0.20 | 0.312 | 0.468 | 2.05 | 1.74 | 1.172 |
| max | 0.162 | 3.2 | 3.2 | 20.25 | 0.035 | 0.045 | 0.221519 | 0.37 | 0.78 | 2.34 | 2 | 1.5 |
| > 95% UPL Reference Pool | -- | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |
| SW04 | 0.146 | 3.8 | 3 | 26.03 | 0.043 | 0.031 | 0.29 | 0.76 | 0.78 | 5.21 | 8.1 | 1.5 |
| SW04 | 0.142 | 3.8 | 3.1 | 26.76 | 0.055 | 0.045 | 0.39 | 0.49 | 0.25 | 3.45 | 5 | 1.2 |
| SW04 | 0.152 | 3.1 | 2.7 | 20.39 | 0.037 | 0.04 | 0.24 | 0.53 | 0.77 | 3.49 | 4 | 0.99 |
| SW04 | 0.153 | 3.6 | 2.8 | 23.53 | 0.031 | 0.034 | 0.20 | 0.18 | 0.35 | 1.18 | 2.5 | 1.2 |
| SW04 | 0.149 | 3.6 | 3.2 | 24.16 | 0.027 | 0.037 | 0.18 | 0.42 | 0.19 | 2.82 | 4.6 | 0.97 |
| mean | 0.1484 | 3.58 | 2.96 | 24.17 | 0.0386 | 0.0374 | 0.26 | 0.476 | 0.468 | 3.23 | 4.84 | 1.172 |
| max | 0.153 | 3.8 | 3.2 | 26.76 | 0.055 | 0.045 | 0.3873239 | 0.76 | 0.78 | 5.21 | 8.1 | 1.5 |

NOTE: Shaded values indicate undetected at detection limit. Therefore, 1/2 detection limit used in this table.

COMPARISON OF SITE/REFERENCE MACOMA TISSUE CONCENTRATIONS

| | Total Solids (decimal wet) | Arsenic (mg/kg wet) | Control | Arsenic (mg/kg dry) | Cadmium (mg/kg wet) | Control | Cadmium (mg/kg dry) | Chromium (mg/kg wet) | Control | Chromium (mg/kg dry) | Copper (mg/kg wet) | Control |
|--------------------------|-------------------------------|------------------------|---------|------------------------|------------------------|---------|------------------------|-------------------------|---------|-------------------------|-----------------------|---------|
| > 95% UPL Reference Pool | | -- | -- | Yes | -- | -- | No | -- | -- | No | -- | -- |
| SW08 | 0.148 | 2.6 | 3 | 17.57 | 0.022 | 0.031 | 0.15 | 0.33 | 0.78 | 2.23 | 3.2 | 1.5 |
| SW08 | 0.12 | 2.8 | 3.1 | 23.33 | 0.029 | 0.045 | 0.24 | 0.35 | 0.25 | 2.92 | 3.2 | 1.2 |
| SW08 | 0.148 | 2.8 | 2.7 | 18.92 | 0.035 | 0.04 | 0.24 | 0.53 | 0.77 | 3.58 | 2.6 | 0.99 |
| SW08 | 0.157 | 3 | 2.8 | 19.11 | 0.037 | 0.034 | 0.24 | 0.3 | 0.35 | 1.91 | 3.2 | 1.2 |
| SW08 | 0.138 | 2.6 | 3.2 | 18.84 | 0.03 | 0.037 | 0.22 | 0.31 | 0.19 | 2.25 | 4.3 | 0.97 |
| mean | 0.1422 | 2.76 | 2.96 | 19.55 | 0.0306 | 0.0374 | 0.22 | 0.364 | 0.468 | 2.58 | 3.3 | 1.172 |
| max | 0.157 | 3 | 3.2 | 23.33 | 0.037 | 0.045 | 0.2416667 | 0.53 | 0.78 | 3.58 | 4.3 | 1.5 |
| > 95% UPL Reference Pool | | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |
| SW13 | 0.12 | 2.5 | 3 | 20.83 | 0.032 | 0.031 | 0.27 | 0.26 | 0.78 | 2.17 | 2.5 | 1.5 |
| SW13 | 0.158 | 3.6 | 3.1 | 22.78 | 0.045 | 0.045 | 0.28 | 0.31 | 0.25 | 1.96 | 5.6 | 1.2 |
| SW13 | 0.163 | 3.1 | 2.7 | 19.02 | 0.031 | 0.04 | 0.19 | 0.3 | 0.77 | 1.84 | 3.1 | 0.99 |
| SW13 | 0.14 | 2.1 | 2.8 | 15.00 | 0.025 | 0.034 | 0.18 | 0.41 | 0.35 | 2.93 | 4.2 | 1.2 |
| SW13 | 0.151 | 2.9 | 3.2 | 19.21 | 0.027 | 0.037 | 0.18 | 0.29 | 0.19 | 1.92 | 2.9 | 0.97 |
| mean | 0.1464 | 2.84 | 2.96 | 19.37 | 0.032 | 0.0374 | 0.22 | 0.314 | 0.468 | 2.16 | 3.66 | 1.172 |
| max | 0.163 | 3.6 | 3.2 | 22.78 | 0.045 | 0.045 | 0.2848101 | 0.41 | 0.78 | 2.93 | 5.6 | 1.5 |
| > 95% UPL Reference Pool | | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |
| SW21 | 0.157 | 3.1 | 3 | 19.75 | 0.033 | 0.031 | 0.21 | 0.32 | 0.78 | 2.04 | 2.4 | 1.5 |
| SW21 | 0.146 | 3.1 | 3.1 | 21.23 | 0.037 | 0.045 | 0.25 | 0.32 | 0.25 | 2.19 | 2 | 1.2 |
| SW21 | 0.164 | 3.7 | 2.7 | 22.56 | 0.053 | 0.04 | 0.32 | 0.35 | 0.77 | 2.13 | 2.4 | 0.99 |
| SW21 | 0.148 | 2.9 | 2.8 | 19.59 | 0.042 | 0.034 | 0.28 | 0.34 | 0.35 | 2.30 | 2.2 | 1.2 |
| SW21 | 0.128 | 2.6 | 3.2 | 20.31 | 0.038 | 0.037 | 0.30 | 0.6 | 0.19 | 4.69 | 3.1 | 0.97 |
| mean | 0.1486 | 3.08 | 2.96 | 20.69 | 0.0406 | 0.0374 | 0.27 | 0.386 | 0.468 | 2.67 | 2.42 | 1.172 |
| max | 0.164 | 3.7 | 3.2 | 22.56 | 0.053 | 0.045 | 0.3231707 | 0.6 | 0.78 | 4.69 | 3.1 | 1.5 |
| > 95% UPL Reference Pool | | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |
| SW28 | 0.157 | 2.8 | 3 | 17.83 | 0.036 | 0.031 | 0.23 | 0.2 | 0.78 | 1.27 | 1.8 | 1.5 |
| SW28 | 0.143 | 2.7 | 3.1 | 18.88 | 0.028 | 0.045 | 0.20 | 0.18 | 0.25 | 1.26 | 1.6 | 1.2 |
| SW28 | 0.155 | 3.3 | 2.7 | 21.29 | 0.036 | 0.04 | 0.23 | 0.25 | 0.77 | 1.61 | 2.2 | 0.99 |
| SW28 | 0.163 | 3.5 | 2.8 | 21.47 | 0.053 | 0.034 | 0.33 | 0.3 | 0.35 | 1.84 | 2.7 | 1.2 |
| SW28 | 0.155 | 3.1 | 3.2 | 20.00 | 0.034 | 0.037 | 0.22 | 0.27 | 0.19 | 1.74 | 2.2 | 0.97 |
| mean | 0.1546 | 3.08 | 2.96 | 19.90 | 0.0374 | 0.0374 | 0.24 | 0.24 | 0.468 | 1.55 | 2.1 | 1.172 |
| max | 0.163 | 3.5 | 3.2 | 21.47 | 0.053 | 0.045 | 0.3251534 | 0.3 | 0.78 | 1.84 | 2.7 | 1.5 |
| > 95% UPL Reference Pool | | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |

NOTE: Shaded values indicate undetected at detection limit. Therefore, 1/2 detection limit used in this table.

COMPARISON OF SITE/REFERENCE MACOMA TISSUE CONCENTRATIONS

| | Copper (mg/kg dry) | Lead (mg/kg wet) | Control | Lead (mg/kg dry) | Mercury (mg/kg wet) | Control | Mercury (mg/kg dry) | Nickel (mg/kg wet) | Control | Nickel (mg/kg dry) | Selenium (mg/kg wet) | Control |
|--------------------------|-----------------------|---------------------|---------|---------------------|------------------------|---------|------------------------|-----------------------|---------|-----------------------|-------------------------|---------|
| NA06 | 15.65 | 0.64 | 0.1 | 4.35 | 0.016 | 0.018 | 0.109 | 0.38 | 0.4 | 2.59 | 0.4 | 0.2 |
| NA06 | 13.91 | 0.82 | 0.12 | 5.43 | 0.014 | 0.015 | 0.093 | 0.37 | 0.43 | 2.45 | 0.2 | 0.4 |
| NA06 | 17.97 | 0.5 | 0.11 | 3.91 | 0.016 | 0.016 | 0.125 | 0.34 | 0.75 | 2.66 | 0.3 | 0.3 |
| NA06 | 15.09 | 0.53 | 0.09 | 3.33 | 0.026 | 0.012 | 0.164 | 0.47 | 0.38 | 2.96 | 0.3 | 0.3 |
| NA06 | 13.77 | 0.58 | 0.11 | 3.47 | 0.018 | 0.013 | 0.108 | 0.37 | 0.35 | 2.22 | 0.3 | 0.2 |
| mean | 15.28 | 0.614 | 0.106 | 4.10 | 0.018 | 0.0148 | 0.120 | 0.386 | 0.462 | 2.57 | 0.3 | 0.28 |
| max | 17.97 | 0.82 | 0.12 | 5.43 | 0.026 | 0.018 | 0.164 | 0.47 | 0.75 | 2.96 | 0.4 | 0.4 |
| > 95% UPL Reference Pool | No | -- | -- | Yes | -- | -- | No | -- | -- | No | -- | -- |
| NA11 | 10.32 | 0.37 | 0.1 | 2.39 | 0.012 | 0.018 | 0.077 | 0.39 | 0.4 | 2.52 | 0.3 | 0.2 |
| NA11 | 12.16 | 0.28 | 0.12 | 1.89 | 0.014 | 0.015 | 0.095 | 0.27 | 0.43 | 1.82 | 0.2 | 0.4 |
| NA11 | 12.21 | 0.3 | 0.11 | 2.29 | 0.017 | 0.016 | 0.130 | 0.28 | 0.75 | 2.14 | 0.3 | 0.3 |
| NA11 | 16.77 | 0.53 | 0.09 | 3.42 | 0.018 | 0.012 | 0.116 | 0.39 | 0.38 | 2.52 | 0.4 | 0.3 |
| NA11 | 12.93 | 0.48 | 0.11 | 3.27 | 0.016 | 0.013 | 0.109 | 0.36 | 0.35 | 2.45 | 0.2 | 0.2 |
| mean | 12.88 | 0.392 | 0.106 | 2.65 | 0.0154 | 0.0148 | 0.105 | 0.338 | 0.462 | 2.29 | 0.28 | 0.28 |
| max | 16.77 | 0.53 | 0.12 | 3.42 | 0.018 | 0.018 | 0.130 | 0.39 | 0.75 | 2.52 | 0.4 | 0.4 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |
| NA12 | 12.14 | 0.3 | 0.1 | 2.14 | 0.02 | 0.018 | 0.143 | 0.32 | 0.4 | 2.29 | 0.4 | 0.2 |
| NA12 | 15.15 | 0.31 | 0.12 | 2.35 | 0.015 | 0.015 | 0.114 | 0.36 | 0.43 | 2.73 | 0.3 | 0.4 |
| NA12 | 9.87 | 0.3 | 0.11 | 1.97 | 0.013 | 0.016 | 0.086 | 0.3 | 0.75 | 1.97 | 0.2 | 0.3 |
| NA12 | 11.56 | 0.37 | 0.09 | 2.52 | 0.014 | 0.012 | 0.095 | 0.37 | 0.38 | 2.52 | 0.4 | 0.3 |
| NA12 | 16.90 | 0.38 | 0.11 | 2.68 | 0.014 | 0.013 | 0.099 | 0.29 | 0.35 | 2.04 | 0.2 | 0.2 |
| mean | 13.13 | 0.332 | 0.106 | 2.33 | 0.0152 | 0.0148 | 0.107 | 0.328 | 0.462 | 2.31 | 0.3 | 0.28 |
| max | 16.90 | 0.38 | 0.12 | 2.68 | 0.02 | 0.018 | 0.143 | 0.37 | 0.75 | 2.73 | 0.4 | 0.4 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |
| NA20 | 10.49 | 0.41 | 0.1 | 2.53 | 0.017 | 0.018 | 0.105 | 0.42 | 0.4 | 2.59 | 0.3 | 0.2 |
| NA20 | 11.76 | 0.38 | 0.12 | 2.79 | 0.017 | 0.015 | 0.125 | 0.34 | 0.43 | 2.50 | 0.2 | 0.4 |
| NA20 | 12.66 | 0.55 | 0.11 | 3.48 | 0.023 | 0.016 | 0.146 | 0.5 | 0.75 | 3.16 | 0.2 | 0.3 |
| NA20 | 12.66 | 0.55 | 0.09 | 3.48 | 0.023 | 0.012 | 0.146 | 0.5 | 0.38 | 3.16 | 0.2 | 0.3 |
| NA20 | 9.52 | 0.37 | 0.11 | 2.52 | 0.017 | 0.013 | 0.116 | 0.38 | 0.35 | 2.59 | 0.2 | 0.2 |
| mean | 11.42 | 0.452 | 0.106 | 2.96 | 0.0194 | 0.0148 | 0.127 | 0.428 | 0.462 | 2.80 | 0.22 | 0.28 |
| max | 12.66 | 0.55 | 0.12 | 3.48 | 0.023 | 0.018 | 0.146 | 0.5 | 0.75 | 3.16 | 0.3 | 0.4 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |
| SW04 | 55.48 | 1.9 | 0.1 | 13.01 | 0.023 | 0.018 | 0.158 | 0.48 | 0.4 | 3.29 | 0.3 | 0.2 |
| SW04 | 35.21 | 1.7 | 0.12 | 11.97 | 0.021 | 0.015 | 0.148 | 0.63 | 0.43 | 4.44 | 0.2 | 0.4 |
| SW04 | 26.32 | 1.3 | 0.11 | 8.55 | 0.022 | 0.016 | 0.145 | 0.35 | 0.75 | 2.30 | 0.2 | 0.3 |
| SW04 | 16.34 | 0.7 | 0.09 | 4.58 | 0.016 | 0.012 | 0.105 | 0.37 | 0.38 | 2.42 | 0.2 | 0.3 |
| SW04 | 30.87 | 1.1 | 0.11 | 7.38 | 0.019 | 0.013 | 0.128 | 0.38 | 0.35 | 2.55 | 0.3 | 0.2 |
| mean | 32.84 | 1.34 | 0.106 | 9.10 | 0.0202 | 0.0148 | 0.136 | 0.442 | 0.462 | 3.00 | 0.24 | 0.28 |
| max | 55.48 | 1.9 | 0.12 | 13.01 | 0.023 | 0.018 | 0.158 | 0.63 | 0.75 | 4.44 | 0.3 | 0.4 |

NOTE: Shaded values indicate undetected at detection limit. Therefore, 1/2 detection limit used in this table.

COMPARISON OF SITE/REFERENCE MACOMA TISSUE CONCENTRATIONS

| | Copper (mg/kg dry) | Lead (mg/kg wet) | Control | Lead (mg/kg dry) | Mercury (mg/kg wet) | Control | Mercury (mg/kg dry) | Nickel (mg/kg wet) | Control | Nickel (mg/kg dry) | Selenium (mg/kg wet) | Control |
|--------------------------|-----------------------|---------------------|---------|---------------------|------------------------|---------|------------------------|-----------------------|---------|-----------------------|-------------------------|---------|
| > 95% UPL Reference Pool | Yes | -- | -- | Yes | -- | -- | No | -- | -- | No | -- | -- |
| SW08 | 21.62 | 0.8 | 0.1 | 5.41 | 0.026 | 0.018 | 0.176 | 0.29 | 0.4 | 1.96 | 0.2 | 0.2 |
| SW08 | 26.67 | 1.4 | 0.12 | 11.67 | 0.015 | 0.015 | 0.125 | 0.29 | 0.43 | 2.42 | 0.1 | 0.4 |
| SW08 | 17.57 | 0.6 | 0.11 | 4.05 | 0.018 | 0.016 | 0.122 | 0.43 | 0.75 | 2.91 | 0.3 | 0.3 |
| SW08 | 20.38 | 0.66 | 0.09 | 4.20 | 0.017 | 0.012 | 0.108 | 0.37 | 0.38 | 2.36 | 0.2 | 0.3 |
| SW08 | 31.16 | 0.75 | 0.11 | 5.43 | 0.017 | 0.013 | 0.123 | 0.3 | 0.35 | 2.17 | 0.2 | 0.2 |
| mean | 23.48 | 0.842 | 0.106 | 6.15 | 0.0186 | 0.0148 | 0.131 | 0.336 | 0.462 | 2.36 | 0.2 | 0.28 |
| max | 31.16 | 1.4 | 0.12 | 11.67 | 0.026 | 0.018 | 0.176 | 0.43 | 0.75 | 2.91 | 0.3 | 0.4 |
| > 95% UPL Reference Pool | Yes | -- | -- | Yes | -- | -- | No | -- | -- | No | -- | -- |
| SW13 | 20.83 | 0.35 | 0.1 | 2.92 | 0.013 | 0.018 | 0.108 | 0.35 | 0.4 | 2.92 | 0.2 | 0.2 |
| SW13 | 35.44 | 0.4 | 0.12 | 2.53 | 0.014 | 0.015 | 0.089 | 0.44 | 0.43 | 2.78 | 0.5 | 0.4 |
| SW13 | 19.02 | 0.43 | 0.11 | 2.64 | 0.018 | 0.016 | 0.110 | 0.41 | 0.75 | 2.52 | 0.3 | 0.3 |
| SW13 | 30.00 | 0.35 | 0.09 | 2.50 | 0.013 | 0.012 | 0.093 | 0.34 | 0.38 | 2.43 | 0.2 | 0.3 |
| SW13 | 19.21 | 0.33 | 0.11 | 2.19 | 0.016 | 0.013 | 0.106 | 0.34 | 0.35 | 2.25 | 0.2 | 0.2 |
| mean | 24.90 | 0.372 | 0.106 | 2.55 | 0.0148 | 0.0148 | 0.101 | 0.376 | 0.462 | 2.58 | 0.28 | 0.28 |
| max | 35.44 | 0.43 | 0.12 | 2.92 | 0.018 | 0.018 | 0.110 | 0.44 | 0.75 | 2.92 | 0.5 | 0.4 |
| > 95% UPL Reference Pool | Yes | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |
| SW21 | 15.29 | 0.46 | 0.1 | 2.93 | 0.016 | 0.018 | 0.102 | 0.36 | 0.4 | 2.29 | 0.2 | 0.2 |
| SW21 | 13.70 | 0.53 | 0.12 | 3.63 | 0.017 | 0.015 | 0.116 | 0.31 | 0.43 | 2.12 | 0.2 | 0.4 |
| SW21 | 14.63 | 0.69 | 0.11 | 4.21 | 0.017 | 0.016 | 0.104 | 0.41 | 0.75 | 2.50 | 0.3 | 0.3 |
| SW21 | 14.86 | 0.58 | 0.09 | 3.92 | 0.017 | 0.012 | 0.115 | 0.36 | 0.38 | 2.43 | 0.3 | 0.3 |
| SW21 | 24.22 | 0.9 | 0.11 | 7.03 | 0.012 | 0.013 | 0.094 | 0.37 | 0.35 | 2.89 | 0.4 | 0.2 |
| mean | 16.54 | 0.632 | 0.106 | 4.34 | 0.0158 | 0.0148 | 0.106 | 0.362 | 0.462 | 2.45 | 0.28 | 0.28 |
| max | 24.22 | 0.9 | 0.12 | 7.03 | 0.017 | 0.018 | 0.116 | 0.41 | 0.75 | 2.89 | 0.4 | 0.4 |
| > 95% UPL Reference Pool | No | -- | -- | Yes | -- | -- | No | -- | -- | No | -- | -- |
| SW28 | 11.46 | 0.35 | 0.1 | 2.23 | 0.019 | 0.018 | 0.121 | 0.4 | 0.4 | 2.55 | 0.2 | 0.2 |
| SW28 | 11.19 | 0.39 | 0.12 | 2.73 | 0.017 | 0.015 | 0.119 | 0.32 | 0.43 | 2.24 | 0.15 | 0.4 |
| SW28 | 14.19 | 0.45 | 0.11 | 2.90 | 0.02 | 0.016 | 0.129 | 0.38 | 0.75 | 2.45 | 0.4 | 0.3 |
| SW28 | 16.56 | 0.51 | 0.09 | 3.13 | 0.015 | 0.012 | 0.092 | 0.48 | 0.38 | 2.94 | 0.3 | 0.3 |
| SW28 | 14.19 | 0.45 | 0.11 | 2.90 | 0.016 | 0.013 | 0.103 | 0.35 | 0.35 | 2.26 | 0.2 | 0.2 |
| mean | 13.52 | 0.43 | 0.106 | 2.78 | 0.0174 | 0.0148 | 0.113 | 0.386 | 0.462 | 2.49 | 0.25 | 0.28 |
| max | 16.56 | 0.51 | 0.12 | 3.13 | 0.02 | 0.018 | 0.129 | 0.48 | 0.75 | 2.94 | 0.4 | 0.4 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | No | -- | -- | No | -- | -- |

NOTE: Shaded values indicate undetected at detection limit. Therefore, 1/2 detection limit used in this table.

COMPARISON OF SITE/REFERENCE MACOMA TISSUE CONCENTRATIONS

| | Selenium (mg/kg dry) | Silver (mg/kg wet) | Control (mg/kg dry) | Silver (mg/kg dry) | Zinc (mg/kg wet) | Control (mg/kg dry) | Zinc (mg/kg dry) | TBT (ug/kg wet) | Control (ug/kg dry) | TBT (ug/kg dry) | Benzo[a]pyrene (ug/kg wet) | Control (ug/kg dry) |
|--------------------------|-------------------------|-----------------------|------------------------|-----------------------|---------------------|------------------------|---------------------|--------------------|------------------------|--------------------|-------------------------------|------------------------|
| NA06 | 2.72 | 0.038 | 0.027 | 0.259 | 17 | 16 | 115.65 | 16 | 0.495 | 108.84 | 27 | 5 |
| NA06 | 1.32 | 0.052 | 0.033 | 0.344 | 18 | 18 | 119.21 | 32 | 0.5 | 211.92 | 26 | 2.5 |
| NA06 | 2.34 | 0.053 | 0.036 | 0.414 | 21 | 15 | 164.06 | 31 | 0.5 | 242.19 | 20 | 2.5 |
| NA06 | 1.89 | 0.03 | 0.027 | 0.189 | 18 | 14 | 113.21 | 38 | 1.4 | 238.99 | 30 | 5 |
| NA06 | 1.80 | 0.026 | 0.041 | 0.156 | 24 | 17 | 143.71 | 41 | 0.495 | 245.51 | 32 | 5 |
| mean | 2.01 | 0.0398 | 0.0328 | 0.272 | 19.6 | 16 | 131.17 | 31.6 | 0.678 | 209.49 | 27 | 4 |
| max | 2.72 | 0.053 | 0.041 | 0.414 | 24 | 18 | 164.06 | 41 | 1.4 | 245.51 | 32 | 5 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | Yes | -- | -- | Yes | -- | -- |
| NA11 | 1.94 | 0.051 | 0.027 | 0.329 | 15 | 16 | 96.77 | 15 | 0.495 | 96.77 | 23 | 5 |
| NA11 | 1.35 | 0.041 | 0.033 | 0.277 | 16 | 18 | 108.11 | 11 | 0.5 | 74.32 | 26 | 2.5 |
| NA11 | 2.29 | 0.042 | 0.036 | 0.321 | 14 | 15 | 106.87 | 12 | 0.5 | 91.60 | 19 | 2.5 |
| NA11 | 2.58 | 0.072 | 0.027 | 0.465 | 20 | 14 | 129.03 | 19 | 1.4 | 122.58 | 27 | 5 |
| NA11 | 1.36 | 0.037 | 0.041 | 0.252 | 18 | 17 | 122.45 | 12 | 0.495 | 81.63 | 20 | 5 |
| mean | 1.90 | 0.0486 | 0.0328 | 0.329 | 16.6 | 16 | 112.65 | 13.8 | 0.678 | 93.38 | 23 | 4 |
| max | 2.58 | 0.072 | 0.041 | 0.465 | 20 | 18 | 129.03 | 19 | 1.4 | 122.58 | 27 | 5 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | Yes | -- | -- | Yes | -- | -- |
| NA12 | 2.86 | 0.02 | 0.027 | 0.143 | 12 | 16 | 85.71 | 18 | 0.495 | 128.57 | 19 | 5 |
| NA12 | 2.27 | 0.031 | 0.033 | 0.235 | 17 | 18 | 128.79 | 15 | 0.5 | 113.64 | 19 | 2.5 |
| NA12 | 1.32 | 0.027 | 0.036 | 0.178 | 17 | 15 | 111.84 | 13 | 0.5 | 85.53 | 21 | 2.5 |
| NA12 | 2.72 | 0.031 | 0.027 | 0.211 | 17 | 14 | 115.65 | 19 | 1.4 | 129.25 | 23 | 5 |
| NA12 | 1.41 | 0.05 | 0.041 | 0.352 | 18 | 17 | 126.76 | 8.8 | 0.495 | 61.97 | 18 | 5 |
| mean | 2.12 | 0.0318 | 0.0328 | 0.224 | 16.2 | 16 | 113.75 | 14.76 | 0.678 | 103.79 | 20 | 4 |
| max | 2.86 | 0.05 | 0.041 | 0.352 | 18 | 18 | 128.79 | 19 | 1.4 | 129.25 | 23 | 5 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | Yes | -- | -- | Yes | -- | -- |
| NA20 | 1.85 | 0.022 | 0.027 | 0.136 | 19 | 16 | 117.28 | 22 | 0.495 | 135.80 | 46 | 5 |
| NA20 | 1.47 | 0.019 | 0.033 | 0.140 | 15 | 18 | 110.29 | 26 | 0.5 | 191.18 | 23 | 2.5 |
| NA20 | 1.27 | 0.022 | 0.036 | 0.139 | 18 | 15 | 113.92 | 27 | 0.5 | 170.89 | 35 | 2.5 |
| NA20 | 1.27 | 0.022 | 0.027 | 0.139 | 18 | 14 | 113.92 | 27 | 1.4 | 170.89 | 43 | 5 |
| NA20 | 1.36 | 0.022 | 0.041 | 0.150 | 16 | 17 | 108.84 | 16 | 0.495 | 108.84 | 43 | 5 |
| mean | 1.44 | 0.0214 | 0.0328 | 0.141 | 17.2 | 16 | 112.85 | 23.6 | 0.678 | 155.52 | 38 | 4 |
| max | 1.85 | 0.022 | 0.041 | 0.150 | 19 | 18 | 117.28 | 27 | 1.4 | 191.18 | 46 | 5 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | Yes | -- | -- | Yes | -- | -- |
| SW04 | 2.05 | 0.058 | 0.027 | 0.397 | 46 | 16 | 315.07 | 330 | 0.495 | 2260.27 | 170 | 5 |
| SW04 | 1.41 | 0.029 | 0.033 | 0.204 | 31 | 18 | 218.31 | 740 | 0.5 | 5211.27 | 170 | 2.5 |
| SW04 | 1.32 | 0.034 | 0.036 | 0.224 | 27 | 15 | 177.63 | 420 | 0.5 | 2763.16 | 150 | 2.5 |
| SW04 | 1.31 | 0.028 | 0.027 | 0.183 | 19 | 14 | 124.18 | 150 | 1.4 | 980.39 | 180 | 5 |
| SW04 | 2.01 | 0.024 | 0.041 | 0.161 | 21 | 17 | 140.94 | 15 | 0.495 | 100.67 | 200 | 5 |
| mean | 1.62 | 0.0346 | 0.0328 | 0.234 | 28.8 | 16 | 195.23 | 331 | 0.678 | 2263.15 | 174 | 4 |
| max | 2.05 | 0.058 | 0.041 | 0.397 | 46 | 18 | 315.07 | 740 | 1.4 | 5211.27 | 200 | 5 |

NOTE: Shaded values indicate undetected at detection limit. Therefore, 1/2 detection limit used in this table.

COMPARISON OF SITE/REFERENCE MACOMA TISSUE CONCENTRATIONS

| | Selenium (mg/kg dry) | Silver (mg/kg wet) | Control | Silver (mg/kg dry) | Zinc (mg/kg wet) | Control | Zinc (mg/kg dry) | TBT (ug/kg wet) | Control | TBT (ug/kg dry) | Benzo[a]pyrene (ug/kg wet) | Control |
|--------------------------|-------------------------|-----------------------|---------|-----------------------|---------------------|---------|---------------------|--------------------|---------|--------------------|-------------------------------|---------|
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | Yes | -- | -- | Yes | -- | -- |
| SW08 | 1.35 | 0.016 | 0.027 | 0.108 | 15 | 16 | 101.35 | 120 | 0.495 | 810.81 | 170 | 5 |
| SW08 | 0.83 | 0.034 | 0.033 | 0.283 | 14 | 18 | 116.67 | 210 | 0.5 | 1750.00 | 140 | 2.5 |
| SW08 | 2.03 | 0.019 | 0.036 | 0.128 | 17 | 15 | 114.86 | 110 | 0.5 | 743.24 | 180 | 2.5 |
| SW08 | 1.27 | 0.041 | 0.027 | 0.261 | 19 | 14 | 121.02 | 180 | 1.4 | 1146.50 | 190 | 5 |
| SW08 | 1.45 | 0.067 | 0.041 | 0.486 | 14 | 17 | 101.45 | 120 | 0.495 | 869.57 | 150 | 5 |
| mean | 1.39 | 0.0354 | 0.0328 | 0.253 | 15.8 | 16 | 111.07 | 148 | 0.678 | 1064.02 | 166 | 4 |
| max | 2.03 | 0.067 | 0.041 | 0.486 | 19 | 18 | 121.02 | 210 | 1.4 | 1750.00 | 190 | 5 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | Yes | -- | -- | Yes | -- | -- |
| SW13 | 1.67 | 0.043 | 0.027 | 0.358 | 17 | 16 | 141.67 | 120 | 0.495 | 1000.00 | 79 | 5 |
| SW13 | 3.16 | 0.077 | 0.033 | 0.487 | 24 | 18 | 151.90 | 140 | 0.5 | 886.08 | 120 | 2.5 |
| SW13 | 1.84 | 0.028 | 0.036 | 0.172 | 25 | 15 | 153.37 | 150 | 0.5 | 920.25 | 100 | 2.5 |
| SW13 | 1.43 | 0.027 | 0.027 | 0.193 | 16 | 14 | 114.29 | 93 | 1.4 | 664.29 | 100 | 5 |
| SW13 | 1.32 | 0.038 | 0.041 | 0.252 | 14 | 17 | 92.72 | 120 | 0.495 | 794.70 | 130 | 5 |
| mean | 1.88 | 0.0426 | 0.0328 | 0.292 | 19.2 | 16 | 130.79 | 124.6 | 0.678 | 853.06 | 105.8 | 4 |
| max | 3.16 | 0.077 | 0.041 | 0.487 | 25 | 18 | 153.37 | 150 | 1.4 | 1000.00 | 130 | 5 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | Yes | -- | -- | Yes | -- | -- |
| SW21 | 1.27 | 0.053 | 0.027 | 0.338 | 18 | 16 | 114.65 | 13 | 0.495 | 82.80 | 180 | 5 |
| SW21 | 1.37 | 0.039 | 0.033 | 0.267 | 18 | 18 | 123.29 | 14 | 0.5 | 95.89 | 150 | 2.5 |
| SW21 | 1.83 | 0.061 | 0.036 | 0.372 | 24 | 15 | 146.34 | 16 | 0.5 | 97.56 | 120 | 2.5 |
| SW21 | 2.03 | 0.05 | 0.027 | 0.338 | 18 | 14 | 121.62 | 15 | 1.4 | 101.35 | 130 | 5 |
| SW21 | 3.13 | 0.054 | 0.041 | 0.422 | 19 | 17 | 148.44 | 24 | 0.495 | 187.50 | 110 | 5 |
| mean | 1.93 | 0.0514 | 0.0328 | 0.347 | 19.4 | 16 | 130.87 | 16.4 | 0.678 | 113.02 | 138 | 4 |
| max | 3.13 | 0.061 | 0.041 | 0.422 | 24 | 18 | 148.44 | 24 | 1.4 | 187.50 | 180 | 5 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | Yes | -- | -- | Yes | -- | -- |
| SW28 | 1.27 | 0.028 | 0.027 | 0.178 | 18 | 16 | 114.65 | 15 | 0.495 | 95.54 | 140 | 5 |
| SW28 | 1.05 | 0.02 | 0.033 | 0.140 | 15 | 18 | 104.90 | 10 | 0.5 | 69.93 | 130 | 2.5 |
| SW28 | 2.58 | 0.038 | 0.036 | 0.245 | 22 | 15 | 141.94 | 16 | 0.5 | 103.23 | 130 | 2.5 |
| SW28 | 1.84 | 0.052 | 0.027 | 0.319 | 25 | 14 | 153.37 | 11 | 1.4 | 67.48 | 140 | 5 |
| SW28 | 1.29 | 0.039 | 0.041 | 0.252 | 17 | 17 | 109.68 | 13 | 0.495 | 83.87 | 140 | 5 |
| mean | 1.61 | 0.0354 | 0.0328 | 0.227 | 19.4 | 16 | 124.91 | 13 | 0.678 | 84.01 | 136 | 4 |
| max | 2.58 | 0.052 | 0.041 | 0.319 | 25 | 18 | 153.37 | 16 | 1.4 | 103.23 | 140 | 5 |
| > 95% UPL Reference Pool | No | -- | -- | No | -- | -- | Yes | -- | -- | Yes | -- | -- |

NOTE: Shaded values indicate undetected at detection limit. Therefore, 1/2 detection limit used in this table.

COMPARISON OF SITE/REFERENCE MACOMA TISSUE CONCENTRATIONS

| | Benzof[a]pyrene (ug/kg dry) | Total PCB Congeners (ng/g wet) | Control | Total PCB Congeners (ng/g dry) |
|--------------------------|--------------------------------|-----------------------------------|---------|-----------------------------------|
| NA06 | 183.67 | 55 | 0.47 | 374.15 |
| NA06 | 172.19 | 40.1 | 0.44 | 265.56 |
| NA06 | 156.25 | 20.1 | 0.54 | 157.03 |
| NA06 | 188.68 | 69.2 | 46 | 435.22 |
| NA06 | 191.62 | 57.9 | 0.33 | 346.71 |
| mean | 178.48 | 48.46 | 9.556 | 315.73 |
| max | 191.62 | 69.2 | 46 | 435.22 |
| > 95% UPL Reference Pool | Yes | -- | -- | Yes |
| NA11 | 148.39 | 26.9 | 0.47 | 173.55 |
| NA11 | 175.68 | 23.8 | 0.44 | 160.81 |
| NA11 | 145.04 | 21.6 | 0.54 | 164.89 |
| NA11 | 174.19 | 28.1 | 46 | 181.29 |
| NA11 | 136.05 | 26.5 | 0.33 | 180.27 |
| mean | 155.87 | 25.38 | 9.556 | 172.16 |
| max | 175.68 | 28.1 | 46 | 181.29 |
| > 95% UPL Reference Pool | Yes | -- | -- | No |
| NA12 | 135.71 | 16.1 | 0.47 | 115.00 |
| NA12 | 143.94 | 15.2 | 0.44 | 115.15 |
| NA12 | 138.16 | 17.3 | 0.54 | 113.82 |
| NA12 | 156.46 | 23.4 | 46 | 159.18 |
| NA12 | 126.76 | 17.1 | 0.33 | 120.42 |
| mean | 140.21 | 17.82 | 9.556 | 124.71 |
| max | 156.46 | 23.4 | 46 | 159.18 |
| > 95% UPL Reference Pool | No | -- | -- | No |
| NA20 | 283.95 | 24.5 | 0.47 | 151.23 |
| NA20 | 169.12 | 16.9 | 0.44 | 124.26 |
| NA20 | 221.52 | 13.2 | 0.54 | 83.54 |
| NA20 | 272.15 | 13.2 | 46 | 83.54 |
| NA20 | 292.52 | 21.6 | 0.33 | 146.94 |
| mean | 247.85 | 17.88 | 9.556 | 117.91 |
| max | 292.52 | 24.5 | 46 | 151.23 |
| > 95% UPL Reference Pool | Yes | -- | -- | No |
| SW04 | 1164.38 | 195 | 0.47 | 1335.62 |
| SW04 | 1197.18 | 161 | 0.44 | 1133.80 |
| SW04 | 986.84 | 15 | 0.54 | 98.68 |
| SW04 | 1176.47 | 136 | 46 | 888.89 |
| SW04 | 1342.28 | 196 | 0.33 | 1315.44 |
| mean | 1173.43 | 140.6 | 9.556 | 954.49 |
| max | 1342.28 | 196 | 46 | 1335.62 |

NOTE: Shaded values indicate undetected at detection limit. Therefore, 1/2 detection limit used in this table.

COMPARISON OF SITE/REFERENCE MACOMA TISSUE CONCENTRATIONS

| | Benzo[a]pyrene (ug/kg dry) | Total PCB Congeners (ng/g wet) | Control | Total PCB Congeners (ng/g dry) |
|--------------------------|-------------------------------|-----------------------------------|---------|-----------------------------------|
| > 95% UPL Reference Pool | Yes | -- | -- | Yes |
| SW08 | 1148.65 | 103 | 0.47 | 695.95 |
| SW08 | 1166.67 | 98.2 | 0.44 | 818.33 |
| SW08 | 1216.22 | 86.2 | 0.54 | 582.43 |
| SW08 | 1210.19 | 135 | 46 | 859.87 |
| SW08 | 1086.96 | 90.1 | 0.33 | 652.90 |
| mean | 1165.74 | 102.5 | 9.556 | 721.90 |
| max | 1216.22 | 135 | 46 | 859.87 |
| > 95% UPL Reference Pool | Yes | -- | -- | Yes |
| SW13 | 658.33 | 22.9 | 0.47 | 190.83 |
| SW13 | 759.49 | 27.9 | 0.44 | 176.58 |
| SW13 | 613.50 | 43.2 | 0.54 | 265.03 |
| SW13 | 714.29 | 181 | 46 | 1292.86 |
| SW13 | 860.93 | 35.3 | 0.33 | 233.77 |
| mean | 721.31 | 62.06 | 9.556 | 431.82 |
| max | 860.93 | 181 | 46 | 1292.86 |
| > 95% UPL Reference Pool | Yes | -- | -- | Yes |
| SW21 | 1146.50 | 143 | 0.47 | 910.83 |
| SW21 | 1027.40 | 175 | 0.44 | 1198.63 |
| SW21 | 731.71 | 170 | 0.54 | 1036.59 |
| SW21 | 878.38 | 167 | 46 | 1128.38 |
| SW21 | 859.38 | 106 | 0.33 | 828.13 |
| mean | 928.67 | 152.2 | 9.556 | 1020.51 |
| max | 1146.50 | 175 | 46 | 1198.63 |
| > 95% UPL Reference Pool | Yes | -- | -- | Yes |
| SW28 | 891.72 | 127 | 0.47 | 808.92 |
| SW28 | 909.09 | 120 | 0.44 | 839.16 |
| SW28 | 838.71 | 136 | 0.54 | 877.42 |
| SW28 | 858.90 | 104 | 46 | 638.04 |
| SW28 | 903.23 | 121 | 0.33 | 780.65 |
| mean | 880.33 | 121.6 | 9.556 | 788.84 |
| max | 909.09 | 136 | 46 | 877.42 |
| > 95% UPL Reference Pool | Yes | -- | -- | Yes |

NOTE: Shaded values indicate undetected at detection limit. Therefore, 1/2 detection limit used in this table.