

**APPENDIX A
ANALYTICAL DATA SUMMARY**

**POTENTIAL BACKGROUND CONSTITUENT
LEVELS IN STORM WATER AT BOEING'S
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA**

Prepared For:

THE BOEING COMPANY

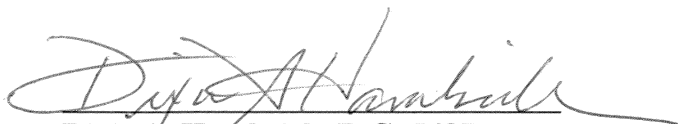
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May 2007



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Program Director



APPENDIX A

Electronic Copy of Soil Background Laboratory Information and Validation Reports Readme File

This Readme file contains a summary of the contents of Appendix A of the *Potential Background Constituent Levels in Storm Water at Boeing's Santa Susana Laboratory* report (this report). Appendix A contains seven tables, three figures, and two folders containing sampling and analytical results for samples discussed in this report.

Tables

Included in this Appendix are the following tables in Microsoft Excel format:

- Table A-1 soil background metals data set
- Table A-2 soil background dioxins data set
- Table A-3 post-fire drainage results
- Table A-4 post-fire background results
- Table A-5 post-fire location & coordinates
- Table A-6 ambient rain water First Quarter 2005
- Table A-7 units conversion

Tables A-1 and A-2 present the soil background data sets and comparison values for the RCRA Facility Investigation (RFI) program at the Santa Susana Field Laboratory (SSFL) for metals and dioxins, respectively. These data are approved by the Department of Toxic Substances Control (DTSC).

Table A-3 presents the post-fire results for soil, ash, and surface water samples collected at on- and offsite drainage locations between October 6, 2005 and May 22, 2006. Table A-4 presents the post-fire results for soil and ash samples collected at DTSC-approved soil background locations on October 13th and October 14th, 2005. The sample location and coordinate information for the post-fire samples is presented in Table A-5.

Table A-6 presents the metals and dioxins results for rainwater sampling conducted at the SSFL between January and March 2005. Table A-7 provides a units conversion reference table for results referenced in the text, tables, and appendix of this report.

Figures

Figure A-1 presents the DTSC-approved soil background sample locations that were sampled for soil and/or ash in October 2005 after the Topanga Fire. Figure A-2 presents post-fire reference sample locations that were sampled for soil, ash, and/or surface water between October 6, 2005 and May 22, 2006.

Folders

The folders of this appendix also contain electronic copies of validation reports, chain-of-custody (COC) forms, and chain-of-custody analytical request change forms (Change Forms). These files are organized into two main folder types: **Chain of Custody Forms** and **Validation Reports (1-7)**.

Chain of Custody Forms

Chain of custody forms were generated in the field at the time of sample collection. Each chain of custody includes information pertaining to sample identification, sample depth, sample matrix, collection date/time, analysis requested, turn-around times, general project information, and other additional sampling information. The chain of custody forms accompanied the samples from the time of collection until analysis by the laboratory.

Change Forms are generated for samples subsequent to shipment to the laboratory. Generally, change forms were generated when a change or correction to a COC was needed (e.g., when additional analyses were requested for a sample).

The files are organized by Sample Delivery Group (SDG) number, a tracking number assigned by the laboratories upon receipt of the samples.

Validation Reports

Validation reports include laboratory results and data assessment forms completed by AMEC Earth and Environmental, Inc. (AMEC) data validators. The validation report summaries identify the laboratory method and target compounds for each sample, in addition, the report indicates whether each compound was detected, the concentration (or detection limit if not detected), and applicable laboratory and data validation qualifiers. With the exception of field QC samples (field blanks, equipment rinsates), all analytical data generated from background field samples were validated by AMEC. Data validation report PDFs are organized by chemical group (analytical method), with each folder containing validation reports specific to respective analytical method as shown above.

These reports are provided in seven folders. Data validation reports for rainwater sample results are limited to samples represented in this report. Each of these subfolders is organized by a validation report number that was assigned by AMEC.

Table A-1
Soil Background Metals Data Set
Santa Susana Field Laboratory

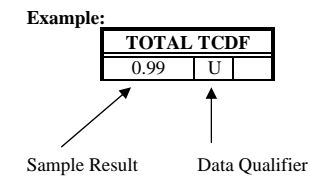
| SAMPLE ID | Depth (ft. bgs) | Potassium | | Selenium | | Silver | | Sodium | | Thallium | | Vanadium | | Zinc | | Zirconium | | pH | |
|---|--------------------|-----------|--|----------|----|--------|---|--------|----|----------|----|----------|--|------|---|-----------|---|------|---|
| | | | | | | | | | | | | | | | | | | | |
| BGSS01S01 | 0.5 | 3,100 | | 0.47 | U | 0.76 | U | 100 | J | 0.21 | UJ | 38.2 | | 70.4 | | 1.9 | U | 6.82 | J |
| BGSS02S01 | 0.5 | 1,800 | | 0.46 | U | 0.74 | U | 50 | | 0.19 | UJ | 16.7 | | 41.8 | | 1.7 | U | 7.27 | J |
| BGSS02S02 | 1 | 2,000 | | 0.47 | U | 0.75 | U | 45 | | 0.16 | UJ | 14.7 | | 40.7 | | 1.6 | U | 7.07 | J |
| BGSS03D01 | 0.5 | 4,300 | | 0.72 | | 0.75 | U | 63 | J | 0.31 | | 27.3 | | 63.6 | | 3.1 | J | 8.25 | J |
| BGSS03S01 | 0.5 | 3,900 | | 0.59 | | 0.74 | U | 57 | J | 0.31 | | 25.5 | | 61.3 | | 3.3 | J | 8.08 | J |
| BGSS03S02 | 1 | 3,900 | | 0.53 | | 0.74 | U | 66 | J | 0.29 | J | 28.1 | | 62.8 | | 3.2 | J | 7.8 | J |
| BGSS04S01 | 0.5 | 4,000 | | 0.48 | U | 0.77 | U | 88 | J | 0.3 | | 57.1 | | 47.3 | | 6.6 | J | 7.4 | J |
| BGSS06S01 | 0.5 | 3,200 | | 0.45 | U | 0.72 | U | 61 | J | 0.25 | J | 26.6 | | 56.9 | | 5.7 | J | 7.35 | J |
| BGSS07S01 | 0.5 | 3,800 | | 0.48 | UJ | 0.77 | U | 65 | J | 0.28 | UJ | 35.7 | | 53.2 | | 2.8 | J | 6.98 | J |
| BKND-1 | 0 | 3,500 | | 2.1 | U | 0.21 | U | 66 | J | 0.33 | | 44.5 | | 47.4 | | 3.7 | J | 8.86 | J |
| BKND-2 | 0 | 2,100 | | 2.1 | U | 0.21 | U | 74 | J | 0.13 | J | 31.9 | | 62.5 | | 5.8 | J | 7.68 | J |
| BKND-3 | 0 | 3,600 | | 2.1 | U | 0.21 | U | 54 | J | 0.17 | UJ | 21.4 | | 50.3 | | 1.6 | U | 7.21 | J |
| BKND-4 | 0 | 3,600 | | 2 | U | 0.2 | U | 48 | J | 0.46 | | 22.5 | | 52.5 | | 1.8 | J | 6.78 | J |
| BKND-5 | 0 | 3,200 | | 2.1 | U | 0.21 | U | 51 | J | 0.36 | | 21.7 | | 62.4 | | 5.9 | J | 6.95 | J |
| BKND-6 | 0 | 3,100 | | 2.1 | U | 0.21 | U | 51 | J | 0.19 | UJ | 26.5 | | 59.3 | | 1.7 | U | 7.08 | J |
| BKND-7 | 0 | 3,000 | | 2.1 | U | 0.21 | U | 51 | J | 0.24 | UJ | 37.8 | | 51.7 | | 1.9 | U | 7.08 | J |
| BZSS01D01 | 0.5 | 4,000 | | 0.48 | UJ | 1.1 | | 78 | J | 0.23 | J | 26.6 | | 48.3 | | 1.6 | | 7.2 | J |
| BZSS01S01 | 0.5 | 3,600 | | 0.7 | J | 0.76 | U | 72 | J | 0.23 | J | 27.8 | | 50.6 | | 1.9 | | 6.98 | J |
| BZSS02S01 | 0.5 | 2,500 | | 0.46 | UJ | 0.74 | U | 47 | | 0.23 | UJ | 28.1 | | 50.3 | | 1.9 | U | 6.88 | J |
| BZSS03S01 | 0.5 | 4,000 | | 0.48 | J | 0.74 | U | 83 | | 0.045 | UJ | 32.4 | | 63.1 | | 3.3 | | 7.75 | J |
| BZSS03S02 | 1 | 3,700 | | 0.49 | UJ | 0.79 | | 110 | | 0.44 | UJ | 35.8 | | 64.1 | | 4.2 | | 7.5 | J |
| BZSS04S01 | 0.5 | 3,800 | | 0.45 | UJ | 0.73 | U | 100 | J | 0.25 | UJ | 30.6 | | 52.7 | | 1.9 | | 7.21 | J |
| SGSS01S01 | 0 | 3,800 | | 0.982 | U | 0.328 | U | 53 | J | 0.2 | UJ | 34.6 | | 54.2 | | 3.2 | J | 6.15 | J |
| BZSS06S01 | 0 | 2,700 | | 1.03 | UJ | 0.343 | U | 65 | UJ | 0.29 | UJ | 38.4 | | 60.6 | | 2.3 | J | 6.17 | |
| BZSS05S01 | 0 | 2,600 | | 0.45 | UJ | 0.19 | U | 76 | UJ | 0.3 | UJ | 26 | | 44 | | 2.3 | J | 6.22 | |
| BG01005 | 0 - 1 | 2,100 | | 0.28 | | 1 | U | 65 | J | 0.22 | UJ | 42 | | 48 | | 2 | J | 6.85 | |
| BG01008 | 0 - 1 | 3,000 | | 0.28 | | 1 | U | 78 | J | 0.53 | UJ | 40 | | 45 | | 2.2 | J | 6.58 | |
| BG01100 | 0 - 1 | 2,600 | | 0.2 | U | 1 | U | 65 | J | 0.29 | UJ | 36 | | 51 | | 1.7 | J | 7.11 | |
| BG02007 | 0 - 1 | 3,000 | | 0.21 | U | 1 | U | 68 | J | 0.24 | UJ | 27 | | 48 | | 1.9 | J | 7.04 | |
| BG02074 | 0 - 1 | 3,600 | | 0.27 | | 1 | U | 62 | J | 0.22 | UJ | 26 | | 55 | | 1.7 | J | 6.85 | |
| BG02076 | 0 - 1 | 3,200 | | 0.27 | | 1 | U | 73 | J | 0.2 | UJ | 26 | | 49 | | 7.1 | J | 6.95 | |
| BG04025 | 0 - 1 | 6,100 | | 0.31 | | 1 | U | 93 | J | 0.35 | | 62 | | 69 | | 6 | J | 8.42 | J |
| BG04029 | 0 - 1 | 6,400 | | 0.25 | | 1 | U | 81 | J | 0.33 | | 56 | | 67 | | 5.5 | J | 7.89 | J |
| BG04090 | 0 - 1 | 5,400 | | 0.31 | | 1 | U | 81 | J | 0.31 | | 57 | | 70 | | 5.1 | J | 7.58 | J |
| BCSS09S01 | 0 | 4,700 | | 0.45 | | 1 | U | 68 | | 0.34 | UJ | 19 | | 35 | J | 2.6 | | 5.85 | J |
| BCSS11S01 | 0 | 2,400 | | 0.23 | | 1 | U | 98 | J | 0.27 | UJ | 28 | | 32 | J | 8.6 | J | 6.9 | J |
| BCSS12S01 | 0 | 4,800 | | 0.23 | | 1 | U | 88 | J | 0.39 | J | 30 | | 56 | J | 2.6 | | 7.48 | J |
| BCSS13S01 | 0 | 3,700 | | 0.32 | | 1 | U | 76 | J | 0.31 | UJ | 43 | | 78 | J | 2.8 | J | 6.93 | J |
| BCBS09S01 | 0 | -- | | -- | | 1 | U | -- | | -- | | 54 | | 110 | J | -- | | -- | |
| BCSS14S01 | 0 | 3,600 | | 0.22 | | 1 | U | 96 | J | 0.27 | UJ | 45 | | 97 | J | 7.2 | | 7.48 | J |
| BCSS14D01 | 0 | 3,300 | | 0.19 | | 1 | U | 78 | J | 0.27 | UJ | 46 | | 110 | J | 4.3 | | 8.2 | J |
| Comparison Value | | 6,400 | | 0.655 | | 0.79 | | 110 | | 0.46 | | 62 | | 110 | | 8.6 | | 9 | |
| <p>Notes</p> <p>(a) Data set is for characterization and risk assessment evaluation of onsite investigational units for the SSFL RCRA Program.</p> <p>All values in milligrams per kilogram (mg/kg) except pH units "--" indicates sample was not collected (location inaccessible) Bold indicates recent data collected in April 2005. J = estimated value U = non detect UJ = estimated non detect ft. bgs = feet below ground surface</p> <p>Data Source Reference Documents</p> <p>1 = Multi-Media Sampling Report for the BBI and the SMMC (McLaren/Hart 1993b) 2 = RFI Work Plan Addendum (Ogden 1996) 3 = FSD Characterization Report (ICF 1997) 4 = Bell Canyon Area Soil Sampling Report (Ogden 1998b) 5 = SRAM Work Plan (Ogden 2000a) 6 = This report</p> <p>Source of information in table: MWH 2005. Standardized Risk Assessment Methodology (SRAM) Work Plan, Revision 2 - Final. September 2005. Appendix D: Soil Background Report, Final.</p> | | | | | | | | | | | | | | | | | | | |

**Table A-2
Soil Background Dioxins Data Set
Santa Susana Field Laboratory**

| SAMPLE ID | Depth (feet bgs) | 2,3,7,8-TCDD | | 2,3,7,8-TCDF | | 1,2,3,7,8-PeCDD | | 1,2,3,7,8-PeCDF | | 2,3,4,7,8-PeCDF | | 1,2,3,4,7,8-HxCDD | | 1,2,3,6,7,8-HxCDD | | 1,2,3,7,8,9-HxCDD | | 1,2,3,4,7,8-HxCDF | | 1,2,3,6,7,8-HxCDF | | 1,2,3,7,8,9-HxCDF | | 2,3,4,6,7,8-HxCDF | | 1,2,3,4,6,7,8-HpCDD | | 1,2,3,4,6,7,8-HpCDF | |
|-----------|---------------------|--------------|---|--------------|----|-----------------|----|-----------------|---|-----------------|----|-------------------|----|-------------------|----|-------------------|---|-------------------|----|-------------------|---|-------------------|----|-------------------|---|---------------------|----|---------------------|----|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BCBS09S01 | 0 | 2 | U | 2 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U | 10 | U |
| BCSS09S01 | 0 | 0.99 | U | 0.99 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| BCSS11S01 | 0 | 1 | U | 1 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| BCSS12S01 | 0 | 0.99 | U | 0.99 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U | 5 | U |
| BCSS13S01 | 0 | 1 | U | 1 | U | 5.2 | U | 5.2 | U | 5.2 | U | 5.2 | U | 5.2 | U | 5.2 | U | 5.2 | U | 5.2 | U | 5.2 | U | 5.2 | U | 5 | U | 5.2 | U |
| BCSS14D01 | 0 | 1.3 | U | 1.3 | U | 6.4 | U | 6.4 | U | 6.4 | U | 6.4 | U | 6.4 | U | 6.4 | U | 6.4 | U | 6.4 | U | 6.4 | U | 6.4 | U | 6 | U | 6.4 | U |
| BCSS14S01 | 0 | 1.4 | U | 1.4 | U | 6.8 | U | 6.8 | U | 6.8 | U | 6.8 | U | 6.8 | U | 6.8 | U | 6.8 | U | 6.8 | U | 6.8 | U | 6.8 | U | 7 | U | 6.8 | U |
| BKND-1 | 0 | 0.57 | U | 0.72 | J | 0.12 | J | 0.21 | J | 0.33 | UJ | 0.41 | U | 0.43 | J | 0.48 | J | 0.35 | J | 0.44 | U | 0.23 | U | 5.1 | U | 7 | | 1.7 | UJ |
| BKND-2 | 0 | 0.66 | U | 1.1 | J | 0.26 | UJ | 0.4 | J | 0.38 | J | 0.27 | J | 0.63 | J | 0.77 | J | 0.48 | J | 0.58 | U | 0.21 | U | 5.4 | U | 8 | | 1.6 | UJ |
| BKND-3 | 0 | 0.78 | U | 0.45 | UJ | 0.44 | U | 0.48 | U | 0.17 | J | 0.2 | UJ | 0.49 | UJ | 0.69 | J | 0.23 | UJ | 0.62 | U | 0.33 | UJ | 5 | U | 9 | | 1.6 | J |
| BKND-4 | 0 | 0.44 | U | 0.29 | J | 0.24 | U | 0.32 | U | 0.12 | U | 0.13 | UJ | 0.57 | J | 0.63 | J | 0.28 | J | 0.43 | U | 0.27 | UJ | 5.1 | U | 8 | J | 1.7 | J |
| BKND-5 | 0 | 0.52 | U | 1.4 | | 0.46 | U | 0.45 | J | 0.44 | J | 0.18 | J | 0.74 | J | 0.7 | J | 0.57 | UJ | 0.71 | U | 0.1 | J | 5.2 | U | 9 | J | 2.4 | UJ |
| BKND-6 | 0 | 0.84 | U | 1.8 | J | 0.76 | U | 0.59 | J | 0.64 | J | 0.75 | U | 0.95 | J | 1.1 | J | 0.73 | J | 1 | U | 0.43 | J | 5.3 | U | 11 | J | 3.6 | UJ |
| BKND-7 | 0 | 0.6 | U | 1.3 | UJ | 0.18 | J | 0.34 | U | 0.5 | J | 0.2 | J | 0.76 | UJ | 0.81 | J | 0.56 | J | 0.69 | U | 0.21 | U | 5.3 | U | 9 | | 2 | UJ |
| BZSS05S01 | 0 | 0.16 | U | 0.15 | U | 0.4 | U | 0.18 | U | 0.16 | U | 0.13 | U | 0.84 | J | 1 | J | 0.16 | U | 0.16 | U | 0.1 | U | 0.14 | U | 4 | UJ | 0.8 | J |
| BZSS06S01 | 0 | 0.15 | U | 0.18 | U | 0.31 | U | 0.31 | U | 0.28 | U | 0.21 | U | 0.22 | U | 0.2 | U | 0.11 | U | 0.11 | U | 0.088 | U | 0.09 | U | 2 | UJ | 0.49 | |
| SGSS01S01 | 0 | 0.24 | U | 0.34 | J | 0.43 | U | 0.22 | U | 0.54 | | 0.34 | J | 0.77 | J | 0.64 | J | 0.47 | | 0.3 | | 0.14 | U | 0.45 | | 13 | | 2.5 | |

| | | | | | | | | | | | | | | |
|------------------|--------------------|-----|------|------|------|------|------|-----|------|-----|------|------|----|-----|
| Comparison Value | 0.5 ^(d) | 1.8 | 0.18 | 0.59 | 0.64 | 0.34 | 0.95 | 1.1 | 0.73 | 0.3 | 0.43 | 0.45 | 13 | 2.5 |
|------------------|--------------------|-----|------|------|------|------|------|-----|------|-----|------|------|----|-----|

- (a) TEQ values were calculated using detected congener concentrations and WHO toxicity equivalency factors. For comparison, western United States dioxin TEQs typically range up to 2 pg/g or parts per trillion.
- (b) TEQ values do not include total dioxin or total furan concentrations.
- (c) Data set is for characterization and risk assessment evaluation of onsite investigational units for the SSFL RCRA Program.
- (d) = values correspond to the representative soil reporting limit (as analyzed by Alta Analytical Laboratory).



All sample results in picograms per gram (pg/g)
bgs = below ground surface

Source of information in table:
MWH 2005. Standardized Risk Assessment Methodology (SRAM) Work Plan, Revision 2 - Final. September 2005. Appendix D; Soil Background Report, Final.

-- = Not Applicable

**Table A-2
Soil Background Dioxins Data Set
Santa Susana Field Laboratory**

| SAMPLE ID | Depth (feet bgs) | 1,2,3,4,7,8,9-HpCDF | | | OCDD | | | OCDF | | | TOTAL TCDD | | | TOTAL TCDF | | | TOTAL PeCDD | | | TOTAL PeCDF | | | TOTAL HxCDD | | | TOTAL HxCDF | | | TOTAL HpCDD | | | TOTAL HpCDF | | | TEQ ^a | |
|------------------|---------------------|---------------------|----|--|------|---|--|------|---|--|------------|----|--|------------|---|--|-------------|---|----|-------------|---|----|-------------|---|----|-------------|----|--|-------------|----|--|-------------|----|--|------------------|----|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BCBS09S01 | 0 | 10 | U | | 20 | U | | 20 | U | | 2 | U | | 2 | U | | 10 | U | | 10 | U | | 10 | U | | 10 | U | | 10 | U | | 0 | | | | |
| BCSS09S01 | 0 | 5 | U | | 9.9 | U | | 9.9 | U | | 0.99 | U | | 0.99 | U | | 5 | U | | 5 | U | | 5 | U | | 5 | U | | 5 | U | | 0 | | | | |
| BCSS11S01 | 0 | 5 | U | | 46 | J | | 10 | U | | 1 | U | | 3.1 | J | | 5 | U | | 5 | U | | 5 | U | | 5 | U | | 5 | U | | 0.0046 | | | | |
| BCSS12S01 | 0 | 5 | U | | 17 | J | | 9.9 | U | | 0.99 | U | | 0.99 | U | | 5 | U | | 5 | U | | 5 | U | | 5 | U | | 5 | U | | 0.0017 | | | | |
| BCSS13S01 | 0 | 5.2 | U | | 10 | U | | 10 | U | | 1 | U | | 1 | U | | 5.2 | U | | 5.2 | U | | 5.2 | U | | 5.2 | U | | 5.2 | U | | 0 | | | | |
| BCSS14D01 | 0 | 6.4 | U | | 13 | J | | 13 | U | | 1.3 | U | | 1.3 | U | | 6.4 | U | | 6.4 | U | | 6.4 | U | | 6.4 | U | | 6.4 | U | | 0.0013 | | | | |
| BCSS14S01 | 0 | 6.8 | U | | 14 | U | | 14 | U | | 1.4 | U | | 1.4 | U | | 6.8 | U | | 6.8 | U | | 6.8 | U | | 6.8 | U | | 6.8 | U | | 0 | | | | |
| BKND-1 | 0 | 0.19 | UJ | | 74.6 | | | 3.2 | J | | 1 | U | | 22.3 | U | | 5.1 | U | | 15.5 | U | | 5.2 | J | | 6.6 | U | | 16.4 | | | 3.4 | J | | 0.41 | |
| BKND-2 | 0 | 0.21 | UJ | | 44.7 | | | 1.7 | J | | 1.1 | U | | 44.1 | U | | 5.4 | U | | 24.3 | U | | 6.8 | J | | 8.9 | U | | 15.5 | | | 2.9 | J | | 0.62 | |
| BKND-3 | 0 | 2.2 | U | | 76.2 | | | 3.9 | J | | 1 | U | | 7.7 | U | | 5 | U | | 8.5 | U | | 5.4 | J | | 8.7 | U | | 17.7 | | | 3.8 | J | | 0.27 | |
| BKND-4 | 0 | 0.19 | J | | 83.1 | | | 3.7 | J | | 1 | U | | 6.6 | U | | 5.1 | U | | 6.6 | U | | 5.3 | J | | 5.8 | U | | 18.2 | | | 3.9 | J | | 0.28 | |
| BKND-5 | 0 | 1.3 | U | | 110 | | | 3.9 | J | | 1 | U | | 28.3 | U | | 5.2 | U | | 18.3 | U | | 7.3 | J | | 10.2 | U | | 26.3 | | | 4.5 | J | | 0.65 | |
| BKND-6 | 0 | 1.3 | U | | 138 | | | 7.9 | J | | 1.6 | UJ | | 54.9 | U | | 5.3 | U | | 32.3 | U | | 10 | J | | 14.8 | U | | 31.5 | | | 6.8 | J | | 0.98 | |
| BKND-7 | 0 | 1.3 | U | | 108 | | | 3.4 | J | | 1.1 | U | | 41.9 | U | | 5.3 | U | | 24.4 | U | | 7.9 | J | | 10.8 | U | | 25.1 | | | 3.9 | J | | 0.69 | |
| BZSS05S01 | 0 | 0.086 | U | | 25 | | | 1.4 | J | | 0.16 | U | | 0.5 | | | 0.4 | U | | 1.7 | J | | 4.2 | | | 1.1 | J | | 8.4 | | | 1.5 | J | | 0.19 | |
| BZSS06S01 | 0 | 0.062 | U | | 15 | | | 0.96 | | | 0.15 | U | | 0.95 | | | 0.31 | U | | 2.5 | J | | 0.91 | J | | 0.97 | J | | 4.2 | | | 0.49 | J | | 0.0065 | |
| SGSS01S01 | 0 | 0.25 | U | | 140 | | | 8.1 | | | 0.24 | U | | 4 | | | 0.43 | U | | 4.6 | | | 6.4 | | | 4.2 | | | 26 | | | 6.9 | | | 0.77 | |
| Comparison Value | | 0.19 | | | 140 | | | 8.1 | | | -- | | | -- | | | -- | | -- | | | -- | | | -- | | -- | | | -- | | | -- | | | -- |

- (a) TEQ values were calculated using detected congener concentrations and WHO toxicity equivalency factors. For comparison, western United States dioxin TEQs typically range up to 2 pg/g or parts per trillion.
- (b) TEQ values do not include total dioxin or total furan concentrations.
- (c) Data set is for characterization and risk assessment evaluation of onsite investigational units for the SSFL RCRA Program.
- (d) = values correspond to the representative soil reporting limit (as analyzed by Alta Analytical Laboratory).

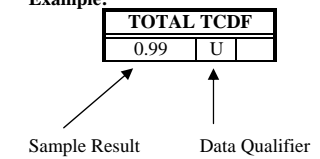
All sample results in picograms per gram (pg/g)
bgs = below ground surface

Qualifiers

- U = non detect
- J = estimated value
- UJ = estimated non detect

TCDD = tetrachlorodibenzo-p-dioxin HpCDD = heptachlorodibenzo-p-dioxin
 TCDF = tetrachlorodibenzofuran HpCDF = heptachlorodibenzofuran
 PeCDD = pentachlorodibenzo-p-dioxin OCDD = octachlorodibenzo-p-dioxin
 PeCDF = pentachlorodibenzofuran OCDF = octachlorodibenzofuran
 HxCDD = hexachlorodibenzo-p-dioxin
 HxCDF = hexachlorodibenzofuran TEQ = Toxicity Equivalent

Example:



Source of information in table:

MWH 2005. Standardized Risk Assessment Methodology (SRAM) Work Plan, Revision 2 - Final. September 2005. Appendix D; Soil Background Report, Final.

**Table A-3
Post-Topanga Fire Soil, Ash, and Surface Water Drainage Results
Santa Susana Field Laboratory**

| Sample Identification | CF-1 | CF-1 | CF-1 | CF-1 | CF-1 | CF-1 | CF-1 | CF-1 | CF-1 | CF-1 | CF-1 | CF-1 | CF-1 | CF-1 | CF-1-D | CF-1-D | CRP-1 | CRP-1 | CRP-1 |
|-----------------------|----------------------------|------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------------|---------------|---------------|
| Sample Type | Soil | Ash | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Soil | Surface Water | Surface Water |
| Sampling Date | 10/07/2005 | 10/07/2005 | 10/18/2005 | 01/01/2006 | 01/03/2006 | 01/14/2006 | 02/19/2006 | 02/28/2006 | 03/03/2006 | 03/11/2006 | 03/28/2006 | 04/04/2006 | 04/14/2006 | 05/22/2006 | 04/04/2006 | 02/28/2006 | 10/07/2005 | 01/02/2006 | 02/28/2006 |
| Location | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage |
| EPA Identification | WL008 | WL009 | WL033 | WL038 | WL044 | WL050 | WL053 | WL062 | WL067 | WL070 | WL074 | WL079 | WL086 | WL090 | WL080 | WL063 | WL007 | WL040 | WL059 |
| Group | Constituent | | | | | | | | | | | | | | | | | | |
| SVOC | Indeno(1,2,3-cd)pyrene | -- | -- | < 2 U | < 1.9 U | < 1.9 UJ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | < 2 U | -- |
| SVOC | Isophorone | -- | -- | 0.9 J | < 0.96 UJ | < 0.96 UJ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.18 J | -- |
| SVOC | Naphthalene | -- | -- | < 1 U | < 0.96 U | < 0.96 UJ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | < 1 U | -- |
| SVOC | Nitrobenzene | -- | -- | < 1 U | < 0.96 U | < 0.96 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | < 1 U | -- |
| SVOC | N-Nitrosodimethylamine | -- | -- | < 2 U | < 1.9 U | < 1.9 UJ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | < 2 U | -- |
| SVOC | N-Nitroso-di-n-propylamine | -- | -- | < 2 U | < 1.9 U | < 1.9 UJ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | < 2 U | -- |
| SVOC | N-Nitrosodiphenylamine | -- | -- | < 1 U | < 0.96 U | < 0.96 UJ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | < 1 U | -- |
| SVOC | Pentachlorophenol | -- | -- | < 2 U | < 1.9 U | < 1.9 UJ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | < 2 U | -- |
| SVOC | Phenanthrene | -- | -- | < 0.5 U | < 0.48 U | < 0.48 UJ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | < 0.5 U | -- |
| SVOC | Phenol | -- | -- | 13 | < 0.96 U | < 0.96 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | < 1 U | -- |
| SVOC | Pyrene | -- | -- | < 0.5 U | < 0.48 U | < 0.48 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | < 0.5 U | -- |
| WETCHEM | Ammonia-N | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.56 J | < 0.5 U | 1.1 | 1.1 J | 0.84 | -- | -- | -- | -- |
| WETCHEM | Ammonia-NH3 | < 6.8 U | < 6 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 30 | -- | -- |
| WETCHEM | Nitrate/Nitrite-N | -- | -- | -- | -- | -- | 1.2 | 2 | 1.1 | 2.7 | 1.7 | 0.65 | < 0.15 U | 0.3 | 0.64 | 2.1 | -- | -- | 3.2 |
| WETCHEM | Sulfate | 4800 | 1100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | -- | -- |
| WETCHEM | Surfactants (MBAS) | 3.6 J | 1400 J | 0.24 | 0.13 J | 0.05 J | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.48 J | < 0.2 U | -- |
| WETCHEM | Total Cyanide | 6.7 | 2.8 | 0.0058 | < 0.005 U | 0.0031 J | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.6 | 0.0037 J | -- |
| WETCHEM | pH | -- | -- | -- | -- | -- | 7.49 | 8.22 | 7.97 | 7.99 | 7.34 | 8.34 | 8.08 | 7.28 | 8.3 | 8.24 | -- | -- | 7.46 |
| WETCHEM | Total Suspended Solids | -- | -- | -- | -- | -- | 130 | 380 | 150 | 100 | 1500 | 73 | 11 | < 10 U | 72 | 1200 | -- | -- | 80 |

**Table A-3
Post-Topanga Fire Soil, Ash, and Surface Water Drainage Results
Santa Susana Field Laboratory**

| Sample Identification | CRP-1 | FC-1 | FC-1 | FC-1 | FC-1 | FC-1 | FC-1 | KD-1 | LFBS54S01 | PCC-1 | PCC-1 | PCC-1 | PCC-1 | PCC-1 | PCC-1 | PCC-1 | PCC-1 | | |
|-----------------------|----------------------------|------------|------------|---------------|---------------|---------------|---------------|---------------|------------|------------|------------|---------------|---------------|---------------|---------------|---------------|---------------|------------|------|
| Sample Type | Surface Water | Soil | Ash | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Sediment | Soil | Ash | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | | |
| Sampling Date | 04/04/2006 | 02/23/2006 | 02/23/2006 | 03/03/2006 | 03/29/2006 | 04/04/2006 | 04/14/2006 | 01/03/2006 | 01/17/2006 | 10/07/2005 | 10/07/2005 | 10/18/2005 | 01/01/2006 | 01/03/2006 | 01/14/2006 | 02/19/2006 | 02/28/2006 | 03/03/2006 | |
| Location | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | |
| EPA Identification | WL077 | WL057 | WL058 | WL064 | WL076 | WL084 | WL087 | WL048 | WL051 | WL010 | WL011 | WL034 | WL037 | WL043 | WL049 | WL052 | WL061 | WL065 | |
| Group | Constituent | | | | | | | | | | | | | | | | | | |
| SVOC | Indeno(1,2,3-cd)pyrene | -- | -- | -- | -- | -- | -- | -- | < 1.9 U | -- | -- | -- | < 8 U | < 2 U | < 1.9 U | -- | -- | -- | -- |
| SVOC | Isophorone | -- | -- | -- | -- | -- | -- | -- | < 0.95 UJ | -- | -- | -- | < 4 U | < 1 UJ | < 0.96 UJ | -- | -- | -- | -- |
| SVOC | Naphthalene | -- | -- | -- | -- | -- | -- | -- | < 0.95 U | -- | -- | -- | < 4 U | < 1 U | < 0.96 UJ | -- | -- | -- | -- |
| SVOC | Nitrobenzene | -- | -- | -- | -- | -- | -- | -- | < 0.95 U | -- | -- | -- | < 4 U | < 1 U | < 0.96 U | -- | -- | -- | -- |
| SVOC | N-Nitrosodimethylamine | -- | -- | -- | -- | -- | -- | -- | < 1.9 U | -- | -- | -- | < 8 U | < 2 U | < 1.9 UJ | -- | -- | -- | -- |
| SVOC | N-Nitroso-di-n-propylamine | -- | -- | -- | -- | -- | -- | -- | < 1.9 U | -- | -- | -- | < 8 U | < 2 U | < 1.9 UJ | -- | -- | -- | -- |
| SVOC | N-Nitrosodiphenylamine | -- | -- | -- | -- | -- | -- | -- | < 0.95 U | -- | -- | -- | < 4 U | < 1 U | < 0.96 UJ | -- | -- | -- | -- |
| SVOC | Pentachlorophenol | -- | -- | -- | -- | -- | -- | -- | < 1.9 UJ | -- | -- | -- | < 8 U | < 2 U | < 1.9 UJ | -- | -- | -- | -- |
| SVOC | Phenanthrene | -- | -- | -- | -- | -- | -- | -- | < 0.48 U | -- | -- | -- | < 2 U | < 0.5 U | < 0.48 UJ | -- | -- | -- | -- |
| SVOC | Phenol | -- | -- | -- | -- | -- | -- | -- | < 0.95 U | -- | -- | -- | 14 | < 1 U | < 0.96 U | -- | -- | -- | -- |
| SVOC | Pyrene | -- | -- | -- | -- | -- | -- | -- | < 0.48 U | -- | -- | -- | < 2 U | < 0.5 U | < 0.48 U | -- | -- | -- | -- |
| WETCHEM | Ammonia-N | 0.84 | 2.8 | 7.1 | -- | 0.56 J | 0.84 | < 0.5 U | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| WETCHEM | Ammonia-NH3 | -- | -- | -- | -- | -- | -- | -- | -- | 10 | 8.7 | -- | -- | -- | -- | -- | -- | -- | |
| WETCHEM | Nitrate/Nitrite-N | 0.17 | < 1.5 U | 2.4 | 3.9 | 3.9 | 4.5 | 5.5 | -- | -- | -- | -- | -- | -- | -- | < 0.3 U | 1.6 | 1.1 | |
| WETCHEM | Sulfate | -- | -- | -- | -- | -- | -- | -- | -- | 17000 | 6200 | -- | -- | -- | -- | -- | -- | -- | |
| WETCHEM | Surfactants (MBAS) | -- | -- | -- | -- | -- | -- | -- | 0.13 J | -- | 3.1 J | 1.7 J | 0.16 | 0.063 J | 0.065 J | -- | -- | -- | |
| WETCHEM | Total Cyanide | -- | -- | -- | -- | -- | -- | -- | < 0.005 U | -- | 1.4 | 3.9 | 0.0061 | 0.0023 J | 0.0026 J | -- | -- | -- | |
| WETCHEM | pH | 7.53 | 6.39 | 7.68 | 5.92 | 6.53 | 5.65 | 6.82 | -- | -- | -- | -- | -- | -- | -- | -- | 7.47 | 8.12 | 7.47 |
| WETCHEM | Total Suspended Solids | 290 | -- | -- | 37 | 63 | < 10 U | 85 | -- | -- | -- | -- | -- | -- | -- | -- | 61 | 190 | 26 |

**Table A-3
Post-Topanga Fire Soil, Ash, and Surface Water Drainage Results
Santa Susana Field Laboratory**

| Sample Identification | PCC-1 | PCC-1 | PCC-1 | PCC-1 | PCC-1 | RP-1 | RP-1 | RP-1 | RP-1 | SC-1 | SC-1 | SC-1 | SC-1 | SJBC-1 | SJBC-2 | SORP-1 | SSM-1 | SSM-1 |
|-----------------------|----------------------------|---------------|---------------|---------------|---------------|------------|---------------|---------------|---------------|------------|------------|---------------|---------------|---------------|---------------|------------|------------|------------|
| Sample Type | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Soil | Surface Water | Surface Water | Surface Water | Soil | Ash | Surface Water | Surface Water | Surface Water | Surface Water | Soil | Soil | Ash |
| Sampling Date | 03/11/2006 | 03/28/2006 | 04/04/2006 | 04/14/2006 | 05/22/2006 | 10/06/2005 | 01/02/2006 | 03/28/2006 | 04/04/2006 | 10/10/2005 | 10/10/2005 | 01/02/2006 | 01/03/2006 | 01/03/2006 | 01/03/2006 | 02/23/2006 | 10/13/2005 | 10/13/2005 |
| Location | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage |
| EPA Identification | WL069 | WL075 | WL078 | WL085 | WL089 | WL006 | WL041 | WL073 | WL081 | WL012 | WL013 | WL039 | WL045 | WL046 | WL047 | WL056 | WL022 | WL023 |
| Group | Constituent | | | | | | | | | | | | | | | | | |
| SVOC | Indeno(1,2,3-cd)pyrene | -- | -- | -- | -- | -- | -- | < 1.9 U | -- | -- | -- | -- | < 2 U | 0.58 J | 0.4 J | < 2.1 U | -- | -- |
| SVOC | Isophorone | -- | -- | -- | -- | -- | -- | < 0.97 UJ | -- | -- | -- | -- | < 1 UJ | 0.36 J | 0.095 J | 0.13 J | -- | -- |
| SVOC | Naphthalene | -- | -- | -- | -- | -- | -- | < 0.97 U | -- | -- | -- | -- | < 1 U | < 0.94 UJ | < 0.95 U | < 1.1 U | -- | -- |
| SVOC | Nitrobenzene | -- | -- | -- | -- | -- | -- | < 0.97 U | -- | -- | -- | -- | < 1 U | < 0.94 U | < 0.95 U | < 1.1 U | -- | -- |
| SVOC | N-Nitrosodimethylamine | -- | -- | -- | -- | -- | -- | < 1.9 U | -- | -- | -- | -- | < 2 U | < 1.9 UJ | < 1.9 U | < 2.1 U | -- | -- |
| SVOC | N-Nitroso-di-n-propylamine | -- | -- | -- | -- | -- | -- | < 1.9 U | -- | -- | -- | -- | < 2 U | < 1.9 UJ | < 1.9 U | < 2.1 U | -- | -- |
| SVOC | N-Nitrosodiphenylamine | -- | -- | -- | -- | -- | -- | < 0.97 U | -- | -- | -- | -- | < 1 U | < 0.94 UJ | < 0.95 U | < 1.1 U | -- | -- |
| SVOC | Pentachlorophenol | -- | -- | -- | -- | -- | -- | < 1.9 U | -- | -- | -- | -- | < 2 U | < 1.9 UJ | < 1.9 UJ | < 2.1 UJ | -- | -- |
| SVOC | Phenanthrene | -- | -- | -- | -- | -- | -- | < 0.49 U | -- | -- | -- | -- | < 0.5 U | < 0.47 UJ | < 0.48 U | < 0.53 U | -- | -- |
| SVOC | Phenol | -- | -- | -- | -- | -- | -- | < 0.97 U | -- | -- | -- | -- | < 1 U | 0.77 J | < 0.95 U | < 1.1 U | -- | -- |
| SVOC | Pyrene | -- | -- | -- | -- | -- | -- | < 0.49 U | -- | -- | -- | -- | < 0.5 U | < 0.47 U | < 0.48 U | < 0.53 U | -- | -- |
| WETCHEM | Ammonia-N | -- | 0.56 J | < 0.5 U | < 0.5 U | < 0.5 U | -- | -- | < 0.5 U | 0.56 | -- | -- | -- | -- | -- | -- | -- | -- |
| WETCHEM | Ammonia-NH3 | -- | -- | -- | -- | -- | 2.1 | -- | -- | -- | 8.7 | 14 | -- | -- | -- | -- | 3.5 | 23 |
| WETCHEM | Nitrate/Nitrite-N | 0.53 | < 0.75 U | 0.86 | 0.16 | 0.11 J | -- | -- | 0.68 | 0.2 | -- | -- | -- | -- | -- | 2.8 | -- | -- |
| WETCHEM | Sulfate | -- | -- | -- | -- | -- | 150 | -- | -- | -- | 170 | 3700 | -- | -- | -- | -- | 140 | 2400 |
| WETCHEM | Surfactants (MBAS) | -- | -- | -- | -- | -- | < 5 UJ | < 1 U | -- | -- | 4.8 J | 30 J | 0.088 J | < 0.1 U | 0.29 J | < 0.5 UJ | -- | < 5.1 UJ |
| WETCHEM | Total Cyanide | -- | -- | -- | -- | -- | 0.64 | 0.003 J | -- | -- | < 0.5 U | 2.9 | 0.015 | 0.0063 | 0.0046 J | 0.0046 J | -- | 0.73 |
| WETCHEM | pH | 7.92 | 7.43 | 8.15 | 8.09 | 7.61 | -- | -- | 6.97 | 7.51 | -- | -- | -- | -- | -- | -- | 8.61 | -- |
| WETCHEM | Total Suspended Solids | 15 | 240 | 990 | 1400 | < 10 U | -- | -- | 3900 | 2100 | -- | -- | -- | -- | -- | -- | -- | -- |

**Table A-3
Post-Topanga Fire Soil, Ash, and Surface Water Drainage Results
Santa Susana Field Laboratory**

| Sample Identification | SSM-1 | SSM-1 | SSM-1 | SSM-1 | SSM-1 | SSM-1 | SSM-1 | SSM-1 | SSM-1 | SSM-1 | WC-1 | WC-1 | WC-1 | WCWP-1 | WCWP-1 | WCWP-1 | Upstream-001 | Upstream-001 | Upstream-002 | Upstream-002 |
|-----------------------|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------------|------------|---------------|------------|---------------|---------------|--------------|--------------|--------------|--------------|
| Sample Type | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Surface Water | Soil | Ash | Surface Water | Soil | Surface Water | Surface Water | Soil | Ash | Soil | Ash |
| Sampling Date | 10/18/2005 | 01/01/2006 | 01/03/2006 | 02/28/2006 | 03/03/2006 | 03/11/2006 | 03/28/2006 | 04/04/2006 | 05/22/2006 | 10/10/2005 | 10/10/2005 | 10/18/2005 | 02/23/2006 | 03/03/2006 | 04/05/2006 | 10/06/2005 | 10/06/2005 | 10/06/2005 | 10/06/2005 | 10/06/2005 |
| Location | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage | Drainage |
| EPA Identification | WL032 | WL036 | WL042 | WL060 | WL066 | WL071 | WL072 | WL082 | WL088 | WL015 | WL014 | WL035 | WL055 | WL068 | WL083 | WL002 | WL001 | WL004 | WL005 | |
| Group | Constituent | | | | | | | | | | | | | | | | | | | |
| SVOC | Indeno(1,2,3-cd)pyrene | < 10 U | < 2 U | < 1.9 UJ | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | < 330 U | < 980 U | < 340 U | < 990 U |
| SVOC | Isophorone | 0.67 J | 0.2 J | 0.13 J | -- | -- | -- | -- | -- | -- | -- | -- | 0.35 J | -- | -- | -- | < 330 U | < 980 U | < 340 U | < 990 U |
| SVOC | Naphthalene | < 5 U | < 1 UJ | < 0.96 UJ | -- | -- | -- | -- | -- | -- | -- | -- | < 1.2 U | -- | -- | -- | < 330 U | < 980 U | < 340 U | < 990 U |
| SVOC | Nitrobenzene | < 5 U | < 1 U | < 0.96 U | -- | -- | -- | -- | -- | -- | -- | -- | < 1.2 U | -- | -- | -- | < 330 U | < 980 U | < 340 U | < 990 U |
| SVOC | N-Nitrosodimethylamine | < 10 U | < 2 UJ | < 1.9 UJ | -- | -- | -- | -- | -- | -- | -- | -- | < 2.5 U | -- | -- | -- | < 330 U | < 980 U | < 340 U | < 990 U |
| SVOC | N-Nitroso-di-n-propylamine | < 10 U | < 2 UJ | < 1.9 UJ | -- | -- | -- | -- | -- | -- | -- | -- | < 2.5 U | -- | -- | -- | < 250 U | < 740 U | < 250 U | < 750 U |
| SVOC | N-Nitrosodiphenylamine | < 5 U | < 1 UJ | < 0.96 UJ | -- | -- | -- | -- | -- | -- | -- | -- | < 1.2 U | -- | -- | -- | < 330 U | < 980 U | < 340 U | < 990 U |
| SVOC | Pentachlorophenol | < 10 U | < 2 UJ | < 1.9 UJ | -- | -- | -- | -- | -- | -- | -- | -- | < 2.5 U | -- | -- | -- | < 830 UJ | 2500 R | < 840 UJ | 2500 R |
| SVOC | Phenanthrene | < 2.5 U | < 0.5 UJ | < 0.48 UJ | -- | -- | -- | -- | -- | -- | -- | -- | < 0.62 U | -- | -- | -- | < 330 U | < 980 U | < 340 U | < 990 U |
| SVOC | Phenol | 4 J | < 1 U | < 0.96 U | -- | -- | -- | -- | -- | -- | -- | -- | < 1.2 U | -- | -- | -- | 170 J | 980 R | 930 | 580 J |
| SVOC | Pyrene | < 2.5 U | < 0.5 U | < 0.48 U | -- | -- | -- | -- | -- | -- | -- | -- | < 0.62 U | -- | -- | -- | < 330 U | < 980 U | < 340 U | < 990 U |
| WETCHEM | Ammonia-N | -- | -- | -- | -- | -- | -- | < 0.5 U | 0.56 | < 0.5 U | -- | -- | -- | -- | -- | 1.1 J | -- | -- | -- | -- |
| WETCHEM | Ammonia-NH3 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 4.9 | 3.3 | -- | -- | -- | -- | 5.1 | 12 | 6.8 | 8.2 |
| WETCHEM | Nitrate/Nitrite-N | -- | -- | -- | 3.7 | 5.7 | 5.5 | 2.5 | 1.7 | 0.25 | -- | -- | -- | 4.3 | 0.35 | 0.84 | -- | -- | -- | -- |
| WETCHEM | Sulfate | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 3800 | -- | -- | -- | -- | 190 | 4400 | 690 | 7600 |
| WETCHEM | Surfactants (MBAS) | 0.24 J | 0.071 J | 0.054 J | -- | -- | -- | -- | -- | -- | 1.4 J | 1.3 J | 0.11 | -- | -- | -- | < 1 UJ | 1.4 J | 0.69 J | 2 J |
| WETCHEM | Total Cyanide | 0.0064 | 0.0037 J | 0.0046 J | -- | -- | -- | -- | -- | -- | 0.58 | 5.2 | 0.0046 J | -- | -- | -- | 0.6 | 3.3 | 1.1 | 5.7 |
| WETCHEM | pH | -- | -- | -- | 7.6 | 7.76 | 7.5 | 7.45 | 7.82 | 6.88 | -- | -- | -- | 6.12 | 7.53 | 6.86 | -- | -- | -- | -- |
| WETCHEM | Total Suspended Solids | -- | -- | -- | 25 | < 10 U | 32 | 160 | 250 | < 10 U | -- | -- | -- | -- | 1700 | 890 | -- | -- | -- | -- |

Notes:

Soil samples – Samples were collected from the upper 2 to 3 inches of soil, after removal of any charred vegetation from the ground surface.
 Ash samples – Samples were collected where sufficient ash accumulation was present near the corresponding soil sample location.
 Surface water - storm water runoff at location of corresponding soil sample in drainage.
 No ash samples were collected at sample locations CF-1, CRP-1, KD-1, LFBS54, RP-1, SJBC-1, SJBC-2, SORP-1, and WCWP-1.
 Sample locations SC-1 and WC-1 are located within the burn area of the Burbank "Harvard" Fire, in Burbank, California, approximately 20 miles east of the Santa Susana Field Laboratory (SSFL).
 Sample location FC-1 is located within the burn area of the Sierra Fire, in Orange County, California, approximately 65 miles southeast of the SSFL. Sample locations KD-1, SJBC-1, SJBC-2, WCWP-1, and SORP-1 are located offsite and are not within the footprint of any recent fires.

Sample ID Key

| Sample Id | Location |
|--------------|-----------------------------|
| CF-1 | China Flats |
| CRP-1 | Chatsworth Reservoir Park |
| FC-1 | Fremont Canyon |
| KD-1 | Kalorama Drive |
| LFBS54S01 | LETF/CTL-1 |
| PCC-1 | Palo Camado Canyon |
| RP-1 | Rocky Peak |
| SC-1 | Stough Canyon |
| SJBC-1 | San John Barrana Canyon |
| SJBC-2 | San John Barrana Canyon |
| SORP-1 | Santiago Oaks Regional Park |
| SSM-1 | Santa Susana Mountains |
| WC-1 | Wildwood Canyon |
| WCWP-1 | Weir Canyon Wilderness Park |
| Upstream-001 | upstream of Outfall 001 |
| Upstream-002 | upstream of Outfall 002 |

Data qualifiers:

U = Not detected
 J = Estimated value
 B = Blank contamination
 R = Rejected data

Units of measure by analyte/matrix

| group | MATRIX - units |
|---------|---|
| DIOXIN | Soil or Ash = ng/kg (nanograms per kilogram) |
| DIOXIN | Surface Water = µg/L (micrograms per liter) |
| METALS | Soil or Ash = mg/kg (milligrams per kilogram) |
| METALS | Surface Water = mg/L (milligrams per liter) |
| PAH | Soil or Ash = µg/kg (micrograms per kilogram) |
| SVOC | Soil or Ash = µg/kg (micrograms per kilogram) |
| SVOC | Surface Water = µg/L (micrograms per liter) |
| WETCHEM | Soil or Ash = mg/kg (milligrams per kilogram) |
| WETCHEM | Soil or Ash = mg/L (milligrams per liter) |

Sample Identification = RFI site and sample identifier code
 EPA Identification = Unique identifier used for reporting purposes

TCDD TEQ = Tetrachlorodibenzo-p-dioxin Toxic Equivalence Quotient
 TEQ values were calculated using detected congener concentrations and WHO/97 Toxicity Equivalency Factors (TEFs). For comparison, western United States dioxin TEQs typically range up to 2 pg/g or parts per trillion.

DIOXIN = Dioxins and Furans by USEPA method 1613B
 METALS = Metals by USEPA method 6010B, 6020 and 7471A
 PAH = Polyaromatic Hydrocarbons by USEPA method 8270C SIM (selective ion monitoring)
 SVOC = Semi-Volatile Organic Compounds by USEPA method 8270 and 625
 WETCHEM = Ammonia-NH3 by method 350.3 Modified
 Ammonia-N by methods 350.2 and 350.3 modified
 Nitrate/Nitrite-N by 300.0
 pH by 9045C and 150.1
 Sulfate by method 300.0
 Surfactants by methylene blue active substances (MBAS) method SM5540-C
 Total Cyanide by method 9014
 Total Suspended Solids by 160.2

**Table A-4
Post-Topanga Fire
Soil and Ash Background Sample Results
Santa Susana Field Laboratory**

Page 1 of 2

| Sample Identification | SGSS01S01 | SGSS01S01 | BKND-5 | BKND-5 | BKND-1 | BCSS09S01 | BCSS09S01 | BZSS05S01 | BZSS05S01 | BZSS06S01 |
|-----------------------|---------------------|------------|------------|------------|------------|-------------|-------------|------------|------------|------------|
| Sample matrix | Soil | Ash | Soil | Ash | Soil | Soil | Ash | Soil | Ash | Soil |
| Collection date | 10/13/2005 | 10/13/2005 | 10/13/2005 | 10/13/2005 | 10/13/2005 | 10/14/2005 | 10/14/2005 | 10/14/2005 | 10/14/2005 | 10/14/2005 |
| Location | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background |
| EPA Identification | WL016 | WL017 | WL018 | WL019 | WL021 | WL025 | WL024 | WL026 | WL028 | WL027 |
| Sample depth (ft bgs) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| group | Constituent | | | | | | | | | |
| DIOXIN | 1,2,3,4,6,7,8-HpCDD | 23 | 5.87 | 20.4 | 100 | 3.4 | < 0.686 UJ | 3.27 | 2.47 | 2.55 J |
| DIOXIN | 1,2,3,4,6,7,8-HpCDF | 3.73 | 0.485 J | 3.16 | 3.45 J | 0.561 J | < 0.147 UJ | 0.32 J | 0.804 J | 3.06 |
| DIOXIN | 1,2,3,4,7,8,9-HpCDF | 0.308 J | < 0.218 U | 0.331 J | 0.491 J | < 0.0839 U | < 0.0864 U | < 0.152 U | < 0.116 U | < 0.537 U |
| DIOXIN | 1,2,3,4,7,8-HxCDD | 0.607 J | < 0.596 U | 0.449 J | 0.916 J | 0.192 J | < 0.118 U | < 0.328 U | < 0.309 U | < 0.233 U |
| DIOXIN | 1,2,3,4,7,8-HxCDF | 0.375 J | 0.268 J | < 0.287 UJ | < 0.241 UJ | 0.135 J | 0.154 J | 0.167 J | 0.234 J | 1.4 J |
| DIOXIN | 1,2,3,6,7,8-HxCDD | 1.29 J | < 0.613 U | 0.95 J | 5.57 | 0.174 J | < 0.115 U | < 0.303 U | < 0.316 U | 0.622 J |
| DIOXIN | 1,2,3,6,7,8-HxCDF | 0.382 J | 0.184 J | 0.27 J | < 0.195 UJ | 0.0912 J | 0.133 J | 0.148 J | 0.177 J | 0.964 J |
| DIOXIN | 1,2,3,7,8,9-HxCDD | 1.2 J | 0.562 J | 0.888 J | 3.35 J | < 0.0894 U | < 0.117 U | 0.378 J | < 0.314 U | 0.519 J |
| DIOXIN | 1,2,3,7,8,9-HxCDF | < 0.0918 U | < 0.148 U | < 0.13 UJ | < 0.0764 U | < 0.0588 U | < 0.0905 U | < 0.0797 U | 0.216 J | < 0.377 U |
| DIOXIN | 1,2,3,7,8-PeCDD | 0.334 J | 0.288 J | 0.279 J | 0.749 J | < 0.0646 U | < 0.0826 U | 0.289 J | 0.0958 J | 0.424 J |
| DIOXIN | 1,2,3,7,8-PeCDF | 0.275 J | < 0.295 U | 0.178 J | < 0.159 U | < 0.0811 UJ | < 0.0291 UJ | 0.206 J | < 0.125 UJ | 1.07 J |
| DIOXIN | 2,3,4,6,7,8-HxCDF | 0.42 J | < 0.109 U | 0.337 J | 0.281 J | < 0.0852 UJ | < 0.0588 U | 0.115 J | 0.2 J | 0.835 J |
| DIOXIN | 2,3,4,7,8-PeCDF | 0.418 J | 0.286 J | 0.293 J | < 0.139 U | < 0.137 UJ | 0.197 J | < 0.174 UJ | 0.249 J | 1.08 J |
| DIOXIN | 2,3,7,8-TCDD | < 0.138 U | < 0.175 U | < 0.087 U | 0.363 J | < 0.0622 U | < 0.109 U | 0.134 J | < 0.113 U | 0.23 J |
| DIOXIN | 2,3,7,8-TCDF | 0.284 J | 0.212 J | < 0.301 UJ | < 0.114 U | 0.163 J | 0.279 J | 0.389 J | 0.159 J | 0.727 J |
| DIOXIN | OCDD | 168 | 23.8 | 211 | 470 | 48 | 4.23 J | 9.35 | 19 | 10.2 |
| DIOXIN | OCDF | 8.37 | < 0.661 UJ | 9.83 | 17 | 0.97 J | < 0.325 U | < 0.469 U | < 0.83 U | 1.67 J |
| DIOXIN | TCDD TEQ (ND = 0) | 1.3 | 0.62 | 0.98 | 3.2 | 0.12 | 0.16 | 0.59 | 0.35 | 1.8 |
| DIOXIN | Total HpCDD | 46.5 | 16 | 42.8 | 171 | 9.59 | 1.02 | 7.28 | 5.8 | 5.6 |
| DIOXIN | Total HpCDF | 9.09 | 1.03 | 8.59 | 12.1 | 1.27 | < 0.147 U | 0.32 | 1.47 | 4.17 |
| DIOXIN | Total HxCDD | 12.7 | 7.42 | 9.75 | 42.7 | 1.3 | 0.279 | 5.54 | 1.35 | 7.18 |
| DIOXIN | Total HxCDF | 6.19 | 1.36 | 4.17 | 2.76 | 1.03 | 0.689 | 0.661 | 2.12 | 10 |
| DIOXIN | Total PeCDD | 3.21 | 3.55 | 2.48 | 12.5 | 0.149 | < 0.0826 U | 4.15 | 0.751 | 12.7 |
| DIOXIN | Total PeCDF | 5.08 | 1.46 | 3.83 | 0.986 | 1.02 | 2.2 | 1.2 | 2.57 | 16.3 |
| DIOXIN | Total TCDD | 1.19 | < 0.22 U | 0.774 | 7.1 | < 0.0622 U | < 0.109 U | 2.72 | 0.232 | 47.6 |
| DIOXIN | Total TCDF | 5.23 | 2.16 | 3.13 | 0.481 | 0.163 | 2.53 | 4.37 | 1.31 | 18.6 |
| METALS | Aluminum | 11000 J | 12000 J | 9800 J | 3400 J | 12000 J | 9900 | 13000 | 11000 | 4400 |
| METALS | Antimony | 1.6 R | 1.6 R | 1.7 R | 3.5 R | 1.7 R | < 0.81 U | < 1.7 U | < 0.81 U | < 1.6 U |
| METALS | Arsenic | 2.7 | 2.6 J | 3.9 | < 2.7 U | 3.4 | 11 | 3.9 | 4.9 | < 1.2 U |
| METALS | Barium | 110 | 240 | 76 | 360 | 59 | 69 | 300 | 100 | 130 |
| METALS | Beryllium | 0.45 | 0.41 | 0.47 | < 0.88 U | 0.54 | 0.54 | < 0.41 U | 0.62 | < 0.4 U |
| METALS | Boron | 6.4 | 57 | 6 | 85 | 6.6 | 3.5 | 160 | 3.2 | 48 |
| METALS | Cadmium | 0.59 | 1.1 | 0.48 | < 0.88 U | 0.57 | 0.47 | < 0.41 U | 0.62 | < 0.4 U |
| METALS | Chromium | 17 | 18 | 12 | 2.3 | 16 | 15 | 17 | 17 | 6.1 |
| METALS | Cobalt | 4.9 | 5.4 | 4.1 | 1.6 | 6.3 | 4.5 | 4.5 | 5.3 | 1.6 |
| METALS | Copper | 11 | 30 | 8 | 25 | 12 | 9.2 | 64 | 13 | 15 |
| METALS | Iron | 17000 | 17000 | 15000 | 4200 | 19000 | 16000 | 12000 | 17000 | 5300 |
| METALS | Lead | 24 | 64 | 27 | 5.2 | 9.5 | 10 | 9.7 | 17 | 33 |
| METALS | Lithium | 20 | 16 | 19 | 9.4 | 18 | 17 | 14 | 20 | 7.6 |
| METALS | Manganese | 310 | 540 | 270 | 610 | 390 | 260 | 520 | 340 | 220 |
| METALS | Mercury | 0.017 | 0.058 | 0.0091 | 0.0053 | 0.011 | < 0.003 UJ | 0.0038 | 0.0031 | < 0.003 U |
| METALS | Molybdenum | 0.54 | 1 | < 0.44 U | < 0.88 U | < 0.41 U | 0.42 | 1.7 | 0.34 | < 0.4 U |
| METALS | Nickel | 21 J | 21 J | 11 J | 7 J | 14 J | 11 | 24 | 12 | 9.3 |
| METALS | Potassium | 4300 | 9400 | 3300 | 58000 | 3400 | 3700 | 53000 | 5400 | 17000 |
| METALS | Selenium | < 2 U | < 2 U | < 2.2 U | < 4.4 U | < 2.1 U | < 1 U | < 2.1 U | < 1 U | < 2 U |
| METALS | Silver | < 0.81 U | < 0.81 U | < 0.87 U | < 1.8 U | < 0.83 U | < 0.4 U | < 0.83 U | < 0.4 U | < 0.8 U |
| METALS | Sodium | 110 | 430 | 69 | 1000 | 64 | 150 | 3100 | 180 | 1200 |
| METALS | Thallium | 4.5 | 3.2 | 3.3 | < 3.5 U | 3.3 | 1.9 | < 1.7 U | 1.8 | < 1.6 U |
| METALS | Vanadium | 30 | 35 | 23 | 8.4 | 27 | 27 | 28 | 32 | 11 |
| METALS | Zinc | 64 | 190 | 55 | 64 | 51 | 53 | 150 | 67 | 57 |
| METALS | Zirconium | 1.6 | 2.8 | 1.7 | < 3.3 U | < 1.6 U | 1.6 | 4.1 | < 1.5 U | < 3 U |

**Table A-4
Post-Topanga Fire
Soil and Ash Background Sample Results
Santa Susana Field Laboratory**

| Sample Identification | SGSS01S01 | SGSS01S01 | BKND-5 | BKND-5 | BKND-1 | BCSS09S01 | BCSS09S01 | BZSS05S01 | BZSS05S01 | BZSS06S01 |
|-----------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Sample matrix | Soil | Ash | Soil | Ash | Soil | Soil | Ash | Soil | Ash | Soil |
| Collection date | 10/13/2005 | 10/13/2005 | 10/13/2005 | 10/13/2005 | 10/13/2005 | 10/14/2005 | 10/14/2005 | 10/14/2005 | 10/14/2005 | 10/14/2005 |
| Location | Background | Background | Background | Background | Background | Background | Background | Background | Background | Background |
| EPA Identification | WL016 | WL017 | WL018 | WL019 | WL021 | WL025 | WL024 | WL026 | WL028 | WL027 |
| Sample depth (ft bgs) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| group | Constituent | | | | | | | | | | |
|---------|------------------------|--------|---------|----------|---------|----------|--------|--------|---------|---------|----------|
| PAH | 1-Methylnaphthalene | 24 J | 22 J | 42 | 41 J | < 20 U | 17 J | 94 | 11 J | 31 | < 21 U |
| PAH | 2-Methylnaphthalene | 33 J | 33 J | 51 | 57 J | < 20 U | 22 | 140 | 15 J | 45 | < 21 U |
| PAH | Acenaphthene | 12 J | < 20 U | 12 J | < 22 U | < 20 U | < 20 U | < 21 U | < 20 U | < 20 U | < 21 U |
| PAH | Acenaphthylene | 9.9 J | < 20 U | < 22 U | < 22 U | < 20 U | < 20 U | 13 J | < 20 U | < 20 U | < 21 U |
| PAH | Anthracene | < 20 U | < 20 U | < 22 U | < 22 U | < 20 U | < 20 U | 22 | < 20 U | < 20 U | < 21 U |
| PAH | Benzo(a)anthracene | 9.3 J | < 20 U | < 22 U | < 22 U | < 20 U | < 20 U | 16 J | < 20 U | 19 J | < 21 U |
| PAH | Benzo(a)pyrene | < 20 U | < 20 U | < 22 U | < 22 U | < 20 U | < 20 U | 30 | < 20 U | 70 | < 21 U |
| PAH | Benzo(b)fluoranthene | < 20 U | < 20 U | < 22 U | < 22 U | < 20 U | < 20 U | 25 | < 20 U | 46 J | < 21 U |
| PAH | Benzo(g,h,i)perylene | 9 J | < 20 UJ | < 22 UJ | < 22 UJ | < 20 UJ | < 20 U | 12 J | < 20 U | 25 J | < 21 U |
| PAH | Benzo(k)fluoranthene | < 20 U | < 20 U | < 22 U | < 22 U | < 20 U | < 20 U | < 21 U | < 20 U | < 20 UJ | < 21 U |
| PAH | Chrysene | 17 J | 11 J | 8.7 J | 9.1 J | < 20 U | < 20 U | 100 | < 20 U | 180 | < 21 U |
| PAH | Dibenzo(a,h)anthracene | < 20 U | < 20 U | < 22 UJ | < 22 U | < 20 UJ | < 20 U | < 21 U | < 20 U | < 20 UJ | < 21 U |
| PAH | Fluoranthene | 19 J | 12 J | 9.8 J | 13 J | < 20 U | < 20 U | 57 | 8.3 J | 59 | < 21 U |
| PAH | Fluorene | 20 J | < 20 U | 15 J | < 22 U | < 20 U | < 20 U | 11 J | 8.3 J | < 20 U | < 21 U |
| PAH | Indeno(1,2,3-cd)pyrene | < 20 U | < 20 U | < 22 U | < 22 U | < 20 U | < 20 U | < 21 U | < 20 U | < 20 U | < 21 U |
| PAH | Naphthalene | 64 J | 300 J | 140 | 320 J | < 20 U | 70 | 930 | 31 | 480 | 11 J |
| PAH | Phenanthrene | 38 J | 54 J | 34 | 60 J | < 20 U | 21 | 240 | 21 | 150 | 11 J |
| PAH | Pyrene | 23 J | 11 J | 14 J | 14 J | 9.4 J | < 20 U | 53 | 10 J | 56 | < 21 U |
| WETCHEM | Ammonia-NH3 | 17 | 14 | 32 | 8.6 | < 6.2 U | 27 | 13 | 16 | 7.6 | 5.1 J |
| WETCHEM | Sulfate | 130 | 5800 | 180 | 4000 | 12 | 440 | 6800 | 340 | 4000 | 37 |
| WETCHEM | Surfactants (MBAS) | < 1 UJ | 1.8 J | < 5.4 UJ | 2.2 J | < 5.2 UJ | 3 J | 4.5 J | < 5 UJ | 6.6 J | < 5.1 UJ |
| WETCHEM | Total Cyanide | 1.3 | 4.9 | 1.7 | 8.6 | < 0.51 U | 1.5 | 1.9 | < 0.5 U | 5.6 | < 0.51 U |

Notes:

Soil samples – Samples were collected from the upper 2 to 3 inches of soil, after removal of any charred vegetation from the ground surface.
 Ash samples – Samples were collected where sufficient ash accumulation was present near the corresponding soil sample location.
 Background samples - Samples were recollected after the Topanga Fire at DTSC-approved background locations, and represent local ambient soil conditions unimpacted by site activities.
 With the exception of BKND-1, all sample locations are located within the Topanga Fire perimeter

Sample ID Key

| Sample Identification | Location |
|-----------------------|-------------------|
| BCSS09S01 | Bell Canyon |
| BKND-1 | Background |
| BKND-5 | Background |
| BZSS05S01 | Background-Buffer |
| BZSS06S01 | Background-Buffer |
| SGSS01S01 | Sage Ranch |

Data qualifiers:

U = not detected
 J = estimated value
 R = rejected data

Units of measure by analyte/matrix

| group | MATRIX - units |
|---------|---|
| DIOXIN | Soil or Ash = ng/kg (nanograms per kilogram) |
| METALS | Soil or Ash = mg/kg (milligrams per kilogram) |
| PAH | Soil or Ash = µg/kg (micrograms per kilogram) |
| WETCHEM | Soil or Ash = mg/kg (milligrams per kilogram) |

DIOXIN = Dioxins and Furans by USEPA method 1613B
 METALS = Metals by USEPA method 6010B, 6020 and 7471A
 PAH = Polyaromatic Hydrocarbons by USEPA method 8270C SIM (selective ion monitoring)
 WETCHEM = Ammonia-NH3 by method 350.3 Modified
 Sulfate by method 300.0
 Surfactants by methylene blue active substances (MBAS) method SM5540-C
 Total Cyanide by method 9014

Sample Identification = RFI site and sample identifier code
 EPA Identification = Unique identifier used for reporting purposes

TCDD TEQ (ND = 0) = Tetrachlorodibenzo-p-dioxin Toxic Equivalence Quotient (Not Detected = 0)
 TEQ values were calculated using detected congener concentrations and WHO/97 Toxicity Equivalency Factors (TEFs). For comparison, western United States dioxin TEQs typically range up to 2 pg/g or parts per trillion.

**Table A-5
Post-Topanga Fire Sample Locations and Coordinates**

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| Sample ID | Northing | Easting |
|------------------|-----------------|----------------|
| BKND-1 | 265758 | 1782330 |
| BKND-5 | 263776 | 1787630 |
| BCSS09 | 261455 | 1792980 |
| BZSS05 | 264261 | 1796440 |
| BZSS06 | 269756 | 1788400 |
| SGSS01 | 270853 | 1796080 |
| RP-1 | 280335 | 1807240 |
| CRP-1 | 270608 | 1810160 |
| SSM-1 | 277839 | 1811361 |
| CF-1 | 254631 | 1765620 |
| PCC-1 | 250619 | 1774856 |
| SC-1 | 260356 | 1907364 |
| WC-1 | 258856 | 1912225 |
| Upstream 001 | 262292 | 1791830 |
| Upstream 002 | 263095 | 1786570 |
| FC-1 | 126431 | 2106313 |
| KD-1 | 289046 | 1612156 |
| LFBS54 | 267205 | 1794155 |
| SJBC-1 | 288950 | 1617040 |
| SJBC-2 | 290829 | 1617053 |
| SORP-1 | 117940 | 2073123 |
| WCWP-1 | 125104 | 2081898 |

All coordinates in State Plane NAD 27, Zone 5

Table A-6
SSFL Precipitation Concentrations
(Ambient Rain Water)
January to March 2005

| Group | Constituent | units | Collection Dates | | | | |
|--------|---------------------|-------|------------------|---------------|--------------|--------------|---------------|
| | | | 01/07/2005 | 02/11/2005 | 02/18/2005 | 03/04/2005 | 03/23/2005 |
| DIOXIN | 1,2,3,4,6,7,8-HpCDD | µg/L | < 5.00E-05 UJ | -- | < 6.23E-06 U | -- | 2.39E-04 |
| DIOXIN | 1,2,3,4,6,7,8-HpCDF | µg/L | 5.50E-06 J | -- | < 3.08E-06 U | -- | 3.45E-05 J |
| DIOXIN | 1,2,3,4,7,8,9-HpCDF | µg/L | < 2.40E-06 U | -- | < 3.63E-06 U | -- | < 4.13E-06 U |
| DIOXIN | 1,2,3,4,7,8-HxCDD | µg/L | < 1.90E-06 U | -- | < 4.74E-06 U | -- | < 3.60E-06 U |
| DIOXIN | 1,2,3,4,7,8-HxCDF | µg/L | < 1.60E-06 U | -- | < 1.86E-06 U | -- | 2.38E-06 J |
| DIOXIN | 1,2,3,6,7,8-HxCDD | µg/L | < 1.60E-06 U | -- | < 4.84E-06 U | -- | 6.60E-06 J |
| DIOXIN | 1,2,3,6,7,8-HxCDF | µg/L | < 1.50E-06 U | -- | < 1.78E-06 U | -- | 2.28E-06 J |
| DIOXIN | 1,2,3,7,8,9-HxCDD | µg/L | < 1.60E-06 U | -- | < 4.78E-06 U | -- | 5.72E-06 J |
| DIOXIN | 1,2,3,7,8,9-HxCDF | µg/L | < 2.10E-06 U | -- | < 3.08E-06 U | -- | < 1.87E-06 U |
| DIOXIN | 1,2,3,7,8-PeCDD | µg/L | < 2.90E-06 U | -- | < 2.34E-06 U | -- | < 1.32E-06 U |
| DIOXIN | 1,2,3,7,8-PeCDF | µg/L | < 1.80E-06 U | -- | < 4.99E-06 U | -- | < 2.08E-06 U |
| DIOXIN | 2,3,4,6,7,8-HxCDF | µg/L | < 1.20E-06 U | -- | < 1.95E-06 U | -- | 2.24E-06 J |
| DIOXIN | 2,3,4,7,8-PeCDF | µg/L | < 2.00E-06 U | -- | < 4.62E-06 U | -- | < 1.89E-06 U |
| DIOXIN | 2,3,7,8-TCDD | µg/L | < 3.50E-06 U | -- | < 2.69E-06 U | -- | < 1.78E-06 U |
| DIOXIN | 2,3,7,8-TCDF | µg/L | < 3.40E-06 U | -- | < 3.02E-06 U | -- | < 1.57E-06 U |
| DIOXIN | OCDD | µg/L | < 1.00E-04 UJ | -- | < 1.27E-05 U | -- | 3.42E-03 |
| DIOXIN | OCDF | µg/L | < 1.00E-04 UJ | -- | < 1.02E-05 U | -- | 4.49E-05 J |
| DIOXIN | TCDD TEQ_with DNQ | µg/L | 5.50E-08 | -- | 0 | -- | 5.00E-06 |
| DIOXIN | TCDD TEQ_no DNQ | µg/L | 0 | -- | 0 | -- | 2.73E-06 |
| DIOXIN | Total HpCDD | µg/L | 2.00E-05 J | -- | < 6.23E-06 U | -- | 8.36E-04 |
| DIOXIN | Total HpCDF | µg/L | 1.50E-05 J | -- | < 3.32E-06 U | -- | 8.58E-05 J |
| DIOXIN | Total HxCDD | µg/L | 2.40E-06 J | -- | < 4.79E-06 U | -- | 5.51E-05 J |
| DIOXIN | Total HxCDF | µg/L | < 1.60E-06 U | -- | < 2.11E-06 U | -- | 6.90E-05 J |
| DIOXIN | Total PeCDD | µg/L | < 2.90E-06 U | -- | < 2.34E-06 U | -- | < 1.32E-06 U |
| DIOXIN | Total PeCDF | µg/L | < 1.90E-06 U | -- | < 4.80E-06 U | -- | 9.17E-06 J |
| DIOXIN | Total TCDD | µg/L | < 3.50E-06 U | -- | < 2.69E-06 U | -- | < 1.78E-06 U |
| DIOXIN | Total TCDF | µg/L | < 3.40E-06 U | -- | < 3.02E-06 U | -- | < 1.57E-06 U |
| METALS | Antimony | mg/L | -- | < 0.002 UJ | < 0.00018 U | < 0.001 UJ | < 0.002 UJ |
| METALS | Arsenic | mg/L | -- | < 0.0038 U | < 0.0038 U | < 0.0038 U | < 0.0038 U |
| METALS | Barium | mg/L | -- | < 0.0028 U | < 0.0028 U | < 0.0028 U | < 0.0028 U |
| METALS | Beryllium | mg/L | -- | < 0.00062 U | < 0.00062 U | < 0.00062 U | < 0.00062 U |
| METALS | Boron | mg/L | -- | < 0.0074 U | < 0.0074 U | < 0.0074 U | < 0.0074 U |
| METALS | Cadmium | mg/L | -- | < 0.000015 U | < 0.000015 U | < 0.000015 U | 0.000033 J |
| METALS | Chromium | mg/L | -- | 0.0007 J | < 0.00068 U | 0.0007 J | 0.0011 J |
| METALS | Cobalt | mg/L | -- | < 0.00089 U | < 0.00089 U | < 0.00089 U | < 0.00089 U |
| METALS | Copper | mg/L | -- | < 0.00049 U | < 0.00049 U | 0.00065 J | 0.00072 J |
| METALS | Iron | mg/L | -- | < 0.0088 U | < 0.0088 U | 0.015 J | 0.039 J |
| METALS | Lead | mg/L | -- | < 0.00013 U | < 0.00013 U | 0.00026 J | 0.00019 J |
| METALS | Manganese | mg/L | -- | < 0.0032 U | < 0.0032 U | < 0.0032 U | < 0.0032 U |
| METALS | Mercury | mg/L | -- | 0.00012 J | < 0.000063 U | < 0.000063 U | < 0.000063 U |
| METALS | Nickel | mg/L | -- | < 0.002 U | < 0.002 U | 0.0025 J | < 0.002 U |
| METALS | Selenium | mg/L | -- | < 0.00036 U | < 0.00036 U | < 0.00036 U | < 0.00036 U |
| METALS | Silver | mg/L | -- | < 0.000089 UJ | < 0.000089 U | < 0.000089 U | < 0.000089 UJ |
| METALS | Thallium | mg/L | -- | < 0.000075 UJ | < 0.000075 U | < 0.000075 U | < 0.000075 U |
| METALS | Vanadium | mg/L | -- | < 0.0014 U | < 0.0014 U | < 0.0014 U | < 0.0014 U |
| METALS | Zinc | mg/L | -- | < 0.0037 U | < 0.0037 U | < 0.0037 U | 0.0058 J |

U = not detected J = estimated value

Note:

Results qualified as non-detected due to blank contamination are reported as non-detected at the laboratory RL rather than the laboratory MDI
In some cases, the RL has been elevated due to the blank contamination, as determined by the data validators.

Table A-7

Units Conversion Table

Page 1 of 1

| Units From: | Multiplication Factor to grams |
|-----------------|-----------------------------------|
| Metric Ton (MT) | 1,000,000 |
| Kilograms (kg) | 1,000 |
| Grams (g) | 1 |
| Milligrams (mg) | 1.0E-03 |
| Micrograms (µg) | 1.0E-06 |
| Nanograms (ng) | 1.0E-09 |
| Picograms (pg) | 1.0E-12 |
| Femtograms (fg) | 1.0E-15 |