



The Boeing Company  
Santa Susana Field Laboratory  
5800 Woolsey Canyon Road  
Canoga Park, CA 91304-1148

Via FedEx

August 14, 2012  
In reply refer to SHEA-112264

Regional Water Quality Control Board  
Los Angeles Region  
320 West 4th Street, Suite 200  
Los Angeles, CA 90013

Attention: Information Technology Unit

Reference: Compliance File CI-6027 and NPDES No. CA0001309

Subject: Second Quarter 2012 NPDES Discharge Monitoring Report  
Submittal – Santa Susana Site

Dear Sir/Madam,

The Boeing Company (Boeing) hereby submits the Second Quarter 2012 Discharge Monitoring Report (DMR) for the Santa Susana Field Laboratory (Santa Susana Site). This report includes the field actions and activities related to the Santa Susana Site surface water outfalls (**Figure 1**) that occurred during the period of April 1 through June 31, 2012 (Second Quarter 2012), in accordance with National Pollutant Discharge Elimination System (NPDES) Permit No. CA0001309 (Permit). Included are summary tables of surface water sample analytical results, rainfall summaries, liquid waste shipment summaries, and analytical laboratory reports of surface water samples.

Hard copies of this DMR are available to the public at California State University at Northridge Library; Simi Valley Library; and the Platt Branch of the Los Angeles Library. An electronic version of this DMR is located at:

[http://www.boeing.com/aboutus/environment/santa\\_susana/ents/monitoring\\_reports.html](http://www.boeing.com/aboutus/environment/santa_susana/ents/monitoring_reports.html)

#### **SECOND QUARTER 2012 DMR CONTENTS AND DISCHARGE SUMMARY**

**Figure 1** is a map showing the location of the regulated outfalls for the Santa Susana Site. A summary of the Second Quarter 2012 measured precipitation at the Santa Susana Site is presented in **Appendix A**. During the Second Quarter 2012, the weather station in Area IV was permanently moved to Area I. All sanitary wastes from the domestic Sewage Treatment Plants (STPs I and II) were shipped from the Santa Susana Site for offsite disposal. During the Second Quarter 2012, demolition of STP III was completed and the offsite shipment of sanitary waste

from STP-III was discontinued in the First Quarter 2012. Consequently, liquid waste shipments for STP-III will no longer be included in the summary. These data and details of all other liquid waste shipments are summarized in **Appendix B**. Further detail of demolition and Best Management Practice (BMP) related activities are included in **Demolition Related Activities** section below.

The Santa Susana Site experienced three rain events that produced greater than 0.1 inch of rainfall within a 24-hour period (see **Appendix A**) and stormwater related samples were collected at Outfalls 001, 002, 008, 009 and 018 during the Second Quarter 2012; annual samples were collected at Outfalls 001, 002, 008 and 018 during rain events between April 10 and 13, 2012. Outfall 018 was sampled in conjunction with the start-up of the Outfall 018 stormwater treatment system (SWTS), which occurred on April 10 and 12, 2012. Additionally, a quarterly sample was collected at the Arroyo Simi receiving water location in Simi Valley on April 11, 2012. Monthly samples were collected at Outfall 019 the Groundwater Extraction Treatment System (GETS) on April 4-5, 2012, May 2-3, 2012, and June 6-7, 2012. Flow was not observed at the other outfall locations (Outfalls 003, 004, 005, 006, 007, 010, 011, 012, 013, and 014) during the Second Quarter 2012 and thus annual samples were not collected. Therefore, the annual samples for these sites will be collected at the first rain event that flow is observed. **Table 1** summarizes the Second Quarter 2012 sampling record by outfall, location where flow was observed, and sample type collected per the requirements of the NPDES Permit.

**Table 1. Sampling Record during the Second Quarter 2012**

Date	Outfall/Location	Samples Collected (i.e., grab, composite*)
4/2/2012	Arroyo Simi Receiving Water (RSW-002) - Bacteria only	Grab
4/4-4/5/2012	Outfall 019 (GETS) Monthly	Grab & Composite
4/6/2012	Arroyo Simi Receiving Water (RSW-002) - Bacteria only	Grab
4/10-4/11/2012	Outfall 018 (R-2 Pond)	Grab & Composite
4/11/2012	Outfall 002 (South Slope below R-2 Pond)	Grab
4/11/2012	Outfall 009 (WS-13 Drainage)	Grab & Composite
4/11/2012	Arroyo Simi Receiving Water (RSW-002) – Quarterly sample	Grab & Composite
4/12-4/13/2012	Outfall 018 (R-2 Pond)	Grab & Composite
4/13/2012	Outfall 001 (South Slope below Perimeter Pond)	Grab & Composite
4/13/2012	Outfall 002 (South Slope below R-2 Pond)	Grab & Composite
4/13/2012	Outfall 008 (Happy Valley)	Grab & Composite
5/2-5/3/2012	Outfall 019 (GETS) Monthly	Grab & Composite
6/6-6/7/2012	Outfall 019 (GETS) Monthly	Grab & Composite

\*An assessment is being conducted of the composite autosampler equipment performance for the entire 2011/2012 rain season. The recommendations from that assessment will be implemented prior to the next rain season. Further discussion of the assessment is provided in the data validation and quality control discussion below.

All samples are submitted to and analyzed by a California-certified analytical laboratory per the Permit requirements. Analytical results from Second Quarter 2012 stormwater samples are

presented in **Appendices C** and **D**; results are presented in tabular form by outfall location, constituents evaluated (analytes), sample dates, and data validation qualifiers in.

A summary table of Permit effluent limit exceedances and/or benchmark limits based on the surface water analytical data is provided in **Appendix E**. In addition, the results of a reasonable potential analysis (RPA) utilizing updated monitoring data are provided in **Appendix F**. A compilation of notes, abbreviations, and data validation codes that are used in the analytical data summary tables are included in **Appendices C** through **F**. **Appendix G** contains copies of the laboratory analytical reports, chains of custody, and data validation reports.

A bioassessment review was conducted on May 22, 2012 as required by the Permit. Results from the bioassessment are pending and will be submitted with the Third Quarter 2012 DMR.

## SUMMARY OF NONCOMPLIANCE

The following summary of noncompliance results for Second Quarter 2012 monitoring results are organized by outfall location. As indicated in the Permit, only exceedances of a Permit limit or benchmark limits are discussed in this DMR. Those constituents that are detected but do not have a Permit limit or benchmark limit are not included. During the Second Quarter 2012, surface water samples collected at Outfalls 001, 002, 008, 009 and the Arroyo Simi location at Frontier Park in Simi Valley (RSW 002) exceeded Permit limits.

### Outfall 001

The following is a summary of exceedances of benchmark limits at Outfall 001 (South Slope below Perimeter Pond). These exceedances are further detailed in **Appendix E**.

#### Metals

Iron, lead, and manganese were detected in excess of their respective benchmark daily limits at Outfall 001 in the sample that was collected on April 13, 2012, as indicated in **Appendix E**. Iron was detected at 14 milligram per liter (mg/L), lead was detected at 10 microgram per liter ( $\mu\text{g}/\text{L}$ ), and manganese was detected at a concentration of 260  $\mu\text{g}/\text{L}$ . These results are in excess of the benchmark daily limits of 0.3 mg/L for iron, 5.2  $\mu\text{g}/\text{L}$  for lead and 50  $\mu\text{g}/\text{L}$  for manganese.

The Stormwater Expert Panel (Expert Panel) study, *SSFL Metals Background Report: Sources of Metals in SSFL Watersheds* (Ventura County Waterworks, 2011) noted that heavy metals in stormwater discharges from Outfalls 001, 002, 008, and 009 originate from various sources, including natural soil components, rainfall, and dry atmospheric deposition from local and regional sources. This report also explained that data show wet weather metals concentrations in creeks in regional natural watersheds are generally one order of magnitude lower than concentrations in regional developed watersheds, and that Santa Susana "outfall metal concentrations were comparable to the concentrations at these undeveloped watersheds."

Boeing believes that the metals concentrations in stormwater runoff from the Santa Susana Site are associated with total suspended solids (TSS) consisting of native sediments and soils. TSS loading will vary based on rainfall intensity, duration, and erosion characteristics. The high rainfall intensity that occurred during the Second Quarter 2012—and specifically during April—likely caused the elevated metals concentrations observed. Thus, the elevated metals concentrations are most likely due to the erosion of native soils and ash, and their subsequent migration into stormwater.

#### Gross Alpha

The surface water sample collected from Outfall 001 on April 13, 2012 resulted in an exceedance of the benchmark limit for gross alpha. The Permit limit for gross alpha is based on the Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL). Both the NPDES permit and the EPA drinking water regulations require subtraction of total uranium from gross alpha prior to comparison to the EPA gross alpha MCL. The resulting uranium subtracted gross alpha result for Outfall 001 was  $(17.1 +/ - 2.0) - (0.687 +/ - 0.074) = 16.413 +/ - 2.0$  picocuries per liter (pCi/L) which slightly exceeds the Permit limit of 15 pCi/L. This slightly elevated level corresponds to the high turbidity (high suspended solids) of this sample (390 nephelometric turbidity units (NTUs), and as such it is not unexpected that the gross alpha was elevated for the reason discussed below.

The MCL was established to provide direction to drinking water suppliers. The EPA drinking water supplier limit presupposes that the water will be used for drinking purposes, and is a limit that would be met at the faucet in one's home after it has been treated and filtered to reduce turbidity. For example, turbidity of greater than 5 NTUs would likely be visually noticeable to the average person. As an example the 2011 Calleguas Municipal Water District turbidity range for its water supplies was 0.05 – 0.08 NTU (Ventura County Waterworks, 2011) , which is typical for most water supplies. The turbidity of the Outfall 001 sample was 390 NTUs. However stormwater is not considered drinkable and high turbidity would be expected to be seen in stormwater runoff traveling through both lined and unlined (ephemeral) drainages in both urban and undeveloped areas in high intensity rain events.

To illustrate the potential effect of how high suspended solids impact gross alpha results because of the naturally occurring sediments in this turbid flow, consider the following: The mean uranium-238 concentration in naturally occurring soil is approximately 1 picocurie per gram (pCi/g)( USEPA, 2011). U-238 and its decay products comprise 8 alpha emitting radionuclides. Assuming secular equilibrium, that gives 8 pCi/g. The mean thorium-232 concentration in soil is approximately 1 pCi/g(USEPA, 2011). Th-232 and its decay products comprise 6 alpha emitting radionuclides. Assuming secular equilibrium, that gives 6 pCi/g. Thus, U-238 and Th-232 and their alpha emitting decay products contribute approximately 14 pCi/g or 14,000 picocurie per kilogram (pCi/kg) to naturally occurring soil radioactivity. A low mass fraction of 1% suspended solids would contribute  $14,000 / 100 = 140$  pCi/L to a water sample. Assuming an even lower

mass fraction of 0.1% suspended solids, this would contribute  $14,000 / 1,000 = 14$  pCi/L to a water sample. It would be expected to see that a highly turbid, high suspended solids stormwater sample will result in exceedances of the 15 pCi/L drinking water limit.

BMPs upstream of Outfall 001 are designed to assist in controlling sediment transport into the surface water. However, due to the rain intensity observed recorded during the rain events of April 10 and 13, 2012, flow conditions were observed as very turbid as indicated by the turbidity 390 NTUs for Outfall 001. As a result, further actions will be taken to evaluate sources of sedimentation and erosion along the Outfall 001 drainage. These actions will be primarily focused on reducing erosion and sedimentation. Boeing believes that implementing stabilization and erosion control measures is the most effective way to meet effluent standards while not severely impacting the adjacent undisturbed habitats. These activities will continue to be re-evaluated and upgraded as needed to minimize the occurrence of any future exceedances. Recommendations for BMPs will be provided to the Regional Board in a BMP Compliance Plan.

As indicated in the Permit, compliance with the effluent limits is based on an annual average of the sample results for each outfall. Therefore, the exceedance is identified as a potential concern for the individual benchmark limit. Compliance will be determined based on an average of all samples collected throughout the calendar year at Outfall 001. Compliance will be determined in the annual report to be submitted.

## **Outfall 002**

The following is a summary of a benchmark limit exceedance at Outfall 002 (South Slope below R-2 Pond). This benchmark limit exceedance is further detailed in **Appendix E**.

### Metals

Iron was detected in excess of its benchmark limit daily maximum at Outfall 002 in the sample collected on April 13, 2012 (**Appendix E**). Iron was detected at 1.7 mg/L; this is in excess of the benchmark limit daily maximum of 0.3 mg/L for iron.

As discussed for Outfall 001, Boeing believes the metals concentrations in stormwater runoff are associated with the high rainfall intensity that occurred during the Second Quarter therefore causing erosion and elevated concentrations of TSS consisting of native sediments and soils. TSS loading will vary based on rainfall intensity, duration, and erosion characteristics. As with Outfall 001, BMPs upstream of Outfall 002 are designed to assist in controlling sediment transport into the surface water. Actions will be taken to evaluate sources of sedimentation and erosion along the Outfall 002 drainage. Sediment and erosion controls measures will be installed based on the evaluation.

## Outfall 008

The following is a summary of exceedances of permit limits at Outfall 008 (Happy Valley Drainage). The permit limit exceedances are further detailed in **Appendix E**.

### Metals

Copper and lead were detected at Outfall 008 on April 13, 2012 at concentrations above its permit daily limit as indicated in **Appendix E**. Copper was detected at a concentration of 18 µg/L and lead was detected at 10 µg/L. These results are in excess of the permit daily limit of 14 µg/L for copper and 5.2 µg/L for lead.

As discussed above, Boeing believes the metals concentrations in stormwater runoff from the Santa Susana Site are associated with TSS consisting of native sediments and soils, and that TSS and metals loading will vary based on rainfall intensity, duration, and erosion characteristics. Indeed, there is substantial evidence, including the report from the Expert Panel, showing that background conditions are significant contributors of regulated constituents, including metals at Outfall 008. Regional Board Staff have recognized the likely presence of naturally-occurring elevated concentrations of regulated constituents and their importance in evaluating compliance with applicable standards and limits.

Nevertheless, Boeing will continue to evaluate and implement BMPs to reduce TSS in stormwater runoff within the Outfall 008 watershed. These BMPs will be described in the Interim Source Removal Activities (*ISRA*) *Performance Monitoring and Potential BMP Subarea Monitoring for the Outfalls 008 and 009 Watersheds, 2011/2012 Rainy Season* (2011/2012 Rainy Season Report) report to be submitted to the Regional Board at the end of August. Actions taken during the Second Quarter 2012 are described below in the **Outfalls 008/009 ISRA and BMP Plan Related Activities** section of this DMR, and in **Table 2**.

## Outfall 009

The following is a summary of exceedances of permit limits at Outfall 009 (WS-13 Drainage). The permit limit exceedances are further detailed in **Appendix E**.

### Dioxins and Furans: Dioxins (TCDD) Toxic Equivalent Quotient (TEQ)

TCDD TEQ in stormwater samples taken from Outfall 009 on April 11, 2012, exceeded the TCDD TEQ daily permit limit. The measured concentration for the sample collected was  $3.72 \times 10^{-8}$  µg/L and exceeds the Permit limit of  $2.8 \times 10^{-8}$  µg/L.

The Expert Panel<sup>1</sup> suggest that the levels of TCDD TEQ measured in surface water at the Santa Susana Site are from other naturally occurring sources over which Boeing has no reasonable

<sup>1</sup> Available at: [http://www.boeing.com/aboutus/environment/santa\\_susana/tech\\_reports.html](http://www.boeing.com/aboutus/environment/santa_susana/tech_reports.html)

control. Additionally, the Department of Toxic Substances Control (DTSC) has stated TCDD congeners have been documented as frequently detected in approved non-impacted background soils at the Santa Susana Site (USEPA, 2000; MWH, 2005; and Flow Science 2006).

Boeing believes the dioxin concentration in stormwater runoff is associated with the high rainfall intensity that occurred during the Second Quarter 2012, therefore causing erosion and elevated concentrations of TSS. TSS loading will vary based on rainfall intensity, duration, and erosion characteristics. As stated above, future BMPs to address these exceedances will be described in the 2011/2012 Rainy Season Report to be submitted to the Regional Board at the end of August. Actions taken during the Second Quarter 2012 to control sediment transport and minimize the occurrence of any future permit exceedances are described in the **Outfalls 008/009 ISRA and BMP Plan Related Activities and the Northern Drainage and BMP Plan Related Activities** section of this DMR, as well as in **Table 2**.

#### **Arroyo Simi Receiving Water Sample Location – Frontier Park (RSW 002)**

The following is a summary of exceedances of permit limits at Arroyo Simi Receiving Water Location – Frontier Park (RSW 002). The permit limit exceedances are further detailed in **Appendix E**.

##### Bacteria

Escherichia Coli (E. Coli) and Fecal Coliform were detected above the receiving water limits at Arroyo Simi – Frontier Park (RSW 002) in the sample that was collected on April 2, 2012, as indicated in **Appendix E**. E. Coli was detected at 500 MPN/100mL and Fecal Coliform was detected at 500 MPN/100mL; these results exceeded the permit limits of 235 MPN/100mL for E. Coli and 400 MPN/100mL for Fecal Coliform. Additionally, E. Coli was detected above the receiving water limits at RSW 002 in the sample that was collected on April 6, 2012, as indicated in **Appendix E**. E. Coli was detected at 250 MPN/100mL; this result also exceeded the permit limit of 235 MPN/100mL for E. Coli.

The Regional Board has recognized that “there are natural sources of bacteria that may cause or contribute to exceedances of the single sample objectives and that it is not the intent of the Regional Board to require treatment or diversion of natural coastal creeks or to require treatment of natural sources of bacteria from undeveloped areas.”<sup>2</sup>

As stated in the NPDES Permit, E. Coli and Fecal Coliform as part of water quality objectives for monitoring of inland surface waters and includes a geometric mean calculation. Five samples collected on March 8, 17, 27, April 2, and 6, 2012 were utilized for the calculation of the geometric mean for E. Coli and Fecal Coliform calculated at 626 MPN/100mL. The geometric mean

<sup>2</sup> Resolution No. R10-007, July 9, 2010, Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Indicator Bacteria in the Los Angeles River Watershed, Attachment A at 2-3.

is above the single sample maximum receiving water limits for E. Coli and for Fecal Coliform of 126 and 200 MPN/100mL, respectively, and as indicated in **Appendix E**.<sup>3</sup> To address these bacteria exceedances, Boeing summarized the actions it will take to satisfy the bacteria monitoring requirements established in the NPDES Permit in a letter dated September 7, 2011, to the Regional Board. The following is a summary of those actions taken:

*Bacteria Investigation – Arroyo Simi-Frontier Park Location (RSW 002)*

Boeing conducted an investigation during the First Quarter 2012 in response to the detection of bacteria at the Arroyo Simi-Frontier Park receiving water sample location. This sample was collected on March 8, 2012. The investigation for any potential contributing sources from the Santa Susana Site included a review of rain intensity, flow conditions, observations of the STPs, port-a-potties and wildlife.

Peak rainfall on March 17 and 25, 2012 was recorded at over 0.25 inch per hour and over 0.5 inch per hour, respectively. Rain intensity during these events was the highest recorded in the First Quarter 2012 (Appendix A). Flow conditions during these rain events were also the highest observed during the First Quarter 2012. No spills, overflows or leaks occurred from the STPs or any port-a-potties on the Santa Susana Site. Wildlife droppings were observed at the Heli-pad area and within the flow stream that is conveyed to Outfall 0009. Additional laboratory analytical results for bacteroides also indicated the bacteria results were not derived from human sources.

On March 27, 2012, onsite conditions indicated that flow was observed at Outfall 009 only, and a subsequent sample was collected for the analysis of E. Coli and Fecal Coliform. The results of the sample collected on March 27, 2012 indicated that E. Coli and Fecal Coliform were both below the receiving water limit requirements for the Arroyo Simi location. Therefore, compliance was demonstrated in a sample collected from Outfall 009 on March 27, 2012. As stated in the letter dated September 7, 2011, site conditions indicate compliance with the Permit, therefore, no additional samples were required for the Arroyo Simi location, as the Santa Susana Site did not contribute to the Bacteria exceedance in the Arroyo Simi.

Boeing will continue to monitor both E. Coli, Fecal Coliform, and human-specific Bacteroides in all samples analyzed for bacteria at the Arroyo Simi location to verify that bacteria at this sampling location are from animals and not human sources.

---

<sup>3</sup> In a separate letter to Regional Board Staff dated September 7, 2011, Boeing summarized the actions it is taking to satisfy the bacteria monitoring requirements established the Santa Susana NPDES Permit.

## SECOND QUARTER 2012 SITE-WIDE STORM WATER POLLUTION PREVENTION PLAN (SWPPP)/BMP ACTIVITIES

During the Second Quarter 2012, Boeing continued to implement the site-wide SWPPP's. Boeing conducted monthly, pre- and post-storm season inspections as required by the site-wide SWPPP to identify and mitigate any on-site conditions identified that may affect the quality of storm water runoff from the Santa Susana Site in accordance with the State of California General Industrial Storm Water Permit No. CAS000001 (General Permit) SWPPP requirements.

Site-wide BMP activities also include inspection of Solid Waste Management Units (SWMUs). Per SWPPP requirements, SWMU inspections are completed three times a year during the months of January, April and September. SWMU inspections during the Second Quarter 2012 were completed in April.

Site-wide activities also include the inspection of outfalls and outfall perimeters, inspection of stormwater pumping and conveyance system. Inspection of specific BMP activities at each outfall location may include inspections of erosion and sediment control BMPs, flume and sample box condition, flow meter calibrations, surface water catchment or sedimentation basin condition, liner integrity, filter media condition, system pump and conveyance condition, and retention tank inspection. General maintenance and housekeeping of outfalls may include the removal of sediment, removal of leaf litter, filter media replacement, liner repair or replacement, implementation of additional BMPs, and weed abatement.

During the Second Quarter 2012, Boeing also continued to implement the individual SWPPP's. As part of the implementation of the SWPPP's, BMP inspections are completed in order to identify and mitigate any site specific conditions identified that may affect the quality of storm water runoff from the Santa Susana Site. BMP inspections were completed in accordance with the State of California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order NO. 2009-0009-DWQ; NPDES NO. CAS000002 Construction General Permit (CGP) SWPPP requirements. SWPPP Inspections were conducted weekly, before and after qualifying rain events, and during extended rainfall lasting longer than 24-hours as required by the CGP.

Construction, demolition and ISRA activities have CGP SWPPP requirements. Efforts to plan and implement BMPs for pre- and post-soil disturbance activities for demolition and ISRA areas are discussed further in sections below. Demolition area comprise of areas of disturbed soil from recent demolition, post-demolition and post-demolition restoration. ISRA areas consist of the ongoing soil removal and/or remediation activities, post remediation and restoration areas.

**Table 2** below is a summary of the specific BMP activities by outfall location that were conducted during the Second Quarter 2012.

**Table 2. Boeing's BMP Activities during the Second Quarter 2012**

<b>OUTFALL (Location)</b>	<b>BMP ACTIVITIES DURING SECOND QUARTER 2012</b>
001 (South Slope below Perimeter Pond)	Inspected the outfall and flume for any excess sediment/debris. Flume clear of sediment and debris. Observed sediment and erosion controls around the perimeter of the outfall and Outfall 001 drainage. Checked sample box, flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on monthly basis. Conducted weed abatement.
002 (South Slope below R-2 Pond)	Conducted sediment and erosion control inspections around the perimeter and Outfall 002 drainage. Inspected outfall and flume for any excess sediment/debris. Flume, outfall and sample box drained and cleared of sediment and debris. Checked flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on monthly basis. Completed maintenance inspection and reset of autosampler.
003 (Radioactive Material Handling Facility (RMHF))	Conducted sediment and erosion control inspections. Inspected flume and outfall for any excess sediment/debris. Maintenance inspections were conducted of the structural BMPs including the stormwater retention basin, conveyance and filter system. Checked sample box, flow meter control box for spiders and presence of the presence of debris and/or animals. Flow meter reset and tape replaced on monthly basis. Installed hay bale and biodegradable fiber rolls in the drainage at the culvert entrance at RMHF south fence line, and removed T-posts from areas south of RMHF and east of Building 4024 (B4024).
004 Sodium Reactor Experiment (SRE)	Inspected the flume, outfall and liner for any excess sediment/debris. Conducted sediment and erosion control inspections near the outfall. Maintenance inspections were conducted of the structural BMPs including the stormwater retention system, conveyance and filter system. Completed inspection of dedicated retention tanks. Checked sample box, flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on monthly basis. Removed silt fence at 17 <sup>th</sup> Street pond, installed silt fence and fiber roll at the Eastern Debris area, and replaced hay bales at old Conservation Yard (OCY) and New Conservation Yard (NCY) drainage with a gravel bag check dam.
005 Former Sodium Disposal Facility (FSDF)-1	Conducted sediment and erosion control inspections. Inspected the outfall and flume for any excess sediment/debris. Completed maintenance inspections on structural BMPs including the conveyance, stormwater retention system, and sediment basin liner. Completed inspection of dedicated retention tanks.
006 (FSDF-2)	Inspected the flume, outfall and liner for any excess sediment/debris. Conducted sediment and erosion control inspections near the outfall. Completed maintenance inspections on the structural BMPs including the stormwater retention system and filter system. Checked sample box, flow meter control box the presence of debris and/or animals. Flow meter reset and tape replaced on monthly basis. Completed inspection of dedicated retention tanks.
007 (Building 100)	Conducted sediment and erosion control inspections at perimeter of Outfall 007. Observed the sediment basin liner and outfall for any excess sediment/debris or deficiencies. Completed maintenance inspection of the conveyance system, stormwater retention system, and sediment basin liner. Checked high level float/switch in sedimentation basin. Completed inspection of dedicated retention tanks.
008 (Happy Valley)	Conducted sediment and erosion control inspections near the perimeter of the outfall and within the Outfall 008 drainage. Maintained and repaired existing sediment and erosion controls. Observed the outfall and flume for any excess sediment/debris, and cleared excess sediment from the flume. Checked sample box, flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on monthly basis.

OUTFALL (Location)	BMP ACTIVITIES DURING SECOND QUARTER 2012
	Applied supplemental gravel to access road in Happy Valley. Completed final inspection of native plants within Outfall 008 and Happy Valley Drainage.
009 (WS-13 Drainage)	Checked sample box, flow meter control box for spiders and presence of rodents/animals. Flow meter reset and tape replaced on monthly basis. Removed silt fence and spent fiber rolls at Culvert Maintenance (CM)-11 at the former A-1 tower near B436. Installed fiber rolls and rip rap along the former culvert at Area I Road. At ISRA area B1-1C, replaced old fiber rolls with biodegradable fiber rolls, installed supplemental rip rap on the slope, removed silt fence, and installed a check dam. Replaced broken gravel bags and performed street sweeping at the B-1 entrance. At the Lower Lot, installed temporary fiber rolls and sand bag berm along wooden retaining wall at the base of gunite-lined slope; later removed the temporary BMPs and replaced the wooden retaining wall at the base of gunite-lined slope above the Lower Lot with new wooden boards and covered the back with filter fabric. Performed street sweeping at the Lower Lot and Building 1436 (B1436) parking lot. Replaced hay bale at CM-3, removed sediment accumulated within the asphalt swale between CM-6 and CM-11, and removed old silt fencing at CM-9 and CM-11. Applied gravel to the Well 13 Road entrance and access road. Vegetation clearance, removal of spent fiber rolls and maintenance of paths in Instrument Experimentation Lab (IEL) and Bowl area in preparation for Bee Fest. Received 90% design plans for Northern Drainage Restoration, Mitigation, and Monitoring Plan (RMMP) and the Lower Lot Biofilter BMP.
010 (Building 203)	Conducted maintenance inspections on structural BMPs including the filter media, conveyance and the stormwater retention system. Completed inspection of dedicated retention tanks. Removed pump at base of filtration media/system for maintenance. Maintained and inspected sediment and erosion controls within areas of disturbance or sparse vegetation. Checked sample box, flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on monthly basis.
011 (Perimeter Pond)	Conducted maintenance inspections on structural BMPs including the weir, filter media, pump and conveyance system. Conducted sediment and erosion control inspections at flume, drainage area, perimeter of outfall, pond and around conveyance system. Checked sample box, flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on monthly basis. Laid fresh gravel on the road at Component Testing Laboratory (CTL)-III above perimeter pond, compacted loose soil and slopes of former road. Constructed a swale, drain, and rip rap sediment catch near road leading down to outfall flume and sample point. Performed selective weeding of mustard plants around the former Bowl, CTL-III facilities. Repaired a washed out water bar along the road to the former Canyon test stands. Implemented post-demolition BMPs at the former Building 1359 (B1359) that include biodegradable fiber rolls, gravel, and jute matting.
012 (ALFA Test Stand)	Maintenance inspections were conducted on structural BMPs including pump, conveyance system and retention tank. Maintenance performed on transfer pumps. Observed condition of the sand bag berm. Inspected outfall and perimeter for presence of rodents/animals.
013 (BRAVO Test Stand)	Maintenance inspections were conducted on structural BMPs including pump, conveyance system and retention tank. Observed condition of the sand bag berm. Inspected outfall and perimeter for presence of rodents/animals.
014 Advanced Propulsion Test Facility (APTF)	Maintenance inspections were conducted on structural BMPs. Observed the condition and integrity of the liner and berm. Observed sediment and erosion control BMPs around outfall perimeter. Implemented post-demolition BMPs at the former APTF facility that include biodegradable fiber rolls, gravel, and jute matting.

OUTFALL (Location)	BMP ACTIVITIES DURING SECOND QUARTER 2012
018 (R-2 Spillway)	Maintenance inspections were conducted on structural BMPs including the filter media and conveyance system. Checked sample box, flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on monthly basis. Completed implementation of biodegradable fiber rolls, jute matting and sand bags at the former STP-III.
019 (GETS)	Completed quarterly maintenance on the air compressor. WS-9A system down due to discharge of SWTS at Outfall 018. Media vessels replaced and backwashed. Associated bag filters replaced frequently as needed. System shut down due to power outage. System alarms tested quarterly. Overall system operation is nominal. Media vessel leak observed; leak repaired.

#### **Demolition Related BMP Activities**

Boeing is committed to the reinstatement of the site to its natural habitat. Previously active areas are being demolished and prepared for restoration. During the Second Quarter 2012 demolition activities were completed at the former B1359 in Area I, APTF in Area I, and the STP-III in Area III. All debris, metal, concrete, and asphalt was segregated upon demolition and transported to a waste or recycling facility per the waste management plan, and in accordance with all local, state, and federal regulations. Demolition of Building 1300 (B1300) in Area I was started in the Second Quarter 2012 and will be completed during the Third Quarter 2012. Construction BMPs were implemented before, during and after demolition activities.

Upon completion of demolition activities, post-demolition and restoration efforts included the implementation of erosion and sediment control BMPs. During the Second Quarter 2012 biodegradable fiber rolls, jute matting and gravel were installed at former B1359; biodegradable fiber rolls, jute matting, and compaction of loose soil was completed at APTF; and biodegradable fiber rolls, jute matting and sand bags were installed at STP-III. Hydroseed, hydromulch and planting of vegetation will be completed in the Third or Fourth Quarter 2012.

As part of the effort to reduce run-off of surface waters at the Santa Susana Site, demolition activities in Areas I and III have reduced run-off by allowing for more infiltration to occur. Boeing will continue demolition activities to reduce run-off, implement BMPs to address erosion and sedimentation, and return the Santa Susana Site to its natural habitat.

#### **Outfall 008/009 ISRA and BMP Plan Related Activities**

Pursuant to the December 3, 2008, Section 13304 Order issued by the Regional Board, Boeing has continued with ISRA activities in the Outfall 008 and 009 watersheds to address constituents that have exceeded NPDES Permit limits/benchmarks. ISRA soil removal within Outfall 008 was completed on October 19, 2009, phase II ISRA soil removal conducted within Outfall 009 was completed during the First Quarter 2011, and phase III ISRA work began in Second Quarter 2011.

The following is a summary of the activities taken during the Second Quarter 2012:

- Conducted sediment and erosion control inspections near the perimeter of Outfall 008 and within the Outfall 008 drainage;
- Observed Outfall 008 and 009 flumes for any excess sediment/debris, checked the sample boxes and flow meter control boxes for spiders and presence of rodents/animals, and reset the flow meters and replaced tape on monthly basis;
- Performed inspections of plantings at B-1 culvert area;
- Provided email to DTSC requesting approval to use the December 16, 2011 EPA Radiological Trigger Levels (RTLs) for characterizing ISRA soils until DTSC's Radiological Look-up Table is finalized;
- Hosted a site tour with new Regional Board members and discussed the surface water related projects ongoing and planned at the site;
- Performed biological survey of planting areas in Outfall 008; based on vegetation conditions observed, biologist recommended no further action in terms of vegetation monitoring;
- Submitted electronically the updated ISRA SWPPP to the Regional Board's Stormwater Multi-Application Report Tracking System (SMARTS); included updated figures closing-out ISRA SWPPP for Phase I and some Phase II (CTLI-1A, CTLI-1B, and IEL-1) ISRA areas;
- DTSC sent an email to NASA allowing use of December 16, 2011 EPA RTLs for Cs-137, U-235, and U-238 for disposal of ISRA soils and requested opportunity to review the lab Quality Assurance and Quality Control (QA/QC) for samples whose minimal detectable concentrations (MDCs) exceed the RTLs. NASA is preparing a response to DTSC's email;
- In coordination with the Expert Panel:
  - Evaluated data and discussed updating the BMP recommendations that were provided to Boeing in January 2012, based on ISRA Performance Monitoring (PM), BMP and NPDES data in the Outfall 008 Watershed. BMP recommendations within the Outfall 008 watershed expect to be implemented before the 2012/2013 rainy season.
  - Finalized the 90% design for the alternate location of the Lower Parking Lot Biofilter outside the Southern California Edison (SCE) easement and submitted the revised grading permit application to Ventura County;
  - Put on hold the design of BMPs and drainage improvements at the Helipad and at ISRA area Expendable Launch Vehicle (ELV) channel until the DTSC Radionuclide Table is finalized (estimated summer 2012); NASA and DTSC held discussions regarding requirements for radiological characterization of waste soils, and NASA is communicating with EPA for feedback on the proposed sampling suite; design will resume following radiological characterization;
  - Communicated with agencies on the Northern Drainage RMMP permit application and supporting information, and submitted an additional information package to the Regional Board; a site walk of the Northern Drainage was performed to observe re-

vegetated conditions and evaluate potential modifications to the design; began work on and finalized the RMMP 90% design drawings and contractor bid package; Additional details on RMMP activities are discussed in the Northern Drainage section below.

- Began evaluation of surface water data from the 2011-2012 rainy season for inclusion in the Performance Monitoring and BMP Monitoring Summary Report and the 2012 BMP Plan Addendum;
- Discussed BMPs and materials needed to be installed at areas of localized erosion in the 008 watershed;
- Maintained plastic sheeting covering active ISRA excavation areas in Ash Pile/Sewage Treatment Plant (AP/STP) in Area II;
- Performed soil sampling at ISRA areas, including sidewall confirmation sampling at AP/STP-1C-1 and additional excavation delineation sampling at AP/STP-1C-2;
- At ISRA area B1-1C and the slope below, replaced old fiber rolls with biodegradable fiber rolls, installed supplemental rip rap on the slope, removed the silt fence, and installed a check dam below the ISRA area;
- Replaced broken gravel bags and performed street sweeping at the B-1 entrance;
- Installed fiber rolls and sand bag berm along wooden retaining wall at the base of gunite-lined slope above the Lower Lot;
- Removed fiber rolls and sand bag berm and replaced the wooden retaining wall at the base of gunite-lined slope above the Lower Lot with new wooden boards and covered the back with filter fabric;
- Performed street sweeping at the Lower Lot and B1436 Parking Lot;
- Replaced straw hay bale at CM-3;
- Removed sediment accumulated within asphalt swale between CM-6 and CM-11;
- Removed silt fencing at CM-9 and CM-11;
- Maintained plastic sheeting covering ISRA area ELV-1C;
- Applied supplemental gravel to the Wells 13 Road entrance and the road in Happy Valley;
- Conducted rain event Performance Monitoring and BMP Subarea Monitoring activities, including sampling; and
- Conducted SWPPP inspections per the ISRA SWPPP.

Boeing continues to conduct bi-weekly status meetings, and submit monthly and quarterly progress reports to Regional Board staff on the progress of the ISRA activities<sup>4</sup>. Boeing is committed to the restoration of the ISRA areas immediately following clean-up activities and works closely with the DTSC and Expert Panel to ensure that restoration is comprehensive.

<sup>4</sup> Available at: [http://www.boeing.com/aboutus/environment/santa\\_susana/tech\\_reports.html](http://www.boeing.com/aboutus/environment/santa_susana/tech_reports.html)

### **Northern Drainage and BMP Plan Related Activities**

Boeing has actively worked to restore the Northern Drainage following clean-up activities performed under the oversight of the DTSC in accordance with the requirements of Regional Board Cleanup and Abatement Order (CAO) No. R4-2007-0054.

DTSC issued a Certification of Completion on April 29, 2011, stating that the response actions required under the Imminent and Substantial Endangerment Determination and Order and Remedial Action Order (ISE/RA Order), Santa Susana Field Laboratory, Ventura County, California (CAD 093365435 and CA 1800090010) were successfully performed, the contaminants of concern had been removed, and remaining concentrations no longer posed an immediate risk to humans or environmental receptors (DTSC, 2011). As stated in the CAO, Boeing completed collection of three surface water samples following the cleanup completion date and therefore no further wet weather sampling will be conducted in the Northern Drainage. As the requirements of the CAO have been fulfilled and no further wet weather sampling is required, the final Northern Drainage Monthly Monitoring Report (MMR) was submitted for May 2012.

Boeing and NASA worked with the Expert Panel to develop a site-specific RMMP for the areas of the Northern Drainage that were subject to this Order. The RMMP was submitted to the Regional Board on October 5, 2011 (Haley & Aldrich, 2011) and provides a detailed summary and conceptual designs for restoration and stabilization of the banks and bottom of the Northern Drainage, as well as mitigation and monitoring for riparian plants removed during remediation. Boeing received permit approvals from the Regional Board, California Department of Fish and Game (CDFG) and Los Angeles Division of the Army Corps of Engineers (ACOE) in early July 2012. Restoration activities described in the RMMP are scheduled to be implemented before 2013.

### **Outfalls 011 and 018 SWTSs Activities**

Operation, testing, and optimization of Outfall 011 and 018 SWTSs continued through the Second Quarter 2012. Specific details of these activities are as follows:

- Installed the perimeter railing at Outfall 018 SWTS;
- Completed access and egress to chemical area at Outfall 018 SWTS;
- Performed maintenance on the ACTIFLO™ scraper assembly at Outfall 018 SWTS;
- Optimized treatment system at Outfall 018 SWTS;
- Discharge occurred on April 10-11, 2012 at Outfall 018 SWTS. All constituents met compliance;
- Installed utility shed at Outfall 018 SWTS;
- Upgraded site access ways throughout Outfall 018 SWTS;

- Revised and painted the intake and discharge piping at R2A Pond;
- Installed a tee, 14-inch valve, and 10-inch mag meter at R2A Pond ;
- Recalibrated electrical signal to the ACTIFLO™ caustic and alum pumps at Outfall 018 SWTS;
- Installed revised satellite accumulation at Outfall 018 SWTS;
- Installed revised chemical skid enclosures at Outfall 018 SWTS;
- Installed electrical wiring for lighting at Outfall 018 SWTS;
- Revised GAC bypass line and installed a check valve on the GAC effluent line at Outfall 018 SWTS;
- Finishing electrical work at R2A Pond;
- Installed Motor Control Center (MCC) cabinet for lighting panel at Outfall 018 SWTS;
- Modified SWTS intake piping at Outfall 018 SWTS;
- Shingled and vented satellite accumulation and chemical skid enclosures at Outfall 018 SWTS;
- Installed electrical conduits to the revised chemical skid enclosures at Outfall 018 SWTS;
- Discussed revised piping for treatment pumps and chemical skid layout at Outfall 018 SWTS;
- Rerouted electrical for ground/power to treatment pumps at Outfall 018 SWTS;
- Welded brackets for revised supernatant pump layout, rerouted electrical for ground/power, revised pumping and valving of supernatant line at Outfall 018 SWTS;
- Installed and tested new supernatant pumps at Outfall 018 SWTS;
- Constructing secondary containments for chemical totes at Outfall 018 SWTS;
- Cleaned the ACTIFLO™ unit, and the mixer, buffer, backwash, supernatant and weir tanks at Outfall 018 SWTS;
- Welded support extensions for supernatant and sump piping across top of supernatant tank at Outfall 018 SWTS;
- Installed sludge suction lines in weir tanks at Outfall 018 SWTS;
- Conducted performance test on the 10-inch pump at Perimeter pond at Outfall 011 SWTS;
- Conducted regular maintenance on the ACTIFLO™ maturation tank at Outfall 011 SWTS;
- Recirculated water throughout treatment system at Outfall 011 SWTS;
- Working on electrical for interior lighting at Outfall 011 SWTS;
- Built, painted, shingled and vented the new contractor personal protective equipment (PPE) storage enclosure at Outfall 011 SWTS;
- Final inspection and signature for Electrical permit C10-000779 was obtained for Outfall 011 SWTS; and
- Drained weir and supernatant tanks at Outfall 011 SWTS.

It is anticipated that Outfall 011 and 018 SWTS modifications and optimization will continue through the Third Quarter 2012. Additional stormwater control measures including the existing flow-through media beds and sediment control BMPs throughout the watershed are in place to meet stormwater quality objectives in conformance with the NPDES Permit.

### **REASONABLE POTENTIAL ANALYSIS (RPA)**

Outfall monitoring data were collected during the Second Quarter 2012 for Outfalls 001, 002, 008 and 018 and the Arroyo Simi Receiving Water sample point. Data from this quarter were added to the RPA dataset as per the MWH and Flow Science RPA procedures for the outfall monitoring group, Outfalls 001, 002, 011, 018 and 003-010 (MWH and Flow Science, 2006). RPA analysis was performed for E. Coli at Outfalls 001, 002, 008 and 018 for samples collected during the quarter; these analyses are discussed below.

Boeing notes that the water quality objectives for indicator bacteria were updated by the Regional Board on July 8, 2010 (see Resolution No. 2010-005). This update eliminated water quality objectives for fecal coliform and added water quality objectives for E. Coli. In response to this change to objectives, RPA was not conducted for fecal coliform.

Reasonable potential was triggered for Outfalls 002 and 008. However, based upon the results of the bacteria investigation discussed in the Summary of Non-Compliance section above, human-specific bacteroides were not detected in any sample collected at the Santa Susana Site and the bacteria detected must have originated from non-human, natural sources. Therefore, Boeing does not believe that reasonable potential has been demonstrated for bacteria at Outfalls 002 and 008. Boeing will continue to monitor both E. Coli, Fecal Coliform and human-specific bacteroides in all samples analyzed and monitor for any potentially contributing sources of bacteria at these and other outfalls in order to continue to confirm that any indicator bacteria detected at the outfalls are from animals and not human sources.

RPA was not triggered for any other constituent not already regulated under the current NPDES Permit. Complete RPA tables for the outfall monitoring group are provided in **Appendix F**.

### **DATA VALIDATION AND QUALITY CONTROL DISCUSSION**

In accordance with current federal and state EPA guidelines and procedures, or as specified in the NPDES Monitoring and Reporting Program, chemical analyses of surface water discharge and receiving water samples were completed at a State of California-certified laboratory. Data validation was performed on the analytical results and quality control elements were found to be within acceptable limits for the analytical methods reported, except as noted on the analytical summary tables. As noted above, measures were implemented by the analytical laboratory to monitor and/or evaluate its low level detections, to analyze for interferences and to ensure that cross contamination does not occur in the future. Laboratory analytical reports, including

validation reports and notes, are included in **Appendix G**. Attachment T-A of the NPDES Permit issued to the Santa Susana Site presents the State of California Water Resources Control Board (SWRCB or "State Board") minimum levels (MLs) for use in reporting and determining compliance with NPDES Permit limits.

The analytical laboratory achieved these MLs for this reporting period when technically possible. When elevated laboratory reporting limits (RLs) were noted, the laboratory maximum detectable limits (MDLs) remained below the State of California MLs. However, some constituents' daily MDLs in the NPDES Permit are less than their respective MLs, and less than the RL. In cases where the NPDES Permit limit is less than the RL and ML, the RL was used to determine compliance. The specific constituents that have NPDES Permit limits that are less than the RL and ML are: mercury, bis(2-ethylhexyl)phthalate, cyanide, polychlorinated biphenyls (PCBs) (Aroclor congeners), chlordane, Dichloro-diphenyldichloroethane (DDD), Dichlorodiphenyldichloroethylene (DDE), Dichlorodiphenyl-trichloroethane (DDT), dieldrin, toxaphene, and chlorpyrifos. These compounds were either not a required analyte or not detected in all of the surface water/receiving water samples collected during Second Quarter 2012.

During the Second Quarter 2012, the automated composite sampling equipment (autosamplers) installed at several outfalls, including Outfall 001, 002, 008 and 009, appeared to have malfunctioned and not operated to specified calibrated programs for the full 24-hour period. The autosamplers are set up to complete a sampling cycle over a programmed period of time (e.g., each aliquot is collected in a little over one minute at Outfall 001). It appears that the autosamplers are collecting aliquots based on the peak flow rates, which means aliquots are collected at a more frequent rate. After the peak flow, the autosamplers should collect samples less frequently, however program logs indicate that samples continued to be collected at the more frequent rate. To address this issue, Boeing is investigating ways to refine the specific autosampler programs, recalibrate the autosampler devices, and run field tests to confirm the autosamplers are collecting samples properly. The results of this investigation will be discussed in the next quarterly report and the program modifications will be implemented prior to next rainy season.

#### **FACILITY CONTACT**

If there are any questions regarding this DMR or its enclosures, you may contact Mr. Paul Costa at (818) 466-8778.

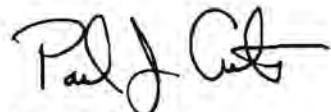
**CERTIFICATION**

I certify under penalty of law that this document and all appendices were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for a knowing violation.

Executed on the 14th of August 2012, at The Boeing Company, Santa Susana Site.

Sincerely,



Tom Gallacher  
Director  
Santa Susana Field Laboratory  
Environment, Health and Safety

TG:jag

Figure: 1 Storm Water Drainage System and Outfall Locations

- Appendices:
- A Second Quarter 2012 Rainfall Data Summary
  - B Second Quarter 2012 Liquid Waste Shipment Summary Tables
  - C Second Quarter 2012 Summary Tables, Discharge Monitoring Data
  - D Second Quarter 2012 Radiological Monitoring Data
  - E Second Quarter 2012 Summary of Permit Limit Exceedances
  - F Second Quarter 2012 RPA Summary Tables
  - G Second Quarter 2012 Analytical Laboratory Reports, Chain-of-Custody, and Validation Reports

cc: Ms. Cassandra Owens, Regional Water Quality Control Board  
Mr. Rick Brausch, Department of Toxic Substances Control  
Mr. Gerard Abrams, Department of Toxic Substances Control  
Mr. Robert Marshall, California State University – Northridge, Library  
Mr. Gabriel Lundein, Simi Valley Library  
Ms. Lynn Light, Platt Branch, Los Angeles Library

---

**References Cited:**

Boeing, 2011. Waste Discharge Requirements- The Boeing Company, Santa Susana Field Laboratory, NPDES No. CA0001309, CI No. 6027, issued on June 16, 2010, and effective on July 19, 2010, Addendum. September 7.

California Environmental Protection Agency (EPA) Department of Toxic Substances Control (DTSC), 2011. "Certification of Completion for Actions Under Imminent and Substantial Endangerment Determination and Order, Docket Number I/SED 07/08-002, Northern Drainage Area, Santa Susana Field Laboratory, Ventura County, California". April 29.

Flow Science, 2006. Potential Background Constituent Levels in Storm Water at Boeing's Santa Susana Field Laboratory. February 23.

Haley & Aldrich, Inc., 2011. Northern Drainage Restoration, Mitigation, and Monitoring Plan (RMMP), Santa Susana Field laboratory, Ventura County, California, October.

MWH, 2005. Standardized Risk Assessment Methodology (SRAM) Work Plan – Revision 2 Final, Santa Susana Field Laboratory, Ventura County, California. September.

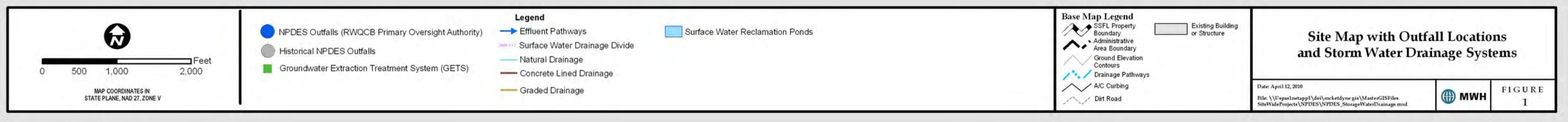
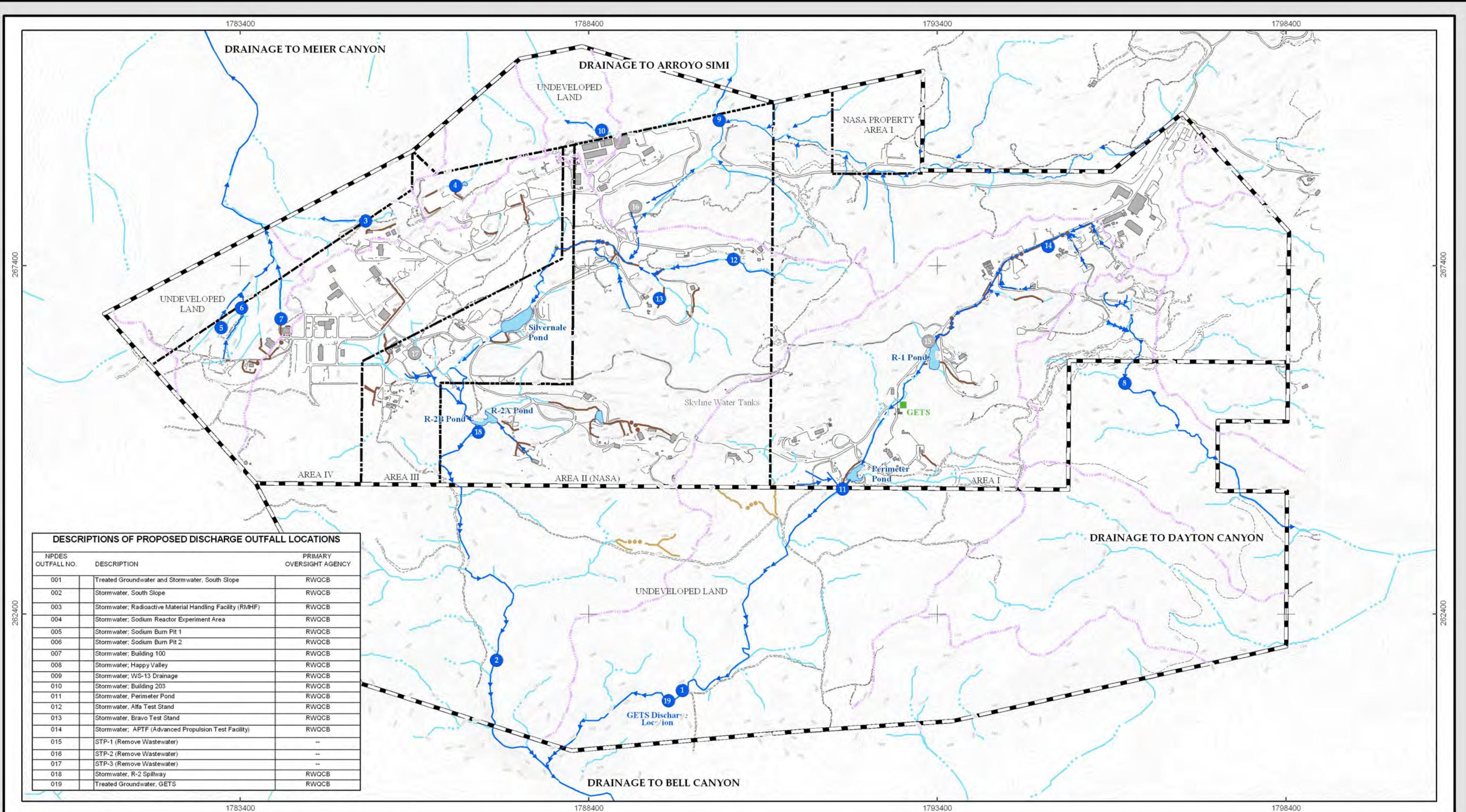
MWH Americas, Inc., and Flow Science, 2006. Reasonable Potential Analysis Methodology Technical Memo- Version 1, Final, Santa Susana Field Laboratory, Ventura County, California. April 28.

USEPA, 2000. Exposure and Human Health Reassessment of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) and Related Compounds. Part I: Estimating Exposure to Dioxin-Like Compounds. Volume 3: Properties, Environmental Levels, and Background Exposures. Draft. EPA/600/P-00/001Ac. Office of Research and Development, Washington, DC. March.

USEPA, 2011. Final Radiological Background Study Report, Santa Susana Field laboratory, Ventura County, California, October 2011.

Ventura County Waterworks 2011. Annual Water Quality Report (Reporting Year 2011), Ventura County Waterworks – District No. 1, April 15.

**FIGURE 1**  
**STORM WATER DRAINAGE SYSTEM AND OUTFALL LOCATIONS**



**APPENDIX A**

**SECOND QUARTER 2012 RAINFALL DATA SUMMARY**

**TABLE A**  
**DAILY RAINFALL SUMMARY**

Station: AREA4

Parameter: Rain

Month/Year: April 2012

**THE BOEING COMPANY**  
**NPDES PERMIT NUMBER**  
**CA0001309**

Day	HOUR OF THE DAY																								Total
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
D	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.21	
A	11	0.07	0.25	0.12	0.06	0.19	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Y	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
O	13	0.00	0.00	0.02	0.02	0.00	0.17	0.03	0.04	0.22	0.36	0.30	0.06	0.07	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	
F	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
T	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
H	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
E	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
M	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
O	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
N	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
T	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
H	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
N	23	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	
T	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
H	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.09	0.15	
	26	0.03	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	
	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	0.00	
	29	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	0.00	
	30	p	p	p	p	p	p	p	p	p	0.12d	p	0.00p	0.00p	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

p = Power Outage - Rain Gauge Relocation to Area I

**TABLE A**  
**DAILY RAINFALL SUMMARY**

Station: AREA1  
Parameter: Rain  
Month/Year: May 2012

THE BOEING COMPANY  
NPDES PERMIT NUMBER  
CA0001309

Day	HOUR OF THE DAY																								<b>Total</b>
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	0.00	0.00	0.01	0.00	0.00	0.00	0.00p	0.00p	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
D	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00p	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Y	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
F	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
F	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00p	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

p = Power failure, invalid hour

**TABLE A**  
**DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY**  
**NPDES PERMIT NUMBER**  
**CA0001309**

Station: AREA1

Parameter: Rain

Month/Year: June 2012

**HOUR OF THE DAY**

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
D	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Y	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
F	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
F	15	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
T	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

D = Marked down, valid hour

## **APPENDIX B**

### **SECOND QUARTER 2012 LIQUID WASTE SHIPMENTS SUMMARY TABLES**

**TABLE B-1**  
**THE BOEING COMPANY**

**NPDES PERMIT CA0001309**  
**LIQUID WASTE SHIPMENTS**

April 2012

DATE SHIPPED	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
4/3/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
4/3/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
4/3/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson
4/10/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
4/10/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
4/10/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson
4/17/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
4/17/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
4/17/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson
4/17/2012	NON Regulated Liquid (Water)	42100	P	Nexeo Solutions, LLC	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058
4/18/2012	NON Regulated Liquid (Water)	43480	P	Nexeo Solutions, LLC	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058
4/18/2012	NON Regulated Liquid (Water)	44280	P	Nexeo Solutions, LLC	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058
4/20/2012	NON Regulated Liquid (Water)	34480	P	Nexeo Solutions, LLC	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058

**TABLE B-1**  
**THE BOEING COMPANY**

**NPDES PERMIT CA0001309**  
**LIQUID WASTE SHIPMENTS**

April 2012

DATE SHIPPED	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
4/24/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
4/24/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
4/24/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	1500	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson

**TABLE B-2**  
**THE BOEING COMPANY**

**NPDES PERMIT CA0001309**  
**LIQUID WASTE SHIPMENTS**

May 2012

DATE SHIPPED	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
5/1/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
5/1/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
5/1/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson
5/8/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
5/8/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
5/8/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson
5/16/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
5/16/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
5/16/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson
5/22/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
5/22/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
5/22/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson
5/29/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
5/29/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
5/29/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson

**TABLE B-3**  
**THE BOEING COMPANY**

**NPDES PERMIT CA0001309**  
**LIQUID WASTE SHIPMENTS**

June 2012

DATE SHIPPED	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
6/5/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
6/5/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
6/5/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson
6/12/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
6/12/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
6/12/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson
6/12/2012	NON-RCRA Hazardous Waste Liquid (Oil Water)	5241	P	Clean Harbors Environmental Services 2500 West Lockern Road, Buttonwillow, CA 93206	Clean Harbors Environmental Services 2500 West Lockern Road, Buttonwillow, CA 93206
6/12/2012	UN 1993, Waste Flammable Liquids, N.O.S. (Alcohols)	20	P	Clean Harbors Environmental Services 2500 West Lockern Road, Buttonwillow, CA 93206	Clean Harbors Environmental Services 1737 E. Denni Street, Willmington, CA 90774
6/12/2012	UN2809, Waste Mercury Contained in Manufactured Articles	5	P	Clean Harbors Environmental Services 2500 West Lockern Road, Buttonwillow, CA 93206	Clean Harbors Environmental Services 1737 E. Denni Street, Willmington, CA 90774
6/12/2012	NON-RCRA Hazardous Waste Liquid (Oil, Water)	440	P	Clean Harbors Environmental Services 2500 West Lockern Road, Buttonwillow, CA 93206	Clean Harbors Environmental Services 1737 E. Denni Street, Willmington, CA 90774
6/12/2012	NON-RCRA Hazardous Waste Liquid (Oil, Water)	205	P	Clean Harbors Environmental Services 2500 West Lockern Road, Buttonwillow, CA 93206	Clean Harbors Environmental Services 1737 E. Denni Street, Willmington, CA 90774
6/19/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
6/19/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
6/19/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson
6/26/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
6/26/2012	WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Saugus
6/26/2012	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT	5000	G	SOUTHWEST PROCESSORS INC. 4120 BANDINI BLVD. LOS ANGELES, CA 90058	LACSD Carson

## **APPENDIX C**

### **SECOND QUARTER 2012 SUMMARY TABLES, DISCHARGE MONITORING DATA**

**SECOND QUARTER 2012  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**Notes:**

1. TCDD TEQs for the purpose of determining permit compliance are the sum of the products of the detected dioxin congener concentration multiplied by that congener's toxicity equivalency factor (TEF) and bioaccumulation equivalency factor (BEF). The resulting compliance TCDD TEQ does not include those congener concentrations that are reported as DNQ, as specified on Page 37 of the NPDES permit.
2. pH was determined with a field instrument and was noted as such. These results were not validated.
3. The NPDES monthly average permit limit for mercury of 0.05 µg/L (Outfall 019) is not achievable by the laboratory; therefore, the laboratory MDL of 0.10 µg/L was used to determine compliance.
4. All of the following abbreviations and/or notes may not occur on every table.

---

-92.9 +/-200	A negative radiochemical analytical result indicates the count rate of the sample was less than the background condition
\$	reported result or other information was incorrectly reported by the laboratory; result was corrected by the data validator
--	based on validation of the data, a qualifier was not required
-/-	no permit limit established for daily maximum or monthly average
<(value)	analyte not detected at a concentration greater than or equal to the DL, MDL, or RL (see laboratory report for specific detail)
*	result not validated
*1	improper preservation of sample
*2	the ICP/MS ppb check standard was recovered above the control limit; therefore, the constituent detected was qualified as estimated (J)
*3	initial and or continuing calibration recoveries were outside acceptable control limits
*5	blank spike/blank spike duplicate relative percent difference was outside the control limit
*10	value was estimated detect or estimated non detect (J,UJ) due to deficiencies in quantitation of the constituent including constituents reported by the laboratory as Estimated Maximum Possible Concentration (EMPC) values

**SECOND QUARTER 2012**  
**REPORTING SUMMARY NOTES**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

*11	no calibration was performed for this compound; result is reported as a tentatively identified compound (TIC)
ANR	analysis not required; e.g., constituent or outfall was not required by the permit to be sampled and analyzed (annual, semi-annual, etc.)
B	laboratory method blank contamination
BA	relative percent difference out of control
BEF	bioaccumulation equivalency factor
time	BU analyzed out of holding
BV	sample received after holding time expired
C	calibration %RSD or %D were noncompliant
C5	Calibration verification %R was outside method control limits
%D	percent difference between the initial and continuing calibration relative response factors
deg F	degrees Fahrenheit
DL	detection limit
DNQ	detected but not quantified (constituent value greater than or equal to the laboratory method detection limit and less than the laboratory reporting limit)
E	duplicates show poor agreement
H	holding time was exceeded
I	ICP interference check solution results were unsatisfactory
J	estimated value, result lower than the detection limit
J, DX	estimated value, value < lowest standard (MQL), but > than MDL
K	The sample dilution's set-up did not meet the oxygen depletion criteria of at least 2 mg/l. Therefore, the reported result is an estimated value only.
L2	the laboratory control sample %R was below the method control limits
L	laboratory control sample %R was outside control limits
LOD	limit of detection
LQ	LCS/LCSD recovery above method control limits
M1	matrix spike (MS) and/or MS duplicate were above the acceptance limits due to sample matrix interference
M2	the MS and/or MS duplicate were below the acceptance limits due to sample matrix interference
MDA	Minimum detectable activity
MDL	method detection limit
MGD	million gallons per day
MHA*	Due to high level of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information.
mg/L	milligrams per liter
ml/L/hr	milliliters per liter per hour
NA	not applicable; no permit limit established for the constituent and/or outfall
ND	analyte value less than the LOD or MDL

**SECOND QUARTER 2012  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

NM	not measured or determined
NTU	nephelometric turbidity unit
pCi/L	picocuries per liter
pg/L	picograms per liter
Q	matrix spike recovery outside of control limits
R	as a validation qualifier, results are rejected; the presence or absence of analyte cannot be verified
R	(reason code in parentheses) %R for calibration not within control limits
RL	laboratory reporting limit
RL-1	reporting limit raised due to sample matrix effects
%RSD	percent relative standard deviation
S	surrogate recovery was outside control limits
TEQ	toxic equivalent
T	presumed contamination, as indicated by a detect in the trip blank
TU <sub>c</sub>	toxicity units (chronic)
U	result not detected
µg/L	micrograms per liter
UJ	result not detected at the estimated reporting limit
umhos/cm	micromhos per centimeter
WHO TEF	World Health Organization toxic equivalency factor
^	analysis not completed due to hold time exceedence or insufficient sample volume
#	Per ORDER NO. R4-2010-0090 page 23 Footnote 1. The effluent limitations for total suspended solids and settable solids are not applicable for discharges during wet weather. During wet weather flow, a discharge event is greater than 0.1 inches of rainfall in a 24-hour period. No more than one sample per week need be obtained during extended periods of rainfall or the discharge of collected stormwater. A storm event must be preceded by at least 72 hours of dry weather.
(4.0)3.1/-	Represents (Dry Weather Limit) Wet Weather Limit / Monthly Average Limit.

**OUTFALL 001 (South Slope below Perimeter Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Ammonia as Nitrogen (N)	mg/L	10.1/-	Comp	0.840	*
Biochemical Oxygen Demand (BOD 5 day)	mg/L	30/-	Comp	3.6	*
Chloride	mg/L	150/-	Comp	2.9	*
Dissolved Oxygen	mg/L	-/-	Grab	10.65	*
E. Coli	MPN/100mL	-/-	Grab	900	*
Fecal Coliform	MPN/100mL	-/-	Grab	900	*
Human Bacteroides	Ces/100 mL	-/-	Grab	ND	*
Specific Conductivity (Lab)	umhos/cm	-/-	Grab	79	--
Surfactants (MBAS)	mg/L	0.5/-	Comp	ND < 0.050	*
Fluoride	mg/L	1.6/-	Comp	0.061	J,DX* (DNQ)
Nitrate + Nitrite as Nitrogen (N)	mg/L	8/-	Comp	0.64	*
Nitrate as Nitrogen (N)	mg/L	8/-	Comp	0.64	*
Nitrite as Nitrogen (N)	mg/L	1/-	Comp	ND < 0.11	*
Oil & Grease	mg/L	15/-	Grab	ND < 1.4	*
Perchlorate	ug/L	6.0/-	Comp	1.4	J (Q, DNQ)
pH (Field)	pH units	6.5-8.5/-	Grab	7.2	*
Total Settleable Solids	ml/L	0.3/-	Grab	ND < 0.10	*
Sulfate	mg/L	300/-	Comp	5.0	*
Temperature	deg. F	86/-	Grab	52	*
Total Cyanide	ug/L	8.5/-	Comp	ND < 3.0	*
Total Dissolved Solids	mg/L	950/-	Comp	76	*
Hardness	mg/L	-/-	Comp	42	--
Hardness, dissolved	mg/L	-/-	Comp	20	--
Total Organic Carbon	mg/L	-/-	Comp	13	--
Total Residual Chlorine (Field)	mg/L	0.1/-	Grab	0.0	*
Total Suspended Solids	mg/L	45/-	Comp	63	--
Turbidity	NTU	-/-	Comp	390	J (R)
Volume Discharged	MGD	160/-	MEAS	0.089125	*
<b>METALS</b>					
Aluminum	ug/L	-/-	Comp	11000	--
Aluminum, dissolved	ug/L	-/-	Comp	660	--
Antimony	ug/L	6.0/-	Comp	ND < 0.60	U
Antimony, dissolved	ug/L	-/-	Comp	ND < 1.5	U
Arsenic	ug/L	10/-	Comp	7.9	J (DNQ)
Arsenic, dissolved	ug/L	-/-	Comp	ND < 7.0	U
Barium	mg/L	1.0/-	Comp	0.11	--
Barium, dissolved	mg/L	-/-	Comp	0.11	--
Beryllium	ug/L	4.0/-	Comp	ND < 0.90	U
Beryllium, dissolved	ug/L	-/-	Comp	ND < 0.90	U
Boron	mg/L	-/-	Comp	0.046	J (DNQ)
Boron, dissolved	mg/L	-/-	Comp	ND < 0.050	U (B)

**OUTFALL 001 (South Slope below Perimeter Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Cadmium	ug/L	3.1/-	Comp	0.27	J (DNQ)
Cadmium, dissolved	ug/L	-/-	Comp	ND < 0.50	U
Chromium	ug/L	16/-	Comp	15	--
Chromium, dissolved	ug/L	-/-	Comp	ND < 2.0	U
Chromium VI	ug/L	16/-	Comp	ND < 0.25	BU BV*
Cobalt	ug/L	-/-	Comp	5.0	J (DNQ)
Cobalt, dissolved	ug/L	-/-	Comp	ND < 2.0	U
Copper	ug/L	14/-	Comp	10	--
Copper, dissolved	ug/L	-/-	Comp	3.0	J (DNQ)
Iron	mg/L	0.3/-	Comp	14	--
Iron, dissolved	mg/L	-/-	Comp	0.56	--
Lead	ug/L	5.2/-	Comp	10	--
Lead, dissolved	ug/L	-/-	Comp	ND < 1.0	U
Manganese	ug/L	50/-	Comp	260	--
Manganese, dissolved	ug/L	-/-	Comp	7.7	J (DNQ)
Mercury	ug/L	0.10/-	Comp	ND < 0.10	U
Mercury, dissolved	ug/L	-/-	Comp	ND < 0.10	U
Nickel	ug/L	96/-	Comp	12	--
Nickel, dissolved	ug/L	-/-	Comp	3.4	J (DNQ)
Selenium	ug/L	8.2/-	Comp	ND < 1.0	UJ (C)
Selenium, dissolved	ug/L	-/-	Comp	ND < 2.5	U
Silver	ug/L	4.1/-	Comp	ND < 6.0	U
Silver, dissolved	ug/L	-/-	Comp	ND < 6.0	U
Thallium	ug/L	2.0/-	Comp	ND < 0.40	U
Thallium, dissolved	ug/L	-/-	Comp	ND < 1.0	U
Vanadium	ug/L	-/-	Comp	27	--
Vanadium, dissolved	ug/L	-/-	Comp	ND < 3.0	U
Zinc	ug/L	119/-	Comp	55	--
Zinc, Dissolved	ug/L	-/-	Comp	12	J (DNQ)
<b>ORGANICS</b>					
Benzene	ug/L	-/-	Grab	ND < 0.28	*
Carbon Tetrachloride	ug/L	-/-	Grab	ND < 0.28	*
Chloroform	ug/L	-/-	Grab	ND < 0.33	*
1,1-Dichloroethane	ug/L	-/-	Grab	ND < 0.40	*
1,2-Dichloroethane	ug/L	0.5/-	Grab	ND < 0.28	*
1,1-Dichloroethene	ug/L	6.0/-	Grab	ND < 0.42	*
1,4-Dioxane	ug/L	-/-	Comp	ND < 1.0	*
Ethylbenzene	ug/L	-/-	Grab	ND < 0.25	*
Tetrachloroethene	ug/L	-/-	Grab	ND < 0.32	*
Toluene	ug/L	-/-	Grab	ND < 0.36	*
Xylenes (Total)	ug/L	-/-	Grab	ND < 0.90	*
1,1,1-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*

**OUTFALL 001 (South Slope below Perimeter Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
1,1,2-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*
Trichloroethene	ug/L	5.0/-	Grab	ND < 0.26	*
Trichlorofluoromethane	ug/L	-/-	Grab	ND < 0.34	*
Trichlorotrifluoroethane (Freon 113)	ug/L	-/-	Grab	ND < 0.50	*
Vinyl Chloride	ug/L	-/-	Grab	ND < 0.40	*
<b>TPH</b>					
DRO (C13 - C28)	mg/L	-/-	Grab	0.14	J (DNQ)
GRO (C4 - C12)	mg/L	-/-	Grab	ND < 0.025	U
<b>ADDITIONAL ANALYTES</b>					
1,2-Dichloro-1,1,2-trifluoroethane	ug/L	-/-	Grab	ND < 1.1	*
1,1,2,2-Tetrachloroethane	ug/L	-/-	Grab	ND < 0.30	*
1,2,4-Trichlorobenzene	ug/L	-/-	Comp	ND < 0.0948	*
1,2-Dichlorobenzene	ug/L	-/-	Comp	ND < 0.0948	*
1,2-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.32	*
1,2-Dichloropropane	ug/L	-/-	Grab	ND < 0.35	*
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	Comp	ND < 0.190	*
1,3-Dichlorobenzene	ug/L	-/-	Comp	ND < 0.0948	*
1,3-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.35	*
1,4-Dichlorobenzene	ug/L	-/-	Comp	ND < 0.190	*
1,4-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.37	*
2,4,6-Trichlorophenol	ug/L	13/-	Comp	ND < 0.0948	*
2,4-Dichlorophenol	ug/L	-/-	Comp	ND < 0.190	*
2,4-Dimethylphenol	ug/L	-/-	Comp	ND < 0.284	*
2,4-Dinitrophenol	ug/L	-/-	Comp	ND < 0.853	*
2,4-Dinitrotoluene	ug/L	18/-	Comp	ND < 0.190	*
2,6-Dinitrotoluene	ug/L	-/-	Comp	ND < 0.0948	*
2-Chloroethylvinylether	ug/L	-/-	Grab	ND < 1.8	*
2-Chloronaphthalene	ug/L	-/-	Comp	ND < 0.0948	*
2-Chlorophenol	ug/L	-/-	Comp	ND < 0.190	*
2-Methyl-4,6-dinitrophenol	ug/L	-/-	Comp	ND < 0.284	*
2-Methylnaphthalene	ug/L	-/-	Comp	ND < 0.190	*
2-Methylphenol	ug/L	-/-	Comp	ND < 0.0948	*
2-Nitrophenol	ug/L	-/-	Comp	ND < 0.0948	*
3,3'-Dichlorobenzidine	ug/L	-/-	Comp	ND < 0.474	*
4,4'-DDD	ug/L	-/-	Comp	ND < 0.0039	*
4,4'-DDE	ug/L	-/-	Comp	ND < 0.0029	*
4,4'-DDT	ug/L	-/-	Comp	ND < 0.0039	*
4-Bromophenylphenylether	ug/L	-/-	Comp	ND < 0.190	*
4-Chloro-3-methylphenol	ug/L	-/-	Comp	ND < 0.190	*
4-Chloroaniline	ug/L	-/-	Comp	ND < 0.284	*
4-Chlorophenylphenylether	ug/L	-/-	Comp	ND < 0.190	*
4-Nitrophenol	ug/L	-/-	Comp	ND < 2.37	LQ*

**OUTFALL 001 (South Slope below Perimeter Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Acenaphthene	ug/L	-/-	Comp	ND < 0.190	*
Acenaphthylene	ug/L	-/-	Comp	ND < 0.190	*
Acrolein	ug/L	-/-	Grab	ND < 4.0	*
Acrylonitrile	ug/L	-/-	Grab	ND < 1.2	*
Acute Toxicity	% SURVIVAL	70-100/-	Comp	100	*
Aldrin	ug/L	-/-	Comp	ND < 0.0015	*
alpha-BHC	ug/L	0.03/-	Comp	ND < 0.0024	*
Aniline	ug/L	-/-	Comp	ND < 0.284	*
Anthracene	ug/L	-/-	Comp	ND < 0.0948	*
Aroclor-1016	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1221	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1232	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1242	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1248	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1254	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1260	ug/L	-/-	Comp	ND < 0.24	*
Benzidine	ug/L	-/-	Comp	ND < 0.948	*
Benzo(a)anthracene	ug/L	-/-	Comp	ND < 0.0948	*
Benzo(a)pyrene	ug/L	-/-	Comp	ND < 0.0948	*
Benzo(b)fluoranthene	ug/L	-/-	Comp	ND < 0.0948	*
Benzo(g,h,i)perylene	ug/L	-/-	Comp	ND < 0.0948	*
Benzo(k)fluoranthene	ug/L	-/-	Comp	ND < 0.190	*
Benzoic acid	ug/L	-/-	Comp	ND < 2.84	*
Benzyl alcohol	ug/L	-/-	Comp	ND < 0.0948	*
beta-BHC	ug/L	-/-	Comp	ND < 0.0039	*
bis (2-Chloroethyl) ether	ug/L	-/-	Comp	ND < 0.0948	*
bis (2-ethylhexyl) Phthalate	ug/L	4.0/-	Comp	ND < 1.61	*
bis(2-Chloroethoxy) methane	ug/L	-/-	Comp	ND < 0.0948	*
bis(2-Chloroisopropyl) ether	ug/L	-/-	Comp	ND < 0.0948	*
Bromodichloromethane	ug/L	-/-	Grab	ND < 0.30	*
Bromoform	ug/L	-/-	Grab	ND < 0.40	*
Bromomethane	ug/L	-/-	Grab	ND < 0.42	*
Butylbenzylphthalate	ug/L	-/-	Comp	ND < 0.664	*
Chlordane	ug/L	-/-	Comp	ND < 0.0078	*
Chlorobenzene	ug/L	-/-	Grab	ND < 0.36	*
Chloroethane	ug/L	-/-	Grab	ND < 0.40	*
Chloromethane	ug/L	-/-	Grab	ND < 0.40	*
Chronic Toxicity	TUC	1.0/-	Comp	1.0	*
Chrysene	ug/L	-/-	Comp	ND < 0.0948	*
cis-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.32	*
cis-1,3-Dichloropropene	ug/L	-/-	Grab	ND < 0.22	*
Cyclohexane	ug/L	-/-	Grab	ND < 0.40	*

**OUTFALL 001 (South Slope below Perimeter Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
delta-BHC	ug/L	-/-	Comp	ND < 0.0034	*
Dibenzo(a,h)anthracene	ug/L	-/-	Comp	ND < 0.0948	*
Dibenzofuran	ug/L	-/-	Comp	ND < 0.0948	*
Dibromochloromethane	ug/L	-/-	Grab	ND < 0.40	*
Dieldrin	ug/L	-/-	Comp	ND < 0.0019	*
Diethylphthalate	ug/L	-/-	Comp	ND < 0.0948	*
Dimethylphthalate	ug/L	-/-	Comp	ND < 0.190	*
Di-n-butylphthalate	ug/L	-/-	Comp	ND < 0.284	*
Di-n-octylphthalate	ug/L	-/-	Comp	ND < 0.190	*
Endosulfan I	ug/L	-/-	Comp	ND < 0.0029	*
Endosulfan II	ug/L	-/-	Comp	ND < 0.0019	*
Endosulfan sulfate	ug/L	-/-	Comp	ND < 0.0029	*
Endrin	ug/L	-/-	Comp	ND < 0.0019	*
Endrin aldehyde	ug/L	-/-	Comp	ND < 0.0019	*
Fluoranthene	ug/L	-/-	Comp	ND < 0.0948	*
Fluorene	ug/L	-/-	Comp	ND < 0.0948	*
Heptachlor	ug/L	-/-	Comp	ND < 0.0029	*
Heptachlor epoxide	ug/L	-/-	Comp	ND < 0.0024	*
Hexachlorobenzene	ug/L	-/-	Comp	ND < 0.0948	*
Hexachlorobutadiene	ug/L	-/-	Comp	ND < 0.190	*
Hexachlorocyclopentadiene	ug/L	-/-	Comp	ND < 0.0948	*
Hexachloroethane	ug/L	-/-	Comp	ND < 0.190	*
Hydrazine	ug/L	-/-	Comp	ND < 0.439	*
Unsymmetrical Dimethyl Hydrazine	ug/L	-/-	Comp	ND < 1.13	*
Indeno(1,2,3-cd)pyrene	ug/L	-/-	Comp	ND < 0.0948	*
Isophorone	ug/L	-/-	Comp	ND < 0.0948	*
Lindane (gamma-BHC)	ug/L	-/-	Comp	ND < 0.0029	*
Methylene Chloride	ug/L	-/-	Grab	ND < 0.95	*
m-Nitroaniline	ug/L	-/-	Comp	ND < 0.948	*
Monomethyl Hydrazine	ug/L	-/-	Comp	ND < 1.77	*
Naphthalene	ug/L	-/-	Comp	ND < 0.0948	*
Nitrobenzene	ug/L	-/-	Comp	ND < 0.0948	*
n-Nitrosodimethylamine	ug/L	16/-	Comp	ND < 0.0948	*
n-Nitroso-di-n-propylamine	ug/L	-/-	Comp	ND < 0.0948	*
n-Nitrosodiphenylamine	ug/L	-/-	Comp	ND < 0.0948	*
o-Nitroaniline	ug/L	-/-	Comp	ND < 0.0948	*
p-Cresol	ug/L	-/-	Comp	ND < 0.190	*
Pentachlorophenol	ug/L	16.5/-	Comp	ND < 0.379	*
Phenanthrene	ug/L	-/-	Comp	ND < 0.0948	*
Phenol	ug/L	-/-	Comp	ND < 0.284	*
p-Nitroaniline	ug/L	-/-	Comp	ND < 0.474	*
Pyrene	ug/L	-/-	Comp	ND < 0.0948	*

**OUTFALL 001 (South Slope below Perimeter Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Toxaphene	ug/L	-/-	Comp	ND < 0.24	*
trans-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.30	*
trans-1,3-Dichloropropene	ug/L	-/-	Grab	ND < 0.32	*

**OUTFALL 001 (South Slope below Perimeter Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Sample Type Composite**  
**Sample Date April 13, 2012**

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HxCDD	1.90E-07	4.80E-05	5.00E-05	--	0.01	0.05	<b>2.50E-08</b>
1,2,3,4,6,7,8-HxCDF	2.10E-07	4.80E-05	ND	U (B)	0.01	0.01	ND
1,2,3,4,7,8,9-HxCDF	2.60E-07	4.80E-05	ND	U (B)	0.01	0.4	ND
1,2,3,4,7,8-HxCDD	4.00E-08	4.80E-05	ND	U (B)	0.1	0.3	ND
1,2,3,4,7,8-HxCDF	3.00E-08	4.80E-05	ND	U (B)	0.1	0.08	ND
1,2,3,6,7,8-HxCDD	4.00E-08	4.80E-05	ND	U (B)	0.1	0.1	ND
1,2,3,6,7,8-HxCDF	3.00E-08	4.80E-05	ND	U (B)	0.1	0.2	ND
1,2,3,7,8,9-HxCDD	3.00E-08	4.80E-05	ND	U (B)	0.1	0.1	ND
1,2,3,7,8,9-HxCDF	7.30E-07	4.80E-05	ND	U	0.1	0.6	ND
1,2,3,7,8-PeCDD	9.40E-07	4.80E-05	ND	U	1	0.9	ND
1,2,3,7,8-PeCDF	3.40E-07	4.80E-05	ND	U (B)	0.05	0.2	ND
2,3,4,6,7,8-HxCDF	3.00E-08	4.80E-05	ND	U (B)	0.1	0.7	ND
2,3,4,7,8-PeCDD	3.50E-07	4.80E-05	ND	U (B)	0.5	1.6	ND
2,3,7,8-TCDD	6.00E-08	9.60E-06	ND	UJ (*   )	1	1	ND
2,3,7,8-TCDF	2.00E-06	9.60E-06	ND	U	0.1	0.8	ND
OCDD	3.70E-07	9.60E-05	4.70E-04	--	0.0001	0.01	<b>4.70E-10</b>
OCDF	2.90E-07	9.60E-05	ND	U (B)	0.0001	0.02	ND

**TCDD TEQ w/out DNQ Values**

TCDD TEQ BENCHMARK LIMIT = 2.80E-08
<b>2.55E-08</b>

See attached notes for abbreviations, definitions, and other explanations for the data presented in this table.

**OUTFALL 001 (South Slope below Perimeter Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Benchmark Limit Daily Max/Monthly Ava	4/13/2012		
			Sample Type	Result	Concentration Result Validation Qualifier
Max Discharge for event	MGD	160	Meas	0.08913	
Ammonia as Nitrogen (N)	LBS/DAY	13,500/-	Comp	0.62	*
Biochemical Oxygen Demand (BOD 5 day)	LBS/DAY	40,032/-	Comp	2.68	*
Chloride	LBS/DAY	200,160/-	Comp	2.16	*
Surfactants (MBAS)	LBS/DAY	667/-	Comp	ND	*
Fluoride	LBS/DAY	2,135/-	Comp	0.05	J,DX* (DNQ)
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	10,700/-	Comp	0.48	*
Nitrate as Nitrogen (N)	LBS/DAY	10,700/-	Comp	0.48	*
Oil & Grease	LBS/DAY	20,016/-	Grab	ND	*
Perchlorate	LBS/DAY	8.0/-	Comp	0.001	J (Q, DNQ)
Sulfate	LBS/DAY	400,320/-	Comp	3.72	*
Total Cyanide	LBS/DAY	11/-	Comp	ND	*
Total Dissolved Solids	LBS/DAY	1,270,000/-	Comp	56.49	*
Total Residual Chlorine (Field)	LBS/DAY	133/-	Grab	0.00	*
Total Suspended Solids	LBS/DAY	60,048/-	Comp	46.83	--
Antimony	LBS/DAY	8.0/-	Comp	ND	U
Arsenic	LBS/DAY	67/-	Comp	0.01	J (DNQ)
Barium	LBS/DAY	1,330/-	Comp	0.08	--
Beryllium	LBS/DAY	5.3/-	Comp	ND	U
Cadmium	LBS/DAY	4.1/-	Comp	0.0002	J (DNQ)
Chromium VI	LBS/DAY	22/-	Comp	ND	BU BV*
Copper	LBS/DAY	19/-	Comp	0.01	--
Iron	LBS/DAY	400/-	Comp	10.41	--
Lead	LBS/DAY	6.9/-	Comp	0.01	--
Manganese	LBS/DAY	66.7/-	Comp	0.19	--
Mercury	LBS/DAY	0.13/-	Comp	ND	U
Nickel	LBS/DAY	128/-	Comp	0.01	--
Selenium	LBS/DAY	11/-	Comp	ND	UJ (C)
Silver	LBS/DAY	5.5/-	Comp	ND	U
Thallium	LBS/DAY	2.7/-	Comp	ND	U
Zinc	LBS/DAY	159/-	Comp	0.04	--
1,2-Dichloroethane	LBS/DAY	0.67/-	Grab	ND	*
1,1-Dichloroethene	LBS/DAY	8.0/-	Grab	ND	*
Trichloroethene	LBS/DAY	6.7/-	Grab	ND	*
2,4,6-Trichlorophenol	LBS/DAY	17/-	Comp	ND	*
2,4-Dinitrotoluene	LBS/DAY	24/-	Comp	ND	*
alpha-BHC	LBS/DAY	0.04/-	Comp	ND	*
bis (2-ethylhexyl) Phthalate	LBS/DAY	5.3/-	Comp	ND	*
n-Nitrosodimethylamine	LBS/DAY	22/-	Comp	ND	*
Pentachlorophenol	LBS/DAY	22/-	Comp	ND	*
TCDD TEQ_NoDNQ	LBS/DAY	3.70E-08/-	Comp	1.90E-11	--

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/11/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Ammonia as Nitrogen (N)	mg/L	10.1/-	Grab	0.280	J,DX* (DNQ)
Biochemical Oxygen Demand (BOD 5 day)	mg/L	30/-	Grab	2.1	*
Chloride	mg/L	150/-	Grab	22	*
Dissolved Oxygen	mg/L	-/-	Grab	11.4	*
E. Coli	MPN/100mL	-/-	Grab	500	BU BV*
Fecal Coliform	MPN/100mL	-/-	Grab	500	BU BV*
Human Bacteroides	Ces/100 mL	-/-	Grab	ND	*
Specific Conductivity (Lab)	umhos/cm	-/-	Grab	630	--
Surfactants (MBAS)	mg/L	0.5/-	Grab	0.074	J (DNQ)
Fluoride	mg/L	1.6/-	Grab	0.17	*
Nitrate + Nitrite as Nitrogen (N)	mg/L	8/-	Grab	0.23	J,DX* (DNQ)
Nitrate as Nitrogen (N)	mg/L	8/-	Grab	0.23	*
Nitrite as Nitrogen (N)	mg/L	1/-	Grab	ND < 0.11	*
Oil & Grease	mg/L	15/-	Grab	ND < 1.4	*
Perchlorate	ug/L	6.0/-	Grab	ND < 0.95	U
pH (Field)	pH units	6.5-8.5/-	Grab	7.0	*
Total Settleable Solids	ml/L	0.3/-	Grab	ND < 0.10	*
Sulfate	mg/L	300/-	Grab	130	*
Temperature	deg. F	86/-	Grab	51	*
Total Cyanide	ug/L	8.5/-	Grab	ND < 3.0	*
Total Dissolved Solids	mg/L	950/-	Grab	330	*
Hardness	mg/L	-/-	Grab	140	--
Hardness, dissolved	mg/L	-/-	Grab	130	--
Total Organic Carbon	mg/L	-/-	Grab	18	--
Total Residual Chlorine (Field)	mg/L	0.1/-	Grab	0.0	*
Total Suspended Solids	mg/L	45/-	Grab	13	*
Turbidity	NTU	-/-	Grab	2.6	J (C)
Volume Discharged	MGD	160/-	MEAS	0.00845	*
<b>METALS</b>					
Antimony	ug/L	6.0/-	Grab	0.30	J (DNQ)
Antimony, dissolved	ug/L	-/-	Grab	0.48	J (DNQ)
Arsenic	ug/L	10/-	Grab	ND < 7.0	U
Arsenic, dissolved	ug/L	-/-	Grab	ND < 7.0	U
Barium	mg/L	1.0/-	Grab	0.029	--
Barium, dissolved	mg/L	-/-	Grab	0.030	--
Beryllium	ug/L	4.0/-	Grab	ND < 0.90	U
Beryllium, dissolved	ug/L	-/-	Grab	ND < 0.90	U
Boron	mg/L	-/-	Grab	ND < 0.096	U (B)
Boron, dissolved	mg/L	-/-	Grab	ND < 0.092	U (B)
Cadmium	ug/L	3.1/-	Grab	ND < 0.10	U
Cadmium, dissolved	ug/L	-/-	Grab	ND < 0.10	U
Chromium	ug/L	16/-	Grab	ND < 2.0	U
Chromium, dissolved	ug/L	-/-	Grab	ND < 2.0	U
Chromium VI	ug/L	16/-	Grab	ND < 0.25	*
Cobalt	ug/L	-/-	Grab	0.20	J (DNQ)
Cobalt, dissolved	ug/L	-/-	Grab	0.20	J (DNQ)

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/11/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Copper	ug/L	14/-	Grab	2.2	--
Copper, dissolved	ug/L	-/-	Grab	2.4	--
Iron	mg/L	0.3/-	Grab	0.14	--
Iron, dissolved	mg/L	-/-	Grab	0.017	J (DNQ)
Lead	ug/L	5.2/-	Grab	ND < 0.20	U
Lead, dissolved	ug/L	-/-	Grab	ND < 0.20	U
Manganese	ug/L	50/-	Grab	12	J (DNQ)
Manganese, dissolved	ug/L	-/-	Grab	8.4	J (DNQ)
Mercury	ug/L	0.10/-	Grab	ND < 0.10	U
Mercury, dissolved	ug/L	-/-	Grab	ND < 0.10	U
Nickel	ug/L	96/-	Grab	ND < 2.0	U
Nickel, dissolved	ug/L	-/-	Grab	ND < 2.0	U
Selenium	ug/L	8.2/-	Grab	ND < 0.50	U
Selenium, dissolved	ug/L	-/-	Grab	ND < 0.50	U
Silver	ug/L	4.1/-	Grab	ND < 6.0	U
Silver, dissolved	ug/L	-/-	Grab	ND < 6.0	U
Thallium	ug/L	2.0/-	Grab	ND < 0.20	U
Thallium, dissolved	ug/L	-/-	Grab	ND < 0.20	U
Vanadium	ug/L	-/-	Grab	ND < 3.0	U
Vanadium, dissolved	ug/L	-/-	Grab	ND < 3.0	U
Zinc	ug/L	119/-	Grab	ND < 6.0	U
Zinc, Dissolved	ug/L	-/-	Grab	ND < 6.0	U
<b>ORGANICS</b>					
Benzene	ug/L	-/-	Grab	ND < 0.28	*
Carbon Tetrachloride	ug/L	-/-	Grab	ND < 0.28	*
Chloroform	ug/L	-/-	Grab	ND < 0.33	*
1,1-Dichloroethane	ug/L	-/-	Grab	ND < 0.40	*
1,2-Dichloroethane	ug/L	0.5/-	Grab	ND < 0.28	*
1,1-Dichloroethene	ug/L	6.0/-	Grab	ND < 0.42	*
1,4-Dioxane	ug/L	-/-	Grab	ND < 1.0	*
Ethylbenzene	ug/L	-/-	Grab	ND < 0.25	*
Tetrachloroethene	ug/L	-/-	Grab	ND < 0.32	*
Toluene	ug/L	-/-	Grab	ND < 0.36	*
Xylenes (Total)	ug/L	-/-	Grab	ND < 0.90	*
1,1,1-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*
1,1,2-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*
Trichloroethene	ug/L	5.0/-	Grab	ND < 0.26	*
Trichlorofluoromethane	ug/L	-/-	Grab	ND < 0.34	*
Trichlorotrifluoroethane (Freon 113)	ug/L	-/-	Grab	ND < 0.50	*
Vinyl Chloride	ug/L	-/-	Grab	ND < 0.40	*
<b>TPH</b>					
DRO (C13 - C28)	mg/L	-/-	Grab	0.13	J (DNQ)
GRO (C4 - C12)	mg/L	-/-	Grab	0.046	J (DNQ)
<b>ADDITIONAL ANALYTES</b>					
1,2-Dichloro-1,1,2-trifluoroethane	ug/L	-/-	Grab	ND < 1.1	*
1,1,2,2-Tetrachloroethane	ug/L	-/-	Grab	ND < 0.30	*
1,2,4-Trichlorobenzene	ug/L	-/-	Grab	ND < 0.0943	U
1,2-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.32	*

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/11/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
1,2-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.0943	U
1,2-Dichloropropane	ug/L	-/-	Grab	ND < 0.35	*
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	Grab	ND < 0.189	U
1,3-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.0943	U
1,3-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.35	*
1,4-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.189	U
1,4-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.37	*
2,4,6-Trichlorophenol	ug/L	13/-	Grab	ND < 0.0943	U
2,4-Dichlorophenol	ug/L	-/-	Grab	ND < 0.189	U
2,4-Dimethylphenol	ug/L	-/-	Grab	ND < 0.283	U
2,4-Dinitrophenol	ug/L	-/-	Grab	ND < 0.849	U
2,4-Dinitrotoluene	ug/L	18/-	Grab	ND < 0.189	U
2,6-Dinitrotoluene	ug/L	-/-	Grab	ND < 0.0943	U
2-Chloroethylvinylether	ug/L	-/-	Grab	ND < 1.8	*
2-Chloronaphthalene	ug/L	-/-	Grab	ND < 0.0943	U
2-Chlorophenol	ug/L	-/-	Grab	ND < 0.189	U
2-Methyl-4,6-dinitrophenol	ug/L	-/-	Grab	ND < 0.283	U
2-Methylnaphthalene	ug/L	-/-	Grab	ND < 0.189	U
2-Methylphenol	ug/L	-/-	Grab	ND < 0.0943	U
2-Nitrophenol	ug/L	-/-	Grab	ND < 0.0943	U
3,3'-Dichlorobenzidine	ug/L	-/-	Grab	ND < 0.472	U
4,4'-DDD	ug/L	-/-	Grab	ND < 0.0038	*
4,4'-DDE	ug/L	-/-	Grab	ND < 0.0029	*
4,4'-DDT	ug/L	-/-	Grab	ND < 0.0038	*
4-Bromophenylphenylether	ug/L	-/-	Grab	ND < 0.189	U
4-Chloro-3-methylphenol	ug/L	-/-	Grab	ND < 0.189	U
4-Chloroaniline	ug/L	-/-	Grab	ND < 0.283	U
4-Chlorophenylphenylether	ug/L	-/-	Grab	ND < 0.189	U
4-Nitrophenol	ug/L	-/-	Grab	ND < 2.36	U
Acenaphthene	ug/L	-/-	Grab	ND < 0.189	U
Acenaphthylene	ug/L	-/-	Grab	ND < 0.189	U
Acrolein	ug/L	-/-	Grab	ND < 4.0	*
Acrylonitrile	ug/L	-/-	Grab	ND < 1.2	*
Acute Toxicity	% SURVIVAL	70-100/-	Grab	100	*
Aldrin	ug/L	-/-	Grab	ND < 0.0014	*
alpha-BHC	ug/L	0.03/-	Grab	ND < 0.0024	*
Aniline	ug/L	-/-	Grab	ND < 0.283	U
Anthracene	ug/L	-/-	Grab	ND < 0.0943	U
Aroclor-1016	ug/L	-/-	Grab	ND < 0.24	*
Aroclor-1221	ug/L	-/-	Grab	ND < 0.24	*
Aroclor-1232	ug/L	-/-	Grab	ND < 0.24	*
Aroclor-1242	ug/L	-/-	Grab	ND < 0.24	*
Aroclor-1248	ug/L	-/-	Grab	ND < 0.24	*
Aroclor-1254	ug/L	-/-	Grab	ND < 0.24	*
Aroclor-1260	ug/L	-/-	Grab	ND < 0.24	*
Benzidine	ug/L	-/-	Grab	ND < 0.943	UJ (C)
Benzo(a)anthracene	ug/L	-/-	Grab	ND < 0.0943	U
Benzo(a)pyrene	ug/L	-/-	Grab	ND < 0.0943	U

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/11/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Benzo(b)fluoranthene	ug/L	-/-	Grab	ND < 0.0943	U
Benzo(g,h,l)perylene	ug/L	-/-	Grab	ND < 0.0943	U
Benzo(k)fluoranthene	ug/L	-/-	Grab	ND < 0.189	U
Benzoic acid	ug/L	-/-	Grab	2.96	J (C, DNQ)
Benzyl alcohol	ug/L	-/-	Grab	ND < 0.0943	U
beta-BHC	ug/L	-/-	Grab	ND < 0.0038	*
bis (2-Chloroethyl) ether	ug/L	-/-	Grab	ND < 0.0943	U
bis (2-ethylhexyl) Phthalate	ug/L	4.0/-	Grab	ND < 1.60	U
bis(2-Chloroethoxy) methane	ug/L	-/-	Grab	ND < 0.0943	U
bis(2-Chloroisopropyl) ether	ug/L	-/-	Grab	ND < 0.0943	U
Bromodichloromethane	ug/L	-/-	Grab	ND < 0.30	*
Bromoform	ug/L	-/-	Grab	ND < 0.40	*
Bromomethane	ug/L	-/-	Grab	ND < 0.42	*
Butylbenzylphthalate	ug/L	-/-	Grab	ND < 0.660	U
Chlordane	ug/L	-/-	Grab	ND < 0.0076	*
Chlorobenzene	ug/L	-/-	Grab	ND < 0.36	*
Chloroethane	ug/L	-/-	Grab	ND < 0.40	*
Chloromethane	ug/L	-/-	Grab	ND < 0.40	*
Chronic Toxicity	TUC	1.0/-	Grab	1.0	*
Chrysene	ug/L	-/-	Grab	ND < 0.0943	U
cis-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.32	*
cis-1,3-Dichloropropene	ug/L	-/-	Grab	ND < 0.22	*
Cyclohexane	ug/L	-/-	Grab	ND < 0.40	*
delta-BHC	ug/L	-/-	Grab	ND < 0.0033	*
Dibenzo(a,h)anthracene	ug/L	-/-	Grab	ND < 0.0943	U
Dibenzofuran	ug/L	-/-	Grab	ND < 0.0943	U
Dibromochloromethane	ug/L	-/-	Grab	ND < 0.40	*
Dieldrin	ug/L	-/-	Grab	ND < 0.0019	*
Diethylphthalate	ug/L	-/-	Grab	ND < 0.0943	U
Dimethylphthalate	ug/L	-/-	Grab	ND < 0.189	U
Di-n-butylphthalate	ug/L	-/-	Grab	ND < 0.283	U
Di-n-octylphthalate	ug/L	-/-	Grab	ND < 0.189	U
Endosulfan I	ug/L	-/-	Grab	ND < 0.0029	*
Endosulfan II	ug/L	-/-	Grab	ND < 0.0019	*
Endosulfan sulfate	ug/L	-/-	Grab	ND < 0.0029	*
Endrin	ug/L	-/-	Grab	ND < 0.0019	*
Endrin aldehyde	ug/L	-/-	Grab	ND < 0.0019	*
Fluoranthene	ug/L	-/-	Grab	ND < 0.0943	U
Fluorene	ug/L	-/-	Grab	ND < 0.0943	U
Heptachlor	ug/L	-/-	Grab	ND < 0.0029	*
Heptachlor epoxide	ug/L	-/-	Grab	ND < 0.0024	*
Hexachlorobenzene	ug/L	-/-	Grab	ND < 0.0943	U
Hexachlorobutadiene	ug/L	-/-	Grab	ND < 0.189	U
Hexachlorocyclopentadiene	ug/L	-/-	Grab	ND < 0.0943	UJ (C)
Hexachloroethane	ug/L	-/-	Grab	ND < 0.189	U
Hydrazine	ug/L	-/-	Grab	ND < 0.439	U
Unsymmetrical Dimethyl Hydrazine	ug/L	-/-	Grab	ND < 1.13	U
Indeno(1,2,3-cd)pyrene	ug/L	-/-	Grab	ND < 0.0943	U

**OUTFALL 002 (South Slope below R-2 Pond)****SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309****April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/11/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Isophorone	ug/L	-/-	Grab	0.257	J (DNQ)
Lindane (gamma-BHC)	ug/L	-/-	Grab	ND < 0.0029	*
Methylene Chloride	ug/L	-/-	Grab	ND < 0.95	*
m-Nitroaniline	ug/L	-/-	Grab	ND < 0.943	U
Monomethyl Hydrazine	ug/L	-/-	Grab	ND < 1.77	U
Naphthalene	ug/L	-/-	Grab	ND < 0.0943	U
Nitrobenzene	ug/L	-/-	Grab	ND < 0.0943	U
n-Nitrosodimethylamine	ug/L	16/-	Grab	ND < 0.0943	UJ (L)
n-Nitroso-di-n-propylamine	ug/L	-/-	Grab	ND < 0.0943	U
n-Nitrosodiphenylamine	ug/L	-/-	Grab	ND < 0.0943	U
o-Nitroaniline	ug/L	-/-	Grab	ND < 0.0943	U
p-Cresol	ug/L	-/-	Grab	ND < 0.189	U
Pentachlorophenol	ug/L	16.5/-	Grab	ND < 0.377	U
Phenanthrrene	ug/L	-/-	Grab	ND < 0.0943	U
Phenol	ug/L	-/-	Grab	ND < 0.283	UJ (C)
p-Nitroaniline	ug/L	-/-	Grab	ND < 0.472	U
Pyrene	ug/L	-/-	Grab	ND < 0.0943	U
Toxaphene	ug/L	-/-	Grab	ND < 0.24	*
trans-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.30	*
trans-1,3-Dichloropropene	ug/L	-/-	Grab	ND < 0.32	*

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Ammonia as Nitrogen (N)	mg/L	10.1/-	Comp	0.280	J,DX* (DNQ)
Biochemical Oxygen Demand (BOD 5 day)	mg/L	30/-	Comp	1.7	J,DX* (DNQ)
Chloride	mg/L	150/-	Comp	23	*
Dissolved Oxygen	mg/L	-/-	Grab	9.24	*
E. Coli	MPN/100mL	-/-	ANR	ANR	ANR
Fecal Coliform	MPN/100mL	-/-	ANR	ANR	ANR
Human Bacteroides	Ces/100 mL	-/-	ANR	ANR	ANR
Specific Conductivity (Lab)	umhos/cm	-/-	Grab	650	--
Surfactants (MBAS)	mg/L	0.5/-	Comp	ND < 0.050	*
Fluoride	mg/L	1.6/-	ANR	ANR	ANR
Nitrate + Nitrite as Nitrogen (N)	mg/L	8/-	Comp	0.20	J,DX* (DNQ)
Nitrate as Nitrogen (N)	mg/L	8/-	Comp	0.20	*
Nitrite as Nitrogen (N)	mg/L	1/-	Comp	ND < 0.11	*
Oil & Grease	mg/L	15/-	Grab	ND < 1.3	*
Perchlorate	ug/L	6.0/-	Comp	ND < 4.0	UJ (H, Q, \$)
pH (Field)	pH units	6.5-8.5/-	Grab	7.3	*
Total Settleable Solids	ml/L	0.3/-	Grab	ND < 0.10	*
Sulfate	mg/L	300/-	Comp	160	*
Temperature	deg. F	86/-	Grab	57	*
Total Cyanide	ug/L	8.5/-	Comp	ND < 3.0	*
Total Dissolved Solids	mg/L	950/-	Comp	360	*
Hardness	mg/L	-/-	ANR	ANR	ANR
Hardness, dissolved	mg/L	-/-	ANR	ANR	ANR
Total Organic Carbon	mg/L	-/-	ANR	ANR	ANR
Total Residual Chlorine (Field)	mg/L	0.1/-	ANR	ANR	ANR
Total Suspended Solids	mg/L	45/-	Comp	53	--
Turbidity	NTU	-/-	Comp	52	J (R)
Volume Discharged	MGD	160/-	MEAS	1.11122	*
<b>METALS</b>					
Antimony	ug/L	6.0/-	ANR	ANR	ANR
Antimony, dissolved	ug/L	-/-	ANR	ANR	ANR
Arsenic	ug/L	10/-	ANR	ANR	ANR
Arsenic, dissolved	ug/L	-/-	ANR	ANR	ANR
Barium	mg/L	1.0/-	ANR	ANR	ANR
Barium, dissolved	mg/L	-/-	ANR	ANR	ANR
Beryllium	ug/L	4.0/-	ANR	ANR	ANR
Beryllium, dissolved	ug/L	-/-	ANR	ANR	ANR
Boron	mg/L	-/-	ANR	ANR	ANR
Boron, dissolved	mg/L	-/-	ANR	ANR	ANR
Cadmium	ug/L	3.1/-	Comp	ND < 0.10	*
Cadmium, dissolved	ug/L	-/-	Comp	ND < 0.10	*
Chromium	ug/L	16/-	ANR	ANR	ANR
Chromium, dissolved	ug/L	-/-	ANR	ANR	ANR
Chromium VI	ug/L	16/-	ANR	ANR	ANR
Cobalt	ug/L	-/-	ANR	ANR	ANR
Cobalt, dissolved	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Copper	ug/L	14/-	Comp	2.3	J,DX* (DNQ)
Copper, dissolved	ug/L	-/-	Comp	1.8	J,DX* (DNQ)
Iron	mg/L	0.3/-	Comp	1.7	--
Iron, dissolved	mg/L	-/-	Comp	0.045	--
Lead	ug/L	5.2/-	Comp	0.87	J,DX* (DNQ)
Lead, dissolved	ug/L	-/-	Comp	ND < 0.20	*
Manganese	ug/L	50/-	ANR	ANR	ANR
Manganese, dissolved	ug/L	-/-	ANR	ANR	ANR
Mercury	ug/L	0.10/-	Comp	ND < 0.10	U
Mercury, dissolved	ug/L	-/-	Comp	ND < 0.10	U
Nickel	ug/L	96/-	ANR	ANR	ANR
Nickel, dissolved	ug/L	-/-	ANR	ANR	ANR
Selenium	ug/L	8.2/-	Comp	0.51	J,DX* (DNQ)
Selenium, dissolved	ug/L	-/-	Comp	ND < 0.50	*
Silver	ug/L	4.1/-	ANR	ANR	ANR
Silver, dissolved	ug/L	-/-	ANR	ANR	ANR
Thallium	ug/L	2.0/-	ANR	ANR	ANR
Thallium, dissolved	ug/L	-/-	ANR	ANR	ANR
Vanadium	ug/L	-/-	ANR	ANR	ANR
Vanadium, dissolved	ug/L	-/-	ANR	ANR	ANR
Zinc	ug/L	119/-	Comp	8.3	J (DNQ)
Zinc, Dissolved	ug/L	-/-	Comp	ND < 6.0	U
<b>ORGANICS</b>					
Benzene	ug/L	-/-	ANR	ANR	ANR
Carbon Tetrachloride	ug/L	-/-	ANR	ANR	ANR
Chloroform	ug/L	-/-	ANR	ANR	ANR
1,1-Dichloroethane	ug/L	-/-	ANR	ANR	ANR
1,2-Dichloroethane	ug/L	0.5/-	Grab	ND < 0.28	*
1,1-Dichloroethene	ug/L	6.0/-	Grab	ND < 0.42	*
1,4-Dioxane	ug/L	-/-	ANR	ANR	ANR
Ethylbenzene	ug/L	-/-	ANR	ANR	ANR
Tetrachloroethene	ug/L	-/-	ANR	ANR	ANR
Toluene	ug/L	-/-	ANR	ANR	ANR
Xylenes (Total)	ug/L	-/-	ANR	ANR	ANR
1,1,1-Trichloroethane	ug/L	-/-	ANR	ANR	ANR
1,1,2-Trichloroethane	ug/L	-/-	ANR	ANR	ANR
Trichloroethene	ug/L	5.0/-	Grab	ND < 0.26	*
Trichlorofluoromethane	ug/L	-/-	ANR	ANR	ANR
Trichlorotrifluoroethane (Freon 113)	ug/L	-/-	ANR	ANR	ANR
Vinyl Chloride	ug/L	-/-	ANR	ANR	ANR
<b>TPH</b>					
DRO (C13 - C28)	mg/L	-/-	ANR	ANR	ANR
GRO (C4 - C12)	mg/L	-/-	ANR	ANR	ANR
<b>ADDITIONAL ANALYTES</b>					
1,2-Dichloro-1,1,2-trifluoroethane	ug/L	-/-	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	ug/L	-/-	ANR	ANR	ANR
1,2,4-Trichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,2-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
1,2-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,2-Dichloropropane	ug/L	-/-	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	ANR	ANR	ANR
1,3-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,3-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,4-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,4-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
2,4,6-Trichlorophenol	ug/L	13/-	Comp	ND < 0.0943	*
2,4-Dichlorophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dimethylphenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrotoluene	ug/L	18/-	Comp	ND < 0.189	*
2,6-Dinitrotoluene	ug/L	-/-	ANR	ANR	ANR
2-Chloroethylvinylether	ug/L	-/-	ANR	ANR	ANR
2-Chloronaphthalene	ug/L	-/-	ANR	ANR	ANR
2-Chlorophenol	ug/L	-/-	ANR	ANR	ANR
2-Methyl-4,6-dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2-Methylnaphthalene	ug/L	-/-	ANR	ANR	ANR
2-Methylphenol	ug/L	-/-	ANR	ANR	ANR
2-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
3,3'-Dichlorobenzidine	ug/L	-/-	ANR	ANR	ANR
4,4'-DDD	ug/L	-/-	ANR	ANR	ANR
4,4'-DDE	ug/L	-/-	ANR	ANR	ANR
4,4'-DDT	ug/L	-/-	ANR	ANR	ANR
4-Bromophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Chloro-3-methylphenol	ug/L	-/-	ANR	ANR	ANR
4-Chloroaniline	ug/L	-/-	ANR	ANR	ANR
4-Chlorophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
Acenaphthene	ug/L	-/-	ANR	ANR	ANR
Acenaphthylene	ug/L	-/-	ANR	ANR	ANR
Acrolein	ug/L	-/-	ANR	ANR	ANR
Acrylonitrile	ug/L	-/-	ANR	ANR	ANR
Acute Toxicity	% SURVIVAL	70-100/-	ANR	ANR	ANR
Aldrin	ug/L	-/-	ANR	ANR	ANR
alpha-BHC	ug/L	0.03/-	Comp	ND < 0.0024	*
Aniline	ug/L	-/-	ANR	ANR	ANR
Anthracene	ug/L	-/-	ANR	ANR	ANR
Aroclor-1016	ug/L	-/-	ANR	ANR	ANR
Aroclor-1221	ug/L	-/-	ANR	ANR	ANR
Aroclor-1232	ug/L	-/-	ANR	ANR	ANR
Aroclor-1242	ug/L	-/-	ANR	ANR	ANR
Aroclor-1248	ug/L	-/-	ANR	ANR	ANR
Aroclor-1254	ug/L	-/-	ANR	ANR	ANR
Aroclor-1260	ug/L	-/-	ANR	ANR	ANR
Benzidine	ug/L	-/-	ANR	ANR	ANR
Benzo(a)anthracene	ug/L	-/-	ANR	ANR	ANR
Benzo(a)pyrene	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Benzo(b)fluoranthene	ug/L	-/-	ANR	ANR	ANR
Benzo(g,h,i)perylene	ug/L	-/-	ANR	ANR	ANR
Benzo(k)fluoranthene	ug/L	-/-	ANR	ANR	ANR
Benzoic acid	ug/L	-/-	ANR	ANR	ANR
Benzyl alcohol	ug/L	-/-	ANR	ANR	ANR
beta-BHC	ug/L	-/-	ANR	ANR	ANR
bis (2-Chloroethyl) ether	ug/L	-/-	ANR	ANR	ANR
bis (2-ethylhexyl) Phthalate	ug/L	4.0/-	Comp	ND < 1.60	*
bis(2-Chloroethoxy) methane	ug/L	-/-	ANR	ANR	ANR
bis(2-Chloroisopropyl) ether	ug/L	-/-	ANR	ANR	ANR
Bromodichloromethane	ug/L	-/-	ANR	ANR	ANR
Bromoform	ug/L	-/-	ANR	ANR	ANR
Bromomethane	ug/L	-/-	ANR	ANR	ANR
Butylbenzylphthalate	ug/L	-/-	ANR	ANR	ANR
Chlordane	ug/L	-/-	ANR	ANR	ANR
Chlorobenzene	ug/L	-/-	ANR	ANR	ANR
Chloroethane	ug/L	-/-	ANR	ANR	ANR
Chloromethane	ug/L	-/-	ANR	ANR	ANR
Chronic Toxicity	TUC	1.0/-	ANR	ANR	ANR
Chrysene	ug/L	-/-	ANR	ANR	ANR
cis-1,2-Dichloroethene	ug/L	-/-	ANR	ANR	ANR
cis-1,3-Dichloropropene	ug/L	-/-	ANR	ANR	ANR
Cyclohexane	ug/L	-/-	ANR	ANR	ANR
delta-BHC	ug/L	-/-	ANR	ANR	ANR
Dibenzo(a,h)anthracene	ug/L	-/-	ANR	ANR	ANR
Dibenzofuran	ug/L	-/-	ANR	ANR	ANR
Dibromochloromethane	ug/L	-/-	ANR	ANR	ANR
Dieldrin	ug/L	-/-	ANR	ANR	ANR
Diethylphthalate	ug/L	-/-	ANR	ANR	ANR
Dimethylphthalate	ug/L	-/-	ANR	ANR	ANR
Di-n-butylphthalate	ug/L	-/-	ANR	ANR	ANR
Di-n-octylphthalate	ug/L	-/-	ANR	ANR	ANR
Endosulfan I	ug/L	-/-	ANR	ANR	ANR
Endosulfan II	ug/L	-/-	ANR	ANR	ANR
Endosulfan sulfate	ug/L	-/-	ANR	ANR	ANR
Endrin	ug/L	-/-	ANR	ANR	ANR
Endrin aldehyde	ug/L	-/-	ANR	ANR	ANR
Fluoranthene	ug/L	-/-	ANR	ANR	ANR
Fluorene	ug/L	-/-	ANR	ANR	ANR
Heptachlor	ug/L	-/-	ANR	ANR	ANR
Heptachlor epoxide	ug/L	-/-	ANR	ANR	ANR
Hexachlorobenzene	ug/L	-/-	ANR	ANR	ANR
Hexachlorobutadiene	ug/L	-/-	ANR	ANR	ANR
Hexachlorocyclopentadiene	ug/L	-/-	ANR	ANR	ANR
Hexachloroethane	ug/L	-/-	ANR	ANR	ANR
Hydrazine	ug/L	-/-	ANR	ANR	ANR
Unsymmetrical Dimethyl Hydrazine	ug/L	-/-	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Isophorone	ug/L	-/-	ANR	ANR	ANR
Lindane (gamma-BHC)	ug/L	-/-	ANR	ANR	ANR
Methylene Chloride	ug/L	-/-	ANR	ANR	ANR
m-Nitroaniline	ug/L	-/-	ANR	ANR	ANR
Monomethyl Hydrazine	ug/L	-/-	ANR	ANR	ANR
Naphthalene	ug/L	-/-	ANR	ANR	ANR
Nitrobenzene	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodimethylamine	ug/L	16/-	Comp	ND < 0.0943	*
n-Nitroso-di-n-propylamine	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodiphenylamine	ug/L	-/-	ANR	ANR	ANR
o-Nitroaniline	ug/L	-/-	ANR	ANR	ANR
p-Cresol	ug/L	-/-	ANR	ANR	ANR
Pentachlorophenol	ug/L	16.5/-	Comp	ND < 0.377	*
Phenanthrene	ug/L	-/-	ANR	ANR	ANR
Phenol	ug/L	-/-	ANR	ANR	ANR
p-Nitroaniline	ug/L	-/-	ANR	ANR	ANR
Pyrene	ug/L	-/-	ANR	ANR	ANR
Toxaphene	ug/L	-/-	ANR	ANR	ANR
trans-1,2-Dichloroethene	ug/L	-/-	ANR	ANR	ANR
trans-1,3-Dichloropropene	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Sample Type Grab**  
**Sample Date April 11, 2012**

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DΝQ Values) (ug/L)
1,2,3,4,6,7,8-HxCDD	1.10E-06	5.00E-05	3.70E-06	J (DNQ)	0.01	0.05	ND
1,2,3,4,6,7,8-HxCDF	1.30E-06	5.00E-05	ND	U (B)	0.01	0.01	ND
1,2,3,4,7,8,9-HxCDF	1.60E-06	5.00E-05	ND	UJ (*III)	0.01	0.4	ND
1,2,3,4,7,8-HxCDD	9.30E-07	5.00E-05	ND	U	0.1	0.3	ND
1,2,3,4,7,8-HxCDF	6.60E-07	5.00E-05	ND	UJ (*III)	0.1	0.08	ND
1,2,3,6,7,8-HxCDD	1.00E-06	5.00E-05	ND	U	0.1	0.1	ND
1,2,3,6,7,8-HxCDF	7.00E-07	5.00E-05	ND	U	0.1	0.2	ND
1,2,3,7,8,9-HxCDD	1.50E-06	5.00E-05	ND	U	0.1	0.1	ND
1,2,3,7,8,9-HxCDF	7.60E-07	5.00E-05	1.60E-06	J (DNQ)	0.1	0.6	ND
1,2,3,7,8-PeCDD	2.00E-06	5.00E-05	ND	U	1	0.9	ND
1,2,3,7,8-PeCDF	1.50E-06	5.00E-05	ND	U	0.05	0.2	ND
2,3,4,6,7,8-HxCDF	6.50E-07	5.00E-05	1.20E-06	J (DNQ)	0.1	0.7	ND
2,3,4,7,8-PeCDF	1.60E-06	5.00E-05	ND	U	0.5	1.6	ND
2,3,7,8-TCDD	3.60E-07	1.00E-05	ND	U	1	1	ND
2,3,7,8-TCDF	1.50E-06	1.00E-05	ND	U	0.1	0.8	ND
OCDD	1.60E-06	1.00E-04	ND	UJ (*III)	0.0001	0.01	ND
OCDF	2.50E-06	1.00E-04	ND	U (B)	0.0001	0.02	ND
<b>TCDD TEQ w/out DNQ Values</b>							ND
							ND

**TCDD TEQ BENCHMARK LIMIT = 2.80E-08**

See attached notes for abbreviations, definitions, and other explanations for the data presented in this table.

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Sample Type Composite**  
**Sample Date April 13, 2012**

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HxCDD	3.00E-08	5.00E-05	ND	U (B)	0.01	0.05	ND
1,2,3,4,6,7,8-HxCDF	1.00E-08	5.00E-05	ND	U (B)	0.01	0.01	ND
1,2,3,4,7,8,9-HxCDF	1.40E-07	5.00E-05	ND	U (B)	0.01	0.4	ND
1,2,3,4,7,8-HxCDD	6.80E-07	5.00E-05	ND	U	0.1	0.3	ND
1,2,3,4,7,8-HxCDF	4.00E-08	5.00E-05	ND	U (B)	0.1	0.08	ND
1,2,3,6,7,8-HxCDD	8.90E-07	5.00E-05	ND	U	0.1	0.1	ND
1,2,3,6,7,8-HxCDF	3.00E-08	5.00E-05	ND	U (B)	0.1	0.2	ND
1,2,3,7,8,9-HxCDD	6.70E-07	5.00E-05	ND	U	0.1	0.1	ND
1,2,3,7,8,9-HxCDF	4.00E-08	5.00E-05	ND	U (B)	0.1	0.6	ND
1,2,3,7,8-PeCDD	3.70E-07	5.00E-05	ND	U	1	0.9	ND
1,2,3,7,8-PeCDF	3.40E-07	5.00E-05	ND	U (B)	0.05	0.2	ND
2,3,4,6,7,8-HxCDF	3.00E-08	5.00E-05	ND	U (B)	0.1	0.7	ND
2,3,4,7,8-PeCDF	3.50E-07	5.00E-05	ND	U	0.5	1.6	ND
2,3,7,8-TCDD	7.70E-07	1.00E-05	ND	U	1	1	ND
2,3,7,8-TCDF	2.20E-06	1.00E-05	ND	U	0.1	0.8	ND
OCDD	4.00E-08	1.00E-04	1.10E-04	--	0.0001	0.01	<b>1.10E-10</b>
OCDF	7.00E-08	1.00E-04	ND	U (B)	0.0001	0.02	ND
<b>TCDD TEQ w/out DNQ Values</b>							<b>1.10E-10</b>
<b>TCDD TEQ BENCHMARK LIMIT = 2.80E-08</b>							

See attached notes for abbreviations, definitions, and other explanations for the data presented in this table.

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Benchmark Limit Daily Max/Monthly Ava	Sample Type	Result	4/11/2012
					Concentration Result Validation Qualifier
Max Discharge for event	MGD	160	Meas	0.00845	
Ammonia as Nitrogen (N)	LBS/DAY	13,500/-	Grab	0.02	J,DX* (DNQ)
Biochemical Oxygen Demand (BOD 5 day)	LBS/DAY	40,032/-	Grab	0.15	*
Chloride	LBS/DAY	200,160/-	Grab	1.55	*
Surfactants (MBAS)	LBS/DAY	667/-	Grab	0.01	J (DNQ)
Fluoride	LBS/DAY	2,135/-	Grab	0.01	*
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	10,700/-	Grab	0.02	J,DX* (DNQ)
Nitrate as Nitrogen (N)	LBS/DAY	10,700/-	Grab	0.02	*
Oil & Grease	LBS/DAY	20,016/-	Grab	ND	*
Perchlorate	LBS/DAY	8.0/-	Grab	ND	U
Sulfate	LBS/DAY	400,320/-	Grab	9.16	*
Total Cyanide	LBS/DAY	11/-	Grab	ND	*
Total Dissolved Solids	LBS/DAY	1,270,000/-	Grab	23.26	*
Total Residual Chlorine (Field)	LBS/DAY	133/-	Grab	0.00	*
Total Suspended Solids	LBS/DAY	60,048/-	Grab	0.92	*
Antimony	LBS/DAY	8.0/-	Grab	0.00002	J (DNQ)
Arsenic	LBS/DAY	67/-	Grab	ND	U
Barium	LBS/DAY	1,330/-	Grab	0.002	--
Beryllium	LBS/DAY	5.3/-	Grab	ND	U
Cadmium	LBS/DAY	4.1/-	Grab	ND	U
Chromium VI	LBS/DAY	22/-	Grab	ND	*
Copper	LBS/DAY	19/-	Grab	0.00	--
Iron	LBS/DAY	400/-	Grab	0.01	--
Lead	LBS/DAY	6.9/-	Grab	ND	U
Manganese	LBS/DAY	66.7/-	Grab	0.001	J (DNQ)
Mercury	LBS/DAY	0.13/-	Grab	ND	U
Nickel	LBS/DAY	128/-	Grab	ND	U
Selenium	LBS/DAY	11/-	Grab	ND	U
Silver	LBS/DAY	5.5/-	Grab	ND	U
Thallium	LBS/DAY	2.7/-	Grab	ND	U
Zinc	LBS/DAY	159/-	Grab	ND	U
1,2-Dichloroethane	LBS/DAY	0.67/-	Grab	ND	*
1,1-Dichloroethene	LBS/DAY	8.0/-	Grab	ND	*
Trichloroethene	LBS/DAY	6.7/-	Grab	ND	*
2,4,6-Trichlorophenol	LBS/DAY	17/-	Grab	ND	U
2,4-Dinitrotoluene	LBS/DAY	24/-	Grab	ND	U
alpha-BHC	LBS/DAY	0.04/-	Grab	ND	*
bis (2-ethylhexyl) Phthalate	LBS/DAY	5.3/-	Grab	ND	U
n-Nitrosodimethylamine	LBS/DAY	22/-	Grab	ND	UJ (L)
Pentachlorophenol	LBS/DAY	22/-	Grab	ND	U
TCDD TEQ_NoDNQ	LBS/DAY	3.70E-08/-	Grab	ND	--

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Benchmark Limit Daily Max/Monthly Ava	4/13/2012		
			Sample Type	Result	Concentration Result Validation Qualifier
Max Discharge for event	MGD	160	Meas	1.11122	
Ammonia as Nitrogen (N)	LBS/DAY	13,500/-	Comp	2.59	J,DX* (DNQ)
Biochemical Oxygen Demand (BOD 5 day)	LBS/DAY	40,032/-	Comp	15.75	J,DX* (DNQ)
Chloride	LBS/DAY	200,160/-	Comp	213.15	*
Surfactants (MBAS)	LBS/DAY	667/-	Comp	ND	*
Fluoride	LBS/DAY	2,135/-	ANR	ANR	ANR
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	10,700/-	Comp	1.85	J,DX* (DNQ)
Nitrate as Nitrogen (N)	LBS/DAY	10,700/-	Comp	1.85	*
Oil & Grease	LBS/DAY	20,016/-	Grab	ND	*
Perchlorate	LBS/DAY	8.0/-	Comp	ND	UJ (H, Q, \$)
Sulfate	LBS/DAY	400,320/-	Comp	1482.81	*
Total Cyanide	LBS/DAY	11/-	Comp	ND	*
Total Dissolved Solids	LBS/DAY	1,270,000/-	Comp	3336.33	*
Total Residual Chlorine (Field)	LBS/DAY	133/-	ANR	ANR	ANR
Total Suspended Solids	LBS/DAY	60,048/-	Comp	491.18	--
Antimony	LBS/DAY	8.0/-	ANR	ANR	ANR
Arsenic	LBS/DAY	67/-	ANR	ANR	ANR
Barium	LBS/DAY	1,330/-	ANR	ANR	ANR
Beryllium	LBS/DAY	5.3/-	ANR	ANR	ANR
Cadmium	LBS/DAY	4.1/-	Comp	ND	*
Chromium VI	LBS/DAY	22/-	ANR	ANR	ANR
Copper	LBS/DAY	19/-	Comp	0.02	J,DX* (DNQ)
Iron	LBS/DAY	400/-	Comp	15.75	--
Lead	LBS/DAY	6.9/-	Comp	0.01	J,DX* (DNQ)
Manganese	LBS/DAY	66.7/-	ANR	ANR	ANR
Mercury	LBS/DAY	0.13/-	Comp	ND	U
Nickel	LBS/DAY	128/-	ANR	ANR	ANR
Selenium	LBS/DAY	11/-	Comp	0.005	J,DX* (DNQ)
Silver	LBS/DAY	5.5/-	ANR	ANR	ANR
Thallium	LBS/DAY	2.7/-	ANR	ANR	ANR
Zinc	LBS/DAY	159/-	Comp	0.08	J (DNQ)
1,2-Dichloroethane	LBS/DAY	0.67/-	Grab	ND	*
1,1-Dichloroethene	LBS/DAY	8.0/-	Grab	ND	*
Trichloroethene	LBS/DAY	6.7/-	Grab	ND	*
2,4,6-Trichlorophenol	LBS/DAY	17/-	Comp	ND	*
2,4-Dinitrotoluene	LBS/DAY	24/-	Comp	ND	*
alpha-BHC	LBS/DAY	0.04/-	Comp	ND	*
bis (2-ethylhexyl) Phthalate	LBS/DAY	5.3/-	Comp	ND	*
n-Nitrosodimethylamine	LBS/DAY	22/-	Comp	ND	*
Pentachlorophenol	LBS/DAY	22/-	Comp	ND	*
TCDD TEQ_NoDNQ	LBS/DAY	3.70E-08/-	Comp	1.02E-12	--

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

# OUTFALL 008 (Happy Valley Drainage)

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Ammonia as Nitrogen (N)	mg/L	10.1/-	Comp	ND < 0.157	*
Asbestos	MFL	-/-	Comp	ND < 6.8	*
Chloride	mg/L	150/-	Comp	4.2	*
Chlorpyrifos	ug/L	-/-	Comp	ND < 0.076	*
E. Coli	MPN/100mL	-/-	Grab	500	*
Fecal Coliform	MPN/100mL	-/-	Grab	500	*
Human Bacteroides	Ces/100 mL	-/-	Grab	ND	*
Fluoride	mg/L	1.6/-	Comp	0.10	*
Nitrate + Nitrite as Nitrogen (N)	mg/L	8/-	Comp	0.59	*
Nitrate as Nitrogen (N)	mg/L	8/-	Comp	0.59	*
Nitrite as Nitrogen (N)	mg/L	1/-	Comp	ND < 0.11	*
Oil & Grease	mg/L	15/-	Grab	ND < 1.3	*
Perchlorate	ug/L	6.0/-	Comp	ND < 0.95	U
pH (Field)	pH units	6.5-8.5/-	Grab	7.4	*
Sulfate	mg/L	300/-	Comp	4.0	*
Temperature	deg. F	86/-	Grab	52	*
Total Cyanide	ug/L	9.5/-	Comp	ND < 3.0	*
Total Dissolved Solids	mg/L	950/-	Comp	110	*
Hardness	mg/L	-/-	Comp	68	--
Hardness, dissolved	mg/L	-/-	Comp	42	--
Total Suspended Solids	mg/L	-/-	Comp	200	--
Volume Discharged	MGD	17.8/-	MEAS	0.074665	*
<b>METALS</b>					
Aluminum	ug/L	-/-	Comp	12000	--
Aluminum, dissolved	ug/L	-/-	Comp	660	--
Antimony	ug/L	6.0/-	Comp	ND < 1.5	U
Antimony, dissolved	ug/L	-/-	Comp	ND < 1.5	U
Arsenic	ug/L	-/-	Comp	ND < 10	UJ (B)
Arsenic, dissolved	ug/L	-/-	Comp	ND < 7.0	U
Beryllium	ug/L	-/-	Comp	ND < 4.5	U
Beryllium, dissolved	ug/L	-/-	Comp	ND < 0.90	U
Boron	mg/L	1.0/-	Comp	ND < 0.10	U
Boron, dissolved	mg/L	-/-	Comp	ND < 0.054	U (B)
Cadmium	ug/L	3.1/-	Comp	ND < 0.50	U
Cadmium, dissolved	ug/L	-/-	Comp	ND < 0.50	U
Calcium	mg/L	-/-	Comp	17	--
Calcium, Dissolved	mg/L	-/-	Comp	14	--
Chromium	ug/L	-/-	Comp	16	J (DNQ)
Chromium, dissolved	ug/L	-/-	Comp	ND < 2.0	U
Chromium VI	ug/L	-/-	Grab	ND < 0.25	*

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

# OUTFALL 008 (Happy Valley Drainage)

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Copper	ug/L	14/-	Comp	18	--
Copper, dissolved	ug/L	-/-	Comp	3.6	J (DNQ)
Iron	mg/L	-/-	Comp	16	--
Iron, dissolved	mg/L	-/-	Comp	0.66	--
Lead	ug/L	5.2/-	Comp	10	--
Lead, dissolved	ug/L	-/-	Comp	ND < 1.0	U
Magnesium	mg/L	-/-	Comp	6.3	--
Magnesium, Dissolved	mg/L	-/-	Comp	2.0	--
Mercury	ug/L	0.13/-	Comp	ND < 0.10	U
Mercury, dissolved	ug/L	-/-	Comp	ND < 0.10	U
Nickel	ug/L	100/-	Comp	20	J (DNQ)
Nickel, dissolved	ug/L	-/-	Comp	2.7	J (DNQ)
Selenium	ug/L	5/-	Comp	ND < 2.5	UJ (I)
Selenium, dissolved	ug/L	-/-	Comp	ND < 2.5	U
Silver	ug/L	-/-	Comp	ND < 30	U
Silver, dissolved	ug/L	-/-	Comp	ND < 6.0	U
Thallium	ug/L	2.0/-	Comp	ND < 1.0	U
Thallium, dissolved	ug/L	-/-	Comp	1.2	J (DNQ)
Vanadium	ug/L	-/-	Comp	30	J (DNQ)
Vanadium, dissolved	ug/L	-/-	Comp	ND < 3.0	U
Zinc	ug/L	159/-	Comp	64	J (DNQ)
Zinc, Dissolved	ug/L	-/-	Comp	ND < 6.0	U
<b>ORGANICS</b>					
Benzene	ug/L	-/-	Grab	ND < 0.28	*
Carbon Tetrachloride	ug/L	-/-	Grab	ND < 0.28	*
Chloroform	ug/L	-/-	Grab	ND < 0.33	*
1,1-Dichloroethane	ug/L	-/-	Grab	ND < 0.40	*
1,2-Dichloroethane	ug/L	-/-	Grab	ND < 0.28	*
1,1-Dichloroethene	ug/L	-/-	Grab	ND < 0.42	*
Ethylbenzene	ug/L	-/-	Grab	ND < 0.25	*
Tetrachloroethene	ug/L	-/-	Grab	ND < 0.32	*
Toluene	ug/L	-/-	Grab	ND < 0.36	*
Xylenes (Total)	ug/L	-/-	Grab	ND < 0.90	*
1,1,1-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*
1,1,2-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*
Trichloroethene	ug/L	-/-	Grab	ND < 0.26	*
Trichlorofluoromethane	ug/L	-/-	Grab	ND < 0.34	*
Vinyl chloride	ug/L	-/-	Grab	ND < 0.40	*
<b>ADDITIONAL ANALYTES</b>					
1,1,2,2-Tetrachloroethane	ug/L	-/-	Grab	ND < 0.30	*
1,2,4-Trichlorobenzene	ug/L	-/-	Comp	ND < 0.0948	U

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

**OUTFALL 008 (Happy Valley Drainage)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	4/13/2012	
				RESULT	VALIDATION QUALIFIER
1,2,3-Trichloropropane	ug/L	-/-	Grab	ND < 0.40	*
1,2-Dibromoethane (EDB)	ug/L	-/-	Grab	ND < 0.40	*
1,2-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.32	*
1,2-Dichlorobenzene	ug/L	-/-	Comp	ND < 0.0948	U
1,2-Dichloropropane	ug/L	-/-	Grab	ND < 0.35	*
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	Comp	ND < 0.190	U
1,3-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.35	*
1,3-Dichlorobenzene	ug/L	-/-	Comp	ND < 0.0948	U
1,4-Dichlorobenzene	ug/L	-/-	Comp	ND < 0.190	U
1,4-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.37	*
2,4,6-Trichlorophenol	ug/L	-/-	Comp	ND < 0.0948	U
2,4-Dichlorophenol	ug/L	-/-	Comp	ND < 0.190	U
2,4-Dimethylphenol	ug/L	-/-	Comp	ND < 0.284	U
2,4-Dinitrophenol	ug/L	-/-	Comp	ND < 0.853	U
2,4-Dinitrotoluene	ug/L	-/-	Comp	ND < 0.190	U
2,6-Dinitrotoluene	ug/L	-/-	Comp	ND < 0.0948	U
2-Butanol	ug/L	-/-	Grab	ND < 6.5	*
2-Chloroethylvinylether	ug/L	-/-	Grab	ND < 1.8	*
2-Chloronaphthalene	ug/L	-/-	Comp	ND < 0.0948	U
2-Chlorophenol	ug/L	-/-	Comp	ND < 0.190	U
2-Methyl-4,6-dinitrophenol	ug/L	-/-	Comp	ND < 0.284	U
2-Methylnaphthalene	ug/L	-/-	Comp	ND < 0.190	U
2-Methylphenol	ug/L	-/-	Comp	ND < 0.0948	U
2-Nitrophenol	ug/L	-/-	Comp	ND < 0.0948	U
3,3'-Dichlorobenzidine	ug/L	-/-	Comp	ND < 0.474	U
4-Bromophenylphenylether	ug/L	-/-	Comp	ND < 0.190	U
4-Chloro-3-methylphenol	ug/L	-/-	Comp	ND < 0.190	U
4-Chloroaniline	ug/L	-/-	Comp	ND < 0.284	U
4-Chlorophenylphenylether	ug/L	-/-	Comp	ND < 0.190	U
4-Nitrophenol	ug/L	-/-	Comp	ND < 2.37	U
Acenaphthene	ug/L	-/-	Comp	ND < 0.190	U
Acenaphthylene	ug/L	-/-	Comp	ND < 0.190	U
Acrolein	ug/L	-/-	Grab	ND < 4.0	*
Acrylonitrile	ug/L	-/-	Grab	ND < 1.2	*
Acute Toxicity	% SURVIVAL	70-100/-	Comp	100	--
Aniline	ug/L	-/-	Comp	ND < 0.284	U
Anthracene	ug/L	-/-	Comp	ND < 0.0948	U
Benzidine	ug/L	-/-	Comp	ND < 0.948	UJ (C)
Benzo(a)anthracene	ug/L	-/-	Comp	ND < 0.0948	U
Benzo(a)pyrene	ug/L	-/-	Comp	ND < 0.0948	U
Benzo(b)fluoranthene	ug/L	-/-	Comp	ND < 0.0948	U

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

**OUTFALL 008 (Happy Valley Drainage)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/13/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Benzo(g,h,l)perylene	ug/L	-/-	Comp	ND < 0.0948	U
Benzo(k)fluoranthene	ug/L	-/-	Comp	ND < 0.190	U
Benzoic acid	ug/L	-/-	Comp	ND < 2.84	UJ (C)
Benzyl alcohol	ug/L	-/-	Comp	ND < 0.0948	U
bis (2-Chloroethyl) ether	ug/L	-/-	Comp	ND < 0.0948	U
bis (2-ethylhexyl) Phthalate	ug/L	-/-	Comp	1.87	J (DNQ)
bis(2-Chloroethoxy) methane	ug/L	-/-	Comp	ND < 0.0948	U
bis(2-Chloroisopropyl) ether	ug/L	-/-	Comp	ND < 0.0948	U
Bromodichloromethane	ug/L	-/-	Grab	ND < 0.30	*
Bromoform	ug/L	-/-	Grab	ND < 0.40	*
Bromomethane	ug/L	-/-	Grab	ND < 0.42	*
Butylbenzylphthalate	ug/L	-/-	Comp	ND < 0.664	U
Chlorobenzene	ug/L	-/-	Grab	ND < 0.36	*
Chloroethane	ug/L	-/-	Grab	ND < 0.40	*
Chloromethane	ug/L	-/-	Grab	ND < 0.40	*
Chronic Toxicity	TUC	1/-	Comp	1.0	*
Chrysene	ug/L	-/-	Comp	ND < 0.0948	U
cis-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.32	*
cis-1,3-Dichloropropene	ug/L	-/-	Grab	ND < 0.22	*
Diazinon	ug/L	-/-	Comp	ND < 0.038	*
Dibenzo(a,h)anthracene	ug/L	-/-	Comp	ND < 0.0948	U
Dibenzofuran	ug/L	-/-	Comp	ND < 0.0948	U
Dibromochloromethane	ug/L	-/-	Grab	ND < 0.40	*
Diethylphthalate	ug/L	-/-	Comp	0.166	J (DNQ)
Diisopropyl ether	ug/L	-/-	Grab	ND < 0.25	*
Dimethylphthalate	ug/L	-/-	Comp	ND < 0.190	U
Di-n-butylphthalate	ug/L	-/-	Comp	ND < 0.284	U
Di-n-octylphthalate	ug/L	-/-	Comp	ND < 0.190	U
Ethyl tert-Butyl Ether (ETBE)	ug/L	-/-	Grab	ND < 0.28	*
Fluoranthene	ug/L	-/-	Comp	ND < 0.0948	U
Fluorene	ug/L	-/-	Comp	ND < 0.0948	U
Hexachlorobenzene	ug/L	-/-	Comp	ND < 0.0948	U
Hexachlorobutadiene	ug/L	-/-	Comp	ND < 0.190	U
Hexachlorocyclopentadiene	ug/L	-/-	Comp	ND < 0.0948	UJ (C)
Hexachloroethane	ug/L	-/-	Comp	ND < 0.190	U
Indeno(1,2,3-cd)pyrene	ug/L	-/-	Comp	ND < 0.0948	U
Isophorone	ug/L	-/-	Comp	ND < 0.0948	U
Methylene Chloride	ug/L	-/-	Grab	ND < 0.95	*
Methyl-tert-butyl ether	ug/L	-/-	Grab	ND < 0.32	*
m-Nitroaniline	ug/L	-/-	Comp	ND < 0.948	U
Naphthalene	ug/L	-/-	Comp	ND < 0.0948	U

# OUTFALL 008 (Happy Valley Drainage)

## SECOND QUARTER 2012 REPORTING SUMMARY THE BOEING COMPANY SANTA SUSANA FIELD LABORATORY NPDES PERMIT CA0001309

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	4/13/2012	
				RESULT	VALIDATION QUALIFIER
Naphthalene	ug/L	-/-	Grab	ND < 0.41	*
Nitrobenzene	ug/L	-/-	Comp	ND < 0.0948	U
n-Nitrosodimethylamine	ug/L	-/-	Comp	ND < 0.0948	U
n-Nitroso-di-n-propylamine	ug/L	-/-	Comp	ND < 0.0948	U
n-Nitrosodiphenylamine	ug/L	-/-	Comp	ND < 0.0948	U
o-Nitroaniline	ug/L	-/-	Comp	ND < 0.0948	U
p-Cresol	ug/L	-/-	Comp	ND < 0.190	U
Pentachlorophenol	ug/L	-/-	Comp	ND < 0.379	U
Phenanthrene	ug/L	-/-	Comp	ND < 0.0948	U
Phenol	ug/L	-/-	Comp	ND < 0.284	UJ (C)
p-Nitroaniline	ug/L	-/-	Comp	ND < 0.474	U
Pyrene	ug/L	-/-	Comp	ND < 0.0948	U
tert-Amyl Methyl Ether (TAME)	ug/L	-/-	Grab	ND < 0.33	*
trans-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.30	*
trans-1,3-Dichloropropene	ug/L	-/-	Grab	ND < 0.32	*

**OUTFALL 008 (Happy Valley Drainage)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Sample Type Composite**  
**Sample Date April 13, 2012**

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HxCDD	4.60E-07	5.00E-05	ND	U (B)	0.01	0.05	ND
1,2,3,4,6,7,8-HxCDF	1.30E-07	5.00E-05	ND	U (B)	0.01	0.01	ND
1,2,3,4,7,8,9-HxCDF	1.60E-07	5.00E-05	ND	U (B)	0.01	0.4	ND
1,2,3,4,7,8-HxCDD	4.00E-08	5.00E-05	ND	U (B)	0.1	0.3	ND
1,2,3,4,7,8-HxCDF	4.00E-08	5.00E-05	ND	U (B)	0.1	0.08	ND
1,2,3,6,7,8-HxCDD	4.00E-08	5.00E-05	ND	U (B)	0.1	0.1	ND
1,2,3,6,7,8-HxCDF	4.00E-08	5.00E-05	ND	U (B)	0.1	0.2	ND
1,2,3,7,8,9-HxCDD	4.00E-08	5.00E-05	ND	U (B)	0.1	0.1	ND
1,2,3,7,8,9-HxCDF	4.00E-08	5.00E-05	ND	U (B)	0.1	0.6	ND
1,2,3,7,8-PeCDD	6.50E-07	5.00E-05	ND	UJ (*III)	1	0.9	ND
1,2,3,7,8-PeCDF	4.60E-07	5.00E-05	ND	U (B)	0.05	0.2	ND
2,3,4,6,7,8-HxCDF	4.00E-08	5.00E-05	ND	U (B)	0.1	0.7	ND
2,3,4,7,8-PeCDF	4.90E-07	5.00E-05	ND	U (B)	0.5	1.6	ND
2,3,7,8-TCDD	6.70E-07	1.00E-05	ND	U	1	1	ND
2,3,7,8-TCDF	2.20E-06	1.00E-05	ND	U	0.1	0.8	ND
OCDD	1.60E-06	1.00E-04	5.20E-04	--	0.0001	0.01	<b>5.20E-10</b>
OCDF	3.20E-07	1.00E-04	ND	U (B)	0.0001	0.02	ND
<b>TCDD TEQ w/out DNQ Values</b>							<b>5.20E-10</b>

**TCDD TEQ PERMIT LIMIT = 2.80E-08**

See attached notes for abbreviations, definitions, and other explanations for the data presented in this table.

**OUTFALL 008 (Happy Valley Drainage)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Ava	4/13/2012		
			Sample Type	Result	Concentration Result Validation Qualifier
Max Discharge for event	MGD	17.8	Meas	0.074665	
Ammonia as Nitrogen (N)	LBS/DAY	1,500/-	Comp	ND	*
Chloride	LBS/DAY	22,268/-	Comp	2.62	*
Fluoride	LBS/DAY	238/-	Comp	0.06	*
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	1,188/-	Comp	0.37	*
Nitrate as Nitrogen (N)	LBS/DAY	1,190/-	Comp	0.37	*
Oil & Grease	LBS/DAY	2,227/-	Grab	ND	*
Perchlorate	LBS/DAY	0.89/-	Comp	ND	U
Sulfate	LBS/DAY	44,536/-	Comp	2.49	*
Total Cyanide	LBS/DAY	1.4/-	Comp	ND	*
Total Dissolved Solids	LBS/DAY	141,029/-	Comp	68.50	*
Antimony	LBS/DAY	0.89/-	Comp	ND	U
Boron	LBS/DAY	148/-	Comp	ND	U
Cadmium	LBS/DAY	0.46/-	Comp	ND	U
Copper	LBS/DAY	2.1/-	Comp	0.01	--
Lead	LBS/DAY	0.77/-	Comp	0.01	--
Mercury	LBS/DAY	0.02/-	Comp	ND	U
Nickel	LBS/DAY	14.9/-	Comp	0.01	J (DNQ)
Selenium	LBS/DAY	0.7/-	Comp	ND	UJ (I)
Thallium	LBS/DAY	0.3/-	Comp	ND	U
Zinc	LBS/DAY	24/-	Comp	0.04	J (DNQ)
TCDD TEQ_NoDNQ	LBS/DAY	4.20E-09/-	Comp	3.24E-13	--

**OUTFALL 009 (WS-13 Drainage)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/11/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Chloride	mg/L	150/-	Comp	1.6	*
Fluoride	mg/L	1.6/-	ANR	ANR	ANR
Nitrate + Nitrite as Nitrogen (N)	mg/L	10/-	Comp	0.31	*
Oil & Grease	mg/L	15/-	Grab	ND < 1.3	*
Perchlorate	ug/L	6.0/-	ANR	ANR	ANR
pH (Field)	pH units	6.5-8.5/-	Grab	6.7	*
Sulfate	mg/L	250/-	Comp	3.3	*
Temperature	deg. F	86/-	Grab	53	*
Total Cyanide	ug/L	9.5/-	Comp	ND < 3.0	*
Total Dissolved Solids	mg/L	850/-	Comp	35	*
Total Suspended Solids	mg/L	-/-	Comp	16	--
Volume Discharged	MGD	17.8/-	MEAS	0.390605	*
<b>METALS</b>					
Aluminum	ug/L	-/-	ANR	ANR	ANR
Antimony	ug/L	6.0/-	Comp	0.51	J,DX* (DNQ)
Antimony, dissolved	ug/L	-/-	Comp	0.60	J,DX* (DNQ)
Arsenic	ug/L	-/-	ANR	ANR	ANR
Beryllium	ug/L	-/-	ANR	ANR	ANR
Boron	mg/L	1.0/-	ANR	ANR	ANR
Cadmium	ug/L	4.0/-	Comp	ND < 0.10	*
Cadmium, dissolved	ug/L	-/-	Comp	ND < 0.10	*
Chromium	ug/L	-/-	ANR	ANR	ANR
Copper	ug/L	14/-	Comp	4.5	*
Copper, dissolved	ug/L	-/-	Comp	3.6	*
Iron	mg/L	-/-	ANR	ANR	ANR
Lead	ug/L	5.2/-	Comp	3.2	*
Lead, dissolved	ug/L	-/-	Comp	0.63	J,DX* (DNQ)
Mercury	ug/L	0.13/-	Comp	ND < 0.10	U
Mercury, dissolved	ug/L	-/-	Comp	ND < 0.10	U
Nickel	ug/L	100/-	ANR	ANR	ANR
Selenium	ug/L	-/-	ANR	ANR	ANR
Silver	ug/L	-/-	ANR	ANR	ANR
Thallium	ug/L	2.0/-	Comp	ND < 0.20	*
Thallium, dissolved	ug/L	-/-	Comp	ND < 0.20	*
Vanadium	ug/L	-/-	ANR	ANR	ANR
Zinc	ug/L	-/-	ANR	ANR	ANR
<b>ORGANICS</b>					
Benzene	ug/L	-/-	ANR	ANR	ANR
Carbon Tetrachloride	ug/L	-/-	ANR	ANR	ANR
Chloroform	ug/L	-/-	ANR	ANR	ANR

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

**OUTFALL 009 (WS-13 Drainage)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/11/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
1,1-Dichloroethane	ug/L	-/-	ANR	ANR	ANR
1,2-Dichloroethane	ug/L	-/-	ANR	ANR	ANR
1,1-Dichloroethene	ug/L	-/-	ANR	ANR	ANR
Ethylbenzene	ug/L	-/-	ANR	ANR	ANR
Tetrachloroethene	ug/L	-/-	ANR	ANR	ANR
Toluene	ug/L	-/-	ANR	ANR	ANR
Xylenes (Total)	ug/L	-/-	ANR	ANR	ANR
1,1,1-Trichloroethane	ug/L	-/-	ANR	ANR	ANR
1,1,2-Trichloroethane	ug/L	-/-	ANR	ANR	ANR
Trichloroethene	ug/L	-/-	ANR	ANR	ANR
Trichlorofluoromethane	ug/L	-/-	ANR	ANR	ANR
Vinyl chloride	ug/L	-/-	ANR	ANR	ANR
<b>ADDITIONAL ANALYTES</b>					
1,1,2,2-Tetrachloroethane	ug/L	-/-	ANR	ANR	ANR
1,2,4-Trichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,2-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,2-Dichloropropane	ug/L	-/-	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	ANR	ANR	ANR
1,3-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,4-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
2,4,6-Trichlorophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dichlorophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dimethylphenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrotoluene	ug/L	-/-	ANR	ANR	ANR
2,6-Dinitrotoluene	ug/L	-/-	ANR	ANR	ANR
2-Chloroethylvinylether	ug/L	-/-	ANR	ANR	ANR
2-Chloronaphthalene	ug/L	-/-	ANR	ANR	ANR
2-Chlorophenol	ug/L	-/-	ANR	ANR	ANR
2-Methyl-4,6-dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
3,3'-Dichlorobenzidine	ug/L	-/-	ANR	ANR	ANR
4,4'-DDD	ug/L	-/-	ANR	ANR	ANR
4,4'-DDE	ug/L	-/-	ANR	ANR	ANR
4,4'-DDT	ug/L	-/-	ANR	ANR	ANR
4-Bromophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Chloro-3-methylphenol	ug/L	-/-	ANR	ANR	ANR
4-Chlorophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
Acenaphthene	ug/L	-/-	ANR	ANR	ANR
Acrolein	ug/L	-/-	ANR	ANR	ANR

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

**OUTFALL 009 (WS-13 Drainage)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/11/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Acrylonitrile	ug/L	-/-	ANR	ANR	ANR
Acute Toxicity	% SURVIVAL	70-100/-	ANR	ANR	ANR
Aldrin	ug/L	-/-	ANR	ANR	ANR
alpha-BHC	ug/L	-/-	ANR	ANR	ANR
Anthracene	ug/L	-/-	ANR	ANR	ANR
Aroclor-1016	ug/L	-/-	ANR	ANR	ANR
Aroclor-1221	ug/L	-/-	ANR	ANR	ANR
Aroclor-1232	ug/L	-/-	ANR	ANR	ANR
Aroclor-1242	ug/L	-/-	ANR	ANR	ANR
Aroclor-1248	ug/L	-/-	ANR	ANR	ANR
Aroclor-1254	ug/L	-/-	ANR	ANR	ANR
Aroclor-1260	ug/L	-/-	ANR	ANR	ANR
Benzidine	ug/L	-/-	ANR	ANR	ANR
Benzo(a)anthracene	ug/L	-/-	ANR	ANR	ANR
Benzo(a)pyrene	ug/L	-/-	ANR	ANR	ANR
Benzo(b)fluoranthene	ug/L	-/-	ANR	ANR	ANR
Benzo(g,h,l)perylene	ug/L	-/-	ANR	ANR	ANR
Benzo(k)fluoranthene	ug/L	-/-	ANR	ANR	ANR
beta-BHC	ug/L	-/-	ANR	ANR	ANR
bis (2-Chloroethyl) ether	ug/L	-/-	ANR	ANR	ANR
bis (2-ethylhexyl) Phthalate	ug/L	-/-	ANR	ANR	ANR
bis(2-Chloroethoxy) methane	ug/L	-/-	ANR	ANR	ANR
bis(2-Chloroisopropyl) ether	ug/L	-/-	ANR	ANR	ANR
Bromodichloromethane	ug/L	-/-	ANR	ANR	ANR
Bromoform	ug/L	-/-	ANR	ANR	ANR
Bromomethane	ug/L	-/-	ANR	ANR	ANR
Butylbenzylphthalate	ug/L	-/-	ANR	ANR	ANR
Chlordane	ug/L	-/-	ANR	ANR	ANR
Chlorobenzene	ug/L	-/-	ANR	ANR	ANR
Chloroethane	ug/L	-/-	ANR	ANR	ANR
Chloromethane	ug/L	-/-	ANR	ANR	ANR
Chronic Toxicity	TUC	1/-	ANR	ANR	ANR
Chrysene	ug/L	-/-	ANR	ANR	ANR
cis-1,3-Dichloropropene	ug/L	-/-	ANR	ANR	ANR
delta-BHC	ug/L	-/-	ANR	ANR	ANR
Dibenzo(a,h)anthracene	ug/L	-/-	ANR	ANR	ANR
Dibromochloromethane	ug/L	-/-	ANR	ANR	ANR
Dieldrin	ug/L	-/-	ANR	ANR	ANR
Diethylphthalate	ug/L	-/-	ANR	ANR	ANR
Dimethylphthalate	ug/L	-/-	ANR	ANR	ANR
Di-n-butylphthalate	ug/L	-/-	ANR	ANR	ANR

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

**OUTFALL 009 (WS-13 Drainage)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/11/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Di-n-octylphthalate	ug/L	-/-	ANR	ANR	ANR
Endosulfan I	ug/L	-/-	ANR	ANR	ANR
Endosulfan II	ug/L	-/-	ANR	ANR	ANR
Endosulfan sulfate	ug/L	-/-	ANR	ANR	ANR
Endrin	ug/L	-/-	ANR	ANR	ANR
Endrin aldehyde	ug/L	-/-	ANR	ANR	ANR
Fluoranthene	ug/L	-/-	ANR	ANR	ANR
Fluorene	ug/L	-/-	ANR	ANR	ANR
Heptachlor	ug/L	-/-	ANR	ANR	ANR
Heptachlor epoxide	ug/L	-/-	ANR	ANR	ANR
Hexachlorobenzene	ug/L	-/-	ANR	ANR	ANR
Hexachlorobutadiene	ug/L	-/-	ANR	ANR	ANR
Hexachlorocyclopentadiene	ug/L	-/-	ANR	ANR	ANR
Hexachloroethane	ug/L	-/-	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene	ug/L	-/-	ANR	ANR	ANR
Isophorone	ug/L	-/-	ANR	ANR	ANR
Lindane (gamma-BHC)	ug/L	-/-	ANR	ANR	ANR
Methylene Chloride	ug/L	-/-	ANR	ANR	ANR
Naphthalene	ug/L	-/-	ANR	ANR	ANR
Nitrobenzene	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodimethylamine	ug/L	-/-	ANR	ANR	ANR
n-Nitroso-di-n-propylamine	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodiphenylamine	ug/L	-/-	ANR	ANR	ANR
Pentachlorophenol	ug/L	-/-	ANR	ANR	ANR
Phenanthrene	ug/L	-/-	ANR	ANR	ANR
Phenol	ug/L	-/-	ANR	ANR	ANR
Pyrene	ug/L	-/-	ANR	ANR	ANR
Toxaphene	ug/L	-/-	ANR	ANR	ANR
trans-1,2-Dichloroethene	ug/L	-/-	ANR	ANR	ANR
trans-1,3-Dichloropropene	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 009 (WS-13 Drainage)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Sample Type Composite**  
**Sample Date April 11, 2012**

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HxCDD	5.90E-07	5.00E-05	7.30E-05	--	0.01	0.05	<b>3.65E-08</b>
1,2,3,4,6,7,8-HpCDF	4.60E-07	5.00E-05	ND	U (B)	0.01	0.01	ND
1,2,3,4,7,8,9-HpCDF	5.60E-07	5.00E-05	ND	U (B)	0.01	0.4	ND
1,2,3,4,7,8,9-HxCDD	4.70E-07	5.00E-05	ND	U (B)	0.1	0.3	ND
1,2,3,4,7,8-HxCDF	7.00E-08	5.00E-05	ND	U (B)	0.1	0.08	ND
1,2,3,6,7,8-HxCDD	4.60E-07	5.00E-05	ND	UJ (*III)	0.1	0.1	ND
1,2,3,6,7,8-HxCDF	7.00E-08	5.00E-05	4.90E-06	J (DNQ)	0.1	0.2	ND
1,2,3,7,8,9-HxCDD	4.00E-07	5.00E-05	ND	U (B)	0.1	0.1	ND
1,2,3,7,8,9-HxCDF	7.00E-08	5.00E-05	ND	U (B)	0.1	0.6	ND
1,2,3,7,8-PeCDD	6.20E-07	5.00E-05	ND	UJ (*III)	1	0.9	ND
1,2,3,7,8-PeCDF	6.60E-07	5.00E-05	ND	U (B)	0.05	0.2	ND
2,3,4,6,7,8-HxCDF	3.00E-06	5.00E-05	ND	U	0.1	0.7	ND
2,3,4,7,8-PeCDF	6.60E-07	5.00E-05	ND	UJ (*III)	0.5	1.6	ND
2,3,7,8-TCDD	8.00E-07	1.00E-05	ND	U	1	1	ND
2,3,7,8-TCDF	1.90E-06	1.00E-05	ND	UJ (*III)	0.1	0.8	ND
OCDD	1.80E-06	1.00E-04	7.30E-04	--	0.0001	0.01	<b>7.30E-10</b>
OCDF	3.90E-07	1.00E-04	ND	U (B)	0.0001	0.02	ND

**TCDD TEQ w/out DNQ Values**

**3.72E-08**

**TCDD TEQ PERMIT LIMIT = 2.80E-08**

See attached notes for abbreviations, definitions, and other explanations for the data presented in this table.

# OUTFALL 009 (WS-13 Drainage)

## SECOND QUARTER 2012 REPORTING SUMMARY THE BOEING COMPANY SANTA SUSANA FIELD LABORATORY NPDES PERMIT CA0001309

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Ava	4/11/2012		
			Sample Type	Result	Concentration Result Validation Qualifier
Max Discharge for event	MGD	17.8	Meas	0.390605	
Chloride	LBS/DAY	22,268/-	Comp	5.21	*
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	1,485/-	Comp	1.01	*
Oil & Grease	LBS/DAY	2,227/-	Grab	ND	*
Sulfate	LBS/DAY	37,113/-	Comp	10.75	*
Total Cyanide	LBS/DAY	1.4/-	Comp	ND	*
Total Dissolved Solids	LBS/DAY	126,184/-	Comp	114.02	*
Antimony	LBS/DAY	0.89/-	Comp	0.002	J,DX* (DNQ)
Copper	LBS/DAY	2.1/-	Comp	0.01	*
Lead	LBS/DAY	0.77/-	Comp	0.01	*
Mercury	LBS/DAY	0.02/-	Comp	ND	U
Thallium	LBS/DAY	0.3/-	Comp	ND	*
TCDD TEQ_NoDNQ	LBS/DAY	4.20E-09/-	Comp	1.21E-10	--

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	04/10-11/2012	
				RESULT	VALIDATION QUALIFIER
Ammonia as Nitrogen (N)	mg/L	10.1/-	Comp	0.280	J,DX* (DNQ)
Biochemical Oxygen Demand (BOD 5 day)	mg/L	30/-	Comp	ND < 0.50	*
Chloride	mg/L	150/-	Comp	25	*
Dissolved Oxygen	mg	-/-	Grab	9.35	*
E. Coli	MPN/100mL	-/-	Grab	ND < 2.0	*
Fecal Coliform	MPN/100mL	-/-	Grab	ND < 2.0	*
Human Bacteroides	Ces/100 mL	-/-	Grab	ND	*
Specific Conductivity (Lab)	umhos/cm	-/-	Grab	600	--
Surfactants (MBAS)	mg/L	0.5/-	Comp	ND < 0.050	*
Fluoride	mg/L	1.6/-	Comp	0.11	*
Nitrate + Nitrite as Nitrogen (N)	mg/L	8/-	Comp	1.1	*
Nitrate as Nitrogen (N)	mg/L	8/-	Comp	1.1	*
Nitrite as Nitrogen (N)	mg/L	1/-	Comp	ND < 0.11	*
Oil & Grease	mg/L	15/-	Grab	ND < 1.3	*
Perchlorate	ug/L	6.0/-	Comp	ND < 0.95	U
pH (Field)	pH units	6.5-8.5/-	Grab	7.2	*
Total Settleable Solids	ml/L	0.3/-	Grab	ND < 0.10	*
Sulfate	mg/L	300/-	Comp	150	*
Temperature	deg. F	86/-	Grab	68	*
Total Cyanide	ug/L	8.5/-	Comp	ND < 3.0	*
Total Dissolved Solids	mg/L	950/-	Comp	310	*
Hardness	mg/L	-/-	Comp	100	--
Hardness, dissolved	mg/L	-/-	Comp	97	--
Total Organic Carbon	mg/L	-/-	Comp	7.4	--
Total Residual Chlorine (Field)	mg/L	0.1/-	Grab	0.0	*
Total Suspended Solids	mg/L	45/-	Comp	ND < 10	*
Turbidity	NTU	-/-	Comp	1.8	J (C)
Volume Discharged	MGD	160/-	MEAS	0.55509	*
<b>METALS</b>					
Antimony	ug/L	6.0/-	Comp	ND < 0.30	U
Antimony, dissolved	ug/L	-/-	Comp	0.43	J (DNQ)
Arsenic	ug/L	10/-	Comp	ND < 10	U (\$)
Arsenic, dissolved	ug/L	-/-	Comp	ND < 7.0	U
Barium	mg/L	1.0/-	Comp	0.021	--
Barium, dissolved	mg/L	-/-	Comp	0.018	--
Beryllium	ug/L	4.0/-	Comp	ND < 0.90	U
Beryllium, dissolved	ug/L	-/-	Comp	ND < 0.90	U
Boron	mg/L	-/-	Comp	ND < 0.22	U (B)
Boron, dissolved	mg/L	-/-	Comp	0.20	--
Cadmium	ug/L	3.1/-	Comp	ND < 0.10	U
Cadmium, dissolved	ug/L	-/-	Comp	ND < 0.10	U
Calcium	mg/L	-/-	Comp	28	--
Calcium, Dissolved	mg/L	-/-	Comp	27	--
Chromium	ug/L	16/-	Comp	ND < 2.0	U
Chromium, dissolved	ug/L	-/-	Comp	ND < 2.0	U
Chromium VI	ug/L	16/-	Comp	ND < 0.25	*
Cobalt	ug/L	-/-	Comp	0.10	J (DNQ)
Cobalt, dissolved	ug/L	-/-	Comp	0.16	J (DNQ)

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	04/10-11/2012	
				RESULT	VALIDATION QUALIFIER
Copper	ug/L	14/-	Comp	0.85	J (DNQ)
Copper, dissolved	ug/L	-/-	Comp	0.81	J (DNQ)
Iron	mg/L	0.3/-	Comp	0.086	--
Iron, dissolved	mg/L	-/-	Comp	ND < 0.015	U
Lead	ug/L	5.2/-	Comp	ND < 0.20	U
Lead, dissolved	ug/L	-/-	Comp	ND < 0.20	U
Magnesium	mg/L	-/-	Comp	7.9	--
Magnesium, Dissolved	mg/L	-/-	Comp	7.3	--
Manganese	ug/L	50/-	Comp	18	J (DNQ)
Manganese, dissolved	ug/L	-/-	Comp	9.7	J (DNQ)
Mercury	ug/L	0.10/-	Comp	ND < 0.10	U
Mercury, dissolved	ug/L	-/-	Comp	ND < 0.10	U
Nickel	ug/L	96/-	Comp	2.2	J (DNQ)
Nickel, dissolved	ug/L	-/-	Comp	ND < 2.0	U
Selenium	ug/L	8.2/-	Comp	ND < 0.50	U
Selenium, dissolved	ug/L	-/-	Comp	ND < 0.50	U
Silver	ug/L	4.1/-	Comp	ND < 6.0	U
Silver, dissolved	ug/L	-/-	Comp	ND < 6.0	U
Thallium	ug/L	2.0/-	Comp	ND < 0.20	U
Thallium, dissolved	ug/L	-/-	Comp	0.24	J (DNQ)
Vanadium	ug/L	-/-	Comp	ND < 3.0	U
Vanadium, dissolved	ug/L	-/-	Comp	ND < 3.0	U
Zinc	ug/L	119/-	Comp	ND < 6.0	U
Zinc, Dissolved	ug/L	-/-	Comp	ND < 6.0	U
<b>ORGANICS</b>					
Benzene	ug/L	-/-	Grab	ND < 0.28	*
Carbon Tetrachloride	ug/L	-/-	Grab	ND < 0.28	*
Chloroform	ug/L	-/-	Grab	ND < 0.33	*
1,1-Dichloroethane	ug/L	-/-	Grab	ND < 0.40	*
1,2-Dichloroethane	ug/L	0.5/-	Grab	ND < 0.28	*
1,1-Dichloroethene	ug/L	6.0/-	Grab	ND < 0.42	*
1,4-Dioxane	ug/L	-/-	Comp	ND < 1.0	*
Ethylbenzene	ug/L	-/-	Grab	ND < 0.25	*
Tetrachloroethene	ug/L	-/-	Grab	ND < 0.32	*
Toluene	ug/L	-/-	Grab	ND < 0.36	*
Xylenes (Total)	ug/L	-/-	Grab	ND < 0.90	*
1,1,1-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*
1,1,2-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*
Trichloroethene	ug/L	5.0/-	Grab	ND < 0.26	*
Trichlorofluoromethane	ug/L	-/-	Grab	ND < 0.34	*
Trichlorotrifluoroethane (Freon 113)	ug/L	-/-	Grab	ND < 0.50	*
Vinyl Chloride	ug/L	-/-	Grab	ND < 0.40	*
<b>TPH</b>					
DRO (C13 - C28)	mg/L	-/-	Grab	ND < 0.094	U
GRO (C4 - C12)	mg/L	-/-	Grab	0.035	J (DNQ, *II)
<b>ADDITIONAL ANALYTES</b>					
1,2-Dichloro-1,1,2-trifluoroethane	ug/L	-/-	Grab	ND < 1.1	*
1,1,2,2-Tetrachloroethane	ug/L	-/-	Grab	ND < 0.30	*
1,2,4-Trichlorobenzene	ug/L	-/-	Comp	ND < 0.0943	U

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	04/10-11/2012	
				RESULT	VALIDATION QUALIFIER
1,2,3-Trichloropropane	ug/L	-/-	ANR	ANR	ANR
1,2-Dibromoethane (EDB)	ug/L	-/-	ANR	ANR	ANR
1,2-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.32	*
1,2-Dichlorobenzene	ug/L	-/-	Comp	ND < 0.0943	U
1,2-Dichloropropane	ug/L	-/-	Grab	ND < 0.35	*
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	Comp	ND < 0.189	U
1,3-Dichlorobenzene	ug/L	-/-	Comp	ND < 0.0943	U
1,3-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.35	*
1,4-Dichlorobenzene	ug/L	-/-	Comp	ND < 0.189	U
1,4-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.37	*
2,4,6-Trichlorophenol	ug/L	13/-	Comp	ND < 0.0943	U
2,4-Dichlorophenol	ug/L	-/-	Comp	ND < 0.189	U
2,4-Dimethylphenol	ug/L	-/-	Comp	ND < 0.283	U
2,4-Dinitrophenol	ug/L	-/-	Comp	ND < 0.849	U
2,4-Dinitrotoluene	ug/L	18/-	Comp	ND < 0.189	U
2,6-Dinitrotoluene	ug/L	-/-	Comp	ND < 0.0943	U
2-Butanol	ug/L	-/-	ANR	ANR	ANR
2-Chloroethylvinylether	ug/L	-/-	Grab	ND < 1.8	*
2-Choronaphthalene	ug/L	-/-	Comp	ND < 0.0943	U
2-Chlorophenol	ug/L	-/-	Comp	ND < 0.189	U
2-Methyl-4,6-dinitrophenol	ug/L	-/-	Comp	ND < 0.283	U
2-Methylnaphthalene	ug/L	-/-	Comp	ND < 0.189	U
2-Methylphenol	ug/L	-/-	Comp	ND < 0.0943	U
2-Nitrophenol	ug/L	-/-	Comp	ND < 0.0943	U
3,3'-Dichlorobenzidine	ug/L	-/-	Comp	ND < 0.472	U
4,4'-DDD	ug/L	-/-	Comp	ND < 0.0038	*
4,4'-DDE	ug/L	-/-	Comp	ND < 0.0029	*
4,4'-DDT	ug/L	-/-	Comp	ND < 0.0038	*
4-Bromophenylphenylether	ug/L	-/-	Comp	ND < 0.189	U
4-Chloro-3-methylphenol	ug/L	-/-	Comp	ND < 0.189	U
4-Chloroaniline	ug/L	-/-	Comp	ND < 0.283	U
4-Chlorophenylphenylether	ug/L	-/-	Comp	ND < 0.189	U
4-Nitrophenol	ug/L	-/-	Comp	ND < 2.36	UJ (C)
Acenaphthene	ug/L	-/-	Comp	ND < 0.189	U
Acenaphthylene	ug/L	-/-	Comp	ND < 0.189	U
Acrolein	ug/L	-/-	Grab	ND < 4.0	*
Acrylonitrile	ug/L	-/-	Grab	ND < 1.2	*
Acute Toxicity	% SURVIVAL	70-100/-	Comp	100	*
Aldrin	ug/L	-/-	Comp	ND < 0.0014	*
alpha-BHC	ug/L	0.03/-	Comp	ND < 0.0024	*
Aniline	ug/L	-/-	Comp	ND < 0.283	U
Anthracene	ug/L	-/-	Comp	ND < 0.0943	U
Aroclor-1016	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1221	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1232	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1242	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1248	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1254	ug/L	-/-	Comp	ND < 0.24	*
Aroclor-1260	ug/L	-/-	Comp	ND < 0.24	*

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	04/10-11/2012	
				RESULT	VALIDATION QUALIFIER
Benzidine	ug/L	-/-	Comp	ND < 0.943	UJ (C, L)
Benzo(a)anthracene	ug/L	-/-	Comp	ND < 0.0943	U
Benzo(a)pyrene	ug/L	-/-	Comp	ND < 0.0943	U
Benzo(b)fluoranthene	ug/L	-/-	Comp	ND < 0.0943	U
Benzo(g,h,l)perylene	ug/L	-/-	Comp	ND < 0.0943	U
Benzo(k)fluoranthene	ug/L	-/-	Comp	ND < 0.189	U
Benzoic acid	ug/L	-/-	Comp	ND < 2.83	U
Benzyl alcohol	ug/L	-/-	Comp	ND < 0.0943	U
beta-BHC	ug/L	-/-	Comp	ND < 0.0038	*
bis (2-Chloroethyl) ether	ug/L	-/-	Comp	ND < 0.0943	U
bis (2-ethylhexyl) Phthalate	ug/L	4.0/-	Comp	ND < 1.60	U
bis(2-Chloroethoxy) methane	ug/L	-/-	Comp	ND < 0.0943	U
bis(2-Chloroisopropyl) ether	ug/L	-/-	Comp	ND < 0.0943	U
Bromodichloromethane	ug/L	-/-	Grab	ND < 0.30	*
Bromoform	ug/L	-/-	Grab	ND < 0.40	*
Bromomethane	ug/L	-/-	Grab	ND < 0.42	*
Butylbenzylphthalate	ug/L	-/-	Comp	ND < 0.660	U
Chlordane	ug/L	-/-	Comp	ND < 0.0076	*
Chlorobenzene	ug/L	-/-	Grab	ND < 0.36	*
Chloroethane	ug/L	-/-	Grab	ND < 0.40	*
Chloromethane	ug/L	-/-	Grab	ND < 0.40	*
Chronic Toxicity	TUC	1.0/-	Comp	1.0	*
Chrysene	ug/L	-/-	Comp	ND < 0.0943	U
cis-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.32	*
cis-1,3-Dichloropropene	ug/L	-/-	Grab	ND < 0.22	*
Cyclohexane	ug/L	-/-	Grab	ND < 0.40	*
delta-BHC	ug/L	-/-	Comp	ND < 0.0033	*
Dibenzo(a,h)anthracene	ug/L	-/-	Comp	ND < 0.0943	U
Dibenzofuran	ug/L	-/-	Comp	ND < 0.0943	U
Dibromochloromethane	ug/L	-/-	Grab	ND < 0.40	*
Dieldrin	ug/L	-/-	Comp	ND < 0.0019	*
Diethylphthalate	ug/L	-/-	Comp	0.195	J (DNQ)
Diisopropyl ether	ug/L	-/-	ANR	ANR	ANR
Dimethylphthalate	ug/L	-/-	Comp	ND < 0.189	U
Di-n-butylphthalate	ug/L	-/-	Comp	ND < 0.283	U
Di-n-octylphthalate	ug/L	-/-	Comp	ND < 0.189	U
Endosulfan I	ug/L	-/-	Comp	ND < 0.0029	*
Endosulfan II	ug/L	-/-	Comp	ND < 0.0019	*
Endosulfan sulfate	ug/L	-/-	Comp	ND < 0.0029	*
Endrin	ug/L	-/-	Comp	ND < 0.0019	*
Endrin aldehyde	ug/L	-/-	Comp	ND < 0.0019	*
Ethyl tert-Butyl Ether (ETBE)	ug/L	-/-	ANR	ANR	ANR
Fluoranthene	ug/L	-/-	Comp	ND < 0.0943	U
Fluorene	ug/L	-/-	Comp	ND < 0.0943	U
Heptachlor	ug/L	-/-	Comp	ND < 0.0029	*
Heptachlor epoxide	ug/L	-/-	Comp	ND < 0.0024	*
Hexachlorobenzene	ug/L	-/-	Comp	ND < 0.0943	U
Hexachlorobutadiene	ug/L	-/-	Comp	ND < 0.189	U
Hexachlorocyclopentadiene	ug/L	-/-	Comp	ND < 0.0943	UJ (C)

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	04/10-11/2012	
				RESULT	VALIDATION QUALIFIER
Hexachloroethane	ug/L	-/-	Comp	ND < 0.189	U
Hydrazine	ug/L	-/-	Comp	ND < 0.439	*
Unsymmetrical Dimethyl Hydrazine	ug/L	-/-	Comp	ND < 1.13	*
Indeno(1,2,3-cd)pyrene	ug/L	-/-	Comp	ND < 0.0943	U
Isophorone	ug/L	-/-	Comp	ND < 0.0943	U
Lindane (gamma-BHC)	ug/L	-/-	Comp	ND < 0.0029	*
Methylene Chloride	ug/L	-/-	Grab	ND < 0.95	*
Methyl-tert-butyl ether	ug/L	-/-	ANR	ANR	ANR
m-Nitroaniline	ug/L	-/-	Comp	ND < 0.943	U
Monomethyl Hydrazine	ug/L	-/-	Comp	ND < 1.77	*
Naphthalene	ug/L	-/-	Comp	ND < 0.0943	U
Naphthalene	ug/L	-/-	ANR	ANR	ANR
Nitrobenzene	ug/L	-/-	Comp	ND < 0.0943	U
n-Nitrosodimethylamine	ug/L	16/-	Comp	ND < 0.0943	UJ (*III)
n-Nitroso-di-n-propylamine	ug/L	-/-	Comp	ND < 0.0943	UJ (C)
n-Nitrosodiphenylamine	ug/L	-/-	Comp	ND < 0.0943	U
o-Nitroaniline	ug/L	-/-	Comp	ND < 0.0943	UJ (C)
p-Cresol	ug/L	-/-	Comp	ND < 0.189	U
Pentachlorophenol	ug/L	16.5/-	Comp	ND < 0.377	U
Phenanthrene	ug/L	-/-	Comp	ND < 0.0943	U
Phenol	ug/L	-/-	Comp	ND < 0.283	U
p-Nitroaniline	ug/L	-/-	Comp	ND < 0.472	U
Pyrene	ug/L	-/-	Comp	ND < 0.0943	U
tert-Amyl Methyl Ether (TAME)	ug/L	-/-	ANR	ANR	ANR
Toxaphene	ug/L	-/-	Comp	ND < 0.24	*
trans-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.30	*
trans-1,3-Dichloropropene	ug/L	-/-	Grab	ND < 0.32	*

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	4/12-13/2012	
				RESULT	VALIDATION QUALIFIER
Ammonia as Nitrogen (N)	mg/L	10.1/-	Comp	0.280	J,DX* (DNQ)
Biochemical Oxygen Demand (BOD 5 day)	mg/L	30/-	Comp	1.1	J,DX* (DNQ)
Chloride	mg/L	150/-	Comp	29	*
Dissolved Oxygen	mg	-/-	Grab	10.53	*
E. Coli	MPN/100mL	-/-	ANR	ANR	ANR
Fecal Coliform	MPN/100mL	-/-	ANR	ANR	ANR
Human Bacteroides	Ces/100 mL	-/-	ANR	ANR	ANR
Specific Conductivity (Lab)	umhos/cm	-/-	Grab	680	--
Surfactants (MBAS)	mg/L	0.5/-	Comp	ND < 0.050	*
Fluoride	mg/L	1.6/-	ANR	ANR	ANR
Nitrate + Nitrite as Nitrogen (N)	mg/L	8/-	Comp	ND < 0.19	*
Nitrate as Nitrogen (N)	mg/L	8/-	Comp	0.080	J,DX* (DNQ)
Nitrite as Nitrogen (N)	mg/L	1/-	Comp	ND < 0.11	*
Oil & Grease	mg/L	15/-	Grab	ND < 1.3	*
Perchlorate	ug/L	6.0/-	Comp	ND < 0.95	U
pH (Field)	pH units	6.5-8.5/-	Grab	7.2	*
Total Settleable Solids	ml/L	0.3/-	Grab	ND < 0.10	*
Sulfate	mg/L	300/-	Comp	180	*
Temperature	deg. F	86/-	Grab	56	*
Total Cyanide	ug/L	8.5/-	Comp	ND < 3.0	*
Total Dissolved Solids	mg/L	950/-	Comp	400	*
Hardness	mg/L	-/-	ANR	ANR	ANR
Hardness, dissolved	mg/L	-/-	ANR	ANR	ANR
Total Organic Carbon	mg/L	-/-	ANR	ANR	ANR
Total Residual Chlorine (Field)	mg/L	0.1/-	ANR	ANR	ANR
Total Suspended Solids	mg/L	45/-	Comp	ND < 10	*
Turbidity	NTU	-/-	Comp	0.27	J (R)
Volume Discharged	MGD	160/-	MEAS	1.469475	*
<b>METALS</b>					
Antimony	ug/L	6.0/-	ANR	ANR	ANR
Antimony, dissolved	ug/L	-/-	ANR	ANR	ANR
Arsenic	ug/L	10/-	ANR	ANR	ANR
Arsenic, dissolved	ug/L	-/-	ANR	ANR	ANR
Barium	mg/L	1.0/-	ANR	ANR	ANR
Barium, dissolved	mg/L	-/-	ANR	ANR	ANR
Beryllium	ug/L	4.0/-	ANR	ANR	ANR
Beryllium, dissolved	ug/L	-/-	ANR	ANR	ANR
Boron	mg/L	-/-	ANR	ANR	ANR
Boron, dissolved	mg/L	-/-	ANR	ANR	ANR
Cadmium	ug/L	3.1/-	Comp	ND < 0.10	*
Cadmium, dissolved	ug/L	-/-	Comp	ND < 0.10	*
Calcium	mg/L	-/-	ANR	ANR	ANR
Calcium, Dissolved	mg/L	-/-	ANR	ANR	ANR
Chromium	ug/L	16/-	ANR	ANR	ANR
Chromium, dissolved	ug/L	-/-	ANR	ANR	ANR
Chromium VI	ug/L	16/-	ANR	ANR	ANR
Cobalt	ug/L	-/-	ANR	ANR	ANR
Cobalt, dissolved	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	4/12-13/2012	
				RESULT	VALIDATION QUALIFIER
Copper	ug/L	14/-	Comp	ND < 0.50	*
Copper, dissolved	ug/L	-/-	Comp	0.55	*
Iron	mg/L	0.3/-	Comp	ND < 0.015	U
Iron, dissolved	mg/L	-/-	Comp	ND < 0.015	U
Lead	ug/L	5.2/-	Comp	ND < 0.20	*
Lead, dissolved	ug/L	-/-	Comp	ND < 0.20	*
Magnesium	mg/L	-/-	ANR	ANR	ANR
Magnesium, Dissolved	mg/L	-/-	ANR	ANR	ANR
Manganese	ug/L	50/-	ANR	ANR	ANR
Manganese, dissolved	ug/L	-/-	ANR	ANR	ANR
Mercury	ug/L	0.10/-	Comp	ND < 0.10	U
Mercury, dissolved	ug/L	-/-	Comp	ND < 0.10	U
Nickel	ug/L	96/-	ANR	ANR	ANR
Nickel, dissolved	ug/L	-/-	ANR	ANR	ANR
Selenium	ug/L	8.2/-	Comp	ND < 0.50	*
Selenium, dissolved	ug/L	-/-	Comp	ND < 0.50	*
Silver	ug/L	4.1/-	ANR	ANR	ANR
Silver, dissolved	ug/L	-/-	ANR	ANR	ANR
Thallium	ug/L	2.0/-	ANR	ANR	ANR
Thallium, dissolved	ug/L	-/-	ANR	ANR	ANR
Vanadium	ug/L	-/-	ANR	ANR	ANR
Vanadium, dissolved	ug/L	-/-	ANR	ANR	ANR
Zinc	ug/L	119/-	Comp	ND < 6.0	U
Zinc, Dissolved	ug/L	-/-	Comp	ND < 6.0	U
<b>ORGANICS</b>					
Benzene	ug/L	-/-	Grab	ND < 0.28	U
Carbon Tetrachloride	ug/L	-/-	Grab	ND < 0.28	U
Chloroform	ug/L	-/-	Grab	ND < 0.33	U
1,1-Dichloroethane	ug/L	-/-	Grab	ND < 0.40	U
1,2-Dichloroethane	ug/L	0.5/-	Grab	ND < 0.28	U
1,1-Dichloroethene	ug/L	6.0/-	Grab	ND < 0.42	U
1,4-Dioxane	ug/L	-/-	ANR	ANR	ANR
Ethylbenzene	ug/L	-/-	Grab	ND < 0.25	U
Tetrachloroethene	ug/L	-/-	Grab	ND < 0.32	U
Toluene	ug/L	-/-	Grab	ND < 0.36	U
Xylenes (Total)	ug/L	-/-	Grab	ND < 0.90	U
1,1,1-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	U
1,1,2-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	U
Trichloroethene	ug/L	5.0/-	Grab	ND < 0.26	U
Trichlorofluoromethane	ug/L	-/-	Grab	ND < 0.34	U
Trichlorotrifluoroethane (Freon 113)	ug/L	-/-	ANR	ANR	ANR
Vinyl Chloride	ug/L	-/-	Grab	ND < 0.40	U
<b>TPH</b>					
DRO (C13 - C28)	mg/L	-/-	ANR	ANR	ANR
GRO (C4 - C12)	mg/L	-/-	ANR	ANR	ANR
<b>ADDITIONAL ANALYTES</b>					
1,2-Dichloro-1,1,2-trifluoroethane	ug/L	-/-	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	ug/L	-/-	Grab	ND < 0.30	U
1,2,4-Trichlorobenzene	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	4/12-13/2012	
				RESULT	VALIDATION QUALIFIER
1,2,3-Trichloropropane	ug/L	-/-	Grab	ND < 0.40	U
1,2-Dibromoethane (EDB)	ug/L	-/-	Grab	ND < 0.40	U
1,2-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.32	U
1,2-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,2-Dichloropropane	ug/L	-/-	Grab	ND < 0.35	U
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	ANR	ANR	ANR
1,3-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,3-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.35	U
1,4-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,4-Dichlorobenzene	ug/L	-/-	Grab	ND < 0.37	U
2,4,6-Trichlorophenol	ug/L	13/-	Comp	ND < 0.0943	*
2,4-Dichlorophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dimethylphenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrotoluene	ug/L	18/-	Comp	ND < 0.189	*
2,6-Dinitrotoluene	ug/L	-/-	ANR	ANR	ANR
2-Butanol	ug/L	-/-	Grab	ND < 6.5	U
2-Chloroethylvinylether	ug/L	-/-	ANR	ANR	ANR
2-Choronaphthalene	ug/L	-/-	ANR	ANR	ANR
2-Chlorophenol	ug/L	-/-	ANR	ANR	ANR
2-Methyl-4,6-dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2-Methylnaphthalene	ug/L	-/-	ANR	ANR	ANR
2-Methylphenol	ug/L	-/-	ANR	ANR	ANR
2-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
3,3'-Dichlorobenzidine	ug/L	-/-	ANR	ANR	ANR
4,4'-DDD	ug/L	-/-	ANR	ANR	ANR
4,4'-DDE	ug/L	-/-	ANR	ANR	ANR
4,4'-DDT	ug/L	-/-	ANR	ANR	ANR
4-Bromophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Chloro-3-methylphenol	ug/L	-/-	ANR	ANR	ANR
4-Chloroaniline	ug/L	-/-	ANR	ANR	ANR
4-Chlorophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
Acenaphthene	ug/L	-/-	ANR	ANR	ANR
Acenaphthylene	ug/L	-/-	ANR	ANR	ANR
Acrolein	ug/L	-/-	ANR	ANR	ANR
Acrylonitrile	ug/L	-/-	ANR	ANR	ANR
Acute Toxicity	% SURVIVAL	70-100/-	ANR	ANR	ANR
Aldrin	ug/L	-/-	ANR	ANR	ANR
alpha-BHC	ug/L	0.03/-	Comp	ND < 0.0024	*
Aniline	ug/L	-/-	ANR	ANR	ANR
Anthracene	ug/L	-/-	ANR	ANR	ANR
Aroclor-1016	ug/L	-/-	ANR	ANR	ANR
Aroclor-1221	ug/L	-/-	ANR	ANR	ANR
Aroclor-1232	ug/L	-/-	ANR	ANR	ANR
Aroclor-1242	ug/L	-/-	ANR	ANR	ANR
Aroclor-1248	ug/L	-/-	ANR	ANR	ANR
Aroclor-1254	ug/L	-/-	ANR	ANR	ANR
Aroclor-1260	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	4/12-13/2012	
				RESULT	VALIDATION QUALIFIER
Benzidine	ug/L	-/-	ANR	ANR	ANR
Benzo(a)anthracene	ug/L	-/-	ANR	ANR	ANR
Benzo(a)pyrene	ug/L	-/-	ANR	ANR	ANR
Benzo(b)fluoranthene	ug/L	-/-	ANR	ANR	ANR
Benzo(g,h,l)perylene	ug/L	-/-	ANR	ANR	ANR
Benzo(k)fluoranthene	ug/L	-/-	ANR	ANR	ANR
Benzoic acid	ug/L	-/-	ANR	ANR	ANR
Benzyl alcohol	ug/L	-/-	ANR	ANR	ANR
beta-BHC	ug/L	-/-	ANR	ANR	ANR
bis (2-Chloroethyl) ether	ug/L	-/-	ANR	ANR	ANR
bis (2-ethylhexyl) Phthalate	ug/L	4.0/-	Comp	ND < 1.60	*
bis(2-Chloroethoxy) methane	ug/L	-/-	ANR	ANR	ANR
bis(2-Chloroisopropyl) ether	ug/L	-/-	ANR	ANR	ANR
Bromodichloromethane	ug/L	-/-	Grab	ND < 0.30	U
Bromoform	ug/L	-/-	Grab	ND < 0.40	U
Bromomethane	ug/L	-/-	Grab	ND < 0.42	U
Butylbenzylphthalate	ug/L	-/-	ANR	ANR	ANR
Chlordane	ug/L	-/-	ANR	ANR	ANR
Chlorobenzene	ug/L	-/-	Grab	ND < 0.36	U
Chloroethane	ug/L	-/-	Grab	ND < 0.40	U
Chloromethane	ug/L	-/-	Grab	ND < 0.40	U
Chronic Toxicity	TUC	1.0/-	Comp	1.0	*
Chrysene	ug/L	-/-	ANR	ANR	ANR
cis-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.32	U
cis-1,3-Dichloropropene	ug/L	-/-	Grab	ND < 0.22	U
Cyclohexane	ug/L	-/-	ANR	ANR	ANR
delta-BHC	ug/L	-/-	ANR	ANR	ANR
Dibenzo(a,h)anthracene	ug/L	-/-	ANR	ANR	ANR
Dibenzofuran	ug/L	-/-	ANR	ANR	ANR
Dibromochloromethane	ug/L	-/-	Grab	ND < 0.40	U
Dieldrin	ug/L	-/-	ANR	ANR	ANR
Diethylphthalate	ug/L	-/-	ANR	ANR	ANR
Diisopropyl ether	ug/L	-/-	Grab	ND < 0.25	U
Dimethylphthalate	ug/L	-/-	ANR	ANR	ANR
Di-n-butylphthalate	ug/L	-/-	ANR	ANR	ANR
Di-n-octylphthalate	ug/L	-/-	ANR	ANR	ANR
Endosulfan I	ug/L	-/-	ANR	ANR	ANR
Endosulfan II	ug/L	-/-	ANR	ANR	ANR
Endosulfan sulfate	ug/L	-/-	ANR	ANR	ANR
Endrin	ug/L	-/-	ANR	ANR	ANR
Endrin aldehyde	ug/L	-/-	ANR	ANR	ANR
Ethyl tert-Butyl Ether (ETBE)	ug/L	-/-	Grab	ND < 0.28	U
Fluoranthene	ug/L	-/-	ANR	ANR	ANR
Fluorene	ug/L	-/-	ANR	ANR	ANR
Heptachlor	ug/L	-/-	ANR	ANR	ANR
Heptachlor epoxide	ug/L	-/-	ANR	ANR	ANR
Hexachlorobenzene	ug/L	-/-	ANR	ANR	ANR
Hexachlorobutadiene	ug/L	-/-	ANR	ANR	ANR
Hexachlorocyclopentadiene	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE TYPE	4/12-13/2012	
				RESULT	VALIDATION QUALIFIER
Hexachloroethane	ug/L	-/-	ANR	ANR	ANR
Hydrazine	ug/L	-/-	ANR	ANR	ANR
Unsymmetrical Dimethyl Hydrazine	ug/L	-/-	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene	ug/L	-/-	ANR	ANR	ANR
Isophorone	ug/L	-/-	ANR	ANR	ANR
Lindane (gamma-BHC)	ug/L	-/-	ANR	ANR	ANR
Methylene Chloride	ug/L	-/-	Grab	0.97	J (DNQ)
Methyl-tert-butyl ether	ug/L	-/-	Grab	ND < 0.32	U
m-Nitroaniline	ug/L	-/-	ANR	ANR	ANR
Monomethyl Hydrazine	ug/L	-/-	ANR	ANR	ANR
Naphthalene	ug/L	-/-	ANR	ANR	ANR
Naphthalene	ug/L	-/-	Grab	ND < 0.41	U
Nitrobenzene	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodimethylamine	ug/L	16/-	Comp	ND < 0.0943	BA* (BA)
n-Nitroso-di-n-propylamine	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodiphenylamine	ug/L	-/-	ANR	ANR	ANR
o-Nitroaniline	ug/L	-/-	ANR	ANR	ANR
p-Cresol	ug/L	-/-	ANR	ANR	ANR
Pentachlorophenol	ug/L	16.5/-	Comp	ND < 0.377	*
Phenanthrene	ug/L	-/-	ANR	ANR	ANR
Phenol	ug/L	-/-	ANR	ANR	ANR
p-Nitroaniline	ug/L	-/-	ANR	ANR	ANR
Pyrene	ug/L	-/-	ANR	ANR	ANR
tert-Amyl Methyl Ether (TAME)	ug/L	-/-	Grab	ND < 0.33	U
Toxaphene	ug/L	-/-	ANR	ANR	ANR
trans-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.30	U
trans-1,3-Dichloropropene	ug/L	-/-	Grab	ND < 0.32	U

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Sample Type Composite**  
**Sample Dates April 10-11, 2012**

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HxCDD	2.60E-06	5.00E-05	ND	UJ (I, *III)	0.01	0.05	ND
1,2,3,4,6,7,8-HpCDF	2.20E-06	5.00E-05	ND	UJ (B, I)	0.01	0.01	ND
1,2,3,4,7,8,9-HpCDF	2.80E-06	5.00E-05	1.40E-05	J (DNQ, I)	0.01	0.4	ND
1,2,3,4,7,8-HxCDD	2.30E-06	5.00E-05	ND	UJ (I)	0.1	0.3	ND
1,2,3,4,7,8-HxCDF	1.50E-06	5.00E-05	5.40E-06	J (DNQ, I)	0.1	0.08	ND
1,2,3,6,7,8-HxCDD	2.30E-06	5.00E-05	ND	UJ (I)	0.1	0.1	ND
1,2,3,6,7,8-HxCDF	1.50E-06	5.00E-05	ND	UJ (I)	0.1	0.2	ND
1,2,3,7,8,9-HxCDD	2.10E-06	5.00E-05	ND	UJ (I)	0.1	0.1	ND
1,2,3,7,8,9-HxCDF	1.80E-06	5.00E-05	4.60E-06	J (DNQ, I)	0.1	0.6	ND
1,2,3,7,8-PeCDD	4.00E-06	5.00E-05	ND	UJ (I)	1	0.9	ND
1,2,3,7,8-PeCDF	4.50E-06	5.00E-05	ND	UJ (I)	0.05	0.2	ND
2,3,4,6,7,8-HxCDF	1.40E-06	5.00E-05	ND	UJ (I)	0.1	0.7	ND
2,3,4,7,8-PeCDF	4.50E-06	5.00E-05	ND	U	0.5	1.6	ND
2,3,7,8-TCDD	3.30E-06	1.00E-05	ND	UJ (I)	1	1	ND
2,3,7,8-TCDF	3.20E-06	1.00E-05	ND	U	0.1	0.8	ND
OCDD	5.50E-06	1.00E-04	3.30E-05	J (DNQ)	0.0001	0.01	ND
OCDF	7.60E-06	1.00E-04	ND	UJ (B, I)	0.0001	0.02	ND
<b>TCDD TEQ w/out DNQ Values</b>							ND
<b>TCDD TEQ PERMIT LIMIT = 2.80E-08</b>							ND

See attached notes for abbreviations, definitions, and other explanations for the data presented in this table.

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Sample Type Composite**  
**Sample Date April 12-13 2012**

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNNQ Values) (ug/L)
1,2,3,4,6,7,8-HxCDD	2.00E-08	4.80E-05	ND	U (B)	0.01	0.05	ND
1,2,3,4,6,7,8-HpCDF	2.00E-08	4.80E-05	ND	U (B)	0.01	0.01	ND
1,2,3,4,7,8,9-HpCDF	3.00E-08	4.80E-05	ND	U (B)	0.01	0.4	ND
1,2,3,4,7,8-HxCDD	4.00E-08	4.80E-05	ND	U (B)	0.1	0.3	ND
1,2,3,4,7,8-HxCDF	4.00E-08	4.80E-05	ND	U (B)	0.1	0.08	ND
1,2,3,6,7,8-HxCDD	4.00E-08	4.80E-05	ND	U (B)	0.1	0.1	ND
1,2,3,6,7,8-HxCDF	4.00E-08	4.80E-05	ND	U (B)	0.1	0.2	ND
1,2,3,7,8,9-HxCDD	3.00E-08	4.80E-05	ND	U (B)	0.1	0.1	ND
1,2,3,7,8,9-HxCDF	4.00E-08	4.80E-05	ND	U (B)	0.1	0.6	ND
1,2,3,7,8-PeCDD	1.00E-07	4.80E-05	ND	UJ (*III)	1	0.9	ND
1,2,3,7,8-PeCDF	3.90E-07	4.80E-05	ND	U (B)	0.05	0.2	ND
2,3,4,6,7,8-HxCDF	4.00E-08	4.80E-05	ND	U (B)	0.1	0.7	ND
2,3,4,7,8-PeCDF	4.10E-07	4.80E-05	ND	U (B)	0.5	1.6	ND
2,3,7,8-TCDD	4.60E-07	9.60E-06	ND	U	1	1	ND
2,3,7,8-TCDF	1.90E-06	9.60E-06	ND	U	0.1	0.8	ND
OCDD	4.00E-08	9.60E-05	ND	U (B)	0.0001	0.01	ND
OCDF	1.50E-07	9.60E-05	ND	U (B)	0.0001	0.02	ND
<b>TCDD TEQ w/out DNNQ Values</b>							ND
<b>TCDD TEQ BENCHMARK LIMIT = 2.80E-08</b>							

See attached notes for abbreviations, definitions, and other explanations for the data presented in this table.

# OUTFALL 018 (R-2 Spillway)

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	04/10-11/2012		
			Sample Type	Result	Concentration Result Validation Qualifier
Max Discharge for event	MGD	160	Meas	0.45764	
Ammonia as Nitrogen (N)	LBS/DAY	13,500/-	Comp	1.07	J,DX* (DNQ)
Biochemical Oxygen Demand (BOD 5 day)	LBS/DAY	40,032/-	Comp	ND	*
Chloride	LBS/DAY	200,160/-	Comp	95.42	*
Surfactants (MBAS)	LBS/DAY	667/-	Comp	ND	*
Fluoride	LBS/DAY	2,135/-	Comp	0.42	*
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	10,700/-	Comp	4.20	*
Nitrate as Nitrogen (N)	LBS/DAY	10,700/-	Comp	4.20	*
Oil & Grease	LBS/DAY	20,016/-	Grab	ND	*
Perchlorate	LBS/DAY	8.0/-	Comp	ND	U
Sulfate	LBS/DAY	400,320/-	Comp	572.50	*
Total Cyanide	LBS/DAY	11/-	Comp	ND	*
Total Dissolved Solids	LBS/DAY	1,270,000/-	Comp	1183.17	*
Total Residual Chlorine (Field)	LBS/DAY	133/-	Grab	0.00	*
Total Suspended Solids	LBS/DAY	60,048/-	Comp	ND	*
Antimony	LBS/DAY	8.0/-	Comp	ND	U
Arsenic	LBS/DAY	67/-	Comp	ND	U (\$)
Barium	LBS/DAY	1,330/-	Comp	0.08	--
Beryllium	LBS/DAY	5.3/-	Comp	ND	U
Cadmium	LBS/DAY	4.1/-	Comp	ND	U
Chromium VI	LBS/DAY	22/-	Comp	ND	*
Copper	LBS/DAY	19/-	Comp	0.00	J (DNQ)
Iron	LBS/DAY	400/-	Comp	0.33	--
Lead	LBS/DAY	6.9/-	Comp	ND	U
Manganese	LBS/DAY	66.7/-	Comp	0.07	J (DNQ)
Mercury	LBS/DAY	0.13/-	Comp	ND	U
Nickel	LBS/DAY	128/-	Comp	0.01	J (DNQ)
Selenium	LBS/DAY	11/-	Comp	ND	U
Silver	LBS/DAY	5.5/-	Comp	ND	U
Thallium	LBS/DAY	2.7/-	Comp	ND	U
Zinc	LBS/DAY	159/-	Comp	ND	U
1,2-Dichloroethane	LBS/DAY	0.67/-	Grab	ND	*
1,1-Dichloroethene	LBS/DAY	8.0/-	Grab	ND	*
Trichloroethene	LBS/DAY	6.7/-	Grab	ND	*
2,4,6-Trichlorophenol	LBS/DAY	17/-	Comp	ND	U
2,4-Dinitrotoluene	LBS/DAY	24/-	Comp	ND	U
alpha-BHC	LBS/DAY	0.04/-	Comp	ND	*
bis (2-ethylhexyl) Phthalate	LBS/DAY	5.3/-	Comp	ND	U
n-Nitrosodimethylamine	LBS/DAY	22/-	Comp	ND	UJ (*III)
Pentachlorophenol	LBS/DAY	22/-	Comp	ND	U
TCDD TEQ_NoDNQ	LBS/DAY	3.70E-08/-	Comp	ND	--

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/12-13/2012		
			Sample Type	Result	Concentration Result Validation Qualifier
Max Discharge for event	MGD	160	Meas	1.46948	
Ammonia as Nitrogen (N)	LBS/DAY	13,500/-	Comp	3.43	J,DX* (DNQ)
Biochemical Oxygen Demand (BOD 5 day)	LBS/DAY	40,032/-	Comp	13.48	J,DX* (DNQ)
Chloride	LBS/DAY	200,160/-	Comp	355.41	*
Surfactants (MBAS)	LBS/DAY	667/-	Comp	ND	*
Fluoride	LBS/DAY	2,135/-	ANR	ANR	ANR
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	10,700/-	Comp	ND	*
Nitrate as Nitrogen (N)	LBS/DAY	10,700/-	Comp	0.98	J,DX* (DNQ)
Oil & Grease	LBS/DAY	20,016/-	Grab	ND	*
Perchlorate	LBS/DAY	8.0/-	Comp	ND	U
Sulfate	LBS/DAY	400,320/-	Comp	2205.98	*
Total Cyanide	LBS/DAY	11/-	Comp	ND	*
Total Dissolved Solids	LBS/DAY	1,270,000/-	Comp	4902.17	*
Total Residual Chlorine (Field)	LBS/DAY	133/-	ANR	ANR	ANR
Total Suspended Solids	LBS/DAY	60,048/-	Comp	ND	*
Antimony	LBS/DAY	8.0/-	ANR	ANR	ANR
Arsenic	LBS/DAY	67/-	ANR	ANR	ANR
Barium	LBS/DAY	1,330/-	ANR	ANR	ANR
Beryllium	LBS/DAY	5.3/-	ANR	ANR	ANR
Cadmium	LBS/DAY	4.1/-	Comp	ND	*
Chromium VI	LBS/DAY	22/-	ANR	ANR	ANR
Copper	LBS/DAY	19/-	Comp	ND	*
Iron	LBS/DAY	400/-	Comp	ND	U
Lead	LBS/DAY	6.9/-	Comp	ND	*
Manganese	LBS/DAY	66.7/-	ANR	ANR	ANR
Mercury	LBS/DAY	0.13/-	Comp	ND	U
Nickel	LBS/DAY	128/-	ANR	ANR	ANR
Selenium	LBS/DAY	11/-	Comp	ND	*
Silver	LBS/DAY	5.5/-	ANR	ANR	ANR
Thallium	LBS/DAY	2.7/-	ANR	ANR	ANR
Zinc	LBS/DAY	159/-	Comp	ND	U
1,2-Dichloroethane	LBS/DAY	0.67/-	Grab	ND	U
1,1-Dichloroethene	LBS/DAY	8.0/-	Grab	ND	U
Trichloroethene	LBS/DAY	6.7/-	Grab	ND	U
2,4,6-Trichlorophenol	LBS/DAY	17/-	Comp	ND	*
2,4-Dinitrotoluene	LBS/DAY	24/-	Comp	ND	*
alpha-BHC	LBS/DAY	0.04/-	Comp	ND	*
bis (2-ethylhexyl) Phthalate	LBS/DAY	5.3/-	Comp	ND	*
n-Nitrosodimethylamine	LBS/DAY	22/-	Comp	ND	BA*
Pentachlorophenol	LBS/DAY	22/-	Comp	ND	*
TCDD TEQ_NoDNQ	LBS/DAY	3.70E-08/-	Comp	ND	--

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Ava	04/04/2012-04/05/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Ammonia as Nitrogen (N)	mg/L	10.1/1.96	Comp	0.560	--
Biochemical Oxygen Demand (BOD 5 day)	mg/L	30/20	Comp	ND < 0.50	U
Chloride	mg/L	150/-	Comp	31	--
Dissolved Oxygen	mg/L	-/-	Grab	4.31	*
Specific Conductivity (Lab)	umhos/cm	-/-	Grab	1100	--
Surfactants (MBAS)	mg/L	0.5/-	Comp	ND < 0.050	UJ (H)
Fluoride	mg/L	1.6/-	Comp	0.19	--
Nitrate + Nitrite as Nitrogen (N)	mg/L	8/-	Comp	ND < 0.19	U
Nitrate as Nitrogen (N)	mg/L	8/-	Comp	ND < 0.080	U
Nitrite as Nitrogen (N)	mg/L	-/-	Comp	ND < 0.11	U
Oil & Grease	mg/L	15/10	Grab	ND < 1.3	U
Perchlorate	ug/L	6.0/-	Comp	ND < 0.95	U
pH (Field)	pH units	6.5-8.5/-	Grab	7.5	*
Total Settleable Solids	ml/L	0.3/0.1	Grab	ND < 0.10	U
Sulfate	mg/L	300/-	Comp	150	--
Temperature	deg. F	86/-	Grab	57	*
Total Cyanide	ug/L	8.5/4.3	Comp	ND < 3.0	U
Total Dissolved Solids	mg/L	950/-	Comp	520	--
Hardness	mg/L	-/-	Comp	320	--
Hardness, dissolved	mg/L	-/-	Comp	300	--
Total Organic Carbon	mg/L	-/-	Comp	1.3	J+ (Q)
Total Residual Chlorine	mg/L	0.1/-	ANR	ANR	ANR
Total Suspended Solids	mg/L	45/15	Comp	ND < 10	U
Turbidity	NTU	-/-	Comp	0.070	J- (R, DΝQ)
Volume Discharged	MGD	160/-	Meas	0.02885	*
<b>METALS</b>					
Antimony	ug/L	6.0/-	ANR	ANR	ANR
Arsenic	ug/L	10/-	ANR	ANR	ANR
Barium	mg/L	1.0/-	ANR	ANR	ANR
Beryllium	ug/L	4.0/-	ANR	ANR	ANR
Boron	mg/L	-/-	ANR	ANR	ANR
Cadmium	ug/L	3.1/2.0	Comp	ND < 0.10	U
Cadmium, dissolved	ug/L	-/-	Comp	ND < 0.10	U
Chromium	ug/L	16/8	ANR	ANR	ANR
Chromium VI	ug/L	16/8	ANR	ANR	ANR
Cobalt	ug/L	-/-	ANR	ANR	ANR
Copper	ug/L	14/7.1	Comp	ND < 2.0	U (B)
Copper, dissolved	ug/L	-/-	Comp	ND < 0.50	U
Iron	mg/L	0.3/-	ANR	ANR	ANR
Lead	ug/L	5.2/2.6	Comp	ND < 0.20	U
Lead, dissolved	ug/L	-/-	Comp	ND < 0.20	U
Manganese	ug/L	50/-	ANR	ANR	ANR
Mercury	ug/L	0.10/0.05	Comp	ND < 0.10	U
Mercury, dissolved	ug/L	-/-	Comp	ND < 0.10	U

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Ava	04/04/2012-04/05/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Nickel	ug/L	96/35	ANR	ANR	ANR
Selenium	ug/L	8.2/4.1	Comp	ND < 0.50	U
Selenium, dissolved	ug/L	-/-	Comp	ND < 0.50	U
Silver	ug/L	4.1/2.0	ANR	ANR	ANR
Thallium	ug/L	2.0/-	ANR	ANR	ANR
Vanadium	ug/L	-/-	ANR	ANR	ANR
Zinc	ug/L	119/54	Comp	ND < 6.0	U
Zinc, Dissolved	ug/L	-/-	Comp	ND < 6.0	U
<b>ORGANICS</b>					
Benzene	ug/L	-/-	Grab	ND < 0.28	U
Carbon Tetrachloride	ug/L	-/-	Grab	ND < 0.28	U
Chloroform	ug/L	-/-	Grab	ND < 0.33	U
1,1-Dichloroethane	ug/L	-/-	Grab	ND < 0.40	U
1,2-Dichloroethane	ug/L	-/-	Grab	ND < 0.28	U
1,1-Dichloroethene	ug/L	6.0/3.2	Grab	ND < 0.42	U
1,4-Dioxane	ug/L	-/-	ANR	ANR	ANR
Ethylbenzene	ug/L	-/-	Grab	ND < 0.25	U
Tetrachloroethene	ug/L	-/-	Grab	ND < 0.32	U
Toluene	ug/L	-/-	Grab	ND < 0.36	U
Xylenes (Total)	ug/L	-/-	Grab	ND < 0.90	U
1,1,1-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	U
1,1,2-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	U
Trichloroethene	ug/L	5.0/-	Grab	ND < 0.26	U
Trichlorofluoromethane	ug/L	-/-	Grab	ND < 0.34	U
Trichlorotrifluoroethane (Freon 113)	ug/L	-/-	Grab	ND < 0.50	U
Vinyl Chloride	ug/L	-/-	Grab	ND < 0.40	U
<b>TPH</b>					
GRO (C4 - C12)	mg/L	-/-	ANR	ANR	ANR
<b>ADDITIONAL ANALYTES</b>					
1,2-Dichloro-1,1,2-trifluoroethane	ug/L	-/-	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	ug/L	-/-	ANR	ANR	ANR
1,2,4-Trichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,2-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,2-Dichloropropane	ug/L	-/-	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	ANR	ANR	ANR
1,3-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,4-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
2,4,6-Trichlorophenol	ug/L	13/6.5	Comp	ND < 0.0943	U
2,4-Dichlorophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dimethylphenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrotoluene	ug/L	18/9.1	Comp	ND < 0.189	U
2,6-Dinitrotoluene	ug/L	-/-	ANR	ANR	ANR
2-Chloroethylvinylether	ug/L	-/-	ANR	ANR	ANR
2-Chloronaphthalene	ug/L	-/-	ANR	ANR	ANR

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Ava	04/04/2012-04/05/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
2-Chlorophenol	ug/L	-/-	ANR	ANR	ANR
2-Methyl-4,6-dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
3,3'-Dichlorobenzidine	ug/L	-/-	ANR	ANR	ANR
4,4'-DDD	ug/L	-/-	ANR	ANR	ANR
4,4'-DDE	ug/L	-/-	ANR	ANR	ANR
4,4'-DDT	ug/L	-/-	ANR	ANR	ANR
4-Bromophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Chloro-3-methylphenol	ug/L	-/-	ANR	ANR	ANR
4-Chlorophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
Acenaphthene	ug/L	-/-	ANR	ANR	ANR
Acrolein	ug/L	-/-	ANR	ANR	ANR
Acrylonitrile	ug/L	-/-	ANR	ANR	ANR
Acute Toxicity	% SURVIVAL	70-100/-	Comp	100	*
Aldrin	ug/L	-/-	ANR	ANR	ANR
alpha-BHC	ug/L	0.03/0.01	Comp	ND < 0.0024	U
Anthracene	ug/L	-/-	ANR	ANR	ANR
Aroclor-1016	ug/L	-/-	ANR	ANR	ANR
Aroclor-1221	ug/L	-/-	ANR	ANR	ANR
Aroclor-1232	ug/L	-/-	ANR	ANR	ANR
Aroclor-1242	ug/L	-/-	ANR	ANR	ANR
Aroclor-1248	ug/L	-/-	ANR	ANR	ANR
Aroclor-1254	ug/L	-/-	ANR	ANR	ANR
Aroclor-1260	ug/L	-/-	ANR	ANR	ANR
Benzidine	ug/L	-/-	ANR	ANR	ANR
Benzo(a)anthracene	ug/L	-/-	ANR	ANR	ANR
Benzo(a)pyrene	ug/L	-/-	ANR	ANR	ANR
Benzo(b)fluoranthene	ug/L	-/-	ANR	ANR	ANR
Benzo(g,h,i)perylene	ug/L	-/-	ANR	ANR	ANR
Benzo(k)fluoranthene	ug/L	-/-	ANR	ANR	ANR
beta-BHC	ug/L	-/-	ANR	ANR	ANR
bis (2-Chloroethyl) ether	ug/L	-/-	ANR	ANR	ANR
bis (2-ethylhexyl) Phthalate	ug/L	4.0/-	Comp	ND < 1.60	U
bis(2-Chloroethoxy) methane	ug/L	-/-	ANR	ANR	ANR
bis(2-Chloroisopropyl) ether	ug/L	-/-	ANR	ANR	ANR
Bromodichloromethane	ug/L	-/-	ANR	ANR	ANR
Bromoform	ug/L	-/-	ANR	ANR	ANR
Bromomethane	ug/L	-/-	ANR	ANR	ANR
Butylbenzylphthalate	ug/L	-/-	ANR	ANR	ANR
Chlordane	ug/L	-/-	ANR	ANR	ANR
Chlorobenzene	ug/L	-/-	ANR	ANR	ANR
Chloroethane	ug/L	-/-	ANR	ANR	ANR
Chloromethane	ug/L	-/-	ANR	ANR	ANR
Chronic Toxicity	TUC	1.0/-	Comp	1.0	*

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	04/04/2012-04/05/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Chrysene	ug/L	-/-	ANR	ANR	ANR
cis-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.32	U
cis-1,3-Dichloropropene	ug/L	-/-	ANR	ANR	ANR
Cyclohexane	ug/L	-/-	ANR	ANR	ANR
delta-BHC	ug/L	-/-	ANR	ANR	ANR
Dibenz(a,h)anthracene	ug/L	-/-	ANR	ANR	ANR
Dibromochloromethane	ug/L	-/-	ANR	ANR	ANR
Dieldrin	ug/L	-/-	ANR	ANR	ANR
Diethylphthalate	ug/L	-/-	ANR	ANR	ANR
Dimethylphthalate	ug/L	-/-	ANR	ANR	ANR
Di-n-butylphthalate	ug/L	-/-	ANR	ANR	ANR
Di-n-octylphthalate	ug/L	-/-	ANR	ANR	ANR
Endosulfan I	ug/L	-/-	ANR	ANR	ANR
Endosulfan II	ug/L	-/-	ANR	ANR	ANR
Endosulfan sulfate	ug/L	-/-	ANR	ANR	ANR
Endrin	ug/L	-/-	ANR	ANR	ANR
Endrin aldehyde	ug/L	-/-	ANR	ANR	ANR
Fluoranthene	ug/L	-/-	ANR	ANR	ANR
Fluorene	ug/L	-/-	ANR	ANR	ANR
Heptachlor	ug/L	-/-	ANR	ANR	ANR
Heptachlor epoxide	ug/L	-/-	ANR	ANR	ANR
Hexachlorobenzene	ug/L	-/-	ANR	ANR	ANR
Hexachlorobutadiene	ug/L	-/-	ANR	ANR	ANR
Hexachlorocyclopentadiene	ug/L	-/-	ANR	ANR	ANR
Hexachloroethane	ug/L	-/-	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene	ug/L	-/-	ANR	ANR	ANR
Isophorone	ug/L	-/-	ANR	ANR	ANR
Lindane (gamma-BHC)	ug/L	-/-	ANR	ANR	ANR
Methylene Chloride	ug/L	-/-	ANR	ANR	ANR
Monomethyl Hydrazine	ug/L	-/-	ANR	ANR	ANR
Naphthalene	ug/L	-/-	ANR	ANR	ANR
Nitrobenzene	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodimethylamine	ug/L	16/8.1	Comp	ND < 0.0943	U
n-Nitroso-di-n-propylamine	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodiphenylamine	ug/L	-/-	ANR	ANR	ANR
Pentachlorophenol	ug/L	16.5/8.2	Comp	ND < 0.377	U
Phenanthrene	ug/L	-/-	ANR	ANR	ANR
Phenol	ug/L	-/-	ANR	ANR	ANR
Pyrene	ug/L	-/-	ANR	ANR	ANR
Toxaphene	ug/L	-/-	ANR	ANR	ANR
trans-1,2-Dichloroethene	ug/L	-/-	ANR	ANR	ANR
trans-1,3-Dichloropropene	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Ava	05/02/2012-05/03/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Ammonia as Nitrogen (N)	mg/L	10.1/1.96	Comp	ND < 0.157	*
Biochemical Oxygen Demand (BOD 5 day)	mg/L	30/20	Comp	ND < 0.50	*
Chloride	mg/L	150/-	Comp	24	*
Dissolved Oxygen	mg/L	-/-	Grab	4.35	*
Specific Conductivity (Lab)	umhos/cm	-/-	ANR	ANR	ANR
Surfactants (MBAS)	mg/L	0.5/-	Comp	ND < 0.050	*
Fluoride	mg/L	1.6/-	ANR	ANR	ANR
Nitrate + Nitrite as Nitrogen (N)	mg/L	8/-	Comp	ND < 0.19	*
Nitrate as Nitrogen (N)	mg/L	8/-	Comp	0.17	*
Nitrite as Nitrogen (N)	mg/L	-/-	Comp	ND < 0.11	*
Oil & Grease	mg/L	15/10	Grab	ND < 1.3	*
Perchlorate	ug/L	6.0/-	Comp	0.96	J (DNQ)
pH (Field)	pH units	6.5-8.5/-	Grab	7.2	*
Total Settleable Solids	ml/L	0.3/0.1	Grab	ND < 0.10	*
Sulfate	mg/L	300/-	Comp	180	*
Temperature	deg. F	86/-	Grab	57	*
Total Cyanide	ug/L	8.5/4.3	Comp	ND < 3.0	*
Total Dissolved Solids	mg/L	950/-	Comp	540	*
Hardness	mg/L	-/-	ANR	ANR	ANR
Hardness, dissolved	mg/L	-/-	ANR	ANR	ANR
Total Organic Carbon	mg/L	-/-	Comp	ND < 3.3	UJ (B)
Total Residual Chlorine	mg/L	0.1/-	ANR	ANR	ANR
Total Suspended Solids	mg/L	45/15	Comp	ND < 10	*
Turbidity	NTU	-/-	Comp	0.22	--
Volume Discharged	MGD	160/-	Meas	0.02905	*
<b>METALS</b>					
Antimony	ug/L	6.0/-	ANR	ANR	ANR
Arsenic	ug/L	10/-	ANR	ANR	ANR
Barium	mg/L	1.0/-	ANR	ANR	ANR
Beryllium	ug/L	4.0/-	ANR	ANR	ANR
Boron	mg/L	-/-	ANR	ANR	ANR
Cadmium	ug/L	3.1/2.0	Comp	ND < 0.10	*
Cadmium, dissolved	ug/L	-/-	Comp	ND < 0.10	*
Chromium	ug/L	16/8	ANR	ANR	ANR
Chromium VI	ug/L	16/8	ANR	ANR	ANR
Cobalt	ug/L	-/-	ANR	ANR	ANR
Copper	ug/L	14/7.1	Comp	1.1	J,DX* (DNQ)
Copper, dissolved	ug/L	-/-	Comp	0.60	J,DX* (DNQ)
Iron	mg/L	0.3/-	ANR	ANR	ANR
Lead	ug/L	5.2/2.6	Comp	ND < 0.20	*
Lead, dissolved	ug/L	-/-	Comp	ND < 0.20	*
Manganese	ug/L	50/-	ANR	ANR	ANR
Mercury	ug/L	0.10/0.05	Comp	ND < 0.10	U
Mercury, dissolved	ug/L	-/-	Comp	ND < 0.10	U

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Ava	05/02/2012-05/03/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Nickel	ug/L	96/35	ANR	ANR	ANR
Selenium	ug/L	8.2/4.1	Comp	ND < 0.50	*
Selenium, dissolved	ug/L	-/-	Comp	1.1	*
Silver	ug/L	4.1/2.0	ANR	ANR	ANR
Thallium	ug/L	2.0/-	ANR	ANR	ANR
Vanadium	ug/L	-/-	ANR	ANR	ANR
Zinc	ug/L	119/54	Comp	ND < 6.0	U
Zinc, Dissolved	ug/L	-/-	Comp	ND < 6.0	U
<b>ORGANICS</b>					
Benzene	ug/L	-/-	Grab	ND < 0.28	*
Carbon Tetrachloride	ug/L	-/-	Grab	ND < 0.28	*
Chloroform	ug/L	-/-	Grab	ND < 0.33	*
1,1-Dichloroethane	ug/L	-/-	Grab	ND < 0.40	*
1,2-Dichloroethane	ug/L	-/-	Grab	ND < 0.28	*
1,1-Dichloroethene	ug/L	6.0/3.2	Grab	ND < 0.42	*
1,4-Dioxane	ug/L	-/-	ANR	ANR	ANR
Ethylbenzene	ug/L	-/-	Grab	ND < 0.25	*
Tetrachloroethene	ug/L	-/-	Grab	ND < 0.32	*
Toluene	ug/L	-/-	Grab	ND < 0.36	*
Xylenes (Total)	ug/L	-/-	Grab	ND < 0.90	*
1,1,1-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*
1,1,2-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*
Trichloroethene	ug/L	5.0/-	Grab	ND < 0.26	*
Trichlorofluoromethane	ug/L	-/-	Grab	ND < 0.34	*
Trichlorotrifluoroethane (Freon 113)	ug/L	-/-	Grab	ND < 0.50	*
Vinyl Chloride	ug/L	-/-	Grab	ND < 0.40	*
<b>TPH</b>					
GRO (C4 - C12)	mg/L	-/-	ANR	ANR	ANR
<b>ADDITIONAL ANALYTES</b>					
1,2-Dichloro-1,1,2-trifluoroethane	ug/L	-/-	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	ug/L	-/-	ANR	ANR	ANR
1,2,4-Trichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,2-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,2-Dichloropropane	ug/L	-/-	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	ANR	ANR	ANR
1,3-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,4-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
2,4,6-Trichlorophenol	ug/L	13/6.5	Comp	ND < 0.0948	*
2,4-Dichlorophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dimethylphenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrotoluene	ug/L	18/9.1	Comp	ND < 0.190	*
2,6-Dinitrotoluene	ug/L	-/-	ANR	ANR	ANR
2-Chloroethylvinylether	ug/L	-/-	ANR	ANR	ANR
2-Chloronaphthalene	ug/L	-/-	ANR	ANR	ANR

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Ava	05/02/2012-05/03/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
2-Chlorophenol	ug/L	-/-	ANR	ANR	ANR
2-Methyl-4,6-dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
3,3'-Dichlorobenzidine	ug/L	-/-	ANR	ANR	ANR
4,4'-DDD	ug/L	-/-	ANR	ANR	ANR
4,4'-DDE	ug/L	-/-	ANR	ANR	ANR
4,4'-DDT	ug/L	-/-	ANR	ANR	ANR
4-Bromophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Chloro-3-methylphenol	ug/L	-/-	ANR	ANR	ANR
4-Chlorophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
Acenaphthene	ug/L	-/-	ANR	ANR	ANR
Acrolein	ug/L	-/-	ANR	ANR	ANR
Acrylonitrile	ug/L	-/-	ANR	ANR	ANR
Acute Toxicity	% SURVIVAL	70-100/-	ANR	ANR	ANR
Aldrin	ug/L	-/-	ANR	ANR	ANR
alpha-BHC	ug/L	0.03/0.01	Comp	ND < 0.0024	*
Anthracene	ug/L	-/-	ANR	ANR	ANR
Aroclor-1016	ug/L	-/-	ANR	ANR	ANR
Aroclor-1221	ug/L	-/-	ANR	ANR	ANR
Aroclor-1232	ug/L	-/-	ANR	ANR	ANR
Aroclor-1242	ug/L	-/-	ANR	ANR	ANR
Aroclor-1248	ug/L	-/-	ANR	ANR	ANR
Aroclor-1254	ug/L	-/-	ANR	ANR	ANR
Aroclor-1260	ug/L	-/-	ANR	ANR	ANR
Benzidine	ug/L	-/-	ANR	ANR	ANR
Benzo(a)anthracene	ug/L	-/-	ANR	ANR	ANR
Benzo(a)pyrene	ug/L	-/-	ANR	ANR	ANR
Benzo(b)fluoranthene	ug/L	-/-	ANR	ANR	ANR
Benzo(g,h,i)perylene	ug/L	-/-	ANR	ANR	ANR
Benzo(k)fluoranthene	ug/L	-/-	ANR	ANR	ANR
beta-BHC	ug/L	-/-	ANR	ANR	ANR
bis (2-Chloroethyl) ether	ug/L	-/-	ANR	ANR	ANR
bis (2-ethylhexyl) Phthalate	ug/L	4.0/-	Comp	ND < 1.61	*
bis(2-Chloroethoxy) methane	ug/L	-/-	ANR	ANR	ANR
bis(2-Chloroisopropyl) ether	ug/L	-/-	ANR	ANR	ANR
Bromodichloromethane	ug/L	-/-	ANR	ANR	ANR
Bromoform	ug/L	-/-	ANR	ANR	ANR
Bromomethane	ug/L	-/-	ANR	ANR	ANR
Butylbenzylphthalate	ug/L	-/-	ANR	ANR	ANR
Chlordane	ug/L	-/-	ANR	ANR	ANR
Chlorobenzene	ug/L	-/-	ANR	ANR	ANR
Chloroethane	ug/L	-/-	ANR	ANR	ANR
Chloromethane	ug/L	-/-	ANR	ANR	ANR
Chronic Toxicity	TUC	1.0/-	ANR	ANR	ANR

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	05/02/2012-05/03/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Chrysene	ug/L	-/-	ANR	ANR	ANR
cis-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.32	*
cis-1,3-Dichloropropene	ug/L	-/-	ANR	ANR	ANR
Cyclohexane	ug/L	-/-	ANR	ANR	ANR
delta-BHC	ug/L	-/-	ANR	ANR	ANR
Dibenz(a,h)anthracene	ug/L	-/-	ANR	ANR	ANR
Dibromochloromethane	ug/L	-/-	ANR	ANR	ANR
Dieldrin	ug/L	-/-	ANR	ANR	ANR
Diethylphthalate	ug/L	-/-	ANR	ANR	ANR
Dimethylphthalate	ug/L	-/-	ANR	ANR	ANR
Di-n-butylphthalate	ug/L	-/-	ANR	ANR	ANR
Di-n-octylphthalate	ug/L	-/-	ANR	ANR	ANR
Endosulfan I	ug/L	-/-	ANR	ANR	ANR
Endosulfan II	ug/L	-/-	ANR	ANR	ANR
Endosulfan sulfate	ug/L	-/-	ANR	ANR	ANR
Endrin	ug/L	-/-	ANR	ANR	ANR
Endrin aldehyde	ug/L	-/-	ANR	ANR	ANR
Fluoranthene	ug/L	-/-	ANR	ANR	ANR
Fluorene	ug/L	-/-	ANR	ANR	ANR
Heptachlor	ug/L	-/-	ANR	ANR	ANR
Heptachlor epoxide	ug/L	-/-	ANR	ANR	ANR
Hexachlorobenzene	ug/L	-/-	ANR	ANR	ANR
Hexachlorobutadiene	ug/L	-/-	ANR	ANR	ANR
Hexachlorocyclopentadiene	ug/L	-/-	ANR	ANR	ANR
Hexachloroethane	ug/L	-/-	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene	ug/L	-/-	ANR	ANR	ANR
Isophorone	ug/L	-/-	ANR	ANR	ANR
Lindane (gamma-BHC)	ug/L	-/-	ANR	ANR	ANR
Methylene Chloride	ug/L	-/-	ANR	ANR	ANR
Monomethyl Hydrazine	ug/L	-/-	ANR	ANR	ANR
Naphthalene	ug/L	-/-	ANR	ANR	ANR
Nitrobenzene	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodimethylamine	ug/L	16/8.1	Comp	ND < 0.0948	*
n-Nitroso-di-n-propylamine	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodiphenylamine	ug/L	-/-	ANR	ANR	ANR
Pentachlorophenol	ug/L	16.5/8.2	Comp	ND < 0.379	*
Phenanthrene	ug/L	-/-	ANR	ANR	ANR
Phenol	ug/L	-/-	ANR	ANR	ANR
Pyrene	ug/L	-/-	ANR	ANR	ANR
Toxaphene	ug/L	-/-	ANR	ANR	ANR
trans-1,2-Dichloroethene	ug/L	-/-	ANR	ANR	ANR
trans-1,3-Dichloropropene	ug/L	-/-	ANR	ANR	ANR

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Ava	06/06/2012-06/07/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Ammonia as Nitrogen (N)	mg/L	10.1/1.96	Comp	0.280	J,DX* (DNQ)
Biochemical Oxygen Demand (BOD 5 day)	mg/L	30/20	Comp	ND < 0.50	*
Chloride	mg/L	150/-	Comp	46	*
Dissolved Oxygen	mg/L	-/-	Grab	7.23	*
Specific Conductivity (Lab)	umhos/cm	-/-	ANR	ANR	ANR
Surfactants (MBAS)	mg/L	0.5/-	Comp	ND < 0.050	*
Fluoride	mg/L	1.6/-	ANR	ANR	ANR
Nitrate + Nitrite as Nitrogen (N)	mg/L	8/-	Comp	ND < 0.11	*
Nitrate as Nitrogen (N)	mg/L	8/-	Comp	ND < 0.080	*
Nitrite as Nitrogen (N)	mg/L	-/-	Comp	ND < 0.11	*
Oil & Grease	mg/L	15/10	Grab	ND < 1.3	*
Perchlorate	ug/L	6.0/-	Comp	ND < 0.95	U
pH (Field)	pH units	6.5-8.5/-	Grab	7.3	*
Total Settleable Solids	ml/L	0.3/0.1	Grab	ND < 0.10	*
Sulfate	mg/L	300/-	Comp	180	*
Temperature	deg. F	86/-	Grab	64	*
Total Cyanide	ug/L	8.5/4.3	Comp	ND < 3.0	*
Total Dissolved Solids	mg/L	950/-	Comp	530	*
Hardness	mg/L	-/-	ANR	ANR	ANR
Hardness, dissolved	mg/L	-/-	ANR	ANR	ANR
Total Organic Carbon	mg/L	-/-	Comp	ND < 0.75	*
Total Residual Chlorine	mg/L	0.1/-	ANR	ANR	ANR
Total Suspended Solids	mg/L	45/15	Comp	ND < 10	*
Turbidity	NTU	-/-	Comp	0.080	J (DNQ)
Volume Discharged	MGD	160/-	Meas	0.02866	*
<b>METALS</b>					
Antimony	ug/L	6.0/-	ANR	ANR	ANR
Arsenic	ug/L	10/-	ANR	ANR	ANR
Barium	mg/L	1.0/-	ANR	ANR	ANR
Beryllium	ug/L	4.0/-	ANR	ANR	ANR
Boron	mg/L	-/-	ANR	ANR	ANR
Cadmium	ug/L	3.1/2.0	Comp	ND < 0.10	*
Cadmium, dissolved	ug/L	-/-	Comp	ND < 0.10	*
Chromium	ug/L	16/8	ANR	ANR	ANR
Chromium VI	ug/L	16/8	ANR	ANR	ANR
Cobalt	ug/L	-/-	ANR	ANR	ANR
Copper	ug/L	14/7.1	Comp	0.66	J,DX* (DNQ)
Copper, dissolved	ug/L	-/-	Comp	ND < 0.50	*
Iron	mg/L	0.3/-	ANR	ANR	ANR
Lead	ug/L	5.2/2.6	Comp	ND < 0.20	*
Lead, dissolved	ug/L	-/-	Comp	ND < 0.20	*
Manganese	ug/L	50/-	ANR	ANR	ANR
Mercury	ug/L	0.10/0.05	Comp	ND < 0.10	U
Mercury, dissolved	ug/L	-/-	Comp	ND < 0.10	U

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Ava	06/06/2012-06/07/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Nickel	ug/L	96/35	ANR	ANR	ANR
Selenium	ug/L	8.2/4.1	Comp	ND < 0.50	*
Selenium, dissolved	ug/L	-/-	Comp	0.60	J,DX* (DNQ)
Silver	ug/L	4.1/2.0	ANR	ANR	ANR
Thallium	ug/L	2.0/-	ANR	ANR	ANR
Vanadium	ug/L	-/-	ANR	ANR	ANR
Zinc	ug/L	119/54	Comp	ND < 6.0	U
Zinc, Dissolved	ug/L	-/-	Comp	ND < 6.0	U
<b>ORGANICS</b>					
Benzene	ug/L	-/-	Grab	ND < 0.28	*
Carbon Tetrachloride	ug/L	-/-	Grab	ND < 0.28	*
Chloroform	ug/L	-/-	Grab	ND < 0.33	*
1,1-Dichloroethane	ug/L	-/-	Grab	ND < 0.40	*
1,2-Dichloroethane	ug/L	-/-	Grab	ND < 0.28	*
1,1-Dichloroethene	ug/L	6.0/3.2	Grab	ND < 0.42	*
1,4-Dioxane	ug/L	-/-	ANR	ANR	ANR
Ethylbenzene	ug/L	-/-	Grab	ND < 0.25	*
Tetrachloroethene	ug/L	-/-	Grab	ND < 0.32	*
Toluene	ug/L	-/-	Grab	ND < 0.36	*
Xylenes (Total)	ug/L	-/-	Grab	ND < 0.90	*
1,1,1-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*
1,1,2-Trichloroethane	ug/L	-/-	Grab	ND < 0.30	*
Trichloroethene	ug/L	5.0/-	Grab	ND < 0.26	*
Trichlorofluoromethane	ug/L	-/-	Grab	ND < 0.34	*
Trichlorotrifluoroethane (Freon 113)	ug/L	-/-	Grab	ND < 0.50	*
Vinyl Chloride	ug/L	-/-	Grab	ND < 0.40	*
<b>TPH</b>					
GRO (C4 - C12)	mg/L	-/-	ANR	ANR	ANR
<b>ADDITIONAL ANALYTES</b>					
1,2-Dichloro-1,1,2-trifluoroethane	ug/L	-/-	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	ug/L	-/-	ANR	ANR	ANR
1,2,4-Trichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,2-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,2-Dichloropropane	ug/L	-/-	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	ANR	ANR	ANR
1,3-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
1,4-Dichlorobenzene	ug/L	-/-	ANR	ANR	ANR
2,4,6-Trichlorophenol	ug/L	13/6.5	Comp	ND < 0.0943	*
2,4-Dichlorophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dimethylphenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2,4-Dinitrotoluene	ug/L	18/9.1	Comp	ND < 0.189	LR*
2,6-Dinitrotoluene	ug/L	-/-	ANR	ANR	ANR
2-Chloroethylvinylether	ug/L	-/-	ANR	ANR	ANR
2-Chloronaphthalene	ug/L	-/-	ANR	ANR	ANR

See attached notes for abbreviations, definitions,  
and other explanations for the data presented.

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Ava	06/06/2012-06/07/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
2-Chlorophenol	ug/L	-/-	ANR	ANR	ANR
2-Methyl-4,6-dinitrophenol	ug/L	-/-	ANR	ANR	ANR
2-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
3,3'-Dichlorobenzidine	ug/L	-/-	ANR	ANR	ANR
4,4'-DDD	ug/L	-/-	ANR	ANR	ANR
4,4'-DDE	ug/L	-/-	ANR	ANR	ANR
4,4'-DDT	ug/L	-/-	ANR	ANR	ANR
4-Bromophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Chloro-3-methylphenol	ug/L	-/-	ANR	ANR	ANR
4-Chlorophenylphenylether	ug/L	-/-	ANR	ANR	ANR
4-Nitrophenol	ug/L	-/-	ANR	ANR	ANR
Acenaphthene	ug/L	-/-	ANR	ANR	ANR
Acrolein	ug/L	-/-	ANR	ANR	ANR
Acrylonitrile	ug/L	-/-	ANR	ANR	ANR
Acute Toxicity	% SURVIVAL	70-100/-	ANR	ANR	ANR
Aldrin	ug/L	-/-	ANR	ANR	ANR
alpha-BHC	ug/L	0.03/0.01	Comp	ND < 0.0024	*
Anthracene	ug/L	-/-	ANR	ANR	ANR
Aroclor-1016	ug/L	-/-	ANR	ANR	ANR
Aroclor-1221	ug/L	-/-	ANR	ANR	ANR
Aroclor-1232	ug/L	-/-	ANR	ANR	ANR
Aroclor-1242	ug/L	-/-	ANR	ANR	ANR
Aroclor-1248	ug/L	-/-	ANR	ANR	ANR
Aroclor-1254	ug/L	-/-	ANR	ANR	ANR
Aroclor-1260	ug/L	-/-	ANR	ANR	ANR
Benzidine	ug/L	-/-	ANR	ANR	ANR
Benzo(a)anthracene	ug/L	-/-	ANR	ANR	ANR
Benzo(a)pyrene	ug/L	-/-	ANR	ANR	ANR
Benzo(b)fluoranthene	ug/L	-/-	ANR	ANR	ANR
Benzo(g,h,i)perylene	ug/L	-/-	ANR	ANR	ANR
Benzo(k)fluoranthene	ug/L	-/-	ANR	ANR	ANR
beta-BHC	ug/L	-/-	ANR	ANR	ANR
bis (2-Chloroethyl) ether	ug/L	-/-	ANR	ANR	ANR
bis (2-ethylhexyl) Phthalate	ug/L	4.0/-	Comp	ND < 1.60	LR*
bis(2-Chloroethoxy) methane	ug/L	-/-	ANR	ANR	ANR
bis(2-Chloroisopropyl) ether	ug/L	-/-	ANR	ANR	ANR
Bromodichloromethane	ug/L	-/-	ANR	ANR	ANR
Bromoform	ug/L	-/-	ANR	ANR	ANR
Bromomethane	ug/L	-/-	ANR	ANR	ANR
Butylbenzylphthalate	ug/L	-/-	ANR	ANR	ANR
Chlordane	ug/L	-/-	ANR	ANR	ANR
Chlorobenzene	ug/L	-/-	ANR	ANR	ANR
Chloroethane	ug/L	-/-	ANR	ANR	ANR
Chloromethane	ug/L	-/-	ANR	ANR	ANR
Chronic Toxicity	TUC	1.0/-	ANR	ANR	ANR

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	06/06/2012-06/07/2012		
			SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
Chrysene	ug/L	-/-	ANR	ANR	ANR
cis-1,2-Dichloroethene	ug/L	-/-	Grab	ND < 0.32	*
cis-1,3-Dichloropropene	ug/L	-/-	ANR	ANR	ANR
Cyclohexane	ug/L	-/-	ANR	ANR	ANR
delta-BHC	ug/L	-/-	ANR	ANR	ANR
Dibenz(a,h)anthracene	ug/L	-/-	ANR	ANR	ANR
Dibromochloromethane	ug/L	-/-	ANR	ANR	ANR
Dieldrin	ug/L	-/-	ANR	ANR	ANR
Diethylphthalate	ug/L	-/-	ANR	ANR	ANR
Dimethylphthalate	ug/L	-/-	ANR	ANR	ANR
Di-n-butylphthalate	ug/L	-/-	ANR	ANR	ANR
Di-n-octylphthalate	ug/L	-/-	ANR	ANR	ANR
Endosulfan I	ug/L	-/-	ANR	ANR	ANR
Endosulfan II	ug/L	-/-	ANR	ANR	ANR
Endosulfan sulfate	ug/L	-/-	ANR	ANR	ANR
Endrin	ug/L	-/-	ANR	ANR	ANR
Endrin aldehyde	ug/L	-/-	ANR	ANR	ANR
Fluoranthene	ug/L	-/-	ANR	ANR	ANR
Fluorene	ug/L	-/-	ANR	ANR	ANR
Heptachlor	ug/L	-/-	ANR	ANR	ANR
Heptachlor epoxide	ug/L	-/-	ANR	ANR	ANR
Hexachlorobenzene	ug/L	-/-	ANR	ANR	ANR
Hexachlorobutadiene	ug/L	-/-	ANR	ANR	ANR
Hexachlorocyclopentadiene	ug/L	-/-	ANR	ANR	ANR
Hexachloroethane	ug/L	-/-	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene	ug/L	-/-	ANR	ANR	ANR
Isophorone	ug/L	-/-	ANR	ANR	ANR
Lindane (gamma-BHC)	ug/L	-/-	ANR	ANR	ANR
Methylene Chloride	ug/L	-/-	ANR	ANR	ANR
Monomethyl Hydrazine	ug/L	-/-	ANR	ANR	ANR
Naphthalene	ug/L	-/-	ANR	ANR	ANR
Nitrobenzene	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodimethylamine	ug/L	16/8.1	Comp	ND < 0.0943	*
n-Nitroso-di-n-propylamine	ug/L	-/-	ANR	ANR	ANR
n-Nitrosodiphenylamine	ug/L	-/-	ANR	ANR	ANR
Pentachlorophenol	ug/L	16.5/8.2	Comp	ND < 0.377	*
Phenanthrene	ug/L	-/-	ANR	ANR	ANR
Phenol	ug/L	-/-	ANR	ANR	ANR
Pyrene	ug/L	-/-	ANR	ANR	ANR
Toxaphene	ug/L	-/-	ANR	ANR	ANR
trans-1,2-Dichloroethene	ug/L	-/-	ANR	ANR	ANR
trans-1,3-Dichloropropene	ug/L	-/-	ANR	ANR	ANR

**Outfall 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Sample Type Composite**  
**Sample Date April 4-5, 2012**

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HxCDD	1.40E-06	5.00E-05	ND	UJ (*III)	0.01	0.05	ND
1,2,3,4,6,7,8-HpCDF	1.40E-06	5.00E-05	ND	U (B)	0.01	0.01	ND
1,2,3,4,7,8,9-HpCDF	2.50E-06	5.00E-05	ND	U	0.01	0.4	ND
1,2,3,4,7,8-HxCDD	1.60E-06	5.00E-05	ND	U	0.1	0.3	ND
1,2,3,4,7,8-HxCDF	8.70E-07	5.00E-05	ND	UJ (*III)	0.1	0.08	ND
1,2,3,6,7,8-HxCDD	1.50E-06	5.00E-05	ND	U	0.1	0.1	ND
1,2,3,6,7,8-HxCDF	8.50E-07	5.00E-05	ND	UJ (*III)	0.1	0.2	ND
1,2,3,7,8,9-HxCDD	1.40E-06	5.00E-05	ND	U	0.1	0.1	ND
1,2,3,7,8,9-HxCDF	1.30E-06	5.00E-05	ND	U	0.1	0.6	ND
1,2,3,7,8-PeCDD	2.30E-06	5.00E-05	ND	U	1	0.9	ND
1,2,3,7,8-PeCDF	2.10E-06	5.00E-05	ND	U	0.05	0.2	ND
2,3,4,6,7,8-HxCDF	8.90E-07	5.00E-05	ND	UJ (*III)	0.1	0.7	ND
2,3,4,7,8-PeCDD	2.60E-06	5.00E-05	ND	U	0.5	1.6	ND
2,3,7,8-TCDD	2.30E-06	1.00E-05	ND	U	1	1	ND
2,3,7,8-TCDF	1.40E-06	1.00E-05	ND	U	0.1	0.8	ND
OCDD	2.10E-06	1.00E-04	ND	U (B)	0.0001	0.01	ND
OCDF	2.50E-06	1.00E-04	4.20E-06	J (DNQ)	0.0001	0.02	ND

**TCDD TEQ w/out DNQ Values**

**TCDD TEQ PERMIT LIMIT = 2.80E-08**

See attached notes for abbreviations, definitions, and other explanations for the data presented in this table.

**Outfall 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Sample Type Composite**  
**Sample Date May 2-3, 2012**

ANALYTE	LAB LOD ( $\mu\text{g/L}$ )	LAB RL ( $\mu\text{g/L}$ )	LAB RESULT ( $\mu\text{g/L}$ )	VALIDATION QUALIFIER	1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNQ Values) ( $\mu\text{g/L}$ )
1,2,3,4,6,7,8-HxCDD	2.60E-06	4.70E-05	ND	U	0.01	0.05	ND
1,2,3,4,6,7,8-HpCDF	1.90E-06	4.70E-05	ND	U	0.01	0.01	ND
1,2,3,4,7,8,9-HpCDF	3.00E-06	4.70E-05	ND	U	0.01	0.4	ND
1,2,3,4,7,8-HxCDD	2.10E-06	4.70E-05	ND	U	0.1	0.3	ND
1,2,3,4,7,8-HxCDF	1.30E-06	4.70E-05	ND	U	0.1	0.08	ND
1,2,3,6,7,8-HxCDD	2.20E-06	4.70E-05	ND	U	0.1	0.1	ND
1,2,3,6,7,8-HxCDF	1.30E-06	4.70E-05	ND	U	0.1	0.2	ND
1,2,3,7,8,9-HxCDD	2.00E-06	4.70E-05	ND	U	0.1	0.1	ND
1,2,3,7,8,9-HxCDF	1.90E-06	4.70E-05	ND	U	0.1	0.6	ND
1,2,3,7,8-PeCDD	2.20E-06	4.70E-05	ND	U	1	0.9	ND
1,2,3,7,8-PeCDF	1.80E-06	4.70E-05	ND	U	0.05	0.2	ND
2,3,4,6,7,8-HxCDD	1.30E-06	4.70E-05	ND	U	0.1	0.7	ND
2,3,4,7,8-PeCDF	1.70E-06	4.70E-05	ND	U	0.5	1.6	ND
2,3,7,8-TCDD	4.50E-06	9.40E-06	ND	U	1	1	ND
2,3,7,8-TCDF	3.10E-06	9.40E-06	ND	U	0.1	0.8	ND
OCDD	4.00E-06	9.40E-05	ND	U(B)	0.0001	0.01	ND
OCDF	3.20E-06	9.40E-05	ND	U	0.0001	0.02	ND

**TCDD TEQ w/out DNQ Values**

**TCDD TEQ PERMIT LIMIT = 2.80E-08**

See attached notes for abbreviations, definitions, and other explanations for the data presented in this table.

**Outfall 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Sample Type Composite**  
**Sample Date June 6-7, 2012**

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HxCDD	6.70E-06	5.00E-05	ND	U	0.01	0.05	ND
1,2,3,4,6,7,8-HpCDD	1.40E-06	5.00E-05	ND	UJ (*III)	0.01	0.01	ND
1,2,3,4,7,8,9-HpCDF	2.30E-06	5.00E-05	ND	U	0.01	0.4	ND
1,2,3,4,7,8-HxCDD	5.00E-06	5.00E-05	ND	U	0.1	0.3	ND
1,2,3,4,7,8-HxCDF	6.50E-07	5.00E-05	ND	U(B)	0.1	0.08	ND
1,2,3,6,7,8-HxCDD	4.60E-06	5.00E-05	ND	U	0.1	0.1	ND
1,2,3,6,7,8-HxCDF	5.80E-07	5.00E-05	ND	U	0.1	0.2	ND
1,2,3,7,8,9-HxCDD	4.20E-06	5.00E-05	ND	U	0.1	0.1	ND
1,2,3,7,8,9-HxCDF	8.30E-07	5.00E-05	ND	U	0.1	0.6	ND
1,2,3,7,8-PeCDD	3.90E-06	5.00E-05	ND	U	1	0.9	ND
1,2,3,7,8-PeCDF	2.00E-06	5.00E-05	ND	U	0.05	0.2	ND
2,3,4,6,7,8-HxCDD	5.90E-07	5.00E-05	ND	U	0.1	0.7	ND
2,3,4,7,8-PeCDF	2.40E-06	5.00E-05	ND	U	0.5	1.6	ND
2,3,7,8-TCDD	2.90E-06	1.00E-05	ND	U	1	1	ND
2,3,7,8-TCDF	1.70E-06	1.00E-05	ND	U	0.1	0.8	ND
OCDD	7.90E-06	1.00E-04	ND	U	0.0001	0.01	ND
OCDF	4.70E-06	1.00E-04	ND	U	0.0001	0.02	ND

**TCDD TEQ w/out DNQ Values**

ND

**TCDD TEQ PERMIT LIMIT = 2.80E-08**

See attached notes for abbreviations, definitions, and other explanations for the data presented in this table.

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/4-5/2012		
			Sample Type	Result	Concentration Result Validation Qualifier
Max Discharge for event	MGD	160	Meas	0.02885	
Ammonia as Nitrogen (N)	LBS/DAY	13,500/2615	Comp	0.13	--
Biochemical Oxygen Demand (BOD 5 day)	LBS/DAY	40,032/26,700	Comp	ND	U
Chloride	LBS/DAY	200,160/-	Comp	7.46	--
Surfactants (MBAS)	LBS/DAY	667/-	Comp	ND	UJ (H)
Fluoride	LBS/DAY	2,135/-	Comp	0.05	--
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	10,700/-	Comp	ND	U
Nitrate as Nitrogen (N)	LBS/DAY	10,700/-	Comp	ND	U
Oil & Grease	LBS/DAY	20,016/13,344	Grab	ND	U
Perchlorate	LBS/DAY	8.0/-	Comp	ND	U
Sulfate	LBS/DAY	400,320/-	Comp	36.09	--
Total Cyanide	LBS/DAY	11/5.7	Comp	ND	U
Total Dissolved Solids	LBS/DAY	1,270,000/-	Comp	125.12	--
Total Suspended Solids	LBS/DAY	60,048/20,016	Comp	ND	U
Cadmium	LBS/DAY	4.1/2.7	Comp	ND	U
Copper	LBS/DAY	19/9.5	Comp	ND	U (B)
Lead	LBS/DAY	6.9/3.5	Comp	ND	U
Mercury	LBS/DAY	0.13/0.07	Comp	ND	U
Selenium	LBS/DAY	11/5.5	Comp	ND	U
Zinc	LBS/DAY	159/72	Comp	ND	U
1,1-Dichloroethene	LBS/DAY	8.0/4.3	Grab	ND	U
Trichloroethene	LBS/DAY	6.7/-	Grab	ND	U
2,4,6-Trichlorophenol	LBS/DAY	17/8.7	Comp	ND	U
2,4-Dinitrotoluene	LBS/DAY	24/12	Comp	ND	U
alpha-BHC	LBS/DAY	0.04/0.013	Comp	ND	U
bis (2-ethylhexyl) Phthalate	LBS/DAY	5.3/-	Comp	ND	U
n-Nitrosodimethylamine	LBS/DAY	22/10.8	Comp	ND	U
Pentachlorophenol	LBS/DAY	22/10.9	Comp	ND	U
TCDD TEQ_NoDNQ	LBS/DAY	3.70E-08/1.9E-08	Comp	ND	--

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	5/2-3/2012		
			Sample Type	Result	Concentration Result Validation Qualifier
Max Discharge for event	MGD	160	Meas	0.02905	
Ammonia as Nitrogen (N)	LBS/DAY	13,500/2615	Comp	ND	*
Biochemical Oxygen Demand (BOD 5 day)	LBS/DAY	40,032/26,700	Comp	ND	*
Chloride	LBS/DAY	200,160/-	Comp	5.81	*
Surfactants (MBAS)	LBS/DAY	667/-	Comp	ND	*
Fluoride	LBS/DAY	2,135/-	ANR	ANR	ANR
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	10,700/-	Comp	ND	*
Nitrate as Nitrogen (N)	LBS/DAY	10,700/-	Comp	0.04	*
Oil & Grease	LBS/DAY	20,016/13,344	Grab	ND	*
Perchlorate	LBS/DAY	8.0/-	Comp	0.0002	J (DNQ)
Sulfate	LBS/DAY	400,320/-	Comp	43.61	*
Total Cyanide	LBS/DAY	11/5.7	Comp	ND	*
Total Dissolved Solids	LBS/DAY	1,270,000/-	Comp	130.83	*
Total Suspended Solids	LBS/DAY	60,048/20,016	Comp	ND	*
Cadmium	LBS/DAY	4.1/2.7	Comp	ND	*
Copper	LBS/DAY	19/9.5	Comp	0.00	J,DX* (DNQ)
Lead	LBS/DAY	6.9/3.5	Comp	ND	*
Mercury	LBS/DAY	0.13/0.07	Comp	ND	U
Selenium	LBS/DAY	11/5.5	Comp	ND	*
Zinc	LBS/DAY	159/72	Comp	ND	U
1,1-Dichloroethene	LBS/DAY	8.0/4.3	Grab	ND	*
Trichloroethene	LBS/DAY	6.7/-	Grab	ND	*
2,4,6-Trichlorophenol	LBS/DAY	17/8.7	Comp	ND	*
2,4-Dinitrotoluene	LBS/DAY	24/12	Comp	ND	*
alpha-BHC	LBS/DAY	0.04/0.013	Comp	ND	*
bis (2-ethylhexyl) Phthalate	LBS/DAY	5.3/-	Comp	ND	*
n-Nitrosodimethylamine	LBS/DAY	22/10.8	Comp	ND	*
Pentachlorophenol	LBS/DAY	22/10.9	Comp	ND	*
TCDD TEQ_NoDNQ	LBS/DAY	3.70E-08/1.9E-08	Comp	ND	--

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	6/6-7/2012		
			Sample Type	Result	Concentration Result Validation Qualifier
Max Discharge for event	MGD	160	Meas	0.02866	
Ammonia as Nitrogen (N)	LBS/DAY	13,500/2615	Comp	0.07	J,DX* (DNQ)
Biochemical Oxygen Demand (BOD 5 day)	LBS/DAY	40,032/26,700	Comp	ND	*
Chloride	LBS/DAY	200,160/-	Comp	11.00	*
Surfactants (MBAS)	LBS/DAY	667/-	Comp	ND	*
Fluoride	LBS/DAY	2,135/-	ANR	ANR	ANR
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	10,700/-	Comp	ND	*
Nitrate as Nitrogen (N)	LBS/DAY	10,700/-	Comp	ND	*
Oil & Grease	LBS/DAY	20,016/13,344	Grab	ND	*
Perchlorate	LBS/DAY	8.0/-	Comp	ND	U
Sulfate	LBS/DAY	400,320/-	Comp	43.02	*
Total Cyanide	LBS/DAY	11/5.7	Comp	ND	*
Total Dissolved Solids	LBS/DAY	1,270,000/-	Comp	126.68	*
Total Suspended Solids	LBS/DAY	60,048/20,016	Comp	ND	*
Cadmium	LBS/DAY	4.1/2.7	Comp	ND	*
Copper	LBS/DAY	19/9.5	Comp	0.00	J,DX* (DNQ)
Lead	LBS/DAY	6.9/3.5	Comp	ND	*
Mercury	LBS/DAY	0.13/0.07	Comp	ND	U
Selenium	LBS/DAY	11/5.5	Comp	ND	*
Zinc	LBS/DAY	159/72	Comp	ND	U
1,1-Dichloroethene	LBS/DAY	8.0/4.3	Grab	ND	*
Trichloroethene	LBS/DAY	6.7/-	Grab	ND	*
2,4,6-Trichlorophenol	LBS/DAY	17/8.7	Comp	ND	*
2,4-Dinitrotoluene	LBS/DAY	24/12	ANR	ANR	ANR
alpha-BHC	LBS/DAY	0.04/0.013	Comp	ND	*
bis (2-ethylhexyl) Phthalate	LBS/DAY	5.3/-	ANR	ANR	ANR
n-Nitrosodimethylamine	LBS/DAY	22/10.8	Comp	ND	*
Pentachlorophenol	LBS/DAY	22/10.9	Comp	ND	*
TCDD TEQ_NoDNQ	LBS/DAY	3.70E-08/1.9E-08	Comp	ND	--

**ARROYO SIMI (Frontier Park Receiving Water)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	4/2/2012		4/6/2012		4/11/2012	
			SAMPLE TYPE	RESULT QUALIFIER	SAMPLE TYPE	RESULT QUALIFIER	SAMPLE TYPE	RESULT
pH (Field)	pH Units	6.5-8.5/-	ANR	ANR	ANR	ANR	ANR	7.6
Temperature	F	-/-	ANR	ANR	ANR	ANR	ANR	*
Hardness	mg/L	-/-	ANR	ANR	ANR	ANR	ANR	*
E. Coli	MPN/100 ml	235/-	Grab	500	--	Grab	200	--
Fecal Coliform	MPN/100 ml	400/-	Grab	500	--	Grab	ANR	ANR
Human Bacterioides	Cess/100 mL	-/-	Grab	ND	*	Grab	ND	ANR
Water Velocity	ft/sec	-/-	ANR	ANR	ANR	ANR	ANR	ANR
Calcium	mg/L	-/-	ANR	ANR	ANR	ANR	ANR	ANR
Magnesium	mg/L	-/-	ANR	ANR	ANR	ANR	ANR	ANR
4,4'-DDD	ug/L	0.0014/-	ANR	ANR	ANR	ANR	ANR	ND < 0.0038
4,4'-DDE	ug/L	0.001/-	ANR	ANR	ANR	ANR	ANR	ND < 0.0029
4,4'-DDT	ug/L	0.001/-	ANR	ANR	ANR	ANR	ANR	ND < 0.0038
Aroclor-1016	ug/L	0.0003/-	ANR	ANR	ANR	ANR	ANR	ND < 0.24
Aroclor-1221	ug/L	0.0003/-	ANR	ANR	ANR	ANR	ANR	ND < 0.24
Aroclor-1232	ug/L	0.0003/-	ANR	ANR	ANR	ANR	ANR	ND < 0.24
Aroclor-1242	ug/L	0.0003/-	ANR	ANR	ANR	ANR	ANR	ND < 0.24
Aroclor-1248	ug/L	0.0003/-	ANR	ANR	ANR	ANR	ANR	ND < 0.24
Aroclor-1254	ug/L	0.0003/-	ANR	ANR	ANR	ANR	ANR	ND < 0.24
Aroclor-1260	ug/L	0.0003/-	ANR	ANR	ANR	ANR	ANR	ND < 0.24
Chlordane	ug/L	0.001/-	ANR	ANR	ANR	ANR	ANR	ND < 0.0076
Chlorpyrifos	ug/L	0.02/-	ANR	ANR	ANR	ANR	ANR	ND < 0.080
Diazinon	ug/L	0.16/-	ANR	ANR	ANR	ANR	ANR	ND < 0.040
Dieldrin	ug/L	0.0002/-	ANR	ANR	ANR	ANR	ANR	ND < 0.0019
Toxaphene	ug/L	0.0003/-	ANR	ANR	ANR	ANR	ANR	ND < 0.24

See attached notes for abbreviations, definitions, and other explanations for the data presented.

## **APPENDIX D**

### **SECOND QUARTER 2012 RADIOLOGICAL MONITORING DATA**

**SECOND QUARTER 2012  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**Notes:**

1. TCDD TEQs for the purpose of determining permit compliance are the sum of the products of the detected dioxin congener concentration multiplied by that congener's toxicity equivalency factor (TEF) and bioaccumulation equivalency factor (BEF). The resulting compliance TCDD TEQ does not include those congener concentrations that are reported as DNQ, as specified on Page 37 of the NPDES permit.
2. pH was determined with a field instrument and was noted as such. These results were not validated.
3. The NPDES monthly average permit limit for mercury of 0.05 µg/L (Outfall 019) is not achievable by the laboratory; therefore, the laboratory MDL of 0.10 µg/L was used to determine compliance.
4. All of the following abbreviations and/or notes may not occur on every table.

---

-92.9 +/-200	A negative radiochemical analytical result indicates the count rate of the sample was less than the background condition
\$	reported result or other information was incorrectly reported by the laboratory; result was corrected by the data validator
--	based on validation of the data, a qualifier was not required
-/-	no permit limit established for daily maximum or monthly average
<(value)	analyte not detected at a concentration greater than or equal to the DL, MDL, or RL (see laboratory report for specific detail)
*	result not validated
*1	improper preservation of sample
*2	the ICP/MS ppb check standard was recovered above the control limit; therefore, the constituent detected was qualified as estimated (J)
*3	initial and or continuing calibration recoveries were outside acceptable control limits
*5	blank spike/blank spike duplicate relative percent difference was outside the control limit
*10	value was estimated detect or estimated non detect (J,UJ) due to deficiencies in quantitation of the constituent including constituents reported by the laboratory as Estimated Maximum Possible Concentration (EMPC) values

**SECOND QUARTER 2012  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

*11	no calibration was performed for this compound; result is reported as a tentatively identified compound (TIC)
ANR	analysis not required; e.g., constituent or outfall was not required by the permit to be sampled and analyzed (annual, semi-annual, etc.)
B	laboratory method blank contamination
BA	relative percent difference out of control
BEF time	bioaccumulation equivalency factorBU analyzed out of holding time
BV	sample received after holding time expired
C	calibration %RSD or %D were noncompliant
C5	Calibration verification %R was outside method control limits
%D	percent difference between the initial and continuing calibration relative response factors
deg F	degrees Fahrenheit
DL	detection limit
DNQ	detected but not quantified (constituent value greater than or equal to the laboratory method detection limit and less than the laboratory reporting limit)
E	duplicates show poor agreement
H	holding time was exceeded
I	ICP interference check solution results were unsatisfactory
J	estimated value, result lower than the detection limit
J, DX	estimated value, value < lowest standard (MQL), but > than MDL
K	The sample dilution's set-up did not meet the oxygen depletion criteria of at least 2 mg/l. Therefore, the reported result is an estimated value only.
L2	the laboratory control sample %R was below the method control limits
L	laboratory control sample %R was outside control limits
LOD	limit of detection
LQ	LCS/LCSD recovery above method control limits
M1	matrix spike (MS) and/or MS duplicate were above the acceptance limits due to sample matrix interference
M2	the MS and/or MS duplicate were below the acceptance limits due to sample matrix interference
MDA	Minimum detectable activity
MDL	method detection limit
MGD	million gallons per day
MHA*	Due to high level of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information.
mg/L	milligrams per liter
ml/L/hr	milliliters per liter per hour
NA	not applicable; no permit limit established for the constituent and/or outfall
ND	analyte value less than the LOD or MDL

**SECOND QUARTER 2012  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

NM	not measured or determined
NTU	nephelometric turbidity unit
pCi/L	picocuries per liter
pg/L	picograms per liter
Q	matrix spike recovery outside of control limits
R	as a validation qualifier, results are rejected; the presence or absence of analyte cannot be verified
R	(reason code in parentheses) %R for calibration not within control limits
RL	laboratory reporting limit
RL-1	reporting limit raised due to sample matrix effects
%RSD	percent relative standard deviation
S	surrogate recovery was outside control limits
TEQ	toxic equivalent
T	presumed contamination, as indicated by a detect in the trip blank
TU <sub>c</sub>	toxicity units (chronic)
U	result not detected
µg/L	micrograms per liter
UJ	result not detected at the estimated reporting limit
umhos/cm	micromhos per centimeter
WHO TEF	World Health Organization toxic equivalency factor
^	analysis not completed due to hold time exceedence or insufficient sample volume
#	Per ORDER NO. R4-2010-0090 page 23 Footnote 1. The effluent limitations for total suspended solids and settable solids are not applicable for discharges during wet weather. During wet weather flow, a discharge event is greater than 0.1 inches of rainfall in a 24-hour period. No more than one sample per week need be obtained during extended periods of rainfall or the discharge of collected stormwater. A storm event must be preceded by at least 72 hours of dry weather.
(4.0)3.1/-	Represents (Dry Weather Limit) Wet Weather Limit / Monthly Average Limit.

**OUTFALL 001 (South Slope below Perimeter Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Benchmark Limit Daily Max/Monthly Avg	04/13/2012 (Comp)		
			RESULT	MDA	VALIDATION QUALIFIER
<b>RADIOACTIVITY</b>					
Gross Alpha	pCi/L	15/-	17.1 ± 2.0	1.02	J (C)
Gross Beta	pCi/L	50/-	16.2 ± 1.2	1.37	--
Strontium-90	pCi/L	8.0/-	-0.104 ± 0.39	0.935	UJ (L)
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	1.33 ± 0.47	1.05	--
Tritium	pCi/L	20000/-	-36.3 ± 87	150	U
Uranium, Total	pCi/L	20/-	0.687 ± 0.074	0.018	J (L, DNQ)
Potassium-40	pCi/L	-/-	-1.04 ± 21	35.8	U
Cesium 137	pCi/L	200/-	-1.43 ± 2.3	3.99	U

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Benchmark Limit Daily Max/Monthly Avg	04/11/2012 (Grab)		
			RESULT	MDA	VALIDATION QUALIFIER
<b>RADIOACTIVITY</b>					
Gross Alpha	pCi/L	15/-	0.226 ± 0.51	0.872	UJ (C)
Gross Beta	pCi/L	50/-	4.16 ± 0.89	1.26	--
Strontium-90	pCi/L	8.0/-	0.378 ± 0.45	0.901	U
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	0.33 ± 0.34	0.88	U
Tritium	pCi/L	20000/-	5.22 ± 100	172	U
Potassium-40	pCi/L	-/-	-7.2 ± 0.18	31.8	U
Uranium, Total	pCi/L	20/-	0.147 ± 0.018	0.019	J (DNQ)
Cesium 137	pCi/L	200/-	-0.824 ± 1.8	3.23	U

**OUTFALL 002 (South Slope below R-2 Pond)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Benchmark Limit Daily Max/Monthly Avg	04/13/2012 (Comp)		
			RESULT	MDA	VALIDATION QUALIFIER
<b>RADIOACTIVITY</b>					
Gross Alpha	pCi/L	15/-	1.34 ± 0.81	1.26	J (C, DNQ)
Gross Beta	pCi/L	50/-	4.81 ± 0.97	1.44	--
Strontium-90	pCi/L	8.0/-	-0.131 ± 0.33	0.835	UJ (L)
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	0.56 ± 0.38	0.97	U
Tritium	pCi/L	20000/-	19.4 ± 88	148	U
Potassium-40	pCi/L	-/-	-4.54 ± 15	26.9	U
Uranium, Total	pCi/L	20/-	0.172 ± 0.020	0.018	J (L, DNQ)
Cesium 137	pCi/L	200/-	0.152 ± 1.3	1.58	U

**OUTFALL 008 (Happy Valley Drainage)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	04/13/2012 (Comp)		
			RESULT	MDA	VALIDATION QUALIFIER
<b>RADIOACTIVITY</b>					
Gross Alpha	pCi/L	15/-	1.32 ± 0.66	1	J (C, DNQ)
Gross Beta	pCi/L	50/-	5.44 ± 0.84	1.12	--
Strontium-90	pCi/L	8.0/-	-0.049 ± 0.44	1.06	UJ (L)
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	0.93 ± 0.44	1.07	U
Tritium	pCi/L	20000/-	-4.64 ± 90	153	U
Uranium, Total	pCi/L	20/-	0.642 ± 0.069	0.018	J (L, DNQ)
Potassium-40	pCi/L	-/-	-7.82 ± 37	66.2	U
Cesium 137	pCi/L	200/-	0.091 ± 2.6	4.54	U

**OUTFALL 009 (WS-13 Drainage)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	04/11/2012 (Comp)		
			RESULT	MDA	VALIDATION QUALIFIER
<b>RADIOACTIVITY</b>					
Gross Alpha	pCi/L	15/-	1.23 ± 0.36	0.347	J (DNQ)
Gross Beta	pCi/L	50/-	2.29 ± 0.72	1.08	J (DNQ)
Strontium-90	pCi/L	8.0/-	-0.156 ± 0.36	0.943	U
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	0.24 ± 0.32	0.89	U
Tritium	pCi/L	20000/-	-72.3 ± 100	176	U
Uranium, Total	pCi/L	20/-	0.074 ± 0.012	0.019	J (DNQ)
Potassium-40	pCi/L	-/-	1.85 ± 32	57.4	U
Cesium 137	pCi/L	200/-	0.386 ± 2.8	4.96	U

**OUTFALL 018 (R-2 Spillway)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**April 1 through June 30, 2012**

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	04/10-11/2012 (Comp)			04/12-13/2012 (Comp)		
			RESULT	MDA	VALIDATION QUALIFIER	RESULT	MDA	VALIDATION QUALIFIER
<b>RADIOACTIVITY</b>								
Gross Alpha	pCi/L	15/-	0.114 ± 0.49	0.835	UJ (C)	-0.184 ± 0.59	1.12	UJ (C)
Gross Beta	pCi/L	50/-	4.32 ± 0.65	0.853	--	3.3 ± 1.1	1.58	J (DNQ)
Strontium-90	pCi/L	8.0/-	-0.277 ± 0.36	0.981	U	0.061 ± 0.35	0.781	U
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	-0.002 ± 0.304	0.873	U	0.18 ± 0.35	0.96	U
Tritium	pCi/L	20000/-	47.2 ± 100	172	U	32.2 ± 91	152	U
Potassium-40	pCi/L	-/-	12.9 ± 14	23.3	U	19 ± 38	65.8	U
Uranium, Total	pCi/L	20/-	0.047 ± 0.010	0.019	J (DNQ)	0.022 ± 0.008	0.018	J (DNQ)
Cesium 137	pCi/L	200/-	0.048 ± 0.89	1.76	U	-2.11 ± 3.4	6.06	U

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	04/05/2012 (Comp)		05/03/2012 (Comp)	
			RESULT	MDA	VALIDATION QUALIFIER	RESULT
<b>RADIOACTIVITY</b>						
Gross Alpha	pCi/L	15/-	-0.11 ± 0.87	1.65	UJ (C)	0.13 ± 0.68
Gross Beta	pCi/L	50/-	1.44 ± 1.3	2.03	U	2.15 ± 0.94
Strontium-90	pCi/L	8.0/-	0.04 ± 0.32	0.715	U	0.018 ± 0.41
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	-0.01 ± 0.35	0.97	U	-0.006 ± 0.358
Tritium	pCi/L	20000/-	61.3 ± 100	167	U	-104 ± 100
Potassium-40	pCi/L	-/-	-2.13 ± 15	27.1	U	9.67 ± 14
Uranium, Total	pCi/L	20/-	0.091 ± 0.013	0.02	J (DNQ)	0.018 ± 0.004
Cesium 137	pCi/L	200/-	0.346 ± 1.7	2.93	U	-0.662 ± 1.2

**OUTFALL 019 (Treatment System)**

**SECOND QUARTER 2012 REPORTING SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

April 1 through June 30, 2012

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	06/07/2012 (Comp)		
			RESULT	MDA	VALIDATION QUALIFIER
<b>RADIOACTIVITY</b>					
Gross Alpha	pCi/L	15/-	-0.149 ± 0.73	1.44	UJ (C)
Gross Beta	pCi/L	50/-	1.54 ± 1.2	1.87	U
Stronitium-90	pCi/L	8.0/-	0.025 ± 0.36	0.726	U
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	0.70 ± 0.41	0.98	U
Tritium	pCi/L	20000/-	-4.64 ± 86	146	U
Potassium-40	pCi/L	-/-	-7.29 ± 13	24	U
Uranium, Total	pCi/L	200/-	0.036 ± 0.008	0.016	J (DNQ)
Cesium 137	pCi/L	200/-	-0.669 ± 1.5	2.66	U

## **APPENDIX E**

### **SECOND QUARTER 2012 SUMMARY OF PERMIT LIMIT EXCEEDANCES**

**SECOND QUARTER 2012  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**Notes:**

1. TCDD TEQs for the purpose of determining permit compliance are the sum of the products of the detected dioxin congener concentration multiplied by that congener's toxicity equivalency factor (TEF) and bioaccumulation equivalency factor (BEF). The resulting compliance TCDD TEQ does not include those congener concentrations that are reported as DNQ, as specified on Page 37 of the NPDES permit.
2. pH was determined with a field instrument and was noted as such. These results were not validated.
3. The NPDES monthly average permit limit for mercury of 0.05 µg/L (Outfall 019) is not achievable by the laboratory; therefore, the laboratory MDL of 0.10 µg/L was used to determine compliance.
4. All of the following abbreviations and/or notes may not occur on every table.

---

-92.9 +/-200	A negative radiochemical analytical result indicates the count rate of the sample was less than the background condition
\$	reported result or other information was incorrectly reported by the laboratory; result was corrected by the data validator
--	based on validation of the data, a qualifier was not required
-/-	no permit limit established for daily maximum or monthly average
<(value)	analyte not detected at a concentration greater than or equal to the DL, MDL, or RL (see laboratory report for specific detail)
*	result not validated
*1	improper preservation of sample
*2	the ICP/MS ppb check standard was recovered above the control limit; therefore, the constituent detected was qualified as estimated (J)
*3	initial and or continuing calibration recoveries were outside acceptable control limits
*5	blank spike/blank spike duplicate relative percent difference was outside the control limit
*10	value was estimated detect or estimated non detect (J,UJ) due to deficiencies in quantitation of the constituent including constituents reported by the laboratory as Estimated Maximum Possible Concentration (EMPC) values

**SECOND QUARTER 2012  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

*11	no calibration was performed for this compound; result is reported as a tentatively identified compound (TIC)
ANR	analysis not required; e.g., constituent or outfall was not required by the permit to be sampled and analyzed (annual, semi-annual, etc.)
B	laboratory method blank contamination
BA	relative percent difference out of control
BEF time	bioaccumulation equivalency factorBU analyzed out of holding time
BV	sample received after holding time expired
C	calibration %RSD or %D were noncompliant
C5	Calibration verification %R was outside method control limits
%D	percent difference between the initial and continuing calibration relative response factors
deg F	degrees Fahrenheit
DL	detection limit
DNQ	detected but not quantified (constituent value greater than or equal to the laboratory method detection limit and less than the laboratory reporting limit)
E	duplicates show poor agreement
H	holding time was exceeded
I	ICP interference check solution results were unsatisfactory
J	estimated value, result lower than the detection limit
J, DX	estimated value, value < lowest standard (MQL), but > than MDL
K	The sample dilution's set-up did not meet the oxygen depletion criteria of at least 2 mg/l. Therefore, the reported result is an estimated value only.
L2	the laboratory control sample %R was below the method control limits
L	laboratory control sample %R was outside control limits
LOD	limit of detection
LQ	LCS/LCSD recovery above method control limits
M1	matrix spike (MS) and/or MS duplicate were above the acceptance limits due to sample matrix interference
M2	the MS and/or MS duplicate were below the acceptance limits due to sample matrix interference
MDA	Minimum detectable activity
MDL	method detection limit
MGD	million gallons per day
MHA*	Due to high level of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information.
mg/L	milligrams per liter
ml/L/hr	milliliters per liter per hour
NA	not applicable; no permit limit established for the constituent and/or outfall
ND	analyte value less than the LOD or MDL

**SECOND QUARTER 2012  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

NM	not measured or determined
NTU	nephelometric turbidity unit
pCi/L	picocuries per liter
pg/L	picograms per liter
Q	matrix spike recovery outside of control limits
R	as a validation qualifier, results are rejected; the presence or absence of analyte cannot be verified
R	(reason code in parentheses) %R for calibration not within control limits
RL	laboratory reporting limit
RL-1	reporting limit raised due to sample matrix effects
%RSD	percent relative standard deviation
S	surrogate recovery was outside control limits
TEQ	toxic equivalent
T	presumed contamination, as indicated by a detect in the trip blank
TU <sub>c</sub>	toxicity units (chronic)
U	result not detected
µg/L	micrograms per liter
UJ	result not detected at the estimated reporting limit
umhos/cm	micromhos per centimeter
WHO TEF	World Health Organization toxic equivalency factor
^	analysis not completed due to hold time exceedence or insufficient sample volume
#	Per ORDER NO. R4-2010-0090 page 23 Footnote 1. The effluent limitations for total suspended solids and settable solids are not applicable for discharges during wet weather. During wet weather flow, a discharge event is greater than 0.1 inches of rainfall in a 24-hour period. No more than one sample per week need be obtained during extended periods of rainfall or the discharge of collected stormwater. A storm event must be preceded by at least 72 hours of dry weather.
(4.0)3.1/-	Represents (Dry Weather Limit) Wet Weather Limit / Monthly Average Limit.

**SUMMARY OF PERMIT LIMIT EXCEEDANCES**

**SECOND QUARTER 2012  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

DAILY MAX BENCHMARK LIMIT EXCEEDANCES							
OUTFALL	LOCATIONS	SAMPLE DATE	ANALYTE	BENCHMARK LIMIT DAILY MAX	DAILY MAX RESULT	UNITS	RESULT CONCENTRATION VALIDATION QUALIFIER
Outfall 001	South Slope below Perimeter Pond	13-Apr-12	Iron	0.3	14	mg/L	--
Outfall 001	South Slope below Perimeter Pond	13-Apr-12	Lead	5.2	10	ug/L	--
Outfall 001	South Slope below Perimeter Pond	13-Apr-12	Manganese	50	260	ug/L	--
Outfall 002	South Slope below R-2 Pond	13-Apr-12	Iron	0.3	1.7	mg/L	--

**POTENTIAL CONCERN of a DAILY MAX BENCHMARK LIMIT EXCEEDANCE\***

Outfall 001	South Slope below Perimeter Pond	13-Apr-12	Gross Alpha	15	17.1 ± 2.0	pCi/L	J (C)
-------------	----------------------------------	-----------	-------------	----	------------	-------	-------

\* Compliance is based on an annual average of the samples collected

**SUMMARY OF PERMIT LIMIT EXCEEDANCES**

**SECOND QUARTER 2012  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

DAILY MAX PERMIT LIMIT EXCEEDANCES							
OUTFALL	LOCATIONS	SAMPLE DATE	ANALYTE	PERMIT LIMIT DAILY MAX	DAILY MAX RESULT	UNITS	RESULT CONCENTRATION VALIDATION QUALIFIER
Outfall 009	WS-13 Drainage	11-Apr-12	TCDD TEQ_NoDNQ	2.80E-08	3.72E-08	ug/L	--
Outfall 008	Happy Valley Drainage	13-Apr-12	Copper	14	18	ug/L	--
Outfall 008	Happy Valley Drainage	13-Apr-12	Lead	5.2	10	ug/L	--

**SUMMARY OF PERMIT LIMIT EXCEEDANCES**

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

DAILY MAX PERMIT LIMIT EXCEEDANCES - ARROYO SIMI							
OUTFALL	LOCATIONS	SAMPLE DATE	ANALYTE	PERMIT LIMIT DAILY MAX	DAILY MAX RESULT	UNITS	RESULT CONCENTRATION VALIDATION QUALIFIER
Arroyo Simi	Frontier Park Receiving Water	02-Apr-12	Fecal Coliform	400	500	MPN/100mL	--
Arroyo Simi	Frontier Park Receiving Water	02-Apr-12	E. Coli	235	500	MPN/100mL	--
Arroyo Simi	Frontier Park Receiving Water	06-Apr-12	E. Coli	235	250	MPN/100mL	--

GEOMETRIC MEAN LIMIT EXCEEDANCES - ARROYO SIMI							
OUTFALL	LOCATIONS	SAMPLE DATE	ANALYTE	GOEMETRIC MEAN LIMIT	DAILY MAX RESULT	UNITS	RESULT CONCENTRATION VALIDATION QUALIFIER
Arroyo Simi	Frontier Park Receiving Water	3/8, 3/17,3/27, 4/2, 4/6	Fecal Coliform	200	626	MPN/100mL	*
Arroyo Simi	Frontier Park Receiving Water	3/8, 3/17,3/27, 4/2, 4/6	E. Coli	126	626	MPN/100mL	*

**APPENDIX F**

**SECOND QUARTER 2012 REASONABLE POTENTIAL  
ANALYSIS (RPA) SUMMARY TABLES**

**SECOND QUARTER 2012 REASONABLE POTENTIAL ANALYSIS SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

1. The following Reasonable Potential Analysis (RPA) provides the analytical results as performed by the procedures outlined in *Reasonable Potential Analysis Methodology Technical Memo* (MWH and Flow Science, 2006).
2. The monitoring data set utilized to conduct the RPA consists of all applicable and relevant data from August 2004 through the present reporting quarter.
3. As directed by the CTR and the Regional Water Control Board 2,3,7,8-TCDD (Dioxin) values are to be expressed in NPDES permitting and this RPA as TCDD Total Equivalence units (TEQs). A TCDD TEQ is determined by multiplying each of the seventeen dioxin and furan congeners by their respective toxicity equivalency factor (TEF) and bioaccumulation equivalency factor (BEF), and summing the results of those products. For the purposes of this RPA, the resulting TCDD TEQ does not include those congener concentrations that are reported as DNQ, as specified on Page 37, of the NPDES Permit Effective June 3, 2010.
4. In calculating the average, standard deviation, coefficient of variation, and projected maximum effluent concentration (99/99), one-half of the MDL was used for concentration results reported as ND. Data reported with qualifiers were not included in this RPA as Boeing believes qualified data are not "appropriate, valid, relevant, (nor) representative"<sup>1</sup> of storm water constituents and are therefore not utilized in its RPA.
5. All of the following abbreviations and/or notes may not occur on every table.

---

**Definition of Acronyms, Abbreviations, and Terminology Used**

>=	Greater than or equal to
*	Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. The equations are provided in the CTR, (US EPA, 2000). Values displayed correspond to a total hardness of 100 mg/l.
µg/L	Concentration units, micrograms per liter
All Data Qualified	All available monitoring data are qualified and no statistical analysis is performed.
Annually	The 2010 NPDES Permit requires annual monitoring.
Available Data < DL	All available monitoring data that are not qualified are below detection limits.
B	Background
C	Concentration
CCC	Criterion Continuous Concentration
CMC	Criterion Maximum Concentration
CTR	California Toxics Rule
CV	Coefficient of Variation
DL	Detection Limit
EPA TSD	EPA's Technical Support Document for Water Quality Based Toxics Control, (see references).

---

<sup>1</sup> SIP, p. 5.

**SECOND QUARTER 2012 REASONABLE POTENTIAL ANALYSIS SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Definition of Acronyms, Abbreviations, and Terminology Used (Continued)**

Fibers/L	Units for asbestos concentration, fibers per liter
HH O	Human Health criteria for consumption of Organisms only
HH W&O	Human Health criteria for consumption of Water and Organisms
MEC	Maximum Observed Effluent Concentration
Min	Minimum
NA	Not Applicable
Narrative	Water quality criteria are expressed as a narrative objective rather than a numeric objective, and therefore are not part of the statistical RPA calculations.
None	No available CTR or Basin Plan criteria.
pH Dependent	CTR Criteria are based on pH.
Once Per Discharge	The 2010 NPDES Permit requires monitoring once per discharge event.
Qualified Data	Data qualifier definitions are: (a) J- The reported result is an estimate. The value is less than the minimum calibration level but greater than the estimated detection limit (EDL), (b) U/UJ- The analyte was not detected in the sample at the detection limit /estimated detection limit (EDL), (c) B- Analyte found in sample and associated blank, and (d) DNQ- Detected Not Quantified.
Reserved	EPA has reserved the CTR criteria.
RPA	Reasonable Potential Analysis
SIP	The State Water Resources Control Board "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California," (see references).
Tot	Total

**Priority Pollutant RPA Column Explanation**

CTR	Provides CTR constituent reference number.
Constituent	Provides CTR constituent common name.
Units	Provides the data set's concentration units as referenced by 2010 NPDES Permit.
MEC	Provides the outfall monitoring group's maximum value from the applicable data set.
CV	Equal to the standard deviation divided by the average of the applicable data set. If the number of samples is less than 10, the CV is assumed to be 0.6.
<i>Step 1 identifies all applicable water quality criteria.</i>	
CTR Criteria	Concentration criteria as listed in the CTR.
CMC = Acute	The Freshwater CMC is listed as the acute concentration criterion.
CCC = Chronic	The Freshwater CCC is listed as the chronic concentration criterion.
HH W& O(Not App)	The HH W&O is deemed not applicable based on past Regional Board RPAs.
HH O = HH	The HH O is listed as the CTR human health concentration criterion.
Basin Plan Criteria	Applicable Basin Plan Criteria are listed for the Los Angeles River and/or Calleguas Creek watersheds.

**SECOND QUARTER 2012 REASONABLE POTENTIAL ANALYSIS SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

C = Lowest Criteria	The comparison concentration (C) is equal to the lowest criterion for a constituent based on the CMC, CCC, HH O, and Basin Plan Criteria listed.
---------------------	--

**Priority Pollutant RPA Column Explanation (Continued)**

<i>Step 2 defines the applicable data set.</i>	
Is Effluent Data Available	If there is available monitoring data that is not qualified and above DL, then YES. If not, then NO.
<i>Step 3 determines the maximum observed effluent concentration.</i>	
Was Constituent Detected in Effluent Data	If the constituent was detected, then YES. If all monitoring data are non-detect or qualified then NO.
Are all DL > C	If constituent was detected in effluent data then not applicable (NA). If constituent was not detected and all analysis detection limits are less than the comparison concentration, then YES, if not then NO.
If DL > C MEC = Min (DL)	If the previous cell answer was yes, then the MEC is equal to the minimum detection limit. If not, then NA.
<i>Step 4 compares the MEC to the lowest applicable water quality criteria.</i>	
MEC >= C	If the MEC is greater than or equal to the comparison concentration then YES, if not then NO.

Note: Steps 5 and 6 of the Priority Pollutant RPA do not apply to Boeing SSFL because the Regional Board gives no consideration for receiving water background constituent concentrations. Furthermore, Boeing SSFL defers the application of best professional judgment in Step 7 and final determination of reasonable potential in Step 8 to the Regional Board Staff.

**Nonpriority Pollutant RPA Column Explanation**

Constituent	Provides the Non Priority Pollutant constituent common name
Monitoring	Provides the 2010 NPDES Permit directed monitoring frequency
Units	Provides the data set's concentration units as referenced by 2009 NPDES Permit
Number of Samples	Provides the number of available samples that are not qualified
MEC	Provides the outfall monitoring group's maximum value from the applicable data set
CV	Equal to the standard deviation divided by the average of the applicable data set. If the number of samples is less than 10, the CV is assumed to be 0.6.
Multiplier	Utilizes the EPA's TSD calculation to determine multiplier for which the maximum effluent concentration is calculated. (MWH and Flow Science, 2006, or EPA TSD, 1991)
Projected Maximum Effluent Concentration	Utilizes the product of the multiplier and the MEC as an estimate for the projected maximum effluent concentration.
Dilution Ratio	The Regional Board allocates no dilution ratio to Boeing SSFL.
Background Concentration	The Regional Board allocates no background concentration to Boeing SSFL.
Projected Maximum Receiving Water Concentration	The Regional Board estimates the projected maximum receiving water concentration as equal to the projected maximum effluent concentration.

**SECOND QUARTER 2012 REASONABLE POTENTIAL ANALYSIS SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Nonpriority Pollutant RPA Column Explanation (Continued)**

Step 1, Determine Water Quality Objectives	The water quality objective is based on appropriate Basin Plan criteria.
BU – Benneficial Use Protection, NC – Human noncarcinogen, AP- Aquatic Life Protection, TMDL – Total Maximum Daily Load	This is the Regional Board's Basis for determining if reasonable potential should be evaluated for a non-priority pollutant.

Note: Boeing SSFL has completed appropriate statistical calculations, but defers the application of best professional judgment and the final determination of reasonable potential to the Regional Board Staff.

**References**

Los Angeles Regional Water Quality Control Board, "Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, (Basin Plan)." June 13, 1994.

MWH and Flow Science, "Reasonable Potential Analysis Methodology Technical Memo- Version 1, Final, Santa Susan Field Laboratory, Ventura County, California." April 28, 2006.

State Water Resources Control Board, "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, (SIP)" Resolution No. 2005-0019, February 24, 2005.

US EPA, *40CFR part 131, Water Quality Standards; Establishment of numeric Criteria for Priority Toxic Pollutants for the State of California*,(CTR) Federal Registry, May 18, 2000, pp. 31682-31719.

US EPA, "Technical Support Document for Water Quality-based Toxics Control." EPA/505/2-90-001, PB-91-127415, March 1991.

**SECOND QUARTER 2012 REASONABLE POTENTIAL ANALYSIS SUMMARY**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

**Nonpriority Pollutant RPA Column Explanation (Continued)**

Step 1, Determine Water Quality Objectives	The water quality objective is based on appropriate Basin Plan criteria.
BU – Benneficial Use Protection, NC – Human noncarcinogen, AP- Aquatic Life Protection, TMDL – Total Maximum Daily Load	This is the Regional Board's Basis for determining if reasonable potential should be evaluated for a non-priority pollutant.

Note: Boeing SSFL has completed appropriate statistical calculations, but defers the application of best professional judgment and the final determination of reasonable potential to the Regional Board Staff.

**References**

Los Angeles Regional Water Quality Control Board, "Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, (Basin Plan)." June 13, 1994.

MWH and Flow Science, "Reasonable Potential Analysis Methodology Technical Memo- Version 1, Final, Santa Susan Field Laboratory, Ventura County, California." April 28, 2006.

State Water Resources Control Board, "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, (SIP)" Resolution No. 2005-0019, February 24, 2005.

US EPA, *40CFR part 131, Water Quality Standards; Establishment of numeric Criteria for Priority Toxic Pollutants for the State of California*,(CTR) Federal Registry, May 18, 2000, pp. 31682-31719.

US EPA, "Technical Support Document for Water Quality-based Toxics Control." EPA/505/2-90-001, PB-91-127415, March 1991.

**Table F1**  
REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 001, 002, 011, 018, and 019)

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C						Step 2	Step 3			Step 4
						CTR CRITERIA				Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C		
						Freshwater		Human Health								
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR	Criteria	Step 2	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL)	MEC >= C
1_2_11_18	001	Antimony	ug/L	All Data Qualified	0.6	NONE	NONE	14	4300	6	6	No	No	No	NA	No
1_2_11_18	002	Arsenic	ug/L	All Data Qualified	0.6	340	150	NONE	NONE	10	50	No	No	No	NA	No
1_2_11_18	003	Beryllium	ug/L	All Data Qualified	0.6	NONE	NONE	Narrative	Narrative	4	4	No	No	No	NA	No
1_2_11_18	004	Cadmium	ug/L	Available Data <DL	0.6		2.46	Narrative	Narrative	5	2.46	Yes	No	No	NA	No
1_2_11_18	005a	Chromium	ug/L	15	0.6		206	Narrative	Narrative		206.98	Yes	Yes	NA	NA	No
1_2_11_18	005b	Chromium VI	ug/L	Available Data <DL	0.6	16.3	11.4	Narrative	Narrative	50	11.43	Yes	No	No	NA	No
1_2_11_18	006	Copper	ug/L	10	0.6		9.3	1300	NONE		9.33	Yes	Yes	NA	NA	Yes
1_2_11_18	007	Lead	ug/L	10	0.6		3.18	Narrative	Narrative		3.18	Yes	Yes	NA	NA	Yes
1_2_11_18	008	Mercury	ug/L	All Data Qualified	0.6	Reserved	Reserved	0.05	0.051	2	0.051	No	No	No	NA	No
1_2_11_18	009	Nickel	ug/L	12	0.6		52	610	4600	100	52.16	Yes	Yes	NA	NA	No
1_2_11_18	010	Selenium	ug/L	0.51	0.6	Reserved	5	Narrative	Narrative	50	5	Yes	Yes	NA	NA	No
1_2_11_18	011	Silver	ug/L	All Data Qualified	0.6	4.06	none	NONE	NONE		4.06	No	No	No	NA	No
1_2_11_18	012	Thallium	ug/L	All Data Qualified	0.6	NONE	NONE	1.7	6.3	2	2	No	No	No	NA	No
1_2_11_18	013	Zinc	ug/L	55	0.6	120	120	none	NONE		120	Yes	Yes	NA	NA	No
1_2_11_18	014	Total Cyanide	ug/L	Available Data <DL	0.6	22	5.2	700	220000	200	5.2	Yes	No	No	NA	No
1_2_11_18	015	Asbestos	Fibers/L	All Data Qualified	0.6	NONE	NONE	7000000	NONE	7000000	700000	No	No	No	NA	No
1_2_11_18	016	TCDD TEQ_NoDNQ	ug/L	2.55E-08	0.6	NONE	NONE	1.30E-08	1.40E-08	3.00E-05	1.40E-08	Yes	Yes	NA	NA	Yes
1_2_11_18	017	Acrolein	ug/L	Available Data <DL	0.6	NONE	NONE	320	780		780	Yes	No	No	NA	No
1_2_11_18	018	Acrylonitrile	ug/L	Available Data <DL	0.6	NONE	NONE	0.059	0.66		0.66	Yes	No	Yes	0.66	No
1_2_11_18	019	Benzene	ug/L	Available Data <DL	0.6	NONE	NONE	1.2	71	1	1	Yes	No	No	NA	No
1_2_11_18	020	Bromoform	ug/L	Available Data <DL	0.6	NONE	NONE	4.3	360		360	Yes	No	No	NA	No
1_2_11_18	021	Carbon Tetrachloride	ug/L	Available Data <DL	0.6	NONE	NONE	0.25	4.4	600	4.4	Yes	No	No	NA	No
1_2_11_18	022	Chlorobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	680	21000		21000	Yes	No	No	NA	No
1_2_11_18	023	Dibromochloromethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.401	34		34	Yes	No	No	NA	No
1_2_11_18	024	Chloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	025	2-Chloroethylvinylether	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	026	Chloroform	ug/L	Available Data <DL	0.6	NONE	NONE	Reserved	Reserved		NONE	Yes	No	No	NA	No
1_2_11_18	027	Bromodichloromethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.56	46		46	Yes	No	No	NA	No
1_2_11_18	028	1,1-Dichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE	5	5	Yes	No	No	NA	No
1_2_11_18	029	1,2-Dichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.38	99	0.5	0.5	Yes	No	No	NA	No
1_2_11_18	030	1,1-Dichloroethene	ug/L	Available Data <DL	0.6	NONE	NONE	0.057	3.2	6	3.2	Yes	No	No	NA	No
1_2_11_18	031	1,2-Dichloropropane	ug/L	Available Data <DL	0.6	NONE	NONE	0.52	39	5	5	Yes	No	No	NA	No
1_2_11_18	032	1,3-Dichloropropene (Total)	ug/L	All Data Qualified	0.6	NONE	NONE	10	1700	0.5	0.5	No	No	No	NA	No
1_2_11_18	033	Ethylbenzene	ug/L	Available Data <DL	0.6	NONE	NONE	3100	29000	0.7	0.7	Yes	No	No	NA	No
1_2_11_18	034	Bromomethane	ug/L	Available Data <DL	0.6	NONE	NONE	48	4000		4000	Yes	No	No	NA	No
1_2_11_18	035	Chloromethane	ug/L	Available Data <DL	0.6	NONE	NONE	Narrative	Narrative		NONE	Yes	No	No	NA	No
1_2_11_18	036	Methylene chloride	ug/L	Available Data <DL	0.6	NONE	NONE	4.7	1600		1600	Yes	No	No	NA	No
1_2_11_18	037	1,1,2,2-Tetrachloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.17	11	1	1	Yes	No	No	NA	No
1_2_11_18	038	Tetrachloroethene	ug/L	Available Data <DL	0.6	NONE	NONE	0.8	8.85	5	5	Yes	No	No	NA	No
1_2_11_18	039	Toluene	ug/L	Available Data <DL	0.6	NONE	NONE	6800	200000	150	150	Yes	No	No	NA	No
1_2_11_18	040	trans-1,2-Dichloroethene	ug/L	Available Data <DL	0.6	NONE	NONE	700	140000	10	10	Yes	No	No	NA	No
1_2_11_18	041	1,1,1-Trichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	Narrative	Narrative	200	200	Yes	No	No	NA	No
1_2_11_18	042	1,1,2-trichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.6	42	5	5	Yes	No	No	NA	No
1_2_11_18	043	Trichloroethene	ug/L	Available Data <DL	0.6	NONE	NONE	2.7	81	5	5	Yes	No	No	NA	No
1_2_11_18	044	Vinyl chloride	ug/L	Available Data <DL	0.6	NONE	NONE	2	525	0.5	0.5	Yes	No	No	NA	No
1_2_11_18	045	2-chlorophenol	ug/L	Available Data <DL	0.6	NONE	NONE	120	400		400	Yes	No	No	NA	No
1_2_11_18	046	2,4-Dichlorophenol	ug/L	Available Data <DL	0.6	NONE	NONE	93	790		790	Yes	No	No	NA	No

**Table F1**  
REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 001, 002, 011, 018, and 019)

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C						Step 2	Step 3			Step 4
						CTR CRITERIA				Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C		
						Freshwater		Human Health								
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR	Step 2	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL)	MEC >= C
1_2_11_18	047	2,4-dimethylphenol	ug/L	Available Data <DL	0.6	NONE	NONE	540	2300		2300	Yes	No	No	NA	No
1_2_11_18	048	2-Methyl-4,6-dinitrophenol	ug/L	Available Data <DL	0.6	NONE	NONE	13.4	765		765	Yes	No	No	NA	No
1_2_11_18	049	2,4-dinitrophenol	ug/L	Available Data <DL	0.6	NONE	NONE	70	14000		14000	Yes	No	No	NA	No
1_2_11_18	050	2-nitrophenol	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	051	4-nitrophenol	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	052	4-Chloro-3-methylphenol	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	053	Pentachlorophenol	ug/L	Available Data <DL	0.6	pH dependent	pH dependent	0.28	8.2	1	1	Yes	No	No	NA	No
1_2_11_18	054	Phenol	ug/L	Available Data <DL	0.6	NONE	NONE	21000	4600000		4600000	Yes	No	No	NA	No
1_2_11_18	055	2,4,6-Trichlorophenol	ug/L	Available Data <DL	0.6	NONE	NONE	2.1	6.5		6.5	Yes	No	No	NA	No
1_2_11_18	056	Acenaphthene	ug/L	Available Data <DL	0.6	NONE	NONE	1200	2700		2700	Yes	No	No	NA	No
1_2_11_18	057	Acenaphthylene	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	058	Anthracene	ug/L	Available Data <DL	0.6	NONE	NONE	9600	110000		110000	Yes	No	No	NA	No
1_2_11_18	059	Benzidine	ug/L	Available Data <DL	0.6	NONE	NONE	0.00012	0.00054		0.00054	Yes	No	Yes	0.00054	No
1_2_11_18	060	Benzo(a)Anthracene	ug/L	Available Data <DL	0.6	NONE	NONE	0.0044	0.049		0.049	Yes	No	Yes	0.049	No
1_2_11_18	061	Benzo(a)Pyrene	ug/L	Available Data <DL	0.6	NONE	NONE	0.0044	0.049		0.049	Yes	No	Yes	0.049	No
1_2_11_18	062	Benzo(b)Fluoranthene	ug/L	Available Data <DL	0.6	NONE	NONE	0.0044	0.049		0.049	Yes	No	Yes	0.049	No
1_2_11_18	063	Benzo(g,h,i)Perylene	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	064	Benzo(k)Fluoranthene	ug/L	Available Data <DL	0.6	NONE	NONE	0.0044	0.049		0.049	Yes	No	Yes	0.049	No
1_2_11_18	065	Bis(2-Chloroethoxy) methane	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	066	bis (2-Chloroethyl) ether	ug/L	Available Data <DL	0.6	NONE	NONE	0.031	1.4		1.4	Yes	No	No	NA	No
1_2_11_18	067	Bis(2-Chloroisopropyl) Ether	ug/L	Available Data <DL	0.6	NONE	NONE	1400	170000		170000	Yes	No	No	NA	No
1_2_11_18	068	bis (2-ethylhexyl) Phthalate	ug/L	Available Data <DL	0.6	NONE	NONE	1.8	5.9	4	4	Yes	No	No	NA	No
1_2_11_18	069	4-Bromophenylphenylether	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	070	Butylbenzylphthalate	ug/L	Available Data <DL	0.6	NONE	NONE	3000	5200		5200	Yes	No	No	NA	No
1_2_11_18	071	2-Chloronaphthalene	ug/L	Available Data <DL	0.6	NONE	NONE	1700	4300		4300	Yes	No	No	NA	No
1_2_11_18	072	4-Chlorophenylphenylether	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	073	Chrysene	ug/L	Available Data <DL	0.6	NONE	NONE	0.0044	0.049		0.049	Yes	No	Yes	0.049	No
1_2_11_18	074	Dibenzo(a,h)Anthracene	ug/L	Available Data <DL	0.6	NONE	NONE	0.0044	0.049		0.049	Yes	No	Yes	0.049	No
1_2_11_18	075	1,2-Dichlorobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	2700	17000	600	600	Yes	No	No	NA	No
1_2_11_18	076	1,3-Dichlorobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	400	2600		2600	Yes	No	No	NA	No
1_2_11_18	077	1,4-Dichlorobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	400	2600	5	5	Yes	No	No	NA	No
1_2_11_18	078	3,3'-Dichlorobenzidine	ug/L	Available Data <DL	0.6	NONE	NONE	0.04	0.077		0.077	Yes	No	Yes	0.077	No
1_2_11_18	079	Diethylphthalate	ug/L	Available Data <DL	0.6	NONE	NONE	23000	120000		120000	Yes	No	No	NA	No
1_2_11_18	080	Dimethylphthalate	ug/L	Available Data <DL	0.6	NONE	NONE	313000	2900000		2900000	Yes	No	No	NA	No
1_2_11_18	081	Di-n-butylphthalate	ug/L	Available Data <DL	0.6	NONE	NONE	2700	12000		12000	Yes	No	No	NA	No
1_2_11_18	082	2,4-Dinitrotoluene	ug/L	Available Data <DL	0.6	NONE	NONE	0.11	9.1		9.1	Yes	No	No	NA	No
1_2_11_18	083	2,6-Dinitrotoluene	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	084	Di-n-octylphthalate	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	085	1,2-Diphenylhydrazine	ug/L	All Data Qualified	0.6	NONE	NONE	0.04	0.54		0.54	No	No	No	NA	No
1_2_11_18	086	Fluoranthene	ug/L	Available Data <DL	0.6	NONE	NONE	300	370		370	Yes	No	No	NA	No
1_2_11_18	087	Fluorene	ug/L	Available Data <DL	0.6	NONE	NONE	1300	14000		14000	Yes	No	No	NA	No
1_2_11_18	088	Hexachlorobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	0.00075	0.00077		0.00077	Yes	No	Yes	0.00077	No
1_2_11_18	089	Hexachlorobutadiene	ug/L	Available Data <DL	0.6	NONE	NONE	0.44	50		50	Yes	No	No	NA	No
1_2_11_18	090	Hexachlorocyclopentadiene	ug/L	Available Data <DL	0.6	NONE	NONE	240	17000		17000	Yes	No	No	NA	No
1_2_11_18	091	Hexachloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	1.9	8.9		8.9	Yes	No	No	NA	No
1_2_11_18	092	Indeno(1,2,3-cd)Pyrene	ug/L	Available Data <DL	0.6	NONE	NONE	0.0044	0.049		0.049	Yes	No	Yes	0.049	No
1_2_11_18	093	Isophorone	ug/L	Available Data <DL	0.6	NONE	NONE	8.4	600		600	Yes	No	No	NA	No

**Table F1**  
**REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 001, 002, 011, 018, and 019)**

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C						Step 2	Step 3			Step 4
						CTR CRITERIA				Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C		
						Freshwater		Human Health								
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR	Critera	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL)	MEC >= C
1_2_11_18	094	Naphthalene	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	095	Nitrobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	17	1900		1900	Yes	No	No	NA	No
1_2_11_18	096	N-Nitrosodimethylamine	ug/L	Available Data <DL	0.6	NONE	NONE	0.00069	8.1		8.1	Yes	No	No	NA	No
1_2_11_18	097	n-Nitroso-di-n-propylamine	ug/L	Available Data <DL	0.6	NONE	NONE	0.005	1.4		1.4	Yes	No	No	NA	No
1_2_11_18	098	N-Nitrosodiphenylamine	ug/L	Available Data <DL	0.6	NONE	NONE	5	16		16	Yes	No	No	NA	No
1_2_11_18	099	Phenanthrene	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	100	Pyrene	ug/L	Available Data <DL	0.6	NONE	NONE	960	11000		11000	Yes	No	No	NA	No
1_2_11_18	101	1,2,4-Trichlorobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	102	Aldrin	ug/L	Available Data <DL	0.6	3	NONE	0.00013	0.00014		0.00014	Yes	No	Yes	0.00014	No
1_2_11_18	103	alpha-BHC	ug/L	Available Data <DL	0.6	NONE	NONE	0.0039	0.013		0.013	Yes	No	No	NA	No
1_2_11_18	104	beta-BHC	ug/L	Available Data <DL	0.6	NONE	NONE	0.014	0.046		0.046	Yes	No	No	NA	No
1_2_11_18	105	Lindane (gamma-BHC)	ug/L	Available Data <DL	0.6	0.95	NONE	0.019	0.063	0.2	0.063	Yes	No	No	NA	No
1_2_11_18	106	delta-BHC	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
1_2_11_18	107	Chlordane	ug/L	Available Data <DL	0.6	2.4	0.0043	0.00057	0.00059		0.00059	Yes	No	Yes	0.00059	No
1_2_11_18	108	4,4'-DDT	ug/L	Available Data <DL	0.6	1.1	0.001	0.00059	0.00059		0.00059	Yes	No	Yes	0.00059	No
1_2_11_18	109	4,4'-DDE	ug/L	Available Data <DL	0.6	NONE	NONE	0.00059	0.00059		0.00059	Yes	No	Yes	0.00059	No
1_2_11_18	110	4,4'-DDD	ug/L	Available Data <DL	0.6	NONE	NONE	0.00083	0.00084		0.00084	Yes	No	Yes	0.00084	No
1_2_11_18	111	Dieldrin	ug/L	Available Data <DL	0.6	0.24	0.056	0.00014	0.00014		0.00014	Yes	No	Yes	0.00014	No
1_2_11_18	112	Endosulfan I	ug/L	Available Data <DL	0.6	0.22	0.056	110	240		0.056	Yes	No	No	NA	No
1_2_11_18	113	Endosulfan II	ug/L	Available Data <DL	0.6	0.22	0.056	110	240		0.056	Yes	No	No	NA	No
1_2_11_18	114	Endosulfan Sulfate	ug/L	Available Data <DL	0.6	NONE	NONE	110	240		240	Yes	No	No	NA	No
1_2_11_18	115	Endrin	ug/L	Available Data <DL	0.6	0.086	0.036	0.76	0.81		0.036	Yes	No	No	NA	No
1_2_11_18	116	Endrin Aldehyde	ug/L	Available Data <DL	0.6	NONE	NONE	0.76	0.81		0.81	Yes	No	No	NA	No
1_2_11_18	117	Heptachlor	ug/L	Available Data <DL	0.6	0.52	0.0038	0.00021	0.00021		0.00021	Yes	No	Yes	0.00021	No
1_2_11_18	118	Heptachlor Epoxide	ug/L	Available Data <DL	0.6	0.52	0.0038	0.0001	0.00011		0.00011	Yes	No	Yes	0.00011	No
1_2_11_18	119	Aroclor-1016	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017		0.00017	Yes	No	Yes	0.00017	No
1_2_11_18	120	Aroclor-1221	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017		0.00017	Yes	No	Yes	0.00017	No
1_2_11_18	121	Aroclor-1232	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017		0.00017	Yes	No	Yes	0.00017	No
1_2_11_18	122	Aroclor-1242	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017		0.00017	Yes	No	Yes	0.00017	No
1_2_11_18	123	Aroclor-1248	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017		0.00017	Yes	No	Yes	0.00017	No
1_2_11_18	124	Aroclor-1254	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017		0.00017	Yes	No	Yes	0.00017	No
1_2_11_18	125	Aroclor-1260	ug/L	Available Data <DL	0.6	NONE	0.014	0.00017	0.00017		0.00017	Yes	No	Yes	0.00017	No
1_2_11_18	126	Toxaphene	ug/L	Available Data <DL	0.6	0.73	0.0002	0.0073	0.00075		0.0002	Yes	No	Yes	0.0002	No
1_2_11_18	127	E. Coli	MPN/100 ml	900	0.6	NA	NA	NA	NA	235	MPN/100 ml	Yes	Yes	NA	NA	Yes
19	001	Antimony	ug/L	All Data Qualified	0.6	NONE	NONE	14	4300	6	6	No	No	No	NA	No
19	002	Arsenic	ug/L	All Data Qualified	0.6	340	150	NONE	NONE	10	50	No	No	No	NA	No
19	003	Beryllium	ug/L	All Data Qualified	0.6	NONE	NONE	Narrative	Narrative	4	4	No	No	No	NA	No
19	004	Cadmium	ug/L	Available Data <DL	0.6		2.46	Narrative	Narrative	5	2.46	Yes	No	No	NA	No
19	005a	Chromium	ug/L	All Data Qualified	0.6		206	Narrative	Narrative		206.98	No	No	No	NA	No
19	005b	Chromium VI	ug/L	All Data Qualified	0.6	16.3	11.4	Narrative	Narrative	50	11.43	No	No	No	NA	No
19	006	Copper	ug/L	1.1	0.6		9.3	1300	NONE		9.33	Yes	Yes	NA	NA	No
19	007	Lead	ug/L	Available Data <DL	0.6		3.18	Narrative	Narrative		3.18	Yes	No	No	NA	No
19	008	Mercury	ug/L	All Data Qualified	0.6	Reserved	Reserved	0.05	0.051	2	0.051	No	No	No	NA	No
19	009	Nickel	ug/L	All Data Qualified	0.6		52	610	4600	100	52.16	No	No	No	NA	No
19	010	Selenium	ug/L	Available Data <DL	0.6	Reserved	5	Narrative	Narrative	50	5	Yes	No	No	NA	No
19	011	Silver	ug/L	All Data Qualified	0.6	4.06	none	NONE	NONE		4.06	No	No	No	NA	No
19	012	Thallium	ug/L	All Data Qualified	0.6	NONE	NONE	1.7	6.3	2	2	No	No	No	NA	No</

**Table F1**  
REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 001, 002, 011, 018, and 019)

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C						Step 2	Step 3			Step 4
						CTR CRITERIA				Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C		
						Freshwater		Human Health								
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR	Step 2	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL)	MEC >= C
19	013	Zinc	ug/L	All Data Qualified	0.6	120	120	none	NONE		120	No	No	No	NA	No
19	014	Total Cyanide	ug/L	Available Data <DL	0.6	22	5.2	700	220000	200	5.2	Yes	No	No	NA	No
19	015	Asbestos	Fibers/L	All Data Qualified	0.6	NONE	NONE	7000000	NONE	7000000	700000	No	No	No	NA	No
19	016	TCDD TEQ_NoDNQ	ug/L	Available Data <DL	0.6	NONE	NONE	1.30E-08	1.40E-08	3.00E-05	1.40E-08	Yes	No	No	NA	No
19	017	Acrolein	ug/L	All Data Qualified	0.6	NONE	NONE	320	780		780	No	No	No	NA	No
19	018	Acrylonitrile	ug/L	All Data Qualified	0.6	NONE	NONE	0.059	0.66		0.66	No	No	No	NA	No
19	019	Benzene	ug/L	Available Data <DL	0.6	NONE	NONE	1.2	71	1	1	Yes	No	No	NA	No
19	020	Bromoform	ug/L	All Data Qualified	0.6	NONE	NONE	4.3	360		360	No	No	No	NA	No
19	021	Carbon Tetrachloride	ug/L	Available Data <DL	0.6	NONE	NONE	0.25	4.4	600	4.4	Yes	No	No	NA	No
19	022	Chlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	680	21000		21000	No	No	No	NA	No
19	023	Dibromochloromethane	ug/L	All Data Qualified	0.6	NONE	NONE	0.401	34		34	No	No	No	NA	No
19	024	Chloroethane	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
19	025	2-Chloroethylvinylether	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
19	026	Chloroform	ug/L	Available Data <DL	0.6	NONE	NONE	Reserved	Reserved		NONE	Yes	No	No	NA	No
19	027	Bromodichloromethane	ug/L	All Data Qualified	0.6	NONE	NONE	0.56	46		46	No	No	No	NA	No
19	028	1,1-Dichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE	5	5	Yes	No	No	NA	No
19	029	1,2-Dichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.38	99	0.5	0.5	Yes	No	No	NA	No
19	030	1,1-Dichloroethene	ug/L	Available Data <DL	0.6	NONE	NONE	0.057	3.2	6	3.2	Yes	No	No	NA	No
19	031	1,2-Dichloropropane	ug/L	All Data Qualified	0.6	NONE	NONE	0.52	39	5	5	No	No	No	NA	No
19	032	1,3-Dichloropropene (Total)	ug/L	All Data Qualified	0.6	NONE	NONE	10	1700	0.5	0.5	No	No	No	NA	No
19	033	Ethylbenzene	ug/L	Available Data <DL	0.6	NONE	NONE	3100	29000	0.7	0.7	Yes	No	No	NA	No
19	034	Bromomethane	ug/L	All Data Qualified	0.6	NONE	NONE	48	4000		4000	No	No	No	NA	No
19	035	Chloromethane	ug/L	All Data Qualified	0.6	NONE	NONE	Narrative	Narrative		NONE	No	No	No	NA	No
19	036	Methylene chloride	ug/L	All Data Qualified	0.6	NONE	NONE	4.7	1600		1600	No	No	No	NA	No
19	037	1,1,2,2-Tetrachloroethane	ug/L	All Data Qualified	0.6	NONE	NONE	0.17	11	1	1	No	No	No	NA	No
19	038	Tetrachloroethene	ug/L	Available Data <DL	0.6	NONE	NONE	0.8	8.85	5	5	Yes	No	No	NA	No
19	039	Toluene	ug/L	Available Data <DL	0.6	NONE	NONE	6800	200000	150	150	Yes	No	No	NA	No
19	040	trans-1,2-Dichloroethene	ug/L	All Data Qualified	0.6	NONE	NONE	700	140000	10	10	No	No	No	NA	No
19	041	1,1,1-Trichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	Narrative	Narrative	200	200	Yes	No	No	NA	No
19	042	1,1,2-trichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.6	42	5	5	Yes	No	No	NA	No
19	043	Trichloroethene	ug/L	Available Data <DL	0.6	NONE	NONE	2.7	81	5	5	Yes	No	No	NA	No
19	044	Vinyl chloride	ug/L	Available Data <DL	0.6	NONE	NONE	2	525	0.5	0.5	Yes	No	No	NA	No
19	045	2-chlorophenol	ug/L	All Data Qualified	0.6	NONE	NONE	120	400		400	No	No	No	NA	No
19	046	2,4-Dichlorophenol	ug/L	All Data Qualified	0.6	NONE	NONE	93	790		790	No	No	No	NA	No
19	047	2,4-dimethylphenol	ug/L	All Data Qualified	0.6	NONE	NONE	540	2300		2300	No	No	No	NA	No
19	048	2-Methyl-4,6-dinitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	13.4	765		765	No	No	No	NA	No
19	049	2,4-dinitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	70	14000		14000	No	No	No	NA	No
19	050	2-nitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
19	051	4-nitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
19	052	4-Chloro-3-methylphenol	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
19	053	Pentachlorophenol	ug/L	Available Data <DL	0.6	pH dependent	pH dependent	0.28	8.2	1	1	Yes	No	No	NA	No
19	054	Phenol	ug/L	All Data Qualified	0.6	NONE	NONE	21000	4600000		4600000	No	No	No	NA	No
19	055	2,4,6-Trichlorophenol	ug/L	Available Data <DL	0.6	NONE	NONE	2.1	6.5		6.5	Yes	No	No	NA	No
19	056	Acenaphthene	ug/L	All Data Qualified	0.6	NONE	NONE	1200	2700		2700	No	No	No	NA	No
19	057	Acenaphthylene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
19	058	Anthracene	ug/L	All Data Qualified	0.6	NONE	NONE	9600	110000		110000	No	No	No	NA	No
19	059	Benzidine	ug/L	All Data Qualified	0.6	NONE	NONE	0.00012	0.00054		0.00054	No	No	No	NA	No

**Table F1**  
**REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 001, 002, 011, 018, and 019)**

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C					Step 2	Step 3			Step 4	
						CTR CRITERIA				Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C		
						Freshwater		Human Health								
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR	Criteria	Step 2	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL) MEC >= C	
19	060	Benzo(a)Anthracene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA No	
19	061	Benzo(a)Pyrene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA No	
19	062	Benzo(b)Fluoranthene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA No	
19	063	Benzo(g,h,i)Perylene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA No	
19	064	Benzo(k)Fluoranthene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA No	
19	065	Bis(2-Chloroethoxy) methane	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA No	
19	066	bis (2-Chloroethyl) ether	ug/L	All Data Qualified	0.6	NONE	NONE	0.031	1.4		1.4	No	No	No	NA No	
19	067	Bis(2-Chloroisopropyl) Ether	ug/L	All Data Qualified	0.6	NONE	NONE	1400	170000		170000	No	No	No	NA No	
19	068	bis (2-ethylhexyl) Phthalate	ug/L	Available Data <DL	0.6	NONE	NONE	1.8	5.9	4	4	Yes	No	No	NA No	
19	069	4-Bromophenylphenylether	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA No	
19	070	Butylbenzylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	3000	5200		5200	No	No	No	NA No	
19	071	2-Chloronaphthalene	ug/L	All Data Qualified	0.6	NONE	NONE	1700	4300		4300	No	No	No	NA No	
19	072	4-Chlorophenylphenylether	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA No	
19	073	Chrysene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA No	
19	074	Dibenzo(a,h)Anthracene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA No	
19	075	1,2-Dichlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	2700	17000	600	600	No	No	No	NA No	
19	076	1,3-Dichlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	400	2600		2600	No	No	No	NA No	
19	077	1,4-Dichlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	400	2600	5	5	No	No	No	NA No	
19	078	3,3'-Dichlorobenzidine	ug/L	All Data Qualified	0.6	NONE	NONE	0.04	0.077		0.077	No	No	No	NA No	
19	079	Diethylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	23000	120000		120000	No	No	No	NA No	
19	080	Dimethylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	313000	2900000		2900000	No	No	No	NA No	
19	081	Di-n-butylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	2700	12000		12000	No	No	No	NA No	
19	082	2,4-Dinitrotoluene	ug/L	Available Data <DL	0.6	NONE	NONE	0.11	9.1		9.1	Yes	No	No	NA No	
19	083	2,6-Dinitrotoluene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA No	
19	084	Di-n-octylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA No	
19	085	1,2-Diphenylhydrazine	ug/L	All Data Qualified	0.6	NONE	NONE	0.04	0.54		0.54	No	No	No	NA No	
19	086	Fluoranthene	ug/L	All Data Qualified	0.6	NONE	NONE	300	370		370	No	No	No	NA No	
19	087	Fluorene	ug/L	All Data Qualified	0.6	NONE	NONE	1300	14000		14000	No	No	No	NA No	
19	088	Hexachlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	0.00075	0.00077		0.00077	No	No	No	NA No	
19	089	Hexachlorobutadiene	ug/L	All Data Qualified	0.6	NONE	NONE	0.44	50		50	No	No	No	NA No	
19	090	Hexachlorocyclopentadiene	ug/L	All Data Qualified	0.6	NONE	NONE	240	17000		17000	No	No	No	NA No	
19	091	Hexachloroethane	ug/L	All Data Qualified	0.6	NONE	NONE	1.9	8.9		8.9	No	No	No	NA No	
19	092	Indeno(1,2,3-cd)Pyrene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA No	
19	093	Isophorone	ug/L	All Data Qualified	0.6	NONE	NONE	8.4	600		600	No	No	No	NA No	
19	094	Naphthalene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA No	
19	095	Nitrobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	17	1900		1900	No	No	No	NA No	
19	096	N-Nitrosodimethylamine	ug/L	Available Data <DL	0.6	NONE	NONE	0.00069	8.1		8.1	Yes	No	No	NA No	
19	097	n-Nitroso-di-n-propylamine	ug/L	All Data Qualified	0.6	NONE	NONE	0.005	1.4		1.4	No	No	No	NA No	
19	098	N-Nitrosodiphenylamine	ug/L	All Data Qualified	0.6	NONE	NONE	5	16		16	No	No	No	NA No	
19	099	Phenanthrene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA No	
19	100	Pyrene	ug/L	All Data Qualified	0.6	NONE	NONE	960	11000		11000	No	No	No	NA No	
19	101	1,2,4-Trichlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA No	
19	102	Aldrin	ug/L	All Data Qualified	0.6	3	NONE	0.00013	0.00014		0.00014	No	No	No	NA No	
19	103	alpha-BHC	ug/L	Available Data <DL	0.6	NONE	NONE	0.0039	0.013		0.013	Yes	No	No	NA No	
19	104	beta-BHC	ug/L	All Data Qualified	0.6	NONE	NONE	0.014	0.046		0.046	No	No	No	NA No	
19	105	Lindane (gamma-BHC)	ug/L	All Data Qualified	0.6	0.95	NONE	0.019	0.063	0.2	0.063	No	No	No	NA No	
19	106	delta-BHC	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA No	

**Table F1**  
REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 001, 002, 011, 018, and 019)

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C					Step 2	Step 3			Step 4			
						CTR CRITERIA						Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C		
						Freshwater		Human Health										
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR	Step 2	Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL) MEC >= C	
19	107	Chlordane	ug/L	All Data Qualified	0.6	2.4	0.0043	0.00057	0.00059		0.00059		No	No	No	NA	No	
19	108	4,4'-DDT	ug/L	All Data Qualified	0.6	1.1	0.001	0.00059	0.00059		0.00059		No	No	No	NA	No	
19	109	4,4'-DDE	ug/L	All Data Qualified	0.6	NONE	NONE	0.00059	0.00059		0.00059		No	No	No	NA	No	
19	110	4,4'-DDD	ug/L	All Data Qualified	0.6	NONE	NONE	0.00083	0.00084		0.00084		No	No	No	NA	No	
19	111	Dieldrin	ug/L	All Data Qualified	0.6	0.24	0.056	0.00014	0.00014		0.00014		No	No	No	NA	No	
19	112	Endosulfan I	ug/L	All Data Qualified	0.6	0.22	0.056	110	240		0.056		No	No	No	NA	No	
19	113	Endosulfan II	ug/L	All Data Qualified	0.6	0.22	0.056	110	240		0.056		No	No	No	NA	No	
19	114	Endosulfan Sulfate	ug/L	All Data Qualified	0.6	NONE	NONE	110	240		240		No	No	No	NA	No	
19	115	Endrin	ug/L	All Data Qualified	0.6	0.086	0.036	0.76	0.81		0.036		No	No	No	NA	No	
19	116	Endrin Aldehyde	ug/L	All Data Qualified	0.6	NONE	NONE	0.76	0.81		0.81		No	No	No	NA	No	
19	117	Heptachlor	ug/L	All Data Qualified	0.6	0.52	0.0038	0.00021	0.00021		0.00021		No	No	No	NA	No	
19	118	Heptachlor Epoxide	ug/L	All Data Qualified	0.6	0.52	0.0038	0.0001	0.00011		0.00011		No	No	No	NA	No	
19	119	Aroclor-1016	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
19	120	Aroclor-1221	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
19	121	Aroclor-1232	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
19	122	Aroclor-1242	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
19	123	Aroclor-1248	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
19	124	Aroclor-1254	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
19	125	Aroclor-1260	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
19	126	Toxaphene	ug/L	All Data Qualified	0.6	0.73	0.0002	0.0073	0.00075		0.0002		No	No	No	NA	No	
19	127	E. Coli	MPN/100 ml	All Data Qualified	0.6	NA	NA	NA	NA	235	MPN/100 ml		No	No	No	NA	No	

**Table F2**  
**REASONABLE POTENTIAL ANALYSIS FOR SECONDARY POLLUTANTS, (OUTFALLS 001, 002, 011, 018 and 019)**

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	Constituent	Monitoring	Units	Number of Samples	MEC	CV	Multiplier	Projected Maximum Effluent Concentration (99/99)	Dilution Ratio	Background Concentration	Projected Maximum Receiving Water Concentration	Step 1, Determine Water Quality Objectives	BU - Beneficial use protection NC-Human noncarcinogen AP-Aquatic life protection
1_2_11_18	Barium	Annual	mg/L	3	0.11	0.6	5.62	0.62	0	0	0.62	1000	BU
1_2_11_18	Biochemical Oxygen Demand (BOD 5 day)	Discharge	mg/L	5	3.6	0.6	4.19	15.09	0	0	15.09	20	BU
1_2_11_18	Chloride	Discharge	mg/L	5	29	0.6	4.19	121.57	0	0	121.57	150	BU
1_2_11_18	Fluoride	Annual	mg/L	3	0.17	0.6	5.62	0.96	0	0	0.96	1.6	BU
1_2_11_18	Nitrate + Nitrite as Nitrogen (N)	Discharge	mg/L	5	1.1	0.6	4.19	4.61	0	0	4.61	8	BU/TMDL
1_2_11_18	Oil & Grease	Discharge	mg/L	5	Available Data <DL	0.6	4.19	Available Data < DL	0	0	NA	10	BU
1_2_11_18	Sulfate	Discharge	mg/L	5	180	0.6	4.19	754.57	0	0	754.57	300	BU
1_2_11_18	Surfactants (MBAS)	Discharge	mg/L	4	Available Data <DL	0.6	4.74	Available Data < DL	0	0	NA	0.5	BU
1_2_11_18	Total Dissolved Solids	Discharge	mg/L	5	400	0.6	4.19	1676.83	0	0	1676.83	150	BU
1_2_11_18	Total Settleable Solids	Discharge	ml/L	5	Available Data <DL	0.6	4.19	Available Data < DL	0	0	NA	0.3	BU
1_2_11_18	Total Suspended Solids	Discharge	mg/L	5	63	0.6	4.19	264.10	0	0	264.10	45	BU
19	Barium	Annual	mg/L	0	All Data Qualified	0.6	All Data Qualified	All Qualified Data	0	0	NA	1000	BU
19	Biochemical Oxygen Demand (BOD 5 day)	Discharge	mg/L	2	Available Data <DL	0.6	7.39	Available Data < DL	0	0	NA	20	BU
19	Chloride	Discharge	mg/L	3	46	0.6	5.62	258.63	0	0	258.63	150	BU
19	Fluoride	Discharge	mg/L	1	0.19	0.6	13.20	2.51	0	0	2.51	1.6	BU
19	Nitrate + Nitrite as Nitrogen (N)	Discharge	mg/L	2	Available Data <DL	0.6	7.39	Available Data < DL	0	0	NA	8	BU/TMDL
19	Oil & Grease	Discharge	mg/L	2	Available Data <DL	0.6	7.39	Available Data < DL	0	0	NA	10	BU
19	Sulfate	Discharge	mg/L	3	180	0.6	5.62	1012.04	0	0	1012.04	300	BU
19	Surfactants (MBAS)	Discharge	mg/L	2	Available Data <DL	0.6	7.39	Available Data < DL	0	0	NA	0.5	BU
19	Total Dissolved Solids	Discharge	mg/L	3	540	0.6	5.62	3036.12	0	0	3036.12	150	BU
19	Total Settleable Solids	Discharge	ml/L	2	Available Data <DL	0.6	7.39	Available Data < DL	0	0	NA	0.3	BU
19	Total Suspended Solids	Discharge	mg/L	2	Available Data <DL	0.6	7.39	Available Data < DL	0	0	NA	45	BU

**Table F1**  
REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 003-010)

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C						Step 2	Step 3			Step 4
						CTR CRITERIA				Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C		
						Freshwater		Human Health								
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR	Criteria	Step 2	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL)	MEC >= C
3_7,9-10	001	Antimony	ug/L	0.51	0.6	NONE	NONE	14	4300	6	6	Yes	Yes	NA	NA	No
3_7,9-10	002	Arsenic	ug/L	All Data Qualified	0.6	340	150	NONE	NONE	10	50	No	No	No	NA	No
3_7,9-10	003	Beryllium	ug/L	All Data Qualified	0.6	NONE	NONE	Narrative	Narrative	4	4	No	No	No	NA	No
3_7,9-10	004	Cadmium	ug/L	Available Data <DL	0.6		2.46	Narrative	Narrative	5	2.46	Yes	No	No	NA	No
3_7,9-10	005a	Chromium	ug/L	All Data Qualified	0.6		206	Narrative	Narrative		206.98	No	No	No	NA	No
3_7,9-10	005b	Chromium VI	ug/L	All Data Qualified	0.6	16.3	11.4	Narrative	Narrative	50	11.43	No	No	No	NA	No
3_7,9-10	006	Copper	ug/L	4.5	0.6		9.3	1300	NONE		9.33	Yes	Yes	NA	NA	No
3_7,9-10	007	Lead	ug/L	3.2	0.6		3.18	Narrative	Narrative		3.18	Yes	Yes	NA	NA	Yes
3_7,9-10	008	Mercury	ug/L	All Data Qualified	0.6	Reserved	Reserved	0.05	0.051	2	0.051	No	No	No	NA	No
3_7,9-10	009	Nickel	ug/L	All Data Qualified	0.6		52	610	4600	100	52.16	No	No	No	NA	No
3_7,9-10	010	Selenium	ug/L	All Data Qualified	0.6	Reserved	5	Narrative	Narrative	50	5	No	No	No	NA	No
3_7,9-10	011	Silver	ug/L	All Data Qualified	0.6		none	NONE	NONE		4.06	No	No	No	NA	No
3_7,9-10	012	Thallium	ug/L	Available Data <DL	0.6	NONE	NONE	1.7	6.3	2	2	Yes	No	No	NA	No
3_7,9-10	013	Zinc	ug/L	All Data Qualified	0.6		119.8	none	NONE		120	No	No	No	NA	No
3_7,9-10	014	Total Cyanide	ug/L	Available Data <DL	0.6	22	5.2	700	220000	200	5.2	Yes	No	No	NA	No
3_7,9-10	015	Asbestos	Fibers/L	All Data Qualified	0.6	NONE	NONE	7000000	NONE	7000000	700000	No	No	No	NA	No
3_7,9-10	016	TCDD TEQ_NoDNQ	ug/L	3.72E-08	0.6	NONE	NONE	1.30E-08	1.40E-08	3.00E-05	1.40E-08	Yes	Yes	NA	NA	Yes
3_7,9-10	017	Acrolein	ug/L	All Data Qualified	0.6	NONE	NONE	320	780		780	No	No	No	NA	No
3_7,9-10	018	Acrylonitrile	ug/L	All Data Qualified	0.6	NONE	NONE	0.059	0.66		0.66	No	No	No	NA	No
3_7,9-10	019	Benzene	ug/L	All Data Qualified	0.6	NONE	NONE	1.2	71	1	1	No	No	No	NA	No
3_7,9-10	020	Bromoform	ug/L	All Data Qualified	0.6	NONE	NONE	4.3	360		360	No	No	No	NA	No
3_7,9-10	021	Carbon Tetrachloride	ug/L	All Data Qualified	0.6	NONE	NONE	0.25	4.4	600	4.4	No	No	No	NA	No
3_7,9-10	022	Chlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	680	21000		21000	No	No	No	NA	No
3_7,9-10	023	Dibromochloromethane	ug/L	All Data Qualified	0.6	NONE	NONE	0.401	34		34	No	No	No	NA	No
3_7,9-10	024	Chloroethane	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	025	2-Chloroethylvinylether	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	026	Chloroform	ug/L	All Data Qualified	0.6	NONE	NONE	Reserved	Reserved		NONE	No	No	No	NA	No
3_7,9-10	027	Bromodichloromethane	ug/L	All Data Qualified	0.6	NONE	NONE	0.56	46		46	No	No	No	NA	No
3_7,9-10	028	1,1-Dichloroethane	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE	5	5	No	No	No	NA	No
3_7,9-10	029	1,2-Dichloroethane	ug/L	All Data Qualified	0.6	NONE	NONE	0.38	99	0.5	0.5	No	No	No	NA	No
3_7,9-10	030	1,1-Dichloroethene	ug/L	All Data Qualified	0.6	NONE	NONE	0.057	3.2	6	3.2	No	No	No	NA	No
3_7,9-10	031	1,2-Dichloropropane	ug/L	All Data Qualified	0.6	NONE	NONE	0.52	39	5	5	No	No	No	NA	No
3_7,9-10	032	1,3-Dichloropropene (Total)	ug/L	All Data Qualified	0.6	NONE	NONE	10	1700	0.5	0.5	No	No	No	NA	No
3_7,9-10	033	Ethylbenzene	ug/L	All Data Qualified	0.6	NONE	NONE	3100	29000	0.7	0.7	No	No	No	NA	No
3_7,9-10	034	Bromomethane	ug/L	All Data Qualified	0.6	NONE	NONE	48	4000		4000	No	No	No	NA	No
3_7,9-10	035	Chloromethane	ug/L	All Data Qualified	0.6	NONE	NONE	Narrative	Narrative		NONE	No	No	No	NA	No
3_7,9-10	036	Methylene chloride	ug/L	All Data Qualified	0.6	NONE	NONE	4.7	1600		1600	No	No	No	NA	No
3_7,9-10	037	1,1,2,2-Tetrachloroethane	ug/L	All Data Qualified	0.6	NONE	NONE	0.17	11	1	1	No	No	No	NA	No
3_7,9-10	038	Tetrachloroethene	ug/L	All Data Qualified	0.6	NONE	NONE	0.8	8.85	5	5	No	No	No	NA	No
3_7,9-10	039	Toluene	ug/L	All Data Qualified	0.6	NONE	NONE	6800	200000	150	150	No	No	No	NA	No
3_7,9-10	040	trans-1,2-Dichloroethene	ug/L	All Data Qualified	0.6	NONE	NONE	700	140000	10	10	No	No	No	NA	No
3_7,9-10	041	1,1,1-Trichloroethane	ug/L	All Data Qualified	0.6	NONE	NONE	Narrative	Narrative	200	200	No	No	No	NA	No
3_7,9-10	042	1,1,2-trichloroethane	ug/L	All Data Qualified	0.6	NONE	NONE	0.6	42	5	5	No	No	No	NA	No
3_7,9-10	043	Trichloroethene	ug/L	All Data Qualified	0.6	NONE	NONE	2.7	81	5	5	No	No	No	NA	No
3_7,9-10	044	Vinyl chloride	ug/L	All Data Qualified	0.6	NONE	NONE	2	525	0.5	0.5	No	No	No	NA	No
3_7,9-10	045	2-chlorophenol	ug/L	All Data Qualified	0.6	NONE	NONE	120	400		400	No	No	No	NA	No
3_7,9-10	046	2,4-Dichlorophenol	ug/L	All Data Qualified	0.6	NONE	NONE	93	790		790	No	No	No	NA	No

**Table F1**  
REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 003-010)

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C						Step 2	Step 3			Step 4
						CTR CRITERIA				Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C		
						Freshwater		Human Health								
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR	Step 2	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL)	MEC >= C
3_7,9-10	047	2,4-dimethylphenol	ug/L	All Data Qualified	0.6	NONE	NONE	540	2300		2300	No	No	No	NA	No
3_7,9-10	048	2-Methyl-4,6-dinitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	13.4	765		765	No	No	No	NA	No
3_7,9-10	049	2,4-dinitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	70	14000		14000	No	No	No	NA	No
3_7,9-10	050	2-nitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	051	4-nitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	052	4-Chloro-3-methylphenol	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	053	Pentachlorophenol	ug/L	All Data Qualified	0.6	pH dependent	pH dependent	0.28	8.2	1	1	No	No	No	NA	No
3_7,9-10	054	Phenol	ug/L	All Data Qualified	0.6	NONE	NONE	21000	4600000		4600000	No	No	No	NA	No
3_7,9-10	055	2,4,6-Trichlorophenol	ug/L	All Data Qualified	0.6	NONE	NONE	2.1	6.5		6.5	No	No	No	NA	No
3_7,9-10	056	Acenaphthene	ug/L	All Data Qualified	0.6	NONE	NONE	1200	2700		2700	No	No	No	NA	No
3_7,9-10	057	Acenaphthylene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	058	Anthracene	ug/L	All Data Qualified	0.6	NONE	NONE	9600	110000		110000	No	No	No	NA	No
3_7,9-10	059	Benzidine	ug/L	All Data Qualified	0.6	NONE	NONE	0.00012	0.00054		0.00054	No	No	No	NA	No
3_7,9-10	060	Benzo(a)Anthracene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
3_7,9-10	061	Benzo(a)Pyrene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
3_7,9-10	062	Benzo(b)Fluoranthene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
3_7,9-10	063	Benzo(g,h,i)Perylene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	064	Benzo(k)Fluoranthene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
3_7,9-10	065	Bis(2-Chloroethoxy) methane	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	066	bis (2-Chloroethyl) ether	ug/L	All Data Qualified	0.6	NONE	NONE	0.031	1.4		1.4	No	No	No	NA	No
3_7,9-10	067	Bis(2-Chloroisopropyl) Ether	ug/L	All Data Qualified	0.6	NONE	NONE	1400	170000		170000	No	No	No	NA	No
3_7,9-10	068	bis (2-ethylhexyl) Phthalate	ug/L	All Data Qualified	0.6	NONE	NONE	1.8	5.9	4	4	No	No	No	NA	No
3_7,9-10	069	4-Bromophenylphenylether	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	070	Butylbenzylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	3000	5200		5200	No	No	No	NA	No
3_7,9-10	071	2-Chloronaphthalene	ug/L	All Data Qualified	0.6	NONE	NONE	1700	4300		4300	No	No	No	NA	No
3_7,9-10	072	4-Chlorophenylphenylether	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	073	Chrysene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
3_7,9-10	074	Dibenzo(a,h)Anthracene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
3_7,9-10	075	1,2-Dichlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	2700	17000	600	600	No	No	No	NA	No
3_7,9-10	076	1,3-Dichlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	400	2600		2600	No	No	No	NA	No
3_7,9-10	077	1,4-Dichlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	400	2600	5	5	No	No	No	NA	No
3_7,9-10	078	3,3'-Dichlorobenzidine	ug/L	All Data Qualified	0.6	NONE	NONE	0.04	0.077		0.077	No	No	No	NA	No
3_7,9-10	079	Diethylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	23000	120000		120000	No	No	No	NA	No
3_7,9-10	080	Dimethylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	313000	2900000		2900000	No	No	No	NA	No
3_7,9-10	081	Di-n-butylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	2700	12000		12000	No	No	No	NA	No
3_7,9-10	082	2,4-Dinitrotoluene	ug/L	All Data Qualified	0.6	NONE	NONE	0.11	9.1		9.1	No	No	No	NA	No
3_7,9-10	083	2,6-Dinitrotoluene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	084	Di-n-octylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
3_7,9-10	085	1,2-Diphenylhydrazine	ug/L	All Data Qualified	0.6	NONE	NONE	0.04	0.54		0.54	No	No	No	NA	No
3_7,9-10	086	Fluoranthene	ug/L	All Data Qualified	0.6	NONE	NONE	300	370		370	No	No	No	NA	No
3_7,9-10	087	Fluorene	ug/L	All Data Qualified	0.6	NONE	NONE	1300	14000		14000	No	No	No	NA	No
3_7,9-10	088	Hexachlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	0.00075	0.00077		0.00077	No	No	No	NA	No
3_7,9-10	089	Hexachlorobutadiene	ug/L	All Data Qualified	0.6	NONE	NONE	0.44	50		50	No	No	No	NA	No
3_7,9-10	090	Hexachlorocyclopentadiene	ug/L	All Data Qualified	0.6	NONE	NONE	240	17000		17000	No	No	No	NA	No
3_7,9-10	091	Hexachloroethane	ug/L	All Data Qualified	0.6	NONE	NONE	1.9	8.9		8.9	No	No	No	NA	No
3_7,9-10	092	Indeno(1,2,3-cd)Pyrene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
3_7,9-10	093	Isophorone	ug/L	All Data Qualified	0.6	NONE	NONE	8.4	600		600	No	No	No	NA	No

**Table F1**  
REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 003-010)

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C						Step 2	Step 3			Step 4		
						CTR CRITERIA							Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data		
						Freshwater		Human Health										
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR		Step 2	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL)	MEC >= C		
3_7,9-10	094	Naphthalene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE			NONE	No	No	No	NA	No	
3_7,9-10	095	Nitrobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	17	1900			1900	No	No	No	NA	No	
3_7,9-10	096	N-Nitrosodimethylamine	ug/L	All Data Qualified	0.6	NONE	NONE	0.00069	8.1			8.1	No	No	No	NA	No	
3_7,9-10	097	n-Nitroso-di-n-propylamine	ug/L	All Data Qualified	0.6	NONE	NONE	0.005	1.4			1.4	No	No	No	NA	No	
3_7,9-10	098	N-Nitrosodiphenylamine	ug/L	All Data Qualified	0.6	NONE	NONE	5	16			16	No	No	No	NA	No	
3_7,9-10	099	Phenanthrene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE			NONE	No	No	No	NA	No	
3_7,9-10	100	Pyrene	ug/L	All Data Qualified	0.6	NONE	NONE	960	11000			11000	No	No	No	NA	No	
3_7,9-10	101	1,2,4-Trichlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE			NONE	No	No	No	NA	No	
3_7,9-10	102	Aldrin	ug/L	All Data Qualified	0.6	3	NONE	0.00013	0.00014			0.00014	No	No	No	NA	No	
3_7,9-10	103	alpha-BHC	ug/L	All Data Qualified	0.6	NONE	NONE	0.0039	0.013			0.013	No	No	No	NA	No	
3_7,9-10	104	beta-BHC	ug/L	All Data Qualified	0.6	NONE	NONE	0.014	0.046			0.046	No	No	No	NA	No	
3_7,9-10	105	Lindane (gamma-BHC)	ug/L	All Data Qualified	0.6	0.95	NONE	0.019	0.063	0.2		0.063	No	No	No	NA	No	
3_7,9-10	106	delta-BHC	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE			NONE	No	No	No	NA	No	
3_7,9-10	107	Chlordane	ug/L	All Data Qualified	0.6	2.4	0.0043	0.00057	0.00059			0.00059	No	No	No	NA	No	
3_7,9-10	108	4,4'-DDT	ug/L	All Data Qualified	0.6	1.1	0.001	0.00059	0.00059			0.00059	No	No	No	NA	No	
3_7,9-10	109	4,4'-DDE	ug/L	All Data Qualified	0.6	NONE	NONE	0.00059	0.00059			0.00059	No	No	No	NA	No	
3_7,9-10	110	4,4'-DDD	ug/L	All Data Qualified	0.6	NONE	NONE	0.00083	0.00084			0.00084	No	No	No	NA	No	
3_7,9-10	111	Dieldrin	ug/L	All Data Qualified	0.6	0.24	0.056	0.00014	0.00014			0.00014	No	No	No	NA	No	
3_7,9-10	112	Endosulfan I	ug/L	All Data Qualified	0.6	0.22	0.056	110	240			0.056	No	No	No	NA	No	
3_7,9-10	113	Endosulfan II	ug/L	All Data Qualified	0.6	0.22	0.056	110	240			0.056	No	No	No	NA	No	
3_7,9-10	114	Endosulfan Sulfate	ug/L	All Data Qualified	0.6	NONE	NONE	110	240			240	No	No	No	NA	No	
3_7,9-10	115	Endrin	ug/L	All Data Qualified	0.6	0.086	0.036	0.76	0.81			0.036	No	No	No	NA	No	
3_7,9-10	116	Endrin Aldehyde	ug/L	All Data Qualified	0.6	NONE	NONE	0.76	0.81			0.81	No	No	No	NA	No	
3_7,9-10	117	Heptachlor	ug/L	All Data Qualified	0.6	0.52	0.0038	0.00021	0.00021			0.00021	No	No	No	NA	No	
3_7,9-10	118	Heptachlor Epoxide	ug/L	All Data Qualified	0.6	0.52	0.0038	0.0001	0.00011			0.00011	No	No	No	NA	No	
3_7,9-10	119	Aroclor-1016	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017			0.00017	No	No	No	NA	No	
3_7,9-10	120	Aroclor-1221	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017			0.00017	No	No	No	NA	No	
3_7,9-10	121	Aroclor-1232	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017			0.00017	No	No	No	NA	No	
3_7,9-10	122	Aroclor-1242	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017			0.00017	No	No	No	NA	No	
3_7,9-10	123	Aroclor-1248	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017			0.00017	No	No	No	NA	No	
3_7,9-10	124	Aroclor-1254	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017			0.00017	No	No	No	NA	No	
3_7,9-10	125	Aroclor-1260	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017			0.00017	No	No	No	NA	No	
3_7,9-10	126	Toxaphene	ug/L	All Data Qualified	0.6	0.73	0.0002	0.0073	0.00075			0.0002	No	No	No	NA	No	
3_7,9-10	127	E. Coli	MPN/100 ml	All Data Qualified	0.6	NA	NA	NA	NA	235	MPN/100 ml	No	No	No	NA	No		
8	001	Antimony	ug/L	All Data Qualified	0.6	NONE	NONE	14	4300	6	6	No	No	No	NA	No		
8	002	Arsenic	ug/L	All Data Qualified	0.6	340	150	NONE	NONE	10	50	No	No	No	NA	No		
8	003	Beryllium	ug/L	All Data Qualified	0.6	NONE	NONE	Narrative	Narrative	4	4	No	No	No	NA	No		
8	004	Cadmium	ug/L	All Data Qualified	0.6		2.46	Narrative	Narrative	5	2.46	No	No	No	NA	No		
8	005a	Chromium	ug/L	All Data Qualified	0.6		206	Narrative	Narrative		206.98	No	No	No	NA	No		
8	005b	Chromium VI	ug/L	Available Data <DL	0.6	16.3	11.4	Narrative	Narrative	50	11.43	Yes	No	No	NA	No		
8	006	Copper	ug/L		18	0.6		9.3	1300	NONE		9.33	Yes	Yes	NA	NA	Yes	
8	007	Lead	ug/L		10	0.6		3.18	Narrative	Narrative		3.18	Yes	Yes	NA	NA	Yes	
8	008	Mercury	ug/L	All Data Qualified	0.6	Reserved	Reserved	0.05	0.051	2	0.051	No	No	No	NA	No		
8	009	Nickel	ug/L	All Data Qualified	0.6		52	610	4600	100	52.16	No	No	No	NA	No		
8	010	Selenium	ug/L	All Data Qualified	0.6	Reserved	5	Narrative	Narrative	50	5	No	No	No	NA	No		
8	011	Silver	ug/L	All Data Qualified	0.6		none	NONE	NONE		4.06	No	No	No	NA	No		
8	012	Thallium	ug/L	All Data Qualified	0.6	NONE	NONE	1.7	6.3	2	2	No	No	No	NA	No		

**Table F1**  
REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 003-010)

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C					Step 2	Step 3			Step 4	
						CTR CRITERIA			Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C			
						Freshwater	Human Health	HH W&O (Not App)								
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR	Step 2	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL)	MEC >= C	
8	013	Zinc	ug/L	All Data Qualified	0.6		119.8	none	NONE		120	No	No	No	NA	No
8	014	Total Cyanide	ug/L	Available Data <DL	0.6	22	5.2	700	220000	200	5.2	Yes	No	No	NA	No
8	015	Asbestos	Fibers/L	Available Data <DL	0.6	NONE	NONE	7000000	NONE	7000000	700000	Yes	No	No	NA	No
8	016	TCDD TEQ_NoDNQ	ug/L	5.2E-10	0.6	NONE	NONE	1.30E-08	1.40E-08	3.00E-05	1.40E-08	Yes	Yes	NA	NA	No
8	017	Acrolein	ug/L	Available Data <DL	0.6	NONE	NONE	320	780		780	Yes	No	No	NA	No
8	018	Acrylonitrile	ug/L	Available Data <DL	0.6	NONE	NONE	0.059	0.66		0.66	Yes	No	Yes	0.66	No
8	019	Benzene	ug/L	Available Data <DL	0.6	NONE	NONE	1.2	71	1	1	Yes	No	No	NA	No
8	020	Bromoform	ug/L	Available Data <DL	0.6	NONE	NONE	4.3	360		360	Yes	No	No	NA	No
8	021	Carbon Tetrachloride	ug/L	Available Data <DL	0.6	NONE	NONE	0.25	4.4	600	4.4	Yes	No	No	NA	No
8	022	Chlorobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	680	21000		21000	Yes	No	No	NA	No
8	023	Dibromochloromethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.401	34		34	Yes	No	No	NA	No
8	024	Chloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
8	025	2-Chloroethylvinylether	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
8	026	Chloroform	ug/L	Available Data <DL	0.6	NONE	NONE	Reserved	Reserved		NONE	Yes	No	No	NA	No
8	027	Bromodichloromethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.56	46		46	Yes	No	No	NA	No
8	028	1,1-Dichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE	5	5	Yes	No	No	NA	No
8	029	1,2-Dichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.38	99	0.5	0.5	Yes	No	No	NA	No
8	030	1,1-Dichloroethene	ug/L	Available Data <DL	0.6	NONE	NONE	0.057	3.2	6	3.2	Yes	No	No	NA	No
8	031	1,2-Dichloropropane	ug/L	Available Data <DL	0.6	NONE	NONE	0.52	39	5	5	Yes	No	No	NA	No
8	032	1,3-Dichloropropene (Total)	ug/L	All Data Qualified	0.6	NONE	NONE	10	1700	0.5	0.5	No	No	No	NA	No
8	033	Ethylbenzene	ug/L	Available Data <DL	0.6	NONE	NONE	3100	29000	0.7	0.7	Yes	No	No	NA	No
8	034	Bromomethane	ug/L	Available Data <DL	0.6	NONE	NONE	48	4000		4000	Yes	No	No	NA	No
8	035	Chloromethane	ug/L	Available Data <DL	0.6	NONE	NONE	Narrative	Narrative		NONE	Yes	No	No	NA	No
8	036	Methylene chloride	ug/L	Available Data <DL	0.6	NONE	NONE	4.7	1600		1600	Yes	No	No	NA	No
8	037	1,1,2,2-Tetrachloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.17	11	1	1	Yes	No	No	NA	No
8	038	Tetrachloroethene	ug/L	Available Data <DL	0.6	NONE	NONE	0.8	8.85	5	5	Yes	No	No	NA	No
8	039	Toluene	ug/L	Available Data <DL	0.6	NONE	NONE	6800	200000	150	150	Yes	No	No	NA	No
8	040	trans-1,2-Dichloroethene	ug/L	Available Data <DL	0.6	NONE	NONE	700	140000	10	10	Yes	No	No	NA	No
8	041	1,1,1-Trichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	Narrative	Narrative	200	200	Yes	No	No	NA	No
8	042	1,1,2-trichloroethane	ug/L	Available Data <DL	0.6	NONE	NONE	0.6	42	5	5	Yes	No	No	NA	No
8	043	Trichloroethene	ug/L	Available Data <DL	0.6	NONE	NONE	2.7	81	5	5	Yes	No	No	NA	No
8	044	Vinyl chloride	ug/L	Available Data <DL	0.6	NONE	NONE	2	525	0.5	0.5	Yes	No	No	NA	No
8	045	2-chlorophenol	ug/L	All Data Qualified	0.6	NONE	NONE	120	400		400	No	No	No	NA	No
8	046	2,4-Dichlorophenol	ug/L	All Data Qualified	0.6	NONE	NONE	93	790		790	No	No	No	NA	No
8	047	2,4-dimethylphenol	ug/L	All Data Qualified	0.6	NONE	NONE	540	2300		2300	No	No	No	NA	No
8	048	2-Methyl-4,6-dinitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	13.4	765		765	No	No	No	NA	No
8	049	2,4-dinitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	70	14000		14000	No	No	No	NA	No
8	050	2-nitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	051	4-nitrophenol	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	052	4-Chloro-3-methylphenol	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	053	Pentachlorophenol	ug/L	All Data Qualified	0.6	pH dependent	pH dependent	0.28	8.2	1	1	No	No	No	NA	No
8	054	Phenol	ug/L	All Data Qualified	0.6	NONE	NONE	21000	4600000		4600000	No	No	No	NA	No
8	055	2,4,6-Trichlorophenol	ug/L	All Data Qualified	0.6	NONE	NONE	2.1	6.5		6.5	No	No	No	NA	No
8	056	Acenaphthene	ug/L	All Data Qualified	0.6	NONE	NONE	1200	2700		2700	No	No	No	NA	No
8	057	Acenaphthylene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	058	Anthracene	ug/L	All Data Qualified	0.6	NONE	NONE	9600	110000		110000	No	No	No	NA	No
8	059	Benzidine	ug/L	All Data Qualified	0.6	NONE	NONE	0.00012	0.00054		0.00054	No	No	No	NA	No

**Table F1**  
**REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 003-010)**

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C						Step 2	Step 3			Step 4
						CTR CRITERIA				Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C		
						Freshwater		Human Health								
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR	Criteria	Step 2	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL)	MEC >= C
8	060	Benzo(a)Anthracene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
8	061	Benzo(a)Pyrene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
8	062	Benzo(b)Fluoranthene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
8	063	Benzo(g,h,i)Perylene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	064	Benzo(k)Fluoranthene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
8	065	Bis(2-Chloroethoxy) methane	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	066	bis (2-Chloroethyl) ether	ug/L	All Data Qualified	0.6	NONE	NONE	0.031	1.4		1.4	No	No	No	NA	No
8	067	Bis(2-Chloroisopropyl) Ether	ug/L	All Data Qualified	0.6	NONE	NONE	1400	170000		170000	No	No	No	NA	No
8	068	bis (2-ethylhexyl) Phthalate	ug/L	All Data Qualified	0.6	NONE	NONE	1.8	5.9	4	4	No	No	No	NA	No
8	069	4-Bromophenylphenylether	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	070	Butylbenzylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	3000	5200		5200	No	No	No	NA	No
8	071	2-Chloronaphthalene	ug/L	All Data Qualified	0.6	NONE	NONE	1700	4300		4300	No	No	No	NA	No
8	072	4-Chlorophenylphenylether	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	073	Chrysene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
8	074	Dibenzo(a,h)Anthracene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
8	075	1,2-Dichlorobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	2700	17000	600	600	Yes	No	No	NA	No
8	076	1,3-Dichlorobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	400	2600		2600	Yes	No	No	NA	No
8	077	1,4-Dichlorobenzene	ug/L	Available Data <DL	0.6	NONE	NONE	400	2600	5	5	Yes	No	No	NA	No
8	078	3,3'-Dichlorobenzidine	ug/L	All Data Qualified	0.6	NONE	NONE	0.04	0.077		0.077	No	No	No	NA	No
8	079	Diethylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	23000	120000		120000	No	No	No	NA	No
8	080	Dimethylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	313000	2900000		2900000	No	No	No	NA	No
8	081	Di-n-butylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	2700	12000		12000	No	No	No	NA	No
8	082	2,4-Dinitrotoluene	ug/L	All Data Qualified	0.6	NONE	NONE	0.11	9.1		9.1	No	No	No	NA	No
8	083	2,6-Dinitrotoluene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	084	Di-n-octylphthalate	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	085	1,2-Diphenylhydrazine	ug/L	All Data Qualified	0.6	NONE	NONE	0.04	0.54		0.54	No	No	No	NA	No
8	086	Fluoranthene	ug/L	All Data Qualified	0.6	NONE	NONE	300	370		370	No	No	No	NA	No
8	087	Fluorene	ug/L	All Data Qualified	0.6	NONE	NONE	1300	14000		14000	No	No	No	NA	No
8	088	Hexachlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	0.00075	0.00077		0.00077	No	No	No	NA	No
8	089	Hexachlorobutadiene	ug/L	All Data Qualified	0.6	NONE	NONE	0.44	50		50	No	No	No	NA	No
8	090	Hexachlorocyclopentadiene	ug/L	All Data Qualified	0.6	NONE	NONE	240	17000		17000	No	No	No	NA	No
8	091	Hexachloroethane	ug/L	All Data Qualified	0.6	NONE	NONE	1.9	8.9		8.9	No	No	No	NA	No
8	092	Indeno(1,2,3-cd)Pyrene	ug/L	All Data Qualified	0.6	NONE	NONE	0.0044	0.049		0.049	No	No	No	NA	No
8	093	Isophorone	ug/L	All Data Qualified	0.6	NONE	NONE	8.4	600		600	No	No	No	NA	No
8	094	Naphthalene	ug/L	Available Data <DL	0.6	NONE	NONE	NONE	NONE		NONE	Yes	No	No	NA	No
8	095	Nitrobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	17	1900		1900	No	No	No	NA	No
8	096	N-Nitrosodimethylamine	ug/L	All Data Qualified	0.6	NONE	NONE	0.00069	8.1		8.1	No	No	No	NA	No
8	097	n-Nitroso-di-n-propylamine	ug/L	All Data Qualified	0.6	NONE	NONE	0.005	1.4		1.4	No	No	No	NA	No
8	098	N-Nitrosodiphenylamine	ug/L	All Data Qualified	0.6	NONE	NONE	5	16		16	No	No	No	NA	No
8	099	Phenanthrene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	100	Pyrene	ug/L	All Data Qualified	0.6	NONE	NONE	960	11000		11000	No	No	No	NA	No
8	101	1,2,4-Trichlorobenzene	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No
8	102	Aldrin	ug/L	All Data Qualified	0.6	3	NONE	0.00013	0.00014		0.00014	No	No	No	NA	No
8	103	alpha-BHC	ug/L	All Data Qualified	0.6	NONE	NONE	0.0039	0.013		0.013	No	No	No	NA	No
8	104	beta-BHC	ug/L	All Data Qualified	0.6	NONE	NONE	0.014	0.046		0.046	No	No	No	NA	No
8	105	Lindane (gamma-BHC)	ug/L	All Data Qualified	0.6	0.95	NONE	0.019	0.063	0.2	0.063	No	No	No	NA	No
8	106	delta-BHC	ug/L	All Data Qualified	0.6	NONE	NONE	NONE	NONE		NONE	No	No	No	NA	No

**Table F1**  
REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 003-010)

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	CTR	Constituent	Units	MEC	CV	Step 1: Water Quality Criteria, Determine C					Step 2	Step 3			Step 4			
						CTR CRITERIA						Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C		
						Freshwater		Human Health										
Outfall	CTR	Constituent	Units	MEC	CV	CMC = Acute	CCC = Chronic	HH W&O (Not App)	HH O = HH	Title 22 GWR	Step 2	Basin Plan	C = Lowest	Is Effluent Data Available	Was Constituent Detected in Effluent Data	Are all Detection Limits > C	If DL > C, MEC = Min (DL) MEC >= C	
8	107	Chlordane	ug/L	All Data Qualified	0.6	2.4	0.0043	0.00057	0.00059		0.00059		No	No	No	NA	No	
8	108	4,4'-DDT	ug/L	All Data Qualified	0.6	1.1	0.001	0.00059	0.00059		0.00059		No	No	No	NA	No	
8	109	4,4'-DDE	ug/L	All Data Qualified	0.6	NONE	NONE	0.00059	0.00059		0.00059		No	No	No	NA	No	
8	110	4,4'-DDD	ug/L	All Data Qualified	0.6	NONE	NONE	0.00083	0.00084		0.00084		No	No	No	NA	No	
8	111	Dieldrin	ug/L	All Data Qualified	0.6	0.24	0.056	0.00014	0.00014		0.00014		No	No	No	NA	No	
8	112	Endosulfan I	ug/L	All Data Qualified	0.6	0.22	0.056	110	240		0.056		No	No	No	NA	No	
8	113	Endosulfan II	ug/L	All Data Qualified	0.6	0.22	0.056	110	240		0.056		No	No	No	NA	No	
8	114	Endosulfan Sulfate	ug/L	All Data Qualified	0.6	NONE	NONE	110	240		240		No	No	No	NA	No	
8	115	Endrin	ug/L	All Data Qualified	0.6	0.086	0.036	0.76	0.81		0.036		No	No	No	NA	No	
8	116	Endrin Aldehyde	ug/L	All Data Qualified	0.6	NONE	NONE	0.76	0.81		0.81		No	No	No	NA	No	
8	117	Heptachlor	ug/L	All Data Qualified	0.6	0.52	0.0038	0.00021	0.00021		0.00021		No	No	No	NA	No	
8	118	Heptachlor Epoxide	ug/L	All Data Qualified	0.6	0.52	0.0038	0.0001	0.00011		0.00011		No	No	No	NA	No	
8	119	Aroclor-1016	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
8	120	Aroclor-1221	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
8	121	Aroclor-1232	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
8	122	Aroclor-1242	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
8	123	Aroclor-1248	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
8	124	Aroclor-1254	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
8	125	Aroclor-1260	ug/L	All Data Qualified	0.6	NONE	0.014	0.00017	0.00017		0.00017		No	No	No	NA	No	
8	126	Toxaphene	ug/L	All Data Qualified	0.6	0.73	0.0002	0.0073	0.00075		0.0002		No	No	No	NA	No	
8	127	E. Coli	MPN/100 ml	500	0.6	NA	NA	NA	NA	235	MPN/100 ml	Yes	Yes	Yes	NA	NA	Yes	

**Table F2**  
**REASONABLE POTENTIAL ANALYSIS FOR SECONDARY POLLUTANTS, (OUTFALLS 003- 010)**

**SECOND QUARTER 2012**  
**THE BOEING COMPANY**  
**SANTA SUSANA FIELD LABORATORY**  
**NPDES PERMIT CA0001309**

Outfall	Constituent	Monitoring	Units	Number of Samples	MEC	CV	Multiplier	Projected Maximum Effluent Concentration (99/99)	Dilution Ratio	Background Concentration	Projected Maximum Receiving Water Concentration	Step 1, Determine Water Quality Objectives	BU - Beneficial use protection NC-Human noncarcinogen AP-Aquatic life protection
3_7,9-10	Boron	Annual	mg/L	0	All Data Qualified	0.6	All Data Qualified	All Qualified Data	0	0	NA	1	BU
3_7,9-10	Chloride	Discharge	mg/L	1	1.6	0.6	13.20	21.12	0	0	21.12	150	BU
3_7,9-10	Fluoride	Annual	mg/L	0	All Data Qualified	0.6	All Data Qualified	All Qualified Data	0	0	NA	1.6	BU
3_7,9-10	Nitrate + Nitrite as Nitrogen (N)	Discharge	mg/L	1	0.31	0.6	13.20	4.09	0	0	4.09	8	BU/TMDL
3_7,9-10	Oil & Grease	Discharge	mg/L	1	Available Data <DL	0.6	13.20	Available Data < DL	0	0	NA	10	BU
3_7,9-10	Sulfate	Discharge	mg/L	1	3.3	0.6	13.20	43.55	0	0	43.55	300	BU
3_7,9-10	Total Dissolved Solids	Discharge	mg/L	1	35	0.6	13.20	461.89	0	0	461.89	150	BU
3_7,9-10	Total Suspended Solids	Annual	mg/L	1	16	0.6	13.20	211.15	0	0	211.15	45	BU
8	Boron	Annual	mg/L	0	All Data Qualified	0.6	All Data Qualified	All Qualified Data	0	0	NA	1	BU
8	Chloride	Discharge	mg/L	1	4.2	0.6	13.20	55.43	0	0	55.43	150	BU
8	Fluoride	Annual	mg/L	1	0.1	0.6	13.20	1.32	0	0	1.32	1.6	BU
8	Nitrate + Nitrite as Nitrogen (N)	Discharge	mg/L	1	0.59	0.6	13.20	7.79	0	0	7.79	8	BU/TMDL
8	Oil & Grease	Discharge	mg/L	1	Available Data <DL	0.6	13.20	Available Data < DL	0	0	NA	10	BU
8	Sulfate	Discharge	mg/L	1	4	0.6	13.20	52.79	0	0	52.79	300	BU
8	Total Dissolved Solids	Discharge	mg/L	1	110	0.6	13.20	1451.66	0	0	1451.66	150	BU
8	Total Suspended Solids	Annual	mg/L	1	200	0.6	13.20	2639.38	0	0	2639.38	45	BU