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Via FedEx

May 15, 2013
In reply, refer to SHEA-113505

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

Attention: Information Technology Unit

Gentlemen:

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

Subject: First Quarter 2013 NPDES Discharge Monitoring Report Submittal – Santa Susana Site

The Boeing Company (Boeing) hereby submits this Discharge Monitoring Report (DMR) that includes the activities related to the Santa Susana Field Laboratory (Santa Susana Site) surface water outfalls (**Figure 1**) that occurred during the period of January 1 through March 31, 2013 (First Quarter 2013). This DMR is prepared as required by and in accordance with National Pollutant Discharge Elimination System (NPDES) Permit No. CA0001309 (Permit) and under regulatory oversight of the Los Angeles Regional Water Quality Control Board (Regional Board). Included are summary tables of Best Management Practices (BMP), 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

**FIRST QUARTER 2013 DMR CONTENTS**

This discharge monitoring report includes the following sections and appendices:

- **Discharge Summary:** This section describes the number of rain events, the number of samples collected, the sample date, and the sample location during the First Quarter

2013. **Table 1** summarizes the First Quarter 2013 sampling record by outfall, location and sample type collected per the requirements of the NPDES Permit.

- **First Quarter 2013 Summary of Non-Compliance:** This section provides a summary of the sample results that exceeded Permit limits in the First Quarter 2013.
- **First Quarter 2013 Site-wide Storm Water Pollution Prevention Plan (SWPPP)/BMP Activities:** This section presents site-wide SWPPP activities, demolition BMPs, Interim Source Removal Action (ISRA) BMPs, BMP Plan-related BMPs, Northern Drainage BMPs, and other BMP activities that were implemented in the First Quarter 2013. **Table 2** summarizes specific BMP activities by outfall location.
- **Data Validation and Quality Control:** This section discusses the data validation results and any laboratory or field corrective actions.
- **Appendix A** provides a summary of the First Quarter 2013 measured precipitation at the Santa Susana Site.
- **Appendix B** tabulates all sanitary waste and other liquid waste shipment details.
- **Appendices C and D** present chemical and radiological analytical results of the First Quarter 2013 stormwater samples in tabular form by outfall location, constituents evaluated (analytes), sample dates, and data validation qualifiers.
- **Appendix E** includes an exceedance summary table of the stormwater samples that exceeded the NPDES Permit limits.
- **Appendix F** provides the results of the RPA, utilizing updated monitoring data.
- **Appendix G** contains copies of the laboratory analytical reports, chains of custody, and data validation reports.

A compilation of notes, abbreviations, and data validation codes that are used in the analytical data summary tables are included in as a flysheet in **Appendices C** through **F**.

## DISCHARGE SUMMARY

The Santa Susana Site experienced six rain events that produced greater than 0.1 inch of rainfall within a 24-hour period (see **Appendix A**). Two onsite stormwater related samples were collected at Outfall 009 and one offsite stormwater sample was collected at the Arroyo Simi – Frontier Park (RSW-002) location in Simi Valley. Four additional grab samples were collected at the Arroyo Simi – Frontier Park (RSW-002) following the collection of the annual stormwater samples. An annual sediment sample was also collected at the Arroyo Simi – Frontier Park (RSW-002) location. A discussion summarizing the analytical results of the samples collected at the Arroyo Simi – Frontier Park (RSW-002) is included in the **Summary of Non-Compliance** section below.

A non-stormwater sample was collected at the Outfall 019 Groundwater Extraction Treatment System (GETS) on March 13-14, 2013. Annual samples for the remaining outfalls will be collected during the first rain event when flow is observed. All samples are submitted to and analyzed by a California-certified analytical laboratory per the NPDES Permit requirements. **Table 1** summarizes the First Quarter 2013 sampling record by outfall, location, and sample type collected per the requirements of the NPDES Permit.

Table 1: Sampling Record during the First Quarter 2013

| Date | Outfall/Location | Samples Collected (i.e., grab, composite) |
|---|---|---|
| 1/25-1/26/2013 | Outfall 009 (WS-13 Drainage) – Routine | Grab & Composite |
| 2/11/2013 | Arroyo Simi Frontier Park – (RSW-002) – Annual Sediment | Grab |
| 3/8/2013 | Outfall 009 (WS-13 Drainage) – Annual | Grab |
| 3/8/2013 | Arroyo Simi Frontier Park – (RSW-002) – Annual | Grab |
| 3/13/2013 | Arroyo Simi Frontier Park – (RSW-002) – Routine | Grab |
| 3/14-3/15/2013 | Outfall 019 (GETS) – Annual | Grab & Composite |
| 3/18/2013 | Arroyo Simi Frontier Park – (RSW-002) – Routine | Grab |
| 3/22/2013 | Arroyo Simi Frontier Park – (RSW-002) – Routine | Grab |
| 3/27/2013 | Arroyo Simi Frontier Park – (RSW-002) – Routine | Grab |

**FIRST QUARTER 2013 SUMMARY OF NON-COMPLIANCE**

Stormwater and non stormwater discharges occurred from the Santa Susana Site during the First Quarter 2013 as noted in Table 1 above. Stormwater samples collected at Outfall 009 in the First Quarter 2013 did not exceed the Permit limits. In addition, non-stormwater discharges from the GETS did not exceed Permit limits. Therefore, all stormwater and non-stormwater discharges from the Santa Susana Site were in full compliance for the First Quarter 2013. Bacterial constituents in the annual sample collected off site at the Arroyo Simi – Frontier Park (RSW 002) on March 8, 2013 exceeded the receiving water limits for bacteria. Those results are summarized below.

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

The following is a summary of receiving water sample results that exceeded receiving water limits at Arroyo Simi – Frontier Park (RSW-002). The Permit limit exceedances are further detailed in **Appendix E and laboratory analytical results are included in Appendix G**.

*Bacteria*

In a sample collected on March 8, 2013, Escherichia Coli (E. Coli) and Fecal Coliform were both detected at ≥1,600 MPN/100mL (greater than 1,600 most probable number per 100 milliliters) above the single sample maximum receiving water limit of 235 MPN/100mL and 400 MPN/100mL, respectively, at Arroyo Simi – Frontier Park (RSW 002). Samples collected at the Santa Susana Site during the same rain event did not exceed the permit limits for Bacteria. As a result of the exceedance at the Arroyo Simi – Frontier Park location (RSW-002), Boeing conducted additional monitoring for bacteria in accordance with the NPDES Permit (Boeing, 2011). All subsequent sample results were within the single sample daily maximum limits.

As stated in the NPDES Permit, E. Coli and Fecal Coliform are part of water quality objectives for monitoring of inland surface waters and include a geometric mean calculation. Five samples collected on March 8, 13, 18, 22, and 27, 2013, were used for the calculation of the geometric mean for E. Coli and Fecal Coliform. The calculated geometric mean for both E. Coli (125 MPN/100mL) and Fecal Coliform (145 MPN/100mL) were below the geometric mean receiving water limits for E. Coli and for Fecal Coliform of 126 MPN/100ml and 200 MPN/100ml, respectively. All results are included in **Appendix C**.

Additionally, all samples collected were analyzed for human-specific Bacteroides and these analyses confirmed that the bacteria present in the Arroyo Simi – Frontier Park (RSW 002) samples were not from human sources. Therefore the bacteria detected at Arroyo Simi – Frontier Park (RSW 002) must have originated from non-human, natural sources and were not related to the stormwater discharges from the Santa Susana Site. The laboratory results for the bacteria analysis are included in **Appendix G.**

**FIRST QUARTER 2013 SITE-WIDE STORM WATER POLLUTION PREVENTION PLAN /BMP ACTIVITIES**

Boeing conducted monthly, pre- and post-storm event inspections as required by the site-wide SWPPP to identify and mitigate any on-site conditions that may affect the quality of stormwater runoff from the Santa Susana Site.

Site-wide activities also included the inspections of outfalls, outfall perimeters, and the stormwater pumping and conveyance system. Inspection activities at each outfall location included assessments of erosion and sediment control BMPs, flume and sample box conditions, flow meter calibrations, surface water catchment or sedimentation basin conditions, liner

integrity, filter media condition, system pump and conveyance conditions, and retention tank condition. General maintenance and housekeeping of outfalls included the removal of sediment, removal of leaf litter, filter media replacement, liner repair or replacement, and weed abatement.

**Table 2** below summarizes the specific BMP activities by outfall location that were conducted during the First Quarter 2013.

Table 2: Boeing's BMP Activities during the First Quarter 2013

| OUTFALL (Location) | BMP ACTIVITIES DURING FIRST QUARTER 2013 |
|---|---|
| 001<br>(South Slope below Perimeter Pond) | Inspected the outfall and flume for any excess sediment/debris. Observed sediment and erosion controls around the perimeter of the outfall and Outfall 001 drainage. Checked sample box and flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on a monthly basis. Cleaned sample box and the outfall area, and performed weed abatement. Repaired the eroded bank at the Roca Avenue culvert by compacting soil, contouring the slope, and applying jute mat and hydroseed. |
| 002<br>(South Slope below R-2 Pond) | Conducted sediment and erosion control inspections around the perimeter and at Outfall 002 drainage. Inspected outfall and flume for any excess sediment/debris. Drained and cleared flume, outfall, and sample box of sediment and debris. Checked flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on a monthly basis. Completed maintenance inspection and reset the automated composite sampling equipment (autosamplers). Cleaned sample box and the outfall area, and performed weed abatement. |
| 003<br>Radioactive Material Handling Facility (RMHF) | Conducted sediment and erosion control inspections. Inspected flume and outfall for any excess sediment/debris. Conducted maintenance inspections of the structural BMPs, including the stormwater retention basin, and conveyance and filter systems. Checked sample box and flow meter control box for spiders and presence of debris and/or animals. Flow meter reset and tape replaced on a monthly basis. The outfall area was cleaned and weeded, and vegetation was cleared. |
| 004<br>Sodium Reactor Experiment (SRE) | Inspected the flume, outfall and liner for any excess sediment/debris. Conducted sediment and erosion control inspections near the outfall. Conducted maintenance inspections of the structural BMPs, including the stormwater retention system, and conveyance and filter systems. |

| OUTFALL (Location) | BMP ACTIVITIES DURING FIRST QUARTER 2013 |
|---|---|
| | Completed inspection of dedicated retention tanks. Checked sample box and flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on a monthly basis. Cleaned sample box and the outfall area, and performed weed abatement. Conducted street sweeping and placed chains to prevent through traffic. |
| 005<br>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 of structural BMPs, including the conveyance and stormwater retention systems, and sediment basin liner. Completed inspection of dedicated retention tanks. Cleaned sample box and the outfall area, and performed weed abatement. |
| 006<br>(FSDF-2) | Inspected the flume, outfall and liner for any excess sediment/debris. Cleaned sample box and the outfall area, and performed weed abatement. Checked sample box and flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on a monthly basis. Conducted sediment and erosion control inspections near the outfall. Completed inspection of dedicated retention tanks. Completed maintenance inspections of the structural BMPs, including the stormwater retention and filter systems. |
| 007<br>(Building 100) | Conducted sediment and erosion control inspections at the perimeter of Outfall 007. Observed sediment basin liner and outfall for any excess sediment/debris or deficiencies. Cleaned sample box and the outfall area, and performed weed abatement. Completed maintenance inspections 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<br>(Happy Valley) | Removed temporary BMPs (sand bags and fiber rolls) along the abandoned road and installed four rolling dips were installed to divert water from the road surface. Applied hydroseed to the length of the road. Modified rip rap apron at Outfall 008 for improved bank protection. Conducted sediment and erosion control inspections near the perimeter of the outfall and within the Outfall 008 drainage. Observed the outfall and flume for any excess sediment/debris, and cleared excess sediment from the flume. Checked sample box and flow meter control box for the presence of debris and/or animals. Flow meter reset and tape |

| OUTFALL (Location) | BMP ACTIVITIES DURING FIRST QUARTER 2013 |
|---|---|
| | replaced on a monthly basis. Cleaned sample box and the outfall area, and performed weed abatement. Removed silt fences, spent fiber rolls, and hay bales from the drainage and constructed rip rap berms on both sides of the abandoned road at the drainage. |
| 009<br>(WS-13 Drainage) | *Outfall BMPs:* Checked sample box and flow meter control box for spiders and presence of rodents/animals. Flow meter reset and tape replaced on a monthly basis. The sample box and outfall area were cleaned, and weeding was conducted.<br><br>*Hydroseed:* Applied hydroseed at ISRA areas: Instrument Experimentation Lab (IEL)-3 and Ash Pile/Sewage Treatment Plant (AP/STP)-1E, AP/STP-1B, and AP/STP-1C. Also applied hydroseed to portions of former Building 1324 parking lot after selective weeding.<br><br>*B-1 BMPs:* Placed sand bags at the curb cuts and swales to direct runoff to the media bed for the duration of rain events. Placed sand bags over gopher holes and eroded gaps at the top of the gunite slope at the B-1 leach field. Removed a portion of the rip rap and gravel fill within the curb cuts to encourage drainage from the road.<br><br>*Culvert Modification (CM)-9*: Conducted biological inspection and vegetation clearance in preparation for construction activities. Construction a rip rap berm and installed an 8-inch perforated culvert pipe. Removed a spent hay bale from the drainage east of the culvert basin and replaced with a rip rap check dam. The site was restored with coco matting, fiber rolls, and hydroseed.<br><br>*IEL/Building 1436 Area:* Replaced the worn sand bag berm and fiber rolls at the base of the Atomic International (AI) tower, and bailed excess sediment from the sand bag berm southeast of Building 1436 and behind the 1408 yard. Completed excavation at ISRA area IEL-3 and backfilled with gravel. Removed temporary BMPs (plastic tarps, sand bags, fiber rolls, and fencing), and the area was graded and restored. |

| OUTFALL (Location) | BMP ACTIVITIES DURING FIRST QUARTER 2013 |
|---|---|
| | *Restoration, Monitoring and Mitigation Plan (RMMP) BMPs:* Inspected plantings and pole cuttings in the Northern Drainage. Replaced 10 walnut trees and replaced Driwater cartons at each plant.<br><br>*National Aeronautics and Space Administration (NASA) ISRA BMPs:* Temporary BMPs (sand bag berms, fiber rolls, and plastic tarps) at Expendable Launch Vehicle (ELV)-1C were maintained during ISRA implementation. Removed temporary BMPs (plastic tarps, sand bags, and fiber rolls) from the AP/STP-1E, AP/STP-1B, and AP/STP-1C ISRA areas, and sites were graded and restored.<br><br>*Lower Parking Lot BMP:* Construction of the Lower Lot Biofilter was completed. Inspected plantings and implemented a watering plan. Additional planting areas were cut in the asphalt east of the biofilter and compost, container plants. Installed Driwater cartons. Conducted a pumping test and a functional test of the cistern pump, alarms, and automated features. |
| 010<br>(Building 203) | Conducted maintenance inspections of structural BMPs including the filter media, and conveyance and stormwater retention systems. Completed inspection of dedicated retention tanks. Maintained and inspected sediment and erosion controls within areas of disturbance or sparse vegetation. Checked sample box and flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on a monthly basis. Cleaned sample box and the outfall area, and performed weed abatement. |
| 011<br>(Perimeter Pond) | Cleared brush, deadfall, and debris from the drainage downstream of Outfall 011 and constructed two rip rap check dams. Cleared foreign gravel downstream of the sample box outlet and installed a low-profile rip rap apron. Applied coco mat to slopes to cover disturbed soil near the stairs. Conducted maintenance inspections of structural BMPs including the weir, filter media, and pump and conveyance systems. Conducted sediment and erosion control inspections at flume, drainage area, perimeter of outfall, pond and around the conveyance system. Checked sample box and flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on a monthly basis. Cleaned sample box and the outfall area, and performed weed abatement. |

| OUTFALL (Location) | BMP ACTIVITIES DURING FIRST QUARTER 2013 |
|---|---|
| 012<br>(ALFA Test Stand) | Conducted maintenance inspections of structural BMPs including pump, conveyance system and retention tank. Performed maintenance on transfer pumps. Observed condition of the sand bag berm. Inspected outfall and perimeter for presence of rodents/animals. Cleaned sample box and the outfall area, and performed weed abatement. |
| 013<br>(BRAVO Test Stand) | Conducted maintenance inspections of 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. Cleaned sample box and the outfall area, and performed weed abatement. |
| 014<br>Advanced Propulsion Test Facility (APTF) | Conducted maintenance inspections of structural BMPs. Observed the condition and integrity of the liner and berm. Observed sediment and erosion control BMPs around outfall perimeter. Cleaned sample box and the outfall area, and performed weed abatement. |
| 018<br>(R-2 Spillway) | Conducted maintenance inspections of structural BMPs including the filter media and conveyance system. Checked sample box and flow meter control box for the presence of debris and/or animals. Flow meter reset and tape replaced on a monthly basis. Cleaned sample box and the outfall area, and performed weed abatement. Applied hydroseed to hillside water tank in Area IV, and Area IV weather station, and implemented post-demo BMPs (fiber rolls and sand bags) and hydroseed to a portion of Building 4011 area. |
| 019<br>(GETS) | Replaced Purolite media to prepare for the 30-day RD-10 pump test. The RD-10 pump test commenced on March 14, 2013. Replaced bag filters as needed. Performed annual NPDES sampling March 14 – 15, 2013. Removed the WS-9A pump and replaced the galvanized riser pipe with stainless steel. The pump was placed at 60 feet below ground surface (ft-bgs) and the transducer was set at 50 ft-bgs. Overall system operation is nominal. No water was pumped or discharged from WS-9A is the First Quarter 2013. |
| RSW-002<br>(Arroyo Simi Frontier Park) | Collected receiving water and sediment annual samples at Arroyo Simi – Frontier Park location. Conducted monthly receiving water inspection. |

Boeing also continued to implement the individual SWPPPs during the First Quarter 2013. As part of the implementation of the SWPPPs, BMP inspections were completed in accordance with the State of California Construction General Permit (CGP) requirements.

Efforts to plan and implement BMPs for pre- and post-soil disturbance activities for construction/demolition and ISRA areas are discussed further below. Demolition projects comprise areas of disturbed soil from recent demolition, and post-demolition restoration. ISRA areas are those subject to ongoing soil removal and/or remediation, post-remediation, and restoration activities.

***Demolition-Related BMP Activities***

Previously active areas are being demolished and prepared for restoration in Boeing's continued efforts to the reinstatement of the site to its natural habitat. During the First Quarter 2013, demolition activities were completed at the former Empire State Atomic Development Authority (ESADA), in Area IV. Demolition activities at former Building 4011 and Building 4006 in Area IV started during the First Quarter 2013. Activities at Building 4011 and Building 4006 are on schedule to be completed by the end of the Second Quarter 2013 and will be discussed in the Second Quarter 2013 DMR. All debris, metal, concrete, and asphalt were segregated upon demolition and transported to a waste or recycling facility per Boeing's waste management plan, and in accordance with all local, state, and federal regulations. 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. In the First Quarter 2013, hydroseed and hydromulch were applied at the former Building 1324 Lot in Area I, ESADA, the former weather station, the Area IV water tank, and a portion of the former Building 4011 in Area IV. Once demolition activities are completed at former Building 4011, restoration efforts including BMPs and hydroseed and hydromulch will be implemented on the remaining area. 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***

Boeing has continued with ISRA activities in the Outfall 008 and 009 watersheds during the First Quarter 2013 to address constituents in soil that may have contributed to NPDES Permit limit/benchmark exceedances in surface water. ISRA soil removal within Outfall 008 was completed on October 19, 2009, and ISRA soil removal conducted within Outfall 009 continued during the First Quarter 2013. **Figure 2** shows the location and status of these ISRA soil removal activities within the Santa Susana Site. Annual ISRA Implementation reports are submitted to the Regional Board summarizing all ISRA activities for that respective year[1].

[1] Available at: http://www.boeing.com/boeing/aboutus/environment/santa_susana/isra.page

The Surface Water Expert Panel (Expert Panel) has prepared BMP plans and submittals on behalf of NASA and Boeing to meet 008/009 Permit limits/benchmarks established in the NPDES Permit (Order No. R4-2010-0090). These plans are considered conceptual designs and recommendations for BMPs and were identified based on an evaluation of NPDES compliance and ISRA/BMP surface water monitoring results. The following BMP plans have been submitted to the Regional Board and are located on Boeing's Santa Susana Site webpage under Outfall 008/009 ISRA and BMP related activities[2]:

- 2010 BMP Plan Outfalls 008 and 009 BMP Watersheds (MWH et al., 2010)
- 2011 BMP Plan Addendum (Geosyntec and the Expert Panel, 2011)
- 2012 BMP Plan Addendum (Geosyntec and the Expert Panel, 2012)

All completed Expert Panel recommended BMPs are discussed in the ISRA Performance Monitoring and BMP Monitoring Report for Outfalls 008 and 009 Watersheds and submitted to the Regional Board for each rainy season (Boeing, 2012a). In addition, these BMPs have been outlined in agency biweekly meetings and special onsite site walks with the public, Regional Board, and other agencies to demonstrate Boeing and NASA's commitment to achieving the water quality requirements of the NPDES Permit.

In coordination with the Expert Panel, the following BMP activities were performed or commenced during the First Quarter 2013: Lower Parking Lot BMP construction, B-1 curb cut modification, Happy Valley drainage and road upgrades, CM-9 BMP upgrades, and the NASA ELV Channel BMPs. BMP Plan-related activity areas are shown on **Figure 3** and a brief summary of these activities are described below:

*Lower Parking Lot BMP*

The Lower Parking Lot BMP is a stormwater treatment BMP that is designed and built to capture, convey, and treat stormwater runoff from the lower lot and IEL watersheds. The need for a treatment BMP at the Lower Parking Lot BMP was first proposed in the 2010 BMP Plan (MWH et al., 2010). The Lower Parking Lot BMP consists of a 30,000-gallon cistern, a stormwater conveyance line, a sediment basin, and a media biofilter.

Lower Parking Lot BMP construction activities continued during the First Quarter 2013 and were completed on March 15, 2013. Ventura County inspectors conducted building and grading inspections at various periods during the construction of the Lower Parking Lot BMP. The majority of the construction in the First Quarter 2013 was focused on the cistern assembly, electrical installation, pump test operation, fencing construction, maintenance of plantings, installation of additional container plants, and public artwork installation. Temporary

[2] Available at: http://www.boeing.com/boeing/aboutus/environment/santa_susana/isra.page

construction BMPs were also implemented during Lower Lot biofilter construction, including street sweeping, stockpile management, and installation of fiber rolls, silt fence, tarps, erosion control blankets and sand bags. A Regional Board and public tour of the completed Lower Parking Lot BMP was conducted on March 20, 2013.

*B-1 Curb Cut Modification*

The 2012 BMP Plan Addendum recommended the installation of 36-inch curb cuts with slope protection to increase the capture and conveyance of road runoff to the northern portion of the B-1 drainage. The purpose of the curb cuts is to reduce concentrated flows at the B-1 media filter and increase sedimentation in the drainage before the surface water reaches the B-1 media filter. In the First Quarter 2013, curb cuts were slightly modified to increase flow into the curb cuts.

*NASA ELV Channel BMPs*

Planning and design activities for the BMPs and drainage improvements at the ELV channel were completed in the First Quarter 2013. The bidding process has commenced for the BMPs planned at the ELV channel area and construction is anticipated in 2013.

*CM-9 Upgrades*

The 2012 BMP Plan Addendum recommended the installation of erosion control/slope protection along the existing roadway embankments, the addition of a rip rap berm upstream of CM-9, the installation of a perforated conveyance pipe between the road runoff inlet and the rip rap berm, and improvements to the CM-9 media filter. The purpose of these BMPs is to slow road runoff, reduce erosion along roadway slopes into the CM-9 runoff inlet, and provide additional infiltration upstream of CM-9. These BMPs have been installed to reduce surface water volumes, peak surface water flows, and overflows at the CM-9 media filter.

In the First Quarter 2013, a site walk at CM-9 was conducted with contractors to review installation of BMPs recommended in the 2012 BMP Plan Addendum. The construction of BMPs at CM-9 was completed on March 1, 2013. However the need for improvements to the CM-9 media filter will be further evaluated in the next rainy season.

*First Quarter 2013 NASA and Boeing ISRA Activities*

In addition to activities performed in coordination with the Expert Panel, the following ISRA activities were performed for Outfall 008/009 during the First Quarter 2013:

- Site visits:
  - Ventura County conducted site visits to inspect the Lower Parking Lot BMP construction activities on January 7, 10, and 29; February 7 and 22; and March 4 and 6, 2013
  - On March 20, 2013, the Regional Board and the public toured the Lower Parking Lot biofilter, the LOX slope berm and slope drains, and the B-1 media bed and curb cuts
- Sampling and ISRA Implementation:
  - Collected additional radiological waste characterization soil samples at ISRA area ELV-1C
  - Collected additional waste characterization soil samples at ISRA area IEL-3
  - Conducted ISRA Performance Monitoring and BMP Subarea Monitoring sampling
  - Conducted confirmation and Regional Board split soil sampling at ISRA area IEL-3 and ELV-1C
  - Conducted radiological delineation soil sampling and data gap sampling at ISRA area ELV-1D
  - Completed planned excavation at ISRA area IEL-3
  - Completed planned excavation and additional excavation activities at ISRA area ELV-1C (excluding soils with radiological restrictions)
- Surveys, Monitoring, and Inspections:
  - Performed weekly, pre-rain event, rain event, and post-rain event SWPPP inspections at 2010 and 2011/2012 ISRA areas per the ISRA SWPPP
  - Inspected condition of plants installed within the Northern Drainage
  - Surveyed ISRA areas IEL-3, AP/STP-1B, AP/STP-1C-1, and ELV-1C, and the Soil Borrow Area
  - Conducted ISRA Performance Monitoring and BMP Subarea Monitoring inspections
  - Performed biological surveys of ISRA areas ELV-1C and ELV-1D
- ISRA BMPs Implemented:
  - Conducted maintenance activities, including removal of plant debris within the asphalt swale upstream/south of the B-1 Media Filter, and adjusted/secured plastic tarp covering ISRA area AP/STP-1C-2 with sand bags
  - Completed construction of structural BMPs within Outfall 008 per Regional Board–approved 401c Permit, including rip rap check dams, berms, and rolling dips along dirt road
  - Placed rip rap on area of erosion at the northeast side of Area II Road at the Lower Lot driveway and installed bollards to prevent vehicles from disturbing the area

- Completed restoration activities at ISRA areas IEL-3, AP/STP-1B, AP/STP-1C-1, AP/STP-1C-2, AP/STP-1E-1, AP/STP-1E-2, and AP/STP-1E-3
- Applied hydroseed at ISRA areas IEL-3, AP/STP-1B, AP/STP-1C-1, AP/STP-1C-2, AP/STP-1E-1, AP/STP-1E-2, and APSTP-1E-3

Boeing continues to conduct bi-weekly status meetings, and submit monthly and quarterly progress reports to Regional Board staff on the progress of ISRA activities and the BMP Plan[3]. Boeing is committed to the restoration of the ISRA areas immediately following clean-up activities and works closely with the Regional Board, Department of Toxic Substances Control (DTSC), and the Expert Panel to ensure that restoration is comprehensive.

***Northern Drainage BMPs***

Boeing has actively worked to restore the Northern Drainage following clean-up activities performed under the oversight of the DTSC and in accordance with the requirements of Regional Board Cleanup and Abatement Order (CAO) No. R4-2007-0054. The restoration and mitigation activities proposed in the RMMP plan[4] were implemented in 2012.

Plant monitoring, geomorphic surveys, and plant maintenance was conducted in the First Quarter 2013. As a result of the plant monitoring, 10 walnut trees were planted to replace 10 walnut trees that died during the 2012 winter months. A geomorphic survey was performed to assess sediment deposition and stabilization conditions along the drainage. Driwater cartons were replenished to provide plants with a water source for three months. Plant monitoring will continue for a minimum of five years and supplemental baseline geomorphic surveys will continue for two to three years depending on the need to reassess the sediment conditions in the drainage. Driwater cartons will be replaced until the plants are well established.

***Other BMP Activities***

In October 2012, Boeing submitted a Clean Water Act Section 401 Water Quality Certification Application to the Regional Board for the authorization to place stormwater BMPs in several drainages at the Santa Susana Site. The Regional Board issued the 401 Certification on November 20, 2012, and Boeing commenced field activities shortly thereafter. Only a portion of the proposed and approved activities were started and/or completed in the Fourth Quarter 2012, and the following activities were completed in the First Quarter 2013 (**Figure 4**).

*Outfall 001*

- Compacted soil using hand tools and added jute matting to stabilize the drainage bank

[3] Available at: http://www.boeing.com/boeing/aboutus/environment/santa_susana/isra.page
[4] Available at: http://www.boeing.com/aboutus/environment/santa_susana/tech_reports.html

*Outfall 008*

- Placed rip rap berms to reduce sedimentation and turbidity
- Installed four earthen water bars along a dirt road to direct water into the vegetated areas and reduce erosion along the road

*Outfall 011*

- Removed foreign gravel material from drainage channel immediately downstream of the Outfall 011 monitoring location
- Installed a rip rap apron immediately downstream of the Outfall 011 monitoring location for energy dissipation
- Installed two rip rap check structures downstream of the Outfall 011 monitoring location
- Installed a biodegradable erosion control blanket along disturbed areas adjacent to the existing Outfall 011 media bed and proposed access area to reduce erosion and sedimentation into the drainage for Outfall 011

A 2012 Annual Compliance Report for Outfall 001, Outfall 008, Outfall 011, and R2A Pond was submitted to the Regional Board on December 19, 2012 (Boeing, 2012b). This letter report provided information for those activities that commenced subsequent to November 20, 2012 and were performed through December 14, 2012. Activities performed after December 14, 2012 will be included in the 2013 Annual Compliance Report.

**REASONABLE POTENTIAL ANALYSIS (RPA)**

Outfall monitoring data was collected and analytical results were evaluated during the First Quarter 2013 for Outfalls 009 and 019. Analytical results from this quarter were added to the RPA dataset as per the MWH and Flow Science RPA procedures for the outfall monitoring groups, Outfalls 003-007, 009-010 and Outfall 019 (MWH and Flow Science, 2006). RPA was not triggered for any 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**

In accordance with current federal and state Environmental Protection Agency guidelines and procedures, or as specified in the NPDES Monitoring and Reporting Program, chemical and radiological 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 low level detections, to analyze for interferences, and to ensure that cross contamination does not occur. Laboratory analytical reports, including validation reports and notes, are included in

**Appendix G**. Attachment H of the NPDES Permit issued to the Santa Susana Site presents the 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 daily maximum or monthly average Permit limits that are less than the RL and ML are: mercury, bis(2-ethylhexyl)phthalate, polychlorinated biphenyls (PCBs) (Aroclor congeners), chlordane, Dichlorodiphenyldichloroethane (DDD), Dichlorodiphenyldichloroethylene (DDE), Dichlorodiphenyltrichloroethane (DDT), dieldrin, toxaphene, and chlorpyrifos. These compounds were either not a required analyte or not detected above the RL in all of the surface water/receiving water samples collected during First Quarter 2013.

**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 15th of May 2013, at The Boeing Company, Santa Susana Site.

Sincerely,

Paul Costa,
Environmental Operations and Compliance Manager
Santa Susana Field Laboratory
Environment, Health and Safety

LB:jc

Figures:
1 Stormwater Drainage System and Outfall Locations
2 ISRA Site Location Figure
3 BMP Plan Related Project Area Locations
4 BMP Construction Project Area Locations

Appendices:
A First Quarter 2013 Rainfall Data Summary
B First Quarter 2013 Liquid Waste Shipment Summary Tables
C First Quarter 2013 Summary Tables, Discharge Monitoring Data
D First Quarter 2013 Radiological Monitoring Data
E First Quarter 2013 Exceedance Summary Table
F First Quarter 2013 RPA Summary Tables
G First Quarter 2013 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 Lundeen, Simi Valley Library
Ms. Lynn Light, Platt Branch, Los Angeles Library

**References Cited:**

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# FIGURES

1783400 1788400 1793400 1798400

267400

262400

DRAINAGE TO MEIER CANYON

DRAINAGE TO ARROYO SIMI

UNDEVELOPED LAND

NASA PROPERTY AREA I

UNDEVELOPED LAND

Silvernale Pond

R-2B Pond

R-2A Pond

Skyline Water Tanks

R-1 Pond

GETS

Perimeter Pond

AREA IV

AREA III

AREA II (NASA)

AREA I

DRAINAGE TO DAYTON CANYON

UNDEVELOPED LAND

GETS Discharge Location

DRAINAGE TO BELL CANYON

**DESCRIPTIONS OF PROPOSED DISCHARGE OUTFALL LOCATIONS**

| NPDES OUTFALL NO. | DESCRIPTION | PRIMARY OVERSIGHT AGENCY |
|---|---|---|
| 001 | Treated Groundwater and Stormwater, South Slope | RWQCB |
| 002 | Stormwater; South Slope | RWQCB |
| 003 | Stormwater; Radioactive Material Handling Facility (RMHF) | RWQCB |
| 004 | Stormwater; Sodium Reactor Experiment Area | RWQCB |
| 005 | Stormwater; Sodium Burn Pit 1 | RWQCB |
| 006 | Stormwater; Sodium Burn Pit 2 | RWQCB |
| 007 | Stormwater; Building 100 | RWQCB |
| 008 | Stormwater; Happy Valley | RWQCB |
| 009 | Stormwater; WS-13 Drainage | RWQCB |
| 010 | Stormwater; Building 203 | RWQCB |
| 011 | Stormwater, Perimeter Pond | RWQCB |
| 012 | Stormwater, Alfa Test Stand | RWQCB |
| 013 | Stormwater, Bravo Test Stand | RWQCB |
| 014 | Stormwater; APTF (Advanced Propulsion Test Facility) | RWQCB |
| 015 | STP-1 (Remove Wastewater) | -- |
| 016 | STP-2 (Remove Wastewater) | -- |
| 017 | STP-3 (Remove Wastewater) | -- |
| 018 | Stormwater, R-2 Spillway | RWQCB |
| 019 | Treated Groundwater, GETS | RWQCB |

0 500 1,000 2,000 Feet

MAP COORDINATES IN STATE PLANE, NAD 27, ZONE V

**Legend**

- NPDES Outfalls (RWQCB Primary Oversight Authority)
- Historical NPDES Outfalls
- Groundwater Extraction Treatment System (GETS)
- Surface Water Reclamation Ponds
- Effluent Pathways
- Surface Water Drainage Divide
- Natural Drainage
- Concrete Lined Drainage
- Graded Drainage

# NPDES Permit Compliance 1st Quarter 2013 Discharge Monitoring Report

**Base Map Legend**

- SSFL Property Boundary
- Administrative Area Boundary
- Ground Elevation Contours
- Drainage Pathways
- A/C Curbing
- Dirt Road
- Existing Building or Structure

## Site Map with Outfall Locations and Storm Water Drainages

Date: April 26, 2013

File: \\Uspas1s01\del\rocketdyne gis\MasterGISFiles\SiteWideProjects\NPDES\DMR1Q2013\NPDES_DMR_1Q2013_Fig3.mxd

MWH

FIGURE 1

# ISRA Site Location Map

## Base Map Legend

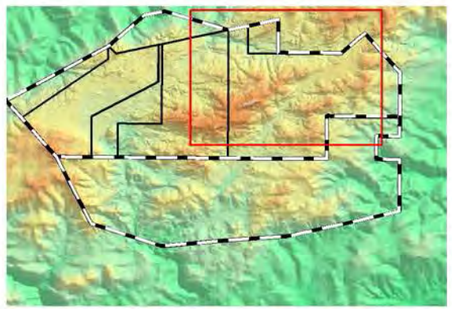
- Administrative Area Boundary
- RFI Site Boundary
- ISRA Completed Excavation Area
- Planned ISRA Excavation Area
- ISRA Area with Remediation In-Progress
- ISRA Soil Borrow Area
- Existing Building or Structure
- Major Surface Water Divide
- Minor Surface Water Divide
- Surface Water Drainage
- NPDES Outfall

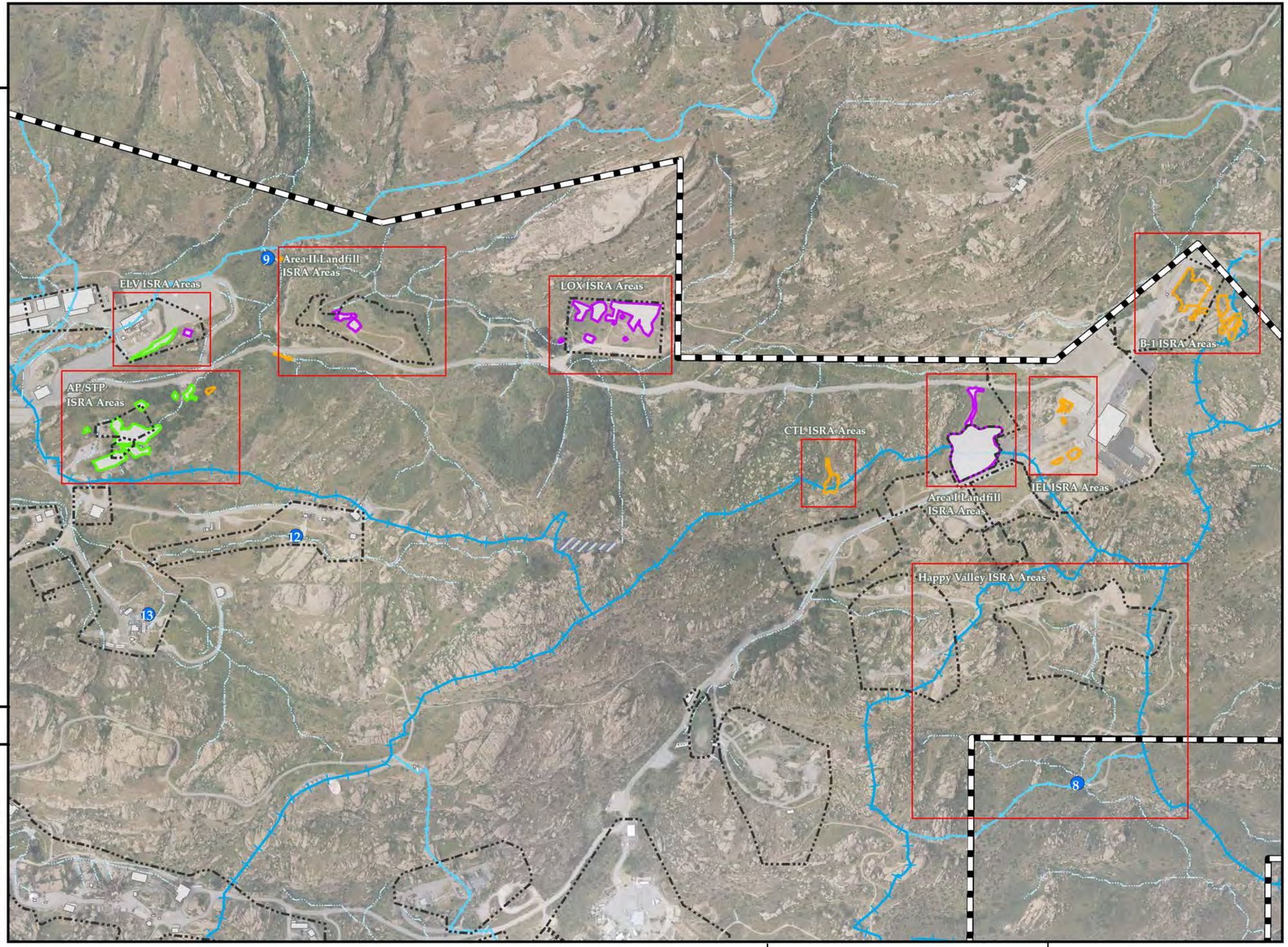
CTL - Component Testing Lab
LOX - Liquid Oxygen
ELV - Expandable Launch Vhicle
IEL - Instrument and Equipment Lab
AP/STP - Ashpile / Sewage Treatment Plant

Aerial imagery from 2010 Sage Consulting.

Date: May 1, 2013

0 350 700 1,400 Feet






SANTA SUSANA FIELD LABORATORY

NPDES COMPLIANCE
1st QUARTER 2013 DMR

MWH

FIGURE 2

Printing Date: May 1, 2013 Path: \\Uspas1s01\dei\rocketdyne gis\MasterGISFiles\SiteWideProjects\NPDES\DMR1Q2013\DMR_ISRA_1Q2013_Fig2.mxd

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267400

262400

DRAINAGE TO MEIER CANYON

DRAINAGE TO ARROYO SIMI

UNDEVELOPED LAND

NASA PROPERTY AREA I

UNDEVELOPED LAND

Silvernale Pond

R-2B Pond

R-2A Pond

Skyline Water Tanks

R-1 Pond

GETS

Perimeter Pond

AREA IV

AREA III

AREA II (NASA)

AREA I

Outfall 008 BMP Construction Project Area within Happy Valley Drainage

Outfall 011 BMP Construction Project Area within Outfall 001/Bell Canyon

DRAINAGE TO DAYTON CANYON

UNDEVELOPED LAND

GETS Discharge Location

Outfall 001 BMP Construction Project Area within Bell Canyon Drainage

DRAINAGE TO BELL CANYON

1783400 1788400 1793400 1798400

0 500 1,000 2,000 Feet

MAP COORDINATES IN STATE PLANE, NAD 27, ZONE V

**Legend**

- NPDES Outfalls (RWQCB Primary Oversight Authority)
- Historical NPDES Outfalls
- Groundwater Extraction Treatment System (GETS)
- Surface Water Reclamation Ponds
- Effluent Pathways
- Surface Water Drainage Divide
- Natural Drainage
- Concrete Lined Drainage
- Graded Drainage

# NPDES Permit Compliance 1st Quarter 2013 Discharge Monitoring Report

**Base Map Legend**

- SSFL Property Boundary
- Administrative Area Boundary
- Ground Elevation Contours
- Drainage Pathways
- A/C Curbing
- Dirt Road
- Existing Building or Structure

## Site Map with BMP Construction Areas, Outfall Locations and Storm Water Drainages

Date: April 26, 2013

File: \\Uspas1s01\del\rocketdyne gis\MasterGISFiles\SitewideProjects\NPDES\DMR1Q2013\NPDES_DMR_1Q2013_Fig3.mxd

MWH

FIGURE 3

1783400 1788400 1793400 1798400

267400

262400

DRAINAGE TO MEIER CANYON

DRAINAGE TO ARROYO SIMI

UNDEVELOPED LAND

NASA PROPERTY AREA I

Completed Lower Parking Lot - Biofilter BMP

Completed CM-9 Upgrades BMP

Completed B-1 Curb Modification BMP

Planned NASA ELV Channel

UNDEVELOPED LAND

Silvernale Pond

R-1 Pond

Skyline Water Tanks

GETS

R-2B Pond

R-2A Pond

AREA IV

AREA III

AREA II (NASA)

Perimeter Pond

AREA I

DRAINAGE TO DAYTON CANYON

UNDEVELOPED LAND

GETS Discharge Location

DRAINAGE TO BELL CANYON

1783400 1788400 1793400 1798400

0 500 1,000 2,000 Feet

MAP COORDINATES IN STATE PLANE, NAD 27, ZONE V

**Legend**

- NPDES Outfalls (RWQCB Primary Oversight Authority)
- Historical NPDES Outfalls
- Groundwater Extraction Treatment System (GETS)
- Surface Water Reclamation Ponds
- Effluent Pathways
- Surface Water Drainage Divide
- Natural Drainage
- Concrete Lined Drainage
- Graded Drainage

# NPDES Permit Compliance 1st Quarter 2013 Discharge Monitoring Report

**Base Map Legend**

- SSFL Property Boundary
- Administrative Area Boundary
- Ground Elevation Contours
- Drainage Pathways
- A/C Curbing
- Dirt Road
- Existing Building or Structure

## Site Map with BMP Plan Areas Outfall Locations and Storm Water Drainages

Date: April 26, 2013

File: \\Uspas1s01\del\rocketdyne gis\MasterGISFiles\SiteWideProjects\NPDES\DMR1Q2013\NPDES_DMR_1Q2013_Fig3.mxd

MWH

FIGURE 4

# APPENDIX A

# FIRST QUARTER 2013 RAINFALL DATA SUMMARY

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

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

**Station: AREA4**
**Parameter: Rain**
**Month/Year: January 2013**

**HOUR OF THE DAY**

| DAY OF THE MONTH | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 6 | 0 | 0 | 0 | 0.02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.02 |
| 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00p | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.01 | 0.1 | 0.11 |
| 24 | 0.12 | 0.11 | 0.04 | 0.1 | 0.12 | 0.13 | 0.14 | 0.18 | 0.05 | 0.04 | 0.02 | 0.04 | 0.01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.01 | 0 | 1.11 |
| 25 | 0.01 | 0 | 0 | 0.01 | 0 | 0 | 0 | 0 | 0.03 | 0.03 | 0.05 | 0.05 | 0.03 | 0 | 0.02 | 0.01 | 0 | 0.01 | 0.01 | 0 | 0.02 | 0.03 | 0.02 | 0.03 | 0.36 |
| 26 | 0 | 0 | 0.02 | 0.04 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.06 |
| 27 | 0.01 | 0 | 0.03 | 0 | 0 | 0 | 0 | 0.01 | 0 | 0 | 0 | 0 | 0 | 0.01 | 0.08 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.14 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | 0.00 |
| 29 | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | 0.00 |
| 30 | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | 0.00 |
| 31 | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | INV | 0.00 |

p = Power failure, invalid hour
INV = Negative under range, invalid hour

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

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

**Station: AREA4**
**Parameter: Rain**
**Month/Year: February 2013**

**HOUR OF THE DAY**

| DAY OF THE MONTH | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.07 | 0.04 | 0 | 0 | 0 | 0 | 0 | 0.11 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.01 |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.01 | 0.04 | 0.05 | 0 | 0 | 0 | 0 | 0 | 0.06 | 0.09 | 0 | 0 | 0 | 0.25 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |

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

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

**Station: AREA4**
**Parameter: Rain**
**Month/Year: March 2013**

**HOUR OF THE DAY**

| DAY OF THE MONTH | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.01 | 0.08 | 0.04 | 0.13 | 0.26 |
| 8 | 0.15 | 0.23 | 0.15 | 0.07 | 0 | 0.01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.61 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.15d | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00p | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00p | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.01 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.01 |

d = Marked down, invalid hour
p = Power failure, invalid hour

# APPENDIX B

# FIRST QUARTER 2013 LIQUID WASTE SHIPMENTS SUMMARY TABLES

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

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

**January 2013**

| DATE SHIPPED | TYPE OF LIQUID | QTY. | UNITS | TRANSPORTER | DESTINATION |
|---|---|---|---|---|---|
| 1/2/2013 | WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/2/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/2/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/4/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 4700 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 2500 West Lockern Road, Buttonwillow, CA 93206 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| 1/7/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 4840 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| 1/7/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE, MUD) | 23825 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 11600 North Aptus Road, Grantsville, UT 84029 | 11600 North Aptus Road, Grantsville, UT 84029 |
| 1/7/2013 | WASTE FLAMMABLE LIQUIDS (METHANOL) | 34 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 1/7/2013 | WASTE CORROSIVE LIQUIDS (SODIUM HYDROXIDE, SODIUM CYANIDE) | 35 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 1/7/2013 | NON-RCRA HAZARDOUS WASTE LIQUIDS (OIL, WATER) | 11 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 1/7/2013 | WASTE FLAMMABLE LIQUIDS (BENZENE, OIL) | 6 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 1/7/2013 | WASTE FLAMMABLE LIQUIDS (METHANOL) | 263 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 1/7/2013 | NON-RCRA HAZARDOUS WASTE LIQUIDS (NON-PCB BALLASTS) | 458 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 1/8/2013 | WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/8/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/8/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/10/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 4692 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |

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

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

**January 2013**

| DATE SHIPPED | TYPE OF LIQUID | QTY. | UNITS | TRANSPORTER | DESTINATION |
|---|---|---|---|---|---|
| 1/14/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 4091 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| 1/14/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 2537 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| 1/15/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/15/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/15/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/22/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/22/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/22/2013 | WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/23/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 5000 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| 1/24/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 4983 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| 1/25/2013 | NON-RCRA HAZARDOUS WASTE LIQUIDS (OIL, WATER) | 67 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 1/25/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE, MUD) | 29928 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 11600 North Aptus Road, Grantsville, UT 84029 | 11600 North Aptus Road, Grantsville, UT 84029 |
| 1/28/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 4285 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| 1/29/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/29/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 1/29/2013 | WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |

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

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

**February 2013**

| DATE SHIPPED | TYPE OF LIQUID | QTY. | UNITS | TRANSPORTER | DESTINATION |
|---|---|---|---|---|---|
| 2/5/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/5/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/5/2013 | WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/5/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 5058 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| 2/7/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 4858 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| 2/12/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/12/2013 | WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/12/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/12/2013 | NON-HAZARDOUS, NON-DOT REGULATED MATERIAL (WATER) | 5289 | G | SOUTHWEST TREATMENT SYSTEMS INC. | SOUTHWEST TREATMENT SYSTEMS INC. |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 |
| 2/12/2013 | NON-HAZARDOUS, NON-DOT REGULATED MATERIAL (WATER) | 5009 | G | NEXEO SOLUTIONS LLC | SOUTHWEST TREATMENT SYSTEMS INC. |
| | | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 |
| 2/13/2013 | NON-HAZARDOUS, NON-DOT REGULATED MATERIAL (WATER) | 5053 | G | NEXEO SOLUTIONS LLC | SOUTHWEST TREATMENT SYSTEMS INC. |
| | | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 |
| 2/14/2013 | NON-RCRA HAZARDOUS WASTE LIQUIDS (OIL, WATER) | 1777 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 2/14/2013 | WASTE CYANIDE SOLUTIONS (POTASSIUM CYANIDE, POTASSIUM BORATE | 12 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 309 American Circle, El Dorado, AR 71730 | 309 American Circle, El Dorado, AR 71730 |
| 2/14/2013 | WASTE AMINES, LIQUID, CORROSIVE, FLAMMABLE | 14 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | (DIETHYLETHANOLAMINE, TRIETHANOLAMINE) | | | 309 American Circle, El Dorado, AR 71730 | 309 American Circle, El Dorado, AR 71730 |
| 2/14/2013 | WASTE CORROSIVE LIQUIDS (SODIUM HYDROXIDE, SODIUM CYANIDE) | 27 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 2/15/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 4862 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |

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

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

**February 2013**

| DATE SHIPPED | TYPE OF LIQUID | QTY. | UNITS | TRANSPORTER | DESTINATION |
|---|---|---|---|---|---|
| 2/19/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/19/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/19/2013 | WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/19/2013 | NON-DOT REGULATED MATERIAL (STORM WATER, GROUND WATER) | 8923 | P | NEXEO SOLUTIONS LLC | SOUTHWEST PROCESSORS INC. |
| | | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 |
| 2/19/2013 | NON-HAZARDOUS WASTEWATER (STORM WATER, GROUND WATER) | 145 | P | NEXEO SOLUTIONS LLC | SOUTHWEST PROCESSORS INC. |
| | | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 |
| 2/20/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 4551 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| 2/25/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE, MUD) | 2036 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 11600 North Aptus Road, Grantsville, UT 84029 | 11600 North Aptus Road, Grantsville, UT 84029 |
| 2/26/2013 | WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/26/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/26/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| 2/27/2013 | NON-RCRA HAZARDOUS WASTE LIQUIDS (NON-PCB CAPACITORS) | 49 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 2/27/2013 | NON-RCRA HAZARDOUS WASTE LIQUIDS (DEBRIS, SULFURIC ACID) | 22 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 2/27/2013 | NON-RCRA HAZARDOUS WASTE LIQUIDS (OIL) | 127 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| 2/27/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 4920 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| 2/28/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 5122 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |

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

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

**March 2013**

| DATE SHIPPED | TYPE OF LIQUID | QTY. | UNITS | TRANSPORTER | DESTINATION |
|---|---|---|---|---|---|
| 3/5/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |
| 3/5/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |
| 3/5/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |
| 3/5/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 5170 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| | | | | | |
| 3/11/2013 | HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE) | 5060 | G | Clean Harbors Environmental Services | Siemens Industry Inc. |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 5375 South Boyle Avenue, Los Angeles, CA 90058 |
| | | | | | |
| 3/12/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |
| 3/12/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |
| 3/12/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |
| 3/13/2013 | WASTE CORROSIVE LIQUIDS (SODIUM HYDROXIDE, SODIUM CYANIDE) | 28 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| | | | | | |
| 3/13/2013 | NON-RCRA HAZARDOUS WASTE LIQUIDS (DEBRIS, SULFURIC ACID) | 88 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| | | | | | |
| 3/13/2013 | NON-RCRA HAZARDOUS WASTE LIQUIDS (IRON REAGENT, WATER) | 37 | P | Clean Harbors Environmental Services | Clean Harbors Environmental Services |
| | | | | 1737 East Denni Street, Wilmington, CA 90744 | 1737 East Denni Street, Wilmington, CA 90744 |
| | | | | | |
| 3/19/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |
| 3/19/2013 | WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |
| 3/19/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |
| 3/26/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |

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

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

**March 2013**

| DATE SHIPPED | TYPE OF LIQUID | QTY. | UNITS | TRANSPORTER | DESTINATION |
|---|---|---|---|---|---|
| 3/26/2013 | WASTE WATER FROM AREA II SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Saugus |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |
| 3/26/2013 | WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT | 5000 | G | SOUTHWEST PROCESSORS INC. | LACSD Carson |
| | | | | 4120 BANDINI BLVD. LOS ANGELES, CA 90058 | |
| | | | | | |

# APPENDIX C

# FIRST QUARTER 2013 SUMMARY TABLES, DISCHARGE MONITORING DATA

**FIRST QUARTER 2013**
**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 |

**FIRST QUARTER 2013**
**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) |
| * II *III | Unusual problems found with the data that have been described in Section II, “sample management”, or Section III, “method analysis”. The number following the asterisk (*) will indicated the validation report section where a description of the problem can be found. |
| ANR | analysis not required; e.g., constituent or outfall was not required by the permit to be sampled and analyzed over the reporting period (annual, semi-annual, etc.) |
| B | laboratory method blank contamination |
| BA | relative percent difference out of control |
| BEF | bioaccumulation equivalency factor |
| BU | 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 then the laboratory reporting limit) |
| E | duplicates show poor agreement |
| ft/sec | feet per second |
| 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 |

**FIRST QUARTER 2013**
**REPORTING SUMMARY NOTES**
**THE BOEING COMPANY**
**SANTA SUSANA FIELD LABORATORY**
**NPDES PERMIT CA0001309**

| | |
|---|---|
| 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 |
| MPN/100 ml | most probable number per 100 milliliters |
| NA | not applicable; no permit limit established for the constituent and/or outfall |
| ND | analyte value less than the LOD or MDL |
| NM | not measured or determined |
| NTU | nephelometric turbidity unit |
| pCi/L | picocurries 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 |
| $TU_c$ | 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 009 (WS-13 Drainage)

## FIRST QUARTER 2013 REPORTING SUMMARY
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 1/25/2013 | | | 3/8/2013 | | |
|---|---|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| | | | | | | | | |
| Asbestos | MFL | -/- | ANR | ANR | ANR | Grab | ND < 2.0 | * |
| Chloride | mg/L | 150/- | Comp | 2.1 | -- | Grab | 2.3 | * |
| Chlorpyrifos | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.077 | * |
| E. Coli | MPN/100mL | -/- | ANR | ANR | ANR | Grab | 23 | * |
| Fecal Coliform | MPN/100mL | -/- | ANR | ANR | ANR | Grab | 30 | * |
| Fluoride | mg/L | 1.6/- | ANR | ANR | ANR | Grab | 0.12 | * |
| Nitrate + Nitrite as Nitrogen (N) | mg/L | 10/- | Comp | 0.55 | -- | Grab | 0.59 | * |
| Oil & Grease | mg/L | 15/- | Grab | ND < 1.3 | U | Grab | ND < 1.3 | * |
| Perchlorate | ug/L | 6.0/- | ANR | ANR | ANR | Grab | ND < 0.95 | U |
| pH (Field) | pH units | 6.5-8.5/- | Grab | 6.7 | * | Grab | 6.65 | * |
| Sulfate | mg/L | 250/- | Comp | 3.8 | -- | Grab | 6.0 | * |
| Temperature | deg. F | 86/- | Grab | 54 | * | Grab | 51 | * |
| Total Cyanide | ug/L | 9.5/- | Comp | ND < 3.0 | U | Grab | ND < 3.0 | * |
| Total Dissolved Solids | mg/L | 850/- | Comp | 83 | -- | Grab | 87 | * |
| Hardness | mg/L | -/- | ANR | ANR | ANR | Grab | 32 | -- |
| Hardness, dissolved | mg/L | -/- | ANR | ANR | ANR | Grab | 30 | -- |
| Total Suspended Solids | mg/L | -/- | Comp | ND < 10 | U | Grab | ND < 10 | * |
| Volume Discharged | MGD | 17.8/- | Meas | 0.10509 | * | Meas | 0.020885 | * |
| **METALS** | | | | | | | | |
| Aluminum | ug/L | -/- | ANR | ANR | ANR | Grab | 370 | J (Q) |
| Aluminum, dissolved | ug/L | -/- | ANR | ANR | ANR | Grab | 99 | -- |
| Antimony | ug/L | 6.0/- | Comp | 0.66 | J (DNQ) | Grab | 0.79 | J,DX* (DNQ) |
| Antimony, dissolved | ug/L | -/- | Comp | 0.62 | J (DNQ) | Grab | 0.45 | J,DX* (DNQ) |
| Arsenic | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 7.0 | U |
| Arsenic, dissolved | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 7.0 | U |
| Beryllium | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.90 | U |
| Beryllium, dissolved | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.90 | U |
| Boron | mg/L | 1.0/- | ANR | ANR | ANR | Grab | 0.041 | J (DNQ) |
| Boron, dissolved | mg/L | -/- | ANR | ANR | ANR | Grab | ND < 0.056 | U (B) |
| Cadmium | ug/L | 4.0/- | Comp | ND < 0.10 | U | Grab | 0.43 | J,DX* (DNQ) |
| Cadmium, dissolved | ug/L | -/- | Comp | ND < 0.10 | U | Grab | ND < 0.10 | * |
| Calcium | mg/L | -/- | ANR | ANR | ANR | Grab | 8.4 | -- |
| Calcium, Dissolved | mg/L | -/- | ANR | ANR | ANR | Grab | 8.2 | -- |
| Chromium | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 2.0 | U |
| Chromium, dissolved | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 2.0 | U |
| Chromium VI | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.25 | * |
| Copper | ug/L | 14/- | Comp | 8.0 | -- | Grab | 5.1 | * |
| Copper, dissolved | ug/L | -/- | Comp | 3.0 | -- | Grab | 3.0 | * |
| Iron | mg/L | -/- | ANR | ANR | ANR | Grab | 0.46 | -- |
| Iron, dissolved | mg/L | -/- | ANR | ANR | ANR | Grab | 0.11 | -- |
| Lead | ug/L | 5.2/- | Comp | 1.7 | -- | Grab | 1.5 | * |
| Lead, dissolved | ug/L | -/- | Comp | 0.47 | J (DNQ) | Grab | 0.35 | * |
| Magnesium | mg/L | -/- | ANR | ANR | ANR | Grab | 2.6 | -- |
| Magnesium, Dissolved | mg/L | -/- | ANR | ANR | ANR | Grab | 2.4 | -- |
| Mercury | ug/L | 0.13/- | Comp | ND < 0.10 | U | Grab | ND < 0.10 | U |
| Mercury, dissolved | ug/L | -/- | Comp | ND < 0.10 | U | Grab | ND < 0.10 | U |
| Nickel | ug/L | 100/- | ANR | ANR | ANR | Grab | 2.3 | J (DNQ) |
| Nickel, dissolved | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 2.0 | U |
| Selenium | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.50 | * |
| Selenium, dissolved | ug/L | -/- | ANR | ANR | ANR | Grab | 0.64 | * |
| Silver | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 6.0 | U |
| Silver, dissolved | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 6.0 | U |
| Thallium | ug/L | 2.0/- | Comp | ND < 0.20 | U | Grab | 0.43 | J,DX* (DNQ) |
| Thallium, dissolved | ug/L | -/- | Comp | ND < 0.20 | U | Grab | ND < 0.20 | * |
| Vanadium | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 3.0 | U |

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

## OUTFALL 009 (WS-13 Drainage)

## FIRST QUARTER 2013 REPORTING SUMMARY
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 1/25/2013 | | | 3/8/2013 | | |
|---|---|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Vanadium, dissolved | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 3.0 | U |
| Zinc | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 9.0 | U |
| Zinc, Dissolved | ug/L | -/- | ANR | ANR | ANR | Grab | 9.7 | J (DNQ) |
| **ORGANICS** | | | | | | | | |
| Benzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.28 | * |
| Carbon Tetrachloride | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.28 | * |
| Chloroform | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.33 | * |
| 1,1-Dichloroethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.40 | * |
| 1,2-Dichloroethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.28 | * |
| 1,1-Dichloroethene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.42 | * |
| Ethylbenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.25 | * |
| Tetrachloroethene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.32 | * |
| Toluene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.36 | * |
| Xylenes (Total) | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.90 | * |
| 1,1,1-Trichloroethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.30 | * |
| 1,1,2-Trichloroethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.30 | * |
| Trichloroethene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.26 | * |
| Trichlorofluoromethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.34 | * |
| Vinyl chloride | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.40 | * |
| **ADDITIONAL ANALYTES** | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.30 | * |
| 1,2,4-Trichlorobenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| 1,2,3-Trichloropropane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.40 | * |
| 1,2-Dibromoethane (EDB) | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.40 | * |
| 1,2-Dichlorobenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| 1,2-Dichlorobenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.32 | * |
| 1,2-Dichloropropane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.35 | * |
| 1,2-Diphenylhydrazine/Azobenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | UJ (C) |
| 1,3-Dichlorobenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.35 | * |
| 1,3-Dichlorobenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| 1,4-Dichlorobenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.37 | * |
| 1,4-Dichlorobenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| 2,4,6-Trichlorophenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| 2,4-Dichlorophenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| 2,4-dimethylphenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.284 | U |
| 2,4-dinitrophenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.853 | U |
| 2,4-Dinitrotoluene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| 2,6-Dinitrotoluene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| 2-Butanol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 6.5 | * |
| 2-Chloroethylvinylether | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 1.8 | * |
| 2-Chloronaphthalene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| 2-chlorophenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| 2-Methyl-4,6-dinitrophenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.284 | UJ (C) |
| 2-Methylnaphthalene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| 2-Methylphenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| 2-nitrophenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| 3,3'-Dichlorobenzidine | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.474 | U |
| 4,4'-DDD | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0038 | * |
| 4,4'-DDE | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0029 | * |
| 4,4'-DDT | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0038 | * |
| 4-Bromophenylphenylether | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| 4-Chloro-3-methylphenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| 4-Chloroaniline | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.284 | U |
| 4-Chlorophenylphenylether | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |

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

## OUTFALL 009 (WS-13 Drainage)

## FIRST QUARTER 2013 REPORTING SUMMARY
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 1/25/2013 | | | 3/8/2013 | | |
|---|---|---|---|---|---|---|---|---|
| ANALYTE | UNITS | Permit Limit Daily Max/Monthly Avg | SAMPLE TYPE | RESULT | VALIDATION QUALIFIER | SAMPLE TYPE | RESULT | VALIDATION QUALIFIER |
| 4-nitrophenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 2.37 | U |
| Acenaphthene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| Acenaphthylene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| Acrolein | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 4.0 | * |
| Acrylonitrile | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 1.2 | * |
| Acute Toxicity | % SURVIVAL | 70-100/- | ANR | ANR | ANR | Grab | 100 | * |
| Aldrin | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0014 | * |
| alpha-BHC | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0024 | * |
| Aniline | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.284 | U |
| Anthracene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Aroclor 1016 | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.24 | * |
| Aroclor 1221 | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.24 | * |
| Aroclor 1232 | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.24 | * |
| Aroclor 1242 | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.24 | * |
| Aroclor 1248 | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.24 | * |
| Aroclor 1254 | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.24 | * |
| Aroclor 1260 | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.24 | * |
| Benzidine | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.948 | UJ (C) |
| Benzo(a)anthracene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Benzo(a)pyrene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Benzo(b)fluoranthene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Benzo(g,h,i)Perylene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Benzo(k)fluoranthene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| Benzoic acid | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 2.84 | U |
| Benzyl alcohol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| beta-BHC | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0038 | * |
| bis (2-Chloroethyl) ether | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| bis (2-ethylhexyl) Phthalate | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 1.61 | U |
| Bis(2-Chloroethoxy) methane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Bis(2-Chloroisopropyl) Ether | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Bromodichloromethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.30 | * |
| Bromoform | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.40 | * |
| Bromomethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.42 | * |
| Butylbenzylphthalate | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.664 | U |
| Chlordane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.076 | * |
| Chlorobenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.36 | * |
| Chloroethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.40 | * |
| Chloromethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.40 | * |
| Chronic Toxicity | TUC | 1/- | Comp | 1.0 | * | ANR | ANR | ANR |
| Chrysene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| cis-1,2-Dichloroethene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.32 | * |
| cis-1,3-Dichloropropene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.22 | * |
| delta-BHC | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0033 | * |
| Diazinon | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.097 | * |
| Dibenzo(a,h)anthracene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Dibenzofuran | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Dibromochloromethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.40 | * |
| Dieldrin | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0019 | * |
| Diethylphthalate | ug/L | -/- | ANR | ANR | ANR | Grab | 0.257 | J (DNQ) |
| Diisopropyl ether | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.25 | * |
| Dimethylphthalate | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| Di-n-butylphthalate | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.284 | U |
| Di-n-octylphthalate | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |

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

## OUTFALL 009 (WS-13 Drainage)

## FIRST QUARTER 2013 REPORTING SUMMARY
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 1/25/2013 | | | 3/8/2013 | | |
|---|---|---|---|---|---|---|---|---|
| ANALYTE | UNITS | Permit Limit Daily Max/Monthly Avg | SAMPLE TYPE | RESULT | VALIDATION QUALIFIER | SAMPLE TYPE | RESULT | VALIDATION QUALIFIER |
| Endosulfan I | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0029 | * |
| Endosulfan II | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0019 | * |
| Endosulfan Sulfate | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0029 | * |
| Endrin | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0019 | * |
| Endrin Aldehyde | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0019 | * |
| Ethyl tert-Butyl Ether (ETBE) | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.28 | * |
| Fluoranthene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Fluorene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Heptachlor | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0029 | * |
| Heptachlor Epoxide | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0024 | * |
| Hexachlorobenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Hexachlorobutadiene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| Hexachlorocyclopentadiene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | UJ (C) |
| Hexachloroethane | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| Indeno(1,2,3-cd)pyrene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Isophorone | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Lindane (gamma-BHC) | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0029 | * |
| Methylene chloride | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.95 | * |
| Methyl-tert-butyl ether | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.32 | * |
| m-Nitroaniline | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.948 | U |
| Naphthalene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Naphthalene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.41 | * |
| Nitrobenzene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| n-Nitrosodimethylamine | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| n-Nitroso-di-n-propylamine | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| N-Nitrosodiphenylamine | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| o-Nitroaniline | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| p-Cresol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.190 | U |
| Pentachlorophenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.379 | U |
| Phenanthrene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| Phenol | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.284 | U |
| p-Nitroaniline | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.474 | U |
| Pyrene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.0948 | U |
| tert-Amyl Methyl Ether (TAME) | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.33 | * |
| Toxaphene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.24 | * |
| trans-1,2-Dichloroethene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.30 | * |
| trans-1,3-Dichloropropene | ug/L | -/- | ANR | ANR | ANR | Grab | ND < 0.32 | * |

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

# OUTFALL 009 (WS-13 Drainage)

## FIRST QUARTER 2013 REPORTING SUMMARY
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

### Sample Type Composite
### Sample Date January 25, 2013

| 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-HpCDD | 8.90E-07 | 5.00E-05 | ND | U (B) | | 0.01 | 0.05 | **ND** |
| 1,2,3,4,6,7,8-HpCDF | 6.30E-07 | 5.00E-05 | ND | U (B) | | 0.01 | 0.01 | **ND** |
| 1,2,3,4,7,8,9-HpCDF | 8.50E-07 | 5.00E-05 | ND | U | | 0.01 | 0.4 | **ND** |
| 1,2,3,4,7,8-HxCDD | 3.30E-07 | 5.00E-05 | ND | U | | 0.1 | 0.3 | **ND** |
| 1,2,3,4,7,8-HxCDF | 7.60E-07 | 5.00E-05 | ND | U | | 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 | 2.10E-07 | 5.00E-05 | ND | U | | 0.1 | 0.2 | **ND** |
| 1,2,3,7,8,9-HxCDD | 1.00E-06 | 5.00E-05 | ND | U | | 0.1 | 0.1 | **ND** |
| 1,2,3,7,8,9-HxCDF | 2.60E-07 | 5.00E-05 | ND | U | | 0.1 | 0.6 | **ND** |
| 1,2,3,7,8-PeCDD | 6.20E-07 | 5.00E-05 | ND | U | | 1 | 0.9 | **ND** |
| 1,2,3,7,8-PeCDF | 3.90E-07 | 5.00E-05 | ND | U | | 0.05 | 0.2 | **ND** |
| 2,3,4,6,7,8-HxCDF | 2.00E-07 | 5.00E-05 | ND | U | | 0.1 | 0.7 | **ND** |
| 2,3,4,7,8-PeCDF | 4.00E-07 | 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 | 1.10E-06 | 1.00E-05 | ND | U | | 0.1 | 0.8 | **ND** |
| OCDD | 1.40E-06 | 1.00E-04 | 2.20E-04 | -- | | 0.0001 | 0.01 | **2.20E-10** |
| OCDF | 8.60E-07 | 1.00E-04 | ND | UJ (*III) | | 0.0001 | 0.02 | **ND** |

| | |
|---|---|
| **TCDD TEQ w/out DNQ Values** | **2.20E-10** |

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

# OUTFALL 009 (WS-13 Drainage)

## FIRST QUARTER 2013 REPORTING SUMMARY
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

### Sample Type Grab
### Sample Date March 8, 2013

| 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-HpCDD | 1.70E-06 | 5.00E-05 | 1.70E-05 | J (DNQ) | | 0.01 | 0.05 | **ND** |
| 1,2,3,4,6,7,8-HpCDF | 1.00E-06 | 5.00E-05 | 3.30E-06 | J (DNQ) | | 0.01 | 0.01 | **ND** |
| 1,2,3,4,7,8,9-HpCDF | 1.60E-06 | 5.00E-05 | ND | U | | 0.01 | 0.4 | **ND** |
| 1,2,3,4,7,8-HxCDD | 5.50E-07 | 5.00E-05 | ND | U | | 0.1 | 0.3 | **ND** |
| 1,2,3,4,7,8-HxCDF | 4.60E-07 | 5.00E-05 | ND | U | | 0.1 | 0.08 | **ND** |
| 1,2,3,6,7,8-HxCDD | 9.80E-07 | 5.00E-05 | ND | U | | 0.1 | 0.1 | **ND** |
| 1,2,3,6,7,8-HxCDF | 4.00E-07 | 5.00E-05 | ND | U | | 0.1 | 0.2 | **ND** |
| 1,2,3,7,8,9-HxCDD | 7.80E-07 | 5.00E-05 | ND | U | | 0.1 | 0.1 | **ND** |
| 1,2,3,7,8,9-HxCDF | 5.70E-07 | 5.00E-05 | ND | U | | 0.1 | 0.6 | **ND** |
| 1,2,3,7,8-PeCDD | 7.80E-07 | 5.00E-05 | ND | U | | 1 | 0.9 | **ND** |
| 1,2,3,7,8-PeCDF | 5.80E-07 | 5.00E-05 | ND | U | | 0.05 | 0.2 | **ND** |
| 2,3,4,6,7,8-HxCDF | 4.00E-07 | 5.00E-05 | ND | U | | 0.1 | 0.7 | **ND** |
| 2,3,4,7,8-PeCDF | 6.10E-07 | 5.00E-05 | ND | U | | 0.5 | 1.6 | **ND** |
| 2,3,7,8-TCDD | 4.90E-07 | 1.00E-05 | ND | U | | 1 | 1 | **ND** |
| 2,3,7,8-TCDF | 4.20E-07 | 1.00E-05 | ND | U | | 0.1 | 0.8 | **ND** |
| OCDD | 1.00E-05 | 1.00E-04 | 2.50E-04 | -- | | 0.0001 | 0.01 | **2.50E-10** |
| OCDF | 1.20E-06 | 1.00E-04 | ND | U (B) | | 0.0001 | 0.02 | **ND** |

| | |
|---|---|
| **TCDD TEQ w/out DNQ Values** | **2.50E-10** |

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

# OUTFALL 009 (WS-13 Drainage)

## FIRST QUARTER 2013 REPORTING SUMMARY
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 1/25/2013 | | | 3/8/2013 | | |
|---|---|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **Sample Type** | **Result** | **Concentration Result Validation Qualifier** | **Sample Type** | **Result** | **Concentration Result Validation Qualifier** |
| Max Discharge for event | MGD | 17.8 | Meas | 0.10509 | | Meas | 0.020885 | |
| | | | | | | | | |
| Chloride | LBS/DAY | 22,268/- | Comp | 1.84 | -- | Grab | 0.40 | * |
| Fluoride | LBS/DAY | 238/- | ANR | ANR | ANR | Grab | 0.02 | * |
| Nitrate + Nitrite as Nitrogen (N) | LBS/DAY | 1,485/- | Comp | 0.48 | -- | Grab | 0.10 | * |
| Oil & Grease | LBS/DAY | 2,227/- | Grab | ND | U | Grab | ND | * |
| Perchlorate | LBS/DAY | 0.89/- | ANR | ANR | ANR | Grab | ND | U |
| Sulfate | LBS/DAY | 37,113/- | Comp | 3.33 | -- | Grab | 1.05 | * |
| Total Cyanide | LBS/DAY | 1.4/- | Comp | ND | U | Grab | ND | * |
| Total Dissolved Solids | LBS/DAY | 126,184/- | Comp | 72.75 | -- | Grab | 15.15 | * |
| Antimony | LBS/DAY | 0.89/- | Comp | 0.001 | J (DNQ) | Grab | 0.0001 | J,DX* (DNQ) |
| Boron | LBS/DAY | 148/- | ANR | ANR | ANR | Grab | 0.01 | J (DNQ) |
| Cadmium | LBS/DAY | 0.59/- | Comp | ND | U | Grab | 0.0001 | J,DX* (DNQ) |
| Copper | LBS/DAY | 2.1/- | Comp | 0.01 | -- | Grab | 0.001 | * |
| Lead | LBS/DAY | 0.77/- | Comp | 0.001 | -- | Grab | 0.0003 | * |
| Mercury | LBS/DAY | 0.02/- | Comp | ND | U | Grab | ND | U |
| Nickel | LBS/DAY | 14.9/- | ANR | ANR | ANR | Grab | 0.0004 | J (DNQ) |
| Thallium | LBS/DAY | 0.3/- | Comp | ND | U | Grab | 0.0001 | J,DX* (DNQ) |
| TCDD TEQ_NoDNQ | LBS/DAY | 4.20E-09/- | Comp | 1.93E-13 | -- | Grab | 4.35E-14 | -- |

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

# OUTFALL 019 (Treatment System)

## FIRST QUARTER 2013 REPORTING SUMMARY
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 03/14/2013-03/15/2013 | | |
|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| | | | | | |
| Ammonia as Nitrogen (N) | mg/L | 10.1/1.96 | Comp | 0.280 | J (DNQ) |
| Biochemical Oxygen Demand (BOD 5 day) | mg/L | 30/20 | Comp | ND < 0.50 | U |
| Chloride | mg/L | 150/- | Comp | 120 | -- |
| Dissolved Oxygen | mg/L | -/- | Grab | 4.28 | * |
| E. Coli | MPN/100mL | -/- | Grab | ND < 2.0 | U |
| Fecal Coliform | MPN/100mL | -/- | Grab | ND < 2.0 | U |
| Specific Conductivity (Lab) | umhos/cm | -/- | Grab | 1500 | BU* |
| Surfactants (MBAS) | mg/L | 0.5/- | Comp | 0.12 | -- |
| Fluoride | mg/L | 1.6/- | Comp | 0.31 | -- |
| Nitrate + Nitrite as Nitrogen (N) | mg/L | 8/- | Comp | ND < 0.11 | 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 | 7.50 | * |
| Total Settleable Solids | ml/L | 0.3/0.1 | Grab | ND < 0.10 | U |
| Sulfate | mg/L | 300/- | Comp | 250 | -- |
| Temperature | deg. F | 86/- | Grab | 72 | * |
| Total Cyanide | ug/L | 8.5/4.3 | Comp | ND < 3.0 | U |
| Hardness | ug/L | -/- | Comp | 110000 | * |
| Total Dissolved Solids | mg/L | 950/- | Comp | 890 | -- |
| Total Organic Carbon | mg/L | -/- | Comp | ND < 0.75 | U |
| Total Residual Chlorine (Field) | mg/L | 0.1/- | Grab | 0.0 | * |
| Total Suspended Solids | mg/L | 45/15 | Comp | ND < 10 | U |
| Turbidity | NTU | -/- | Comp | 1.1 | -- |
| Volume Discharged | MGD | 160/- | Meas | 0.023872 | * |
| **METALS** | | | | | |
| Antimony | ug/L | 6.0/- | Comp | ND < 0.30 | U |
| Antimony, dissolved | ug/L | -/- | Comp | ND < 0.30 | U |
| Arsenic | ug/L | 10/- | Comp | ND < 7.0 | U |
| Arsenic, dissolved | ug/L | -/- | Comp | ND < 7.0 | U |
| Barium | mg/L | 1.0/- | Comp | ND < 0.0060 | U |
| Barium, dissolved | mg/L | -/- | Comp | ND < 0.0060 | U |
| Beryllium | ug/L | 4.0/- | Comp | ND < 0.90 | U |
| Beryllium, dissolved | ug/L | -/- | Comp | ND < 0.90 | U |
| Boron | mg/L | -/- | Comp | 0.021 | J (DNQ) |
| Boron, dissolved | mg/L | -/- | Comp | ND < 0.020 | U |
| Cadmium | ug/L | 3.1/2.0 | Comp | 0.12 | J (DNQ) |
| Cadmium, dissolved | ug/L | -/- | Comp | ND < 0.10 | U |
| Chromium | ug/L | 16/8 | Comp | ND < 2.0 | U |
| Chromium, dissolved | ug/L | -/- | Comp | ND < 2.0 | U |
| Chromium VI | ug/L | 16/8 | Comp | 1.1 | -- |
| Cobalt | ug/L | -/- | Comp | ND < 2.0 | U |

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

## OUTFALL 019 (Treatment System)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 03/14/2013-03/15/2013 | | |
|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Cobalt, dissolved | ug/L | -/- | Comp | ND < 2.0 | U |
| Copper | ug/L | 14/7.1 | Comp | ND < 5.2 | U (B) |
| Copper, dissolved | ug/L | -/- | Comp | ND < 2.0 | U (B) |
| Iron | mg/L | 0.3/- | Comp | 0.075 | -- |
| Iron, dissolved | mg/L | -/- | Comp | ND < 0.040 | U (B) |
| Lead | ug/L | 5.2/2.6 | Comp | 0.37 | J (DNQ) |
| Lead, dissolved | ug/L | -/- | Comp | ND < 0.20 | U |
| Manganese | ug/L | 50/- | Comp | 24 | -- |
| Manganese, dissolved | ug/L | -/- | Comp | ND < 7.0 | U |
| Mercury | ug/L | 0.10/0.05 | Comp | ND < 0.10 | U |
| Mercury, dissolved | ug/L | -/- | Comp | ND < 0.10 | U |
| Nickel | ug/L | 96/35 | Comp | ND < 2.0 | U |
| Nickel, dissolved | ug/L | -/- | Comp | ND < 2.0 | U |
| 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 | 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 | ND < 0.20 | U |
| Vanadium | ug/L | -/- | Comp | 3.3 | J (DNQ) |
| Vanadium, dissolved | ug/L | -/- | Comp | 3.2 | J (DNQ) |
| Zinc | ug/L | 119/54 | Comp | 14 | J (DNQ) |
| Zinc, Dissolved | ug/L | -/- | Comp | 15 | J (DNQ) |
| **ORGANICS** | | | | | |
| 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 | -/- | Comp | ND < 1.0 | U |
| 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 |
| **TPH** | | | | | |
| DRO (C13 - C28) | mg/L | -/- | Grab | ND < 0.098 | U |
| GRO (C4 - C12) | mg/L | -/- | Grab | ND < 0.025 | U |
| **ADDITIONAL ANALYTES** | | | | | |

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

## OUTFALL 019 (Treatment System)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 03/14/2013-03/15/2013 | | |
|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| 1,2-Dichloro-1,1,2-trifluoroethane | ug/L | -/- | Grab | ND < 1.1 | U |
| 1,1,2,2-Tetrachloroethane | ug/L | -/- | Grab | ND < 0.30 | U |
| 1,2,4-Trichlorobenzene | ug/L | -/- | Comp | ND < 2.37 | U |
| 1,2-Dichlorobenzene | ug/L | -/- | Comp | ND < 2.84 | U |
| 1,2-Dichlorobenzene | ug/L | -/- | Grab | ND < 0.32 | U |
| 1,2-Dichloropropane | ug/L | -/- | Grab | ND < 0.35 | U |
| 1,2-Diphenylhydrazine/Azobenzene | ug/L | -/- | Comp | ND < 2.37 | U |
| 1,3-Dichlorobenzene | ug/L | -/- | Grab | ND < 0.35 | U |
| 1,3-Dichlorobenzene | ug/L | -/- | Comp | ND < 2.84 | U |
| 1,4-Dichlorobenzene | ug/L | -/- | Comp | ND < 2.37 | U |
| 1,4-Dichlorobenzene | ug/L | -/- | Grab | ND < 0.37 | U |
| 2,4,6-Trichlorophenol | ug/L | 13/6.5 | Comp | ND < 4.27 | U |
| 2,4-Dichlorophenol | ug/L | -/- | Comp | ND < 3.32 | U |
| 2,4-dimethylphenol | ug/L | -/- | Comp | ND < 3.32 | U |
| 2,4-dinitrophenol | ug/L | -/- | Comp | ND < 7.58 | U |
| 2,4-Dinitrotoluene | ug/L | 18/9.1 | Comp | ND < 3.32 | U |
| 2,6-Dinitrotoluene | ug/L | -/- | Comp | ND < 1.90 | U |
| 2-Chloroethylvinylether | ug/L | -/- | Grab | ND < 1.8 | U |
| 2-Chloronaphthalene | ug/L | -/- | Comp | ND < 2.84 | U |
| 2-chlorophenol | ug/L | -/- | Comp | ND < 2.84 | U |
| 2-Methyl-4,6-dinitrophenol | ug/L | -/- | Comp | ND < 3.79 | U |
| 2-Methylnaphthalene | ug/L | -/- | Comp | ND < 1.90 | U |
| 2-Methylphenol | ug/L | -/- | Comp | ND < 2.84 | U |
| 2-nitrophenol | ug/L | -/- | Comp | ND < 3.32 | U |
| 3,3'-Dichlorobenzidine | ug/L | -/- | Comp | ND < 7.11 | U |
| 4,4'-DDD | ug/L | -/- | Comp | ND < 0.0038 | U |
| 4,4'-DDE | ug/L | -/- | Comp | ND < 0.0028 | U |
| 4,4'-DDT | ug/L | -/- | Comp | ND < 0.0038 | U |
| 4-Bromophenylphenylether | ug/L | -/- | Comp | ND < 2.84 | U |
| 4-Chloro-3-methylphenol | ug/L | -/- | Comp | ND < 2.37 | U |
| 4-Chloroaniline | ug/L | -/- | Comp | ND < 1.90 | U |
| 4-Chlorophenylphenylether | ug/L | -/- | Comp | ND < 2.37 | U |
| 4-nitrophenol | ug/L | -/- | Comp | ND < 5.21 | U |
| Acenaphthene | ug/L | -/- | Comp | ND < 2.84 | U |
| Acenaphthylene | ug/L | -/- | Comp | ND < 2.84 | U |
| Acrolein | ug/L | -/- | Grab | ND < 4.0 | U |
| Acrylonitrile | ug/L | -/- | Grab | ND < 1.2 | U |
| Acute Toxicity | % SURVIVAL | 70-100/- | Comp | 100 | * |
| Aldrin | ug/L | -/- | Comp | ND < 0.0014 | U |
| alpha-BHC | ug/L | 0.03/0.01 | Comp | ND < 0.0024 | U |
| Aniline | ug/L | -/- | Comp | ND < 3.32 | U |
| Anthracene | ug/L | -/- | Comp | ND < 2.37 | U |
| Aroclor 1016 | ug/L | -/- | Comp | ND < 0.24 | U |
| Aroclor 1221 | ug/L | -/- | Comp | ND < 0.24 | U |
| Aroclor 1232 | ug/L | -/- | Comp | ND < 0.24 | U |

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## OUTFALL 019 (Treatment System)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 03/14/2013-03/15/2013 | | |
|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Aroclor 1242 | ug/L | -/- | Comp | ND < 0.24 | U |
| Aroclor 1248 | ug/L | -/- | Comp | ND < 0.24 | U |
| Aroclor 1254 | ug/L | -/- | Comp | ND < 0.24 | U |
| Aroclor 1260 | ug/L | -/- | Comp | ND < 0.24 | U |
| Benzidine | ug/L | -/- | Comp | ND < 9.48 | UJ (*III) |
| Benzo(a)anthracene | ug/L | -/- | Comp | ND < 2.37 | U |
| Benzo(a)pyrene | ug/L | -/- | Comp | ND < 2.84 | U |
| Benzo(b)fluoranthene | ug/L | -/- | Comp | ND < 1.90 | U |
| Benzo(g,h,i)Perylene | ug/L | -/- | Comp | ND < 3.79 | U |
| Benzo(k)fluoranthene | ug/L | -/- | Comp | ND < 2.37 | U |
| Benzoic acid | ug/L | -/- | Comp | ND < 9.48 | U |
| Benzyl alcohol | ug/L | -/- | Comp | ND < 3.32 | U |
| beta-BHC | ug/L | -/- | Comp | ND < 0.0038 | U |
| bis (2-Chloroethyl) ether | ug/L | -/- | Comp | ND < 2.84 | U |
| bis (2-ethylhexyl) Phthalate | ug/L | 4.0/- | Comp | ND < 3.79 | U |
| Bis(2-Chloroethoxy) methane | ug/L | -/- | Comp | ND < 2.84 | U |
| Bis(2-Chloroisopropyl) Ether | ug/L | -/- | Comp | ND < 2.37 | U |
| 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 | -/- | Comp | ND < 3.79 | U |
| Chlordane | ug/L | -/- | Comp | ND < 0.075 | U |
| 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 | -/- | Comp | ND < 2.37 | U |
| 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 | -/- | Grab | ND < 0.40 | U |
| delta-BHC | ug/L | -/- | Comp | ND < 0.0033 | U |
| Dibenzo(a,h)anthracene | ug/L | -/- | Comp | ND < 2.84 | U |
| Dibenzofuran | ug/L | -/- | Comp | ND < 3.79 | U |
| Dibromochloromethane | ug/L | -/- | Grab | ND < 0.40 | U |
| Dieldrin | ug/L | -/- | Comp | ND < 0.0019 | U |
| Diethylphthalate | ug/L | -/- | Comp | ND < 3.32 | U |
| Dimethylphthalate | ug/L | -/- | Comp | ND < 2.37 | U |
| Di-n-butylphthalate | ug/L | -/- | Comp | ND < 2.84 | U |
| Di-n-octylphthalate | ug/L | -/- | Comp | ND < 3.32 | U |
| Endosulfan I | ug/L | -/- | Comp | ND < 0.0028 | U |
| Endosulfan II | ug/L | -/- | Comp | ND < 0.0019 | U |
| Endosulfan Sulfate | ug/L | -/- | Comp | ND < 0.0028 | U |
| Endrin | ug/L | -/- | Comp | ND < 0.0019 | U |
| Endrin Aldehyde | ug/L | -/- | Comp | ND < 0.0019 | U |
| Fluoranthene | ug/L | -/- | Comp | ND < 2.84 | U |

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## OUTFALL 019 (Treatment System)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 03/14/2013-03/15/2013 | | |
|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Fluorene | ug/L | -/- | Comp | ND < 2.84 | U |
| Heptachlor | ug/L | -/- | Comp | ND < 0.0028 | U |
| Heptachlor Epoxide | ug/L | -/- | Comp | ND < 0.0024 | U |
| Hexachlorobenzene | ug/L | -/- | Comp | ND < 2.84 | U |
| Hexachlorobutadiene | ug/L | -/- | Comp | ND < 3.79 | U |
| Hexachlorocyclopentadiene | ug/L | -/- | Comp | ND < 4.74 | UJ (C) |
| Hexachloroethane | ug/L | -/- | Comp | ND < 3.32 | U |
| Hydrazine | ug/L | -/- | Comp | ND < 0.510 | UJ (H) |
| Unsymmetrical Dimethyl Hydrazine | ug/L | -/- | Comp | ND < 2.05 | UJ (H) |
| Indeno(1,2,3-cd)pyrene | ug/L | -/- | Comp | ND < 3.32 | U |
| Isophorone | ug/L | -/- | Comp | ND < 2.84 | U |
| Lindane (gamma-BHC) | ug/L | -/- | Comp | ND < 0.0028 | U |
| Methylene chloride | ug/L | -/- | Grab | ND < 0.95 | U |
| m-Nitroaniline | ug/L | -/- | Comp | ND < 2.84 | U |
| Monomethyl Hydrazine | ug/L | -/- | Comp | ND < 3.41 | UJ (H) |
| Naphthalene | ug/L | -/- | Comp | ND < 2.84 | U |
| Nitrobenzene | ug/L | -/- | Comp | ND < 2.84 | U |
| n-Nitrosodimethylamine | ug/L | 16/8.1 | Comp | ND < 2.37 | U |
| n-Nitroso-di-n-propylamine | ug/L | -/- | Comp | ND < 3.32 | U |
| N-Nitrosodiphenylamine | ug/L | -/- | Comp | ND < 1.90 | U |
| o-Nitroaniline | ug/L | -/- | Comp | ND < 1.90 | U |
| p-Cresol | ug/L | -/- | Comp | ND < 2.84 | U |
| Pentachlorophenol | ug/L | 16.5/8.2 | Comp | ND < 3.32 | U |
| Phenanthrene | ug/L | -/- | Comp | ND < 3.32 | U |
| Phenol | ug/L | -/- | Comp | ND < 1.90 | U |
| p-Nitroaniline | ug/L | -/- | Comp | ND < 3.79 | U |
| Pyrene | ug/L | -/- | Comp | ND < 3.79 | U |
| Toxaphene | ug/L | -/- | Comp | ND < 0.24 | U |
| trans-1,2-Dichloroethene | ug/L | -/- | Grab | ND < 0.30 | U |
| trans-1,3-Dichloropropene | ug/L | -/- | Grab | ND < 0.32 | U |

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## Outfall 019 (Treatment System)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### Sample Type Grab
### Sample Date March 15, 2013

| 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-HpCDD | 7.40E-07 | 5.00E-05 | ND | U | | 0.01 | 0.05 | **ND** |
| 1,2,3,4,6,7,8-HpCDF | 5.40E-07 | 5.00E-05 | ND | U | | 0.01 | 0.01 | **ND** |
| 1,2,3,4,7,8,9-HpCDF | 8.00E-07 | 5.00E-05 | ND | U | | 0.01 | 0.4 | **ND** |
| 1,2,3,4,7,8-HxCDD | 2.00E-06 | 5.00E-05 | ND | U | | 0.1 | 0.3 | **ND** |
| 1,2,3,4,7,8-HxCDF | 3.20E-07 | 5.00E-05 | ND | U | | 0.1 | 0.08 | **ND** |
| 1,2,3,6,7,8-HxCDD | 5.60E-07 | 5.00E-05 | ND | U | | 0.1 | 0.1 | **ND** |
| 1,2,3,6,7,8-HxCDF | 2.80E-07 | 5.00E-05 | ND | U | | 0.1 | 0.2 | **ND** |
| 1,2,3,7,8,9-HxCDD | 5.40E-07 | 5.00E-05 | ND | U | | 0.1 | 0.1 | **ND** |
| 1,2,3,7,8,9-HxCDF | 4.00E-07 | 5.00E-05 | ND | U | | 0.1 | 0.6 | **ND** |
| 1,2,3,7,8-PeCDD | 7.80E-07 | 5.00E-05 | ND | U | | 1 | 0.9 | **ND** |
| 1,2,3,7,8-PeCDF | 7.30E-07 | 5.00E-05 | ND | U | | 0.05 | 0.2 | **ND** |
| 2,3,4,6,7,8-HxCDF | 2.80E-07 | 5.00E-05 | ND | U | | 0.1 | 0.7 | **ND** |
| 2,3,4,7,8-PeCDF | 7.80E-07 | 5.00E-05 | ND | U | | 0.5 | 1.6 | **ND** |
| 2,3,7,8-TCDD | 4.80E-07 | 1.00E-05 | ND | U | | 1 | 1 | **ND** |
| 2,3,7,8-TCDF | 3.40E-07 | 1.00E-05 | ND | U | | 0.1 | 0.8 | **ND** |
| OCDD | 9.70E-07 | 1.00E-04 | ND | U (B) | | 0.0001 | 0.01 | **ND** |
| OCDF | 9.90E-07 | 1.00E-04 | ND | U | | 0.0001 | 0.02 | **ND** |

| | |
|---|---|
| **TCDD TEQ w/out DNQ Values** | **ND** |

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

# OUTFALL 019

## FIRST QUARTER 2013 REPORTING SUMMARY
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 03/14/2013-03/15/2013 | | |
|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **Sample Type** | **Result** | **Concentration Result Validation Qualifier** |
| Max Discharge for event | MGD | 160 | Meas | 0.023872 | |
| | | | | | |
| Ammonia as Nitrogen (N) | LBS/DAY | 13,500/2615 | Comp | 0.06 | J (DNQ) |
| Biochemical Oxygen Demand (BOD 5 day) | LBS/DAY | 40,032/26,700 | Comp | ND | U |
| Chloride | LBS/DAY | 200,160/- | Comp | 23.89 | -- |
| Surfactants (MBAS) | LBS/DAY | 667/- | Comp | 0.02 | -- |
| Fluoride | LBS/DAY | 2,135/- | Comp | 0.06 | -- |
| Nitrate + Nitrite as Nitrogen (N) | LBS/DAY | 10,700/- | Comp | ND | U |
| Nitrate as Nitrogen (N) | LBS/DAY | 10,700/- | Comp | ND | U |
| Nitrite as Nitrogen (N) | LBS/DAY | 1,334/- | 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 | 49.77 | -- |
| Total Cyanide | LBS/DAY | 11/5.7 | Comp | ND | U |
| Total Dissolved Solids | LBS/DAY | 1,270,000/- | Comp | 177.19 | -- |
| Total Residual Chlorine (Field) | LBS/DAY | 133/- | Grab | 0.0 | * |
| Total Suspended Solids | LBS/DAY | 60,048/20,016 | Comp | ND | U |
| Antimony | LBS/DAY | 8.0/- | Comp | ND | U |
| Arsenic | LBS/DAY | 67/- | Comp | ND | U |
| Barium | LBS/DAY | 1,330/- | Comp | ND | U |
| Beryllium | LBS/DAY | 5.3/- | Comp | ND | U |
| Cadmium | LBS/DAY | 4.1/2.7 | Comp | 0.00002 | J (DNQ) |
| Chromium VI | LBS/DAY | 22/11 | Comp | 0.0002 | -- |
| Copper | LBS/DAY | 19/9.5 | Comp | ND | U (B) |
| Iron | LBS/DAY | 400/- | Comp | 0.01 | -- |
| Lead | LBS/DAY | 6.9/3.5 | Comp | 0.0001 | J (DNQ) |
| Manganese | LBS/DAY | 66.7/- | Comp | 0.005 | -- |
| Mercury | LBS/DAY | 0.13/0.07 | Comp | ND | U |
| Nickel | LBS/DAY | 128/47 | Comp | ND | U |
| Selenium | LBS/DAY | 11/5.5 | Comp | ND | U |
| Silver | LBS/DAY | 5.5/2.7 | Comp | ND | U |
| Thallium | LBS/DAY | 2.7/- | Comp | ND | U |
| Zinc | LBS/DAY | 159/72 | Comp | 0.003 | J (DNQ) |
| 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 |

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## OUTFALL 019

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### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 03/14/2013-03/15/2013 | | |
|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **Sample Type** | **Result** | **Concentration Result Validation Qualifier** |
| Pentachlorophenol | LBS/DAY | 22/10.9 | Comp | ND | U |
| TCDD TEQ_NoDNQ | LBS/DAY | 3.70E-08/1.9E-08 | Comp | ND | -- |

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

## ARROYO SIMI (Frontier Park Receiving Water)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 3/8/2013 | | | 3/13/2013 | | |
|---|---|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| | | | | | | | | |
| Chlorpyrifos | ug/L | 0.02/- | Grab | ND < 0.077 | U | ANR | ANR | ANR |
| E. Coli | MPN/100 ml | 235/- | Grab | >=1600 | -- | Grab | 37 | * |
| Fecal Coliform | MPN/100 ml | 400/- | Grab | >=1600 | -- | Grab | 80 | * |
| pH (Field) | pH Units | 6.5-8.5/- | Grab | 7.31 | * | ANR | ANR | ANR |
| Temperature | F | -/- | Grab | 60 | * | ANR | ANR | ANR |
| Total Cyanide | ug/L | -/- | Grab | ND < 3.0 | U | ANR | ANR | ANR |
| Hardness | mg/L | -/- | Grab | 210 | R (D) | ANR | ANR | ANR |
| Hardness | mg/L | -/- | Grab | 210 | -- | ANR | ANR | ANR |
| Hardness, dissolved | mg/L | -/- | Grab | 180 | -- | ANR | ANR | ANR |
| Total Suspended Solids | mg/L | -/- | Grab | 310 | -- | ANR | ANR | ANR |
| Water Velocity | ft/sec | -/- | Meas | 0.3 | * | ANR | ANR | ANR |
| **METALS** | | | | | | | | |
| Aluminum | ug/L | -/- | Grab | 6000 | -- | ANR | ANR | ANR |
| Aluminum, dissolved | ug/L | -/- | Grab | ND < 40 | U | ANR | ANR | ANR |
| Antimony | ug/L | -/- | Grab | 0.87 | J (DNQ) | ANR | ANR | ANR |
| Antimony, dissolved | ug/L | -/- | Grab | 0.52 | J (DNQ) | ANR | ANR | ANR |
| Arsenic | ug/L | -/- | Grab | ND < 7.0 | U | ANR | ANR | ANR |
| Arsenic, dissolved | ug/L | -/- | Grab | ND < 7.0 | U | ANR | ANR | ANR |
| Beryllium | ug/L | -/- | Grab | ND < 0.90 | U | ANR | ANR | ANR |
| Beryllium, dissolved | ug/L | -/- | Grab | ND < 0.90 | U | ANR | ANR | ANR |
| Boron | mg/L | -/- | Grab | 0.20 | -- | ANR | ANR | ANR |
| Boron, dissolved | mg/L | -/- | Grab | 0.22 | -- | ANR | ANR | ANR |
| Cadmium | ug/L | -/- | Grab | 0.68 | J (Q, DNQ) | ANR | ANR | ANR |
| Cadmium, dissolved | ug/L | -/- | Grab | 0.11 | J (DNQ) | ANR | ANR | ANR |
| Calcium | mg/L | -/- | Grab | 58 | -- | ANR | ANR | ANR |
| Calcium, Dissolved | mg/L | -/- | Grab | 51 | -- | ANR | ANR | ANR |
| Chromium | ug/L | -/- | Grab | 14 | -- | ANR | ANR | ANR |
| Chromium, dissolved | ug/L | -/- | Grab | ND < 2.0 | U | ANR | ANR | ANR |
| Chromium VI | ug/L | -/- | Grab | 0.39 | J (H, DNQ) | ANR | ANR | ANR |
| Copper | ug/L | -/- | Grab | 15 | -- | ANR | ANR | ANR |
| Copper, dissolved | ug/L | -/- | Grab | 4.3 | -- | ANR | ANR | ANR |
| Iron | mg/L | -/- | Grab | 9.3 | -- | ANR | ANR | ANR |
| Iron, dissolved | mg/L | -/- | Grab | 0.033 | J (DNQ) | ANR | ANR | ANR |
| Lead | ug/L | -/- | Grab | 4.9 | J (Q) | ANR | ANR | ANR |
| Lead, dissolved | ug/L | -/- | Grab | ND < 0.20 | U | ANR | ANR | ANR |
| Magnesium | mg/L | -/- | Grab | 17 | -- | ANR | ANR | ANR |
| Magnesium, Dissolved | mg/L | -/- | Grab | 13 | -- | ANR | ANR | ANR |
| Mercury | mg/L | -/- | Grab | ND < 0.10 | U | ANR | ANR | ANR |
| Mercury, dissolved | ug/L | -/- | Grab | ND < 0.10 | U | ANR | ANR | ANR |
| Nickel | ug/L | -/- | Grab | 14 | -- | ANR | ANR | ANR |
| Nickel, dissolved | ug/L | -/- | Grab | 2.7 | J (DNQ) | ANR | ANR | ANR |
| Selenium | ug/L | -/- | Grab | 3.2 | J (DNQ) | ANR | ANR | ANR |
| Selenium, dissolved | ug/L | -/- | Grab | 2.1 | -- | ANR | ANR | ANR |
| Silver | ug/L | -/- | Grab | ND < 6.0 | U | ANR | ANR | ANR |
| Silver, dissolved | ug/L | -/- | Grab | ND < 6.0 | U | ANR | ANR | ANR |
| Thallium | ug/L | -/- | Grab | ND < 0.40 | U | ANR | ANR | ANR |
| Thallium, dissolved | ug/L | -/- | Grab | ND < 0.20 | U | ANR | ANR | ANR |
| Vanadium | ug/L | -/- | Grab | 28 | -- | ANR | ANR | ANR |
| Vanadium, dissolved | ug/L | -/- | Grab | ND < 3.0 | U | ANR | ANR | ANR |
| Zinc | ug/L | -/- | Grab | 52 | -- | ANR | ANR | ANR |
| Zinc, Dissolved | ug/L | -/- | Grab | ND < 9.0 | U | ANR | ANR | ANR |
| **ORGANICS** | | | | | | | | |
| Benzene | ug/L | -/- | Grab | ND < 0.28 | U | ANR | ANR | ANR |

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

## ARROYO SIMI (Frontier Park Receiving Water)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 3/8/2013 | | | 3/13/2013 | | |
|---|---|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Carbon Tetrachloride | ug/L | -/- | Grab | ND < 0.28 | U | ANR | ANR | ANR |
| Chloroform | ug/L | -/- | Grab | ND < 0.33 | U | ANR | ANR | ANR |
| 1,1-Dichloroethane | ug/L | -/- | Grab | ND < 0.40 | U | ANR | ANR | ANR |
| 1,2-Dichloroethane | ug/L | -/- | Grab | ND < 0.28 | U | ANR | ANR | ANR |
| 1,1-Dichloroethene | ug/L | -/- | Grab | ND < 0.42 | U | ANR | ANR | ANR |
| Ethylbenzene | ug/L | -/- | Grab | ND < 0.25 | U | ANR | ANR | ANR |
| Tetrachloroethene | ug/L | -/- | Grab | ND < 0.32 | U | ANR | ANR | ANR |
| Toluene | ug/L | -/- | Grab | ND < 0.36 | U | ANR | ANR | ANR |
| Xylenes (Total) | ug/L | -/- | Grab | ND < 0.90 | U | ANR | ANR | ANR |
| 1,1,1-Trichloroethane | ug/L | -/- | Grab | ND < 0.30 | U | ANR | ANR | ANR |
| 1,1,2-Trichloroethane | ug/L | -/- | Grab | ND < 0.30 | U | ANR | ANR | ANR |
| Trichloroethene | ug/L | -/- | Grab | ND < 0.26 | U | ANR | ANR | ANR |
| Trichlorofluoromethane | ug/L | -/- | Grab | ND < 0.34 | U | ANR | ANR | ANR |
| Vinyl chloride | ug/L | -/- | Grab | ND < 0.40 | U | ANR | ANR | ANR |
| **ADDITIONAL ANALYTES** | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ug/L | -/- | Grab | ND < 0.30 | U | ANR | ANR | ANR |
| 1,2,4-Trichlorobenzene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| 1,2,3-Trichloropropane | ug/L | -/- | Grab | ND < 0.40 | U | ANR | ANR | ANR |
| 1,2-Dibromoethane (EDB) | ug/L | -/- | Grab | ND < 0.40 | U | ANR | ANR | ANR |
| 1,2-Dichlorobenzene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| 1,2-Dichlorobenzene | ug/L | -/- | Grab | ND < 0.32 | U | ANR | ANR | ANR |
| 1,2-Dichloropropane | ug/L | -/- | Grab | ND < 0.35 | U | ANR | ANR | ANR |
| 1,2-Diphenylhydrazine/Azobenzene | ug/L | -/- | Grab | ND < 0.190 | UJ (C) | ANR | ANR | ANR |
| 1,3-Dichlorobenzene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| 1,3-Dichlorobenzene | ug/L | -/- | Grab | ND < 0.35 | U | ANR | ANR | ANR |
| 1,4-Dichlorobenzene | ug/L | -/- | Grab | ND < 0.37 | U | ANR | ANR | ANR |
| 1,4-Dichlorobenzene | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| 2,4,6-Trichlorophenol | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| 2,4-Dichlorophenol | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| 2,4-Dimethylphenol | ug/L | -/- | Grab | ND < 0.284 | U | ANR | ANR | ANR |
| 2,4-Dinitrophenol | ug/L | -/- | Grab | ND < 0.853 | U | ANR | ANR | ANR |
| 2,4-Dinitrotoluene | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| 2,6-Dinitrotoluene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| 2-Butanol | ug/L | -/- | Grab | ND < 6.5 | U | ANR | ANR | ANR |
| 2-Chloroethylvinylether | ug/L | -/- | Grab | ND < 1.8 | U | ANR | ANR | ANR |
| 2-Chloronaphthalene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| 2-Chlorophenol | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| 2-Methyl-4,6-dinitrophenol | ug/L | -/- | Grab | ND < 0.284 | UJ (C) | ANR | ANR | ANR |
| 2-Methylnaphthalene | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| 2-Methylphenol | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| 2-Nitrophenol | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| 3,3'-Dichlorobenzidine | ug/L | -/- | Grab | ND < 0.474 | U | ANR | ANR | ANR |
| 4,4'-DDD | ug/L | 0.0014/- | Grab | ND < 0.0038 | UJ (C) | ANR | ANR | ANR |
| 4,4'-DDE | ug/L | 0.001/- | Grab | ND < 0.0028 | U | ANR | ANR | ANR |
| 4,4'-DDT | ug/L | 0.001/- | Grab | ND < 0.0038 | U | ANR | ANR | ANR |
| 4-Bromophenylphenylether | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| 4-Chloro-3-methylphenol | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| 4-Chloroaniline | ug/L | -/- | Grab | ND < 0.284 | U | ANR | ANR | ANR |
| 4-Chlorophenylphenylether | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| 4-Nitrophenol | ug/L | -/- | Grab | ND < 2.37 | U | ANR | ANR | ANR |
| Acenaphthene | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| Acenaphthylene | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| Acrolein | ug/L | -/- | Grab | ND < 4.0 | U | ANR | ANR | ANR |
| Acrylonitrile | ug/L | -/- | Grab | ND < 1.2 | U | ANR | ANR | ANR |
| Aldrin | ug/L | -/- | Grab | ND < 0.0014 | U | ANR | ANR | ANR |
| alpha-BHC | ug/L | -/- | Grab | ND < 0.0024 | U | ANR | ANR | ANR |

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## ARROYO SIMI (Frontier Park Receiving Water)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 3/8/2013 | | | 3/13/2013 | | |
|---|---|---|---|---|---|---|---|---|
| ANALYTE | UNITS | Permit Limit Daily Max/Monthly | SAMPLE TYPE | RESULT | VALIDATION QUALIFIER | SAMPLE TYPE | RESULT | VALIDATION QUALIFIER |
| Aniline | ug/L | -/- | Grab | ND < 0.284 | U | ANR | ANR | ANR |
| Anthracene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Aroclor 1016 | ug/L | 0.0003/- | Grab | ND < 0.24 | U | ANR | ANR | ANR |
| Aroclor 1221 | ug/L | 0.0003/- | Grab | ND < 0.24 | U | ANR | ANR | ANR |
| Aroclor 1232 | ug/L | 0.0003/- | Grab | ND < 0.24 | U | ANR | ANR | ANR |
| Aroclor 1242 | ug/L | 0.0003/- | Grab | ND < 0.24 | U | ANR | ANR | ANR |
| Aroclor 1248 | ug/L | 0.0003/- | Grab | ND < 0.24 | U | ANR | ANR | ANR |
| Aroclor 1254 | ug/L | 0.0003/- | Grab | ND < 0.24 | U | ANR | ANR | ANR |
| Aroclor 1260 | ug/L | 0.0003/- | Grab | ND < 0.24 | U | ANR | ANR | ANR |
| Benzidine | ug/L | -/- | Grab | ND < 0.948 | UJ (C) | ANR | ANR | ANR |
| Benzo(a)anthracene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Benzo(a)pyrene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Benzo(b)fluoranthene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Benzo(g,h,I)perylene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Benzo(k)fluoranthene | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| Benzoic acid | ug/L | -/- | Grab | ND < 2.84 | U | ANR | ANR | ANR |
| Benzyl alcohol | ug/L | -/- | Grab | 1.00 | J (DNQ) | ANR | ANR | ANR |
| beta-BHC | ug/L | -/- | Grab | ND < 0.0038 | U | ANR | ANR | ANR |
| bis (2-Chloroethyl) ether | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| bis (2-ethylhexyl) Phthalate | ug/L | -/- | Grab | ND < 1.61 | U | ANR | ANR | ANR |
| bis(2-Chloroethoxy) methane | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| bis(2-Chloroisopropyl) ether | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Bromodichloromethane | ug/L | -/- | Grab | ND < 0.30 | U | ANR | ANR | ANR |
| Bromoform | ug/L | -/- | Grab | ND < 0.40 | U | ANR | ANR | ANR |
| Bromomethane | ug/L | -/- | Grab | ND < 0.42 | U | ANR | ANR | ANR |
| Butylbenzylphthalate | ug/L | -/- | Grab | ND < 0.664 | U | ANR | ANR | ANR |
| Chlordane | ug/L | 0.001/- | Grab | ND < 0.075 | U | ANR | ANR | ANR |
| Chlorobenzene | ug/L | -/- | Grab | ND < 0.36 | U | ANR | ANR | ANR |
| Chloroethane | ug/L | -/- | Grab | ND < 0.40 | U | ANR | ANR | ANR |
| Chloromethane | ug/L | -/- | Grab | ND < 0.40 | U | ANR | ANR | ANR |
| Chrysene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| cis-1,2-Dichloroethene | ug/L | -/- | Grab | ND < 0.32 | U | ANR | ANR | ANR |
| cis-1,3-Dichloropropene | ug/L | -/- | Grab | ND < 0.22 | U | ANR | ANR | ANR |
| delta-BHC | ug/L | -/- | Grab | ND < 0.0033 | U | ANR | ANR | ANR |
| Diazinon | ug/L | 0.16/- | Grab | ND < 0.096 | U | ANR | ANR | ANR |
| Dibenzo(a,h)anthracene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Dibenzofuran | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Dibromochloromethane | ug/L | -/- | Grab | ND < 0.40 | U | ANR | ANR | ANR |
| Dieldrin | ug/L | 0.0002/- | Grab | ND < 0.0019 | U | ANR | ANR | ANR |
| Diethylphthalate | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Diisopropyl ether | ug/L | -/- | Grab | ND < 0.25 | U | ANR | ANR | ANR |
| Dimethylphthalate | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| Di-n-butylphthalate | ug/L | -/- | Grab | ND < 0.284 | U | ANR | ANR | ANR |
| Di-n-octylphthalate | ug/L | -/- | Grab | ND < 0.190 | J (DNQ) | ANR | ANR | ANR |
| Endosulfan I | ug/L | -/- | Grab | ND < 0.0028 | U | ANR | ANR | ANR |
| Endosulfan II | ug/L | -/- | Grab | ND < 0.0019 | U | ANR | ANR | ANR |
| Endosulfan sulfate | ug/L | -/- | Grab | ND < 0.0028 | UJ (C) | ANR | ANR | ANR |
| Endrin | ug/L | -/- | Grab | ND < 0.0019 | UJ (C) | ANR | ANR | ANR |
| Endrin aldehyde | ug/L | -/- | Grab | ND < 0.0019 | U | ANR | ANR | ANR |
| Ethyl tert-Butyl Ether (ETBE) | ug/L | -/- | Grab | ND < 0.28 | U | ANR | ANR | ANR |
| Fluoranthene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Fluorene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Heptachlor | ug/L | -/- | Grab | ND < 0.0028 | U | ANR | ANR | ANR |
| Heptachlor epoxide | ug/L | -/- | Grab | ND < 0.0024 | U | ANR | ANR | ANR |
| Hexachlorobenzene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Hexachlorobutadiene | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |

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## ARROYO SIMI (Frontier Park Receiving Water)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 3/8/2013 | | | 3/13/2013 | | |
|---|---|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Hexachlorocyclopentadiene | ug/L | -/- | Grab | ND < 0.0948 | UJ (C) | ANR | ANR | ANR |
| Hexachloroethane | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| Indeno(1,2,3-cd)pyrene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Isophorone | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Lindane (gamma-BHC) | ug/L | -/- | Grab | ND < 0.0028 | U | ANR | ANR | ANR |
| Methylene Chloride | ug/L | -/- | Grab | ND < 0.95 | U | ANR | ANR | ANR |
| Methyl-tert-butyl ether | ug/L | -/- | Grab | ND < 0.32 | U | ANR | ANR | ANR |
| m-Nitroaniline | ug/L | -/- | Grab | ND < 0.948 | U | ANR | ANR | ANR |
| Naphthalene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Naphthalene | ug/L | -/- | Grab | ND < 0.41 | U | ANR | ANR | ANR |
| Nitrobenzene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| n-Nitrosodimethylamine | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| n-Nitroso-di-n-propylamine | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| n-Nitrosodiphenylamine | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| o-Nitroaniline | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| p-Cresol | ug/L | -/- | Grab | ND < 0.190 | U | ANR | ANR | ANR |
| Pentachlorophenol | ug/L | -/- | Grab | ND < 0.379 | U | ANR | ANR | ANR |
| Phenanthrene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| Phenol | ug/L | -/- | Grab | ND < 0.284 | U | ANR | ANR | ANR |
| p-Nitroaniline | ug/L | -/- | Grab | ND < 0.474 | U | ANR | ANR | ANR |
| Pyrene | ug/L | -/- | Grab | ND < 0.0948 | U | ANR | ANR | ANR |
| tert-Amyl Methyl Ether (TAME) | ug/L | -/- | Grab | ND < 0.33 | U | ANR | ANR | ANR |
| Toxaphene | ug/L | 0.0003/- | Grab | ND < 0.24 | U | ANR | ANR | ANR |
| trans-1,2-Dichloroethene | ug/L | -/- | Grab | ND < 0.30 | U | ANR | ANR | ANR |
| trans-1,3-Dichloropropene | ug/L | -/- | Grab | ND < 0.32 | U | ANR | ANR | ANR |

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## ARROYO SIMI (Frontier Park Receiving Water)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | | 3/18/2013 | | | 3/22/2013 | | |
|---|---|---|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly** | **SAMPLE TYPE** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| | | | | | | | | | |
| Chlorpyrifos | ug/L | 0.02/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| E. Coli | MPN/100 ml | 235/- | Grab | Grab | 130 | * | Grab | 30 | * |
| Fecal Coliform | MPN/100 ml | 400/- | Grab | Grab | 130 | * | Grab | 30 | * |
| pH (Field) | pH Units | 6.5-8.5/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Temperature | F | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Total Cyanide | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Hardness | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Hardness | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Hardness, dissolved | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Total Suspended Solids | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Water Velocity | ft/sec | -/- | Meas | ANR | ANR | ANR | ANR | ANR | ANR |
| **METALS** | | | | | | | | | |
| Aluminum | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Aluminum, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Antimony | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Antimony, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Arsenic | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Arsenic, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Beryllium | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Beryllium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Boron | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Boron, dissolved | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Cadmium | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Cadmium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Calcium | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Calcium, Dissolved | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Chromium | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Chromium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Chromium VI | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Copper | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Copper, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Iron | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Iron, dissolved | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Lead | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Lead, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Magnesium | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Magnesium, Dissolved | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Mercury | mg/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Mercury, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Nickel | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Nickel, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Selenium | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Selenium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Silver | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Silver, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Thallium | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Thallium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Vanadium | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Vanadium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Zinc | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Zinc, Dissolved | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| **ORGANICS** | | | | | | | | | |
| Benzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |

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## ARROYO SIMI (Frontier Park Receiving Water)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | | 3/18/2013 | | | 3/22/2013 | | |
|---|---|---|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly** | **SAMPLE TYPE** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Carbon Tetrachloride | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Chloroform | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,1-Dichloroethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,2-Dichloroethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,1-Dichloroethene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Ethylbenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Tetrachloroethene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Toluene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Xylenes (Total) | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,1,1-Trichloroethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,1,2-Trichloroethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Trichloroethene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Trichlorofluoromethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Vinyl chloride | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| **ADDITIONAL ANALYTES** | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,2,4-Trichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,2,3-Trichloropropane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,2-Dibromoethane (EDB) | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,2-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,2-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,2-Dichloropropane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,2-Diphenylhydrazine/Azobenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,3-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,3-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,4-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 1,4-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2,4,6-Trichlorophenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2,4-Dichlorophenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2,4-Dimethylphenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2,4-Dinitrophenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2,4-Dinitrotoluene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2,6-Dinitrotoluene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2-Butanol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2-Chloroethylvinylether | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2-Chloronaphthalene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2-Chlorophenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2-Methyl-4,6-dinitrophenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2-Methylnaphthalene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2-Methylphenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 2-Nitrophenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 3,3'-Dichlorobenzidine | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 4,4'-DDD | ug/L | 0.0014/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 4,4'-DDE | ug/L | 0.001/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 4,4'-DDT | ug/L | 0.001/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 4-Bromophenylphenylether | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 4-Chloro-3-methylphenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 4-Chloroaniline | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 4-Chlorophenylphenylether | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| 4-Nitrophenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Acenaphthene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Acenaphthylene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Acrolein | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Acrylonitrile | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Aldrin | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| alpha-BHC | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |

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

## ARROYO SIMI (Frontier Park Receiving Water)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | | 3/18/2013 | | | 3/22/2013 | | |
|---|---|---|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly** | **SAMPLE TYPE** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Aniline | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Anthracene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Aroclor 1016 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Aroclor 1221 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Aroclor 1232 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Aroclor 1242 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Aroclor 1248 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Aroclor 1254 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Aroclor 1260 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Benzidine | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Benzo(a)anthracene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Benzo(a)pyrene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Benzo(b)fluoranthene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Benzo(g,h,I)perylene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Benzo(k)fluoranthene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Benzoic acid | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Benzyl alcohol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| beta-BHC | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| bis (2-Chloroethyl) ether | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| bis (2-ethylhexyl) Phthalate | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| bis(2-Chloroethoxy) methane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| bis(2-Chloroisopropyl) ether | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Bromodichloromethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Bromoform | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Bromomethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Butylbenzylphthalate | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Chlordane | ug/L | 0.001/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Chlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Chloroethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Chloromethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Chrysene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| cis-1,2-Dichloroethene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| cis-1,3-Dichloropropene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| delta-BHC | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Diazinon | ug/L | 0.16/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Dibenzo(a,h)anthracene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Dibenzofuran | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Dibromochloromethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Dieldrin | ug/L | 0.0002/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Diethylphthalate | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Diisopropyl ether | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Dimethylphthalate | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Di-n-butylphthalate | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Di-n-octylphthalate | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Endosulfan I | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Endosulfan II | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Endosulfan sulfate | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Endrin | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Endrin aldehyde | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Ethyl tert-Butyl Ether (ETBE) | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Fluoranthene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Fluorene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Heptachlor | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Heptachlor epoxide | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Hexachlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Hexachlorobutadiene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |

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

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### January 1 through March 31, 2013

| | | | | 3/18/2013 | | | 3/22/2013 | | |
|---|---|---|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly** | **SAMPLE TYPE** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Hexachlorocyclopentadiene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Hexachloroethane | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Indeno(1,2,3-cd)pyrene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Isophorone | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Lindane (gamma-BHC) | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Methylene Chloride | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Methyl-tert-butyl ether | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| m-Nitroaniline | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Naphthalene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Naphthalene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Nitrobenzene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| n-Nitrosodimethylamine | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| n-Nitroso-di-n-propylamine | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| n-Nitrosodiphenylamine | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| o-Nitroaniline | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| p-Cresol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Pentachlorophenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Phenanthrene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Phenol | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| p-Nitroaniline | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Pyrene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| tert-Amyl Methyl Ether (TAME) | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| Toxaphene | ug/L | 0.0003/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| trans-1,2-Dichloroethene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |
| trans-1,3-Dichloropropene | ug/L | -/- | Grab | ANR | ANR | ANR | ANR | ANR | ANR |

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

## ARROYO SIMI (Frontier Park Receiving Water)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
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### January 1 through March 31, 2013

| | | | | 3/27/2013 | | |
|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly** | **SAMPLE TYPE** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| | | | | | | |
| Chlorpyrifos | ug/L | 0.02/- | Grab | ANR | ANR | ANR |
| E. Coli | MPN/100 ml | 235/- | Grab | Grab | 130 | * |
| Fecal Coliform | MPN/100 ml | 400/- | Grab | Grab | 130 | * |
| pH (Field) | pH Units | 6.5-8.5/- | Grab | ANR | ANR | ANR |
| Temperature | F | -/- | Grab | ANR | ANR | ANR |
| Total Cyanide | ug/L | -/- | Grab | ANR | ANR | ANR |
| Hardness | mg/L | -/- | Grab | ANR | ANR | ANR |
| Hardness | mg/L | -/- | Grab | ANR | ANR | ANR |
| Hardness, dissolved | mg/L | -/- | Grab | ANR | ANR | ANR |
| Total Suspended Solids | mg/L | -/- | Grab | ANR | ANR | ANR |
| Water Velocity | ft/sec | -/- | Meas | ANR | ANR | ANR |
| **METALS** | | | | | | |
| Aluminum | ug/L | -/- | Grab | ANR | ANR | ANR |
| Aluminum, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Antimony | ug/L | -/- | Grab | ANR | ANR | ANR |
| Antimony, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Arsenic | ug/L | -/- | Grab | ANR | ANR | ANR |
| Arsenic, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Beryllium | ug/L | -/- | Grab | ANR | ANR | ANR |
| Beryllium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Boron | mg/L | -/- | Grab | ANR | ANR | ANR |
| Boron, dissolved | mg/L | -/- | Grab | ANR | ANR | ANR |
| Cadmium | ug/L | -/- | Grab | ANR | ANR | ANR |
| Cadmium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Calcium | mg/L | -/- | Grab | ANR | ANR | ANR |
| Calcium, Dissolved | mg/L | -/- | Grab | ANR | ANR | ANR |
| Chromium | ug/L | -/- | Grab | ANR | ANR | ANR |
| Chromium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Chromium VI | ug/L | -/- | Grab | ANR | ANR | ANR |
| Copper | ug/L | -/- | Grab | ANR | ANR | ANR |
| Copper, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Iron | mg/L | -/- | Grab | ANR | ANR | ANR |
| Iron, dissolved | mg/L | -/- | Grab | ANR | ANR | ANR |
| Lead | ug/L | -/- | Grab | ANR | ANR | ANR |
| Lead, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Magnesium | mg/L | -/- | Grab | ANR | ANR | ANR |
| Magnesium, Dissolved | mg/L | -/- | Grab | ANR | ANR | ANR |
| Mercury | mg/L | -/- | Grab | ANR | ANR | ANR |
| Mercury, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Nickel | ug/L | -/- | Grab | ANR | ANR | ANR |
| Nickel, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Selenium | ug/L | -/- | Grab | ANR | ANR | ANR |
| Selenium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Silver | ug/L | -/- | Grab | ANR | ANR | ANR |
| Silver, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Thallium | ug/L | -/- | Grab | ANR | ANR | ANR |
| Thallium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Vanadium | ug/L | -/- | Grab | ANR | ANR | ANR |
| Vanadium, dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| Zinc | ug/L | -/- | Grab | ANR | ANR | ANR |
| Zinc, Dissolved | ug/L | -/- | Grab | ANR | ANR | ANR |
| **ORGANICS** | | | | | | |
| Benzene | ug/L | -/- | Grab | ANR | ANR | ANR |

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

## ARROYO SIMI (Frontier Park Receiving Water)

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### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | | 3/27/2013 | | |
|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly** | **SAMPLE TYPE** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Carbon Tetrachloride | ug/L | -/- | Grab | ANR | ANR | ANR |
| Chloroform | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,1-Dichloroethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,2-Dichloroethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,1-Dichloroethene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Ethylbenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Tetrachloroethene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Toluene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Xylenes (Total) | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,1,1-Trichloroethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,1,2-Trichloroethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| Trichloroethene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Trichlorofluoromethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| Vinyl chloride | ug/L | -/- | Grab | ANR | ANR | ANR |
| **ADDITIONAL ANALYTES** | | | | | | |
| 1,1,2,2-Tetrachloroethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,2,4-Trichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,2,3-Trichloropropane | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,2-Dibromoethane (EDB) | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,2-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,2-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,2-Dichloropropane | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,2-Diphenylhydrazine/Azobenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,3-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,3-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,4-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 1,4-Dichlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2,4,6-Trichlorophenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2,4-Dichlorophenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2,4-Dimethylphenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2,4-Dinitrophenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2,4-Dinitrotoluene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2,6-Dinitrotoluene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2-Butanol | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2-Chloroethylvinylether | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2-Chloronaphthalene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2-Chlorophenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2-Methyl-4,6-dinitrophenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2-Methylnaphthalene | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2-Methylphenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| 2-Nitrophenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| 3,3'-Dichlorobenzidine | ug/L | -/- | Grab | ANR | ANR | ANR |
| 4,4'-DDD | ug/L | 0.0014/- | Grab | ANR | ANR | ANR |
| 4,4'-DDE | ug/L | 0.001/- | Grab | ANR | ANR | ANR |
| 4,4'-DDT | ug/L | 0.001/- | Grab | ANR | ANR | ANR |
| 4-Bromophenylphenylether | ug/L | -/- | Grab | ANR | ANR | ANR |
| 4-Chloro-3-methylphenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| 4-Chloroaniline | ug/L | -/- | Grab | ANR | ANR | ANR |
| 4-Chlorophenylphenylether | ug/L | -/- | Grab | ANR | ANR | ANR |
| 4-Nitrophenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| Acenaphthene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Acenaphthylene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Acrolein | ug/L | -/- | Grab | ANR | ANR | ANR |
| Acrylonitrile | ug/L | -/- | Grab | ANR | ANR | ANR |
| Aldrin | ug/L | -/- | Grab | ANR | ANR | ANR |
| alpha-BHC | ug/L | -/- | Grab | ANR | ANR | ANR |

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

## ARROYO SIMI (Frontier Park Receiving Water)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | | 3/27/2013 | | |
|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly** | **SAMPLE TYPE** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Aniline | ug/L | -/- | Grab | ANR | ANR | ANR |
| Anthracene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Aroclor 1016 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR |
| Aroclor 1221 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR |
| Aroclor 1232 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR |
| Aroclor 1242 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR |
| Aroclor 1248 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR |
| Aroclor 1254 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR |
| Aroclor 1260 | ug/L | 0.0003/- | Grab | ANR | ANR | ANR |
| Benzidine | ug/L | -/- | Grab | ANR | ANR | ANR |
| Benzo(a)anthracene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Benzo(a)pyrene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Benzo(b)fluoranthene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Benzo(g,h,I)perylene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Benzo(k)fluoranthene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Benzoic acid | ug/L | -/- | Grab | ANR | ANR | ANR |
| Benzyl alcohol | ug/L | -/- | Grab | ANR | ANR | ANR |
| beta-BHC | ug/L | -/- | Grab | ANR | ANR | ANR |
| bis (2-Chloroethyl) ether | ug/L | -/- | Grab | ANR | ANR | ANR |
| bis (2-ethylhexyl) Phthalate | ug/L | -/- | Grab | ANR | ANR | ANR |
| bis(2-Chloroethoxy) methane | ug/L | -/- | Grab | ANR | ANR | ANR |
| bis(2-Chloroisopropyl) ether | ug/L | -/- | Grab | ANR | ANR | ANR |
| Bromodichloromethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| Bromoform | ug/L | -/- | Grab | ANR | ANR | ANR |
| Bromomethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| Butylbenzylphthalate | ug/L | -/- | Grab | ANR | ANR | ANR |
| Chlordane | ug/L | 0.001/- | Grab | ANR | ANR | ANR |
| Chlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Chloroethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| Chloromethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| Chrysene | ug/L | -/- | Grab | ANR | ANR | ANR |
| cis-1,2-Dichloroethene | ug/L | -/- | Grab | ANR | ANR | ANR |
| cis-1,3-Dichloropropene | ug/L | -/- | Grab | ANR | ANR | ANR |
| delta-BHC | ug/L | -/- | Grab | ANR | ANR | ANR |
| Diazinon | ug/L | 0.16/- | Grab | ANR | ANR | ANR |
| Dibenzo(a,h)anthracene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Dibenzofuran | ug/L | -/- | Grab | ANR | ANR | ANR |
| Dibromochloromethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| Dieldrin | ug/L | 0.0002/- | Grab | ANR | ANR | ANR |
| Diethylphthalate | ug/L | -/- | Grab | ANR | ANR | ANR |
| Diisopropyl ether | ug/L | -/- | Grab | ANR | ANR | ANR |
| Dimethylphthalate | ug/L | -/- | Grab | ANR | ANR | ANR |
| Di-n-butylphthalate | ug/L | -/- | Grab | ANR | ANR | ANR |
| Di-n-octylphthalate | ug/L | -/- | Grab | ANR | ANR | ANR |
| Endosulfan I | ug/L | -/- | Grab | ANR | ANR | ANR |
| Endosulfan II | ug/L | -/- | Grab | ANR | ANR | ANR |
| Endosulfan sulfate | ug/L | -/- | Grab | ANR | ANR | ANR |
| Endrin | ug/L | -/- | Grab | ANR | ANR | ANR |
| Endrin aldehyde | ug/L | -/- | Grab | ANR | ANR | ANR |
| Ethyl tert-Butyl Ether (ETBE) | ug/L | -/- | Grab | ANR | ANR | ANR |
| Fluoranthene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Fluorene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Heptachlor | ug/L | -/- | Grab | ANR | ANR | ANR |
| Heptachlor epoxide | ug/L | -/- | Grab | ANR | ANR | ANR |
| Hexachlorobenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Hexachlorobutadiene | ug/L | -/- | Grab | ANR | ANR | ANR |

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

## ARROYO SIMI (Frontier Park Receiving Water)

**FIRST QUARTER 2013 REPORTING SUMMARY**
**THE BOEING COMPANY**
**SANTA SUSANA FIELD LABORATORY**
**NPDES PERMIT CA0001309**

**January 1 through March 31, 2013**

| | | | | 3/27/2013 | | |
|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly** | **SAMPLE TYPE** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| Hexachlorocyclopentadiene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Hexachloroethane | ug/L | -/- | Grab | ANR | ANR | ANR |
| Indeno(1,2,3-cd)pyrene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Isophorone | ug/L | -/- | Grab | ANR | ANR | ANR |
| Lindane (gamma-BHC) | ug/L | -/- | Grab | ANR | ANR | ANR |
| Methylene Chloride | ug/L | -/- | Grab | ANR | ANR | ANR |
| Methyl-tert-butyl ether | ug/L | -/- | Grab | ANR | ANR | ANR |
| m-Nitroaniline | ug/L | -/- | Grab | ANR | ANR | ANR |
| Naphthalene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Naphthalene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Nitrobenzene | ug/L | -/- | Grab | ANR | ANR | ANR |
| n-Nitrosodimethylamine | ug/L | -/- | Grab | ANR | ANR | ANR |
| n-Nitroso-di-n-propylamine | ug/L | -/- | Grab | ANR | ANR | ANR |
| n-Nitrosodiphenylamine | ug/L | -/- | Grab | ANR | ANR | ANR |
| o-Nitroaniline | ug/L | -/- | Grab | ANR | ANR | ANR |
| p-Cresol | ug/L | -/- | Grab | ANR | ANR | ANR |
| Pentachlorophenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| Phenanthrene | ug/L | -/- | Grab | ANR | ANR | ANR |
| Phenol | ug/L | -/- | Grab | ANR | ANR | ANR |
| p-Nitroaniline | ug/L | -/- | Grab | ANR | ANR | ANR |
| Pyrene | ug/L | -/- | Grab | ANR | ANR | ANR |
| tert-Amyl Methyl Ether (TAME) | ug/L | -/- | Grab | ANR | ANR | ANR |
| Toxaphene | ug/L | 0.0003/- | Grab | ANR | ANR | ANR |
| trans-1,2-Dichloroethene | ug/L | -/- | Grab | ANR | ANR | ANR |
| trans-1,3-Dichloropropene | ug/L | -/- | Grab | ANR | ANR | ANR |

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

## Arroyo Simi (Frontier Park Receiving Water)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### Sample Date March 8, 2013

| 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-HpCDD | 2.70E-06 | 5.00E-05 | 3.70E-05 | J (DNQ) | | 0.01 | 0.05 | **ND** |
| 1,2,3,4,6,7,8-HpCDF | 1.50E-06 | 5.00E-05 | ND | UJ (*III) | | 0.01 | 0.01 | **ND** |
| 1,2,3,4,7,8,9-HpCDF | 2.40E-06 | 5.00E-05 | ND | U | | 0.01 | 0.4 | **ND** |
| 1,2,3,4,7,8-HxCDD | 7.20E-07 | 5.00E-05 | ND | U | | 0.1 | 0.3 | **ND** |
| 1,2,3,4,7,8-HxCDF | 9.00E-07 | 5.00E-05 | ND | U | | 0.1 | 0.08 | **ND** |
| 1,2,3,6,7,8-HxCDD | 6.50E-07 | 5.00E-05 | 1.50E-06 | J (DNQ) | | 0.1 | 0.1 | **ND** |
| 1,2,3,6,7,8-HxCDF | 8.00E-07 | 5.00E-05 | ND | U | | 0.1 | 0.2 | **ND** |
| 1,2,3,7,8,9-HxCDD | 6.10E-07 | 5.00E-05 | ND | U | | 0.1 | 0.1 | **ND** |
| 1,2,3,7,8,9-HxCDF | 1.10E-06 | 5.00E-05 | ND | U | | 0.1 | 0.6 | **ND** |
| 1,2,3,7,8-PeCDD | 9.70E-07 | 5.00E-05 | ND | U | | 1 | 0.9 | **ND** |
| 1,2,3,7,8-PeCDF | 7.00E-07 | 5.00E-05 | ND | U | | 0.05 | 0.2 | **ND** |
| 2,3,4,6,7,8-HxCDF | 8.10E-07 | 5.00E-05 | ND | U | | 0.1 | 0.7 | **ND** |
| 2,3,4,7,8-PeCDF | 7.70E-07 | 5.00E-05 | ND | U | | 0.5 | 1.6 | **ND** |
| 2,3,7,8-TCDD | 5.80E-07 | 1.00E-05 | ND | U | | 1 | 1 | **ND** |
| 2,3,7,8-TCDF | 5.20E-07 | 1.00E-05 | ND | U | | 0.1 | 0.8 | **ND** |
| OCDD | 1.20E-05 | 1.00E-04 | 3.00E-04 | -- | | 0.0001 | 0.01 | **3.00E-10** |
| OCDF | 1.80E-06 | 1.00E-04 | ND | U (B) | | 0.0001 | 0.02 | **ND** |

| | |
|---|---|
| **TCDD TEQ w/out DNQ Values** | **3.00E-10** |

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

# ARROYO SIMI SEDIMENT (Frontier Park Receiving Water)

## FIRST QUARTER 2013 REPORTING SUMMARY
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 2/11/2013 | | |
|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **SAMPLE TYPE** | **RESULT** | **VALIDATION QUALIFIER** |
| | | | | | |
| Water Velocity | ft/sec | -/- | Meas | 0.10 | * |
| Ammonia as Nitrogen (N) | mg/Kg | -/- | Grab | 4.37 | J (DNQ) |
| Conductivity (Field) | ms/cm | -/- | Grab | 9.7 | * |
| Dissolved Oxygen | mg/L | -/- | Grab | 10.40 | * |
| pH (Field) | pH Units | -/- | Grab | 7.9 | * |
| Temperature | F | -/- | Grab | 53 | * |
| Total Organic Carbon | mg/L | -/- | Grab | ND < 1700 | * |
| 4,4'-DDD | ug/kg | 14/- | Grab | ND < 1.5 | U |
| 4,4'-DDE | ug/kg | 170/- | Grab | 2.2 | NJ (DNQ, *III) |
| 4,4'-DDT | ug/kg | 25/- | Grab | ND < 1.5 | U |
| Aroclor 1016 | ug/kg | 25700/- | Grab | ND < 12 | * |
| Aroclor 1221 | ug/kg | 25700/- | Grab | ND < 12 | * |
| Aroclor 1232 | ug/kg | 25700/- | Grab | ND < 12 | * |
| Aroclor 1242 | ug/kg | 25700/- | Grab | ND < 12 | * |
| Aroclor 1248 | ug/kg | 25700/- | Grab | ND < 12 | * |
| Aroclor 1254 | ug/kg | 25700/- | Grab | ND < 12 | * |
| Aroclor 1260 | ug/kg | 25700/- | Grab | ND < 12 | * |
| Chlordane | ug/kg | 3.3/- | Grab | ND < 10 | U |
| Dieldrin | ug/L | -/- | Grab | ND < 1.5 | U |
| Toxaphene | ug/kg | 230/- | Grab | ND < 50 | U |
| Sediment toxicity | % | -/- | Grab | 100 | * |
| Bivalve Embryo toxicity | % | -/- | Grab | 100 | * |
| **PARTICLE SIZE DISTRIBUTION** | | | | | |
| Gravel | % | -/- | Grab | 0 | * |
| Coarse Sand | % | -/- | Grab | 0 | * |
| Medium Sand | % | -/- | Grab | 18.47 | * |
| Fine Sand | % | -/- | Grab | 24.74 | * |
| Silt/Clay | % | -/- | Grab | 56.79 | * |

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

# APPENDIX D

# FIRST QUARTER 2013 RADIOLOGICAL MONITORING DATA

**FIRST QUARTER 2013**
**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 |

**FIRST QUARTER 2013**
**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) |
| * II *III | Unusual problems found with the data that have been described in Section II, “sample management”, or Section III, “method analysis”. The number following the asterisk (*) will indicated the validation report section where a description of the problem can be found. |
| ANR | analysis not required; e.g., constituent or outfall was not required by the permit to be sampled and analyzed over the reporting period (annual, semi-annual, etc.) |
| B | laboratory method blank contamination |
| BA | relative percent difference out of control |
| BEF | bioaccumulation equivalency factor |
| BU | 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 then the laboratory reporting limit) |
| E | duplicates show poor agreement |
| ft/sec | feet per second |
| 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 |

**FIRST QUARTER 2013**
**REPORTING SUMMARY NOTES**
**THE BOEING COMPANY**
**SANTA SUSANA FIELD LABORATORY**
**NPDES PERMIT CA0001309**

| | |
|---|---|
| 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 |
| MPN/100 ml | most probable number per 100 milliliters |
| NA | not applicable; no permit limit established for the constituent and/or outfall |
| ND | analyte value less than the LOD or MDL |
| NM | not measured or determined |
| NTU | nephelometric turbidity unit |
| pCi/L | picocurries 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 |
| $TU_c$ | 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 009 (WS-13 Drainage)

### FIRST QUARTER 2013 REPORTING SUMMARY
### THE BOEING COMPANY
### SANTA SUSANA FIELD LABORATORY
### NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 01/25/2013 (Comp) | | | 03/08/2013 (Grab) | | |
|---|---|---|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **RESULT** | **MDA** | **VALIDATION QUALIFIER** | **RESULT** | **MDA** | **VALIDATION QUALIFIER** |
| **RADIOACTIVITY** | | | | | | | | |
| Gross Alpha | pCi/L | 15/- | 0.532 ± 0.24 | 0.28 | J (DNQ) | 0.672 ± 0.641 | 0.981 | UJ (C) |
| Gross Beta | pCi/L | 50/- | 1.58 ± 0.60 | 0.945 | J (E, DNQ) | 0.900 ± 0.641 | 0.973 | U |
| Strontium-90 | pCi/L | 8.0/- | 0.174 ± 0.45 | 0.968 | U | -0.0854 ± 0.182 | 0.342 | U |
| Total Combined Radium-226 & Radium 228 | pCi/L | 5.0/- | 0.18 ± 0.37 | 1.05 | U | 0.37 ± 0.28 | 0.58 | U |
| Tritium | pCi/L | 20000/- | 3.66 ± 110 | 181 | U | 79.7 ± 73.8 | 108 | U |
| Potassium-40 | pCi/L | -/- | -9.21 ± 22 | 39.3 | U | -31.6 ± 175 | 194 | U |
| Uranium, Total | pCi/L | 20/- | 0.056 ± 0.009 | 0.014 | J (DNQ) | 0.0836 ± 0.1045 | 0.140 | U |
| Cesium 137 | pCi/L | 200/- | 0.44 ± 0.76 | 1.38 | U | 0.0224 ± 4.52 | 8.75 | U |

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

# OUTFALL 019 (Treatment System)

## FIRST QUARTER 2013 REPORTING SUMMARY
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

### January 1 through March 31, 2013

| | | | 03/15/2013 (Comp) | | |
|---|---|---|---|---|---|
| **ANALYTE** | **UNITS** | **Permit Limit Daily Max/Monthly Avg** | **RESULT** | **MDA** | **VALIDATION QUALIFIER** |
| **RADIOACTIVITY** | | | | | |
| Gross Alpha | pCi/L | 15/- | 1.29 ± 1.61 | 2.56 | UJ (C) |
| Gross Beta | pCi/L | 50/- | 1.57 ± 1.19 | 1.81 | U |
| Strontium-90 | pCi/L | 8.0/- | -0.155 ± 0.180 | 0.347 | U |
| Total Combined Radium-226 & Radium 228 | pCi/L | 5.0/- | 0.17 ± 0.22 | 0.51 | U |
| Tritium | pCi/L | 20000/- | 44.1 ± 79.1 | 133 | U |
| Potassium-40 | pCi/L | -/- | -68.3 ± 474 | 185 | U |
| Uranium, Total | pCi/L | 20/- | 0.0185 ± 0.1013 | 0.155 | U |
| Cesium 137 | pCi/L | 200/- | -1.58 ± 6.97 | 12.4 | U |

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

# APPENDIX E

# FIRST QUARTER 2013 SUMMARY OF PERMIT LIMIT EXCEEDANCES

**FIRST QUARTER 2013**
**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 |

**FIRST QUARTER 2013**
**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) |
| * II *III | Unusual problems found with the data that have been described in Section II, “sample management”, or Section III, “method analysis”. The number following the asterisk (*) will indicated the validation report section where a description of the problem can be found. |
| ANR | analysis not required; e.g., constituent or outfall was not required by the permit to be sampled and analyzed over the reporting period (annual, semi-annual, etc.) |
| B | laboratory method blank contamination |
| BA | relative percent difference out of control |
| BEF | bioaccumulation equivalency factor |
| BU | 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 then the laboratory reporting limit) |
| E | duplicates show poor agreement |
| ft/sec | feet per second |
| 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 |

**FIRST QUARTER 2013**
**REPORTING SUMMARY NOTES**
**THE BOEING COMPANY**
**SANTA SUSANA FIELD LABORATORY**
**NPDES PERMIT CA0001309**

| | |
|---|---|
| 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 |
| MPN/100 ml | most probable number per 100 milliliters |
| NA | not applicable; no permit limit established for the constituent and/or outfall |
| ND | analyte value less than the LOD or MDL |
| NM | not measured or determined |
| NTU | nephelometric turbidity unit |
| pCi/L | picocurries 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 |
| $TU_c$ | 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

## FIRST QUARTER 2013
## THE BOEING COMPANY
## SANTA SUSANA FIELD LABORATORY
## NPDES PERMIT CA0001309

| DAILY MAX PERMIT LIMIT EXCEEDANCES - ARROYO SIMI | | | | | | |
|---|---|---|---|---|---|---|
| LOCATION | SAMPLE DATE | ANALYTE | PERMIT LIMIT DAILY MAX | DAILY MAX RESULT | UNITS | RESULT CONCENTRATION VALIDATION QUALIFIER |
| Arroyo Simi Receiving Water - Frontier Park (RSW-002) | 03/08/13 | Fecal Coliform | 400 | >=1600 | MPN/100mL | -- |
| Arroyo Simi Receiving Water - Frontier Park (RSW-002) | 03/08/13 | E. Coli | 235 | >=1600 | MPN/100mL | -- |

# APPENDIX F

# FIRST QUARTER 2013 REASONABLE POTENTIAL ANALYSIS (RPA) SUMMARY TABLES

**FIRST QUARTER 2013**
**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 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"[1] 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). |

[1] SIP, p. 5.

**FIRST QUARTER 2013**
**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. |
| *Step 1 identifies all applicable water quality criteria.* | |
| 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. |

**FIRST QUARTER 2013**
**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)

| | |
|---|---|
| *Step 2 defines the applicable data set.* | |
| Is Effluent Data Available | If there is available monitoring data that is not qualified and above DL, then YES. If not, then NO. |
| *Step 3 determines the maximum observed effluent concentration.* | |
| 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. |
| *Step 4 compares the MEC to the lowest applicable water quality criteria.* | |
| 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. |

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, (OUTFALL 019)**

**FIRST QUARTER 2013**
**THE BOEING COMPANY**
**SANTA SUSANA FIELD LABORATORY**
**NPDES PERMIT CA0001309**

| | | | | | | Step 1: Water Quality Criteria, Determine C | | | | | | Step 2 | Step 3 | | | Step 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | CTR CRITERIA | | | | | | | | | | |
| | | | | | | Freshwater | | Human Health | | Basin Plan | | | | | | |
| Outfall | CTR | Constituent | Units | MEC | CV | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | Title 22 GWR | C = Lowest Criteria | Is Effluent Data Available | Was Constituent Detected in Effluent Data | Are all Detection Limits > C | If DL > C, MEC = Min (DL) | MEC >= C |
| 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 | All Data Qualified | 0.6 | | 2.46 | Narrative | Narrative | 5 | 2.46 | No | No | No | NA | No |
| 19 | 005a | Chromium | ug/L | All Data Qualified | 0.6 | | 206 | Narrative | Narrative | | 207 | No | No | No | NA | No |
| 19 | 005b | Chromium VI | ug/L | 1.1 | 0.6 | 16.3 | 11.4 | Narrative | Narrative | 50 | 11.43 | Yes | Yes | NA | NA | No |
| 19 | 006 | Copper | ug/L | All Data Qualified | 0.6 | | 9.3 | 1300 | NONE | | 9.33 | No | No | No | NA | No |
| 19 | 007 | Lead | ug/L | All Data Qualified | 0.6 | | 3.18 | Narrative | Narrative | | 3.18 | No | 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 | No | No | No | NA | No |
| 19 | 010 | Selenium | ug/L | All Data Qualified | 0.6 | Reserved | 5 | Narrative | Narrative | 50 | 5 | No | 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 |
| 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 | All Data Qualified | 0.6 | 22 | 5.2 | 700 | 220000 | 200 | 5.2 | No | 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 | All Data Qualified | 0.6 | NONE | NONE | 1.2 | 71 | 1 | 1 | No | 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 | All Data Qualified | 0.6 | NONE | NONE | 0.25 | 4.4 | 600 | 4.4 | No | 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 | All Data Qualified | 0.6 | NONE | NONE | Reserved | Reserved | | NONE | No | 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 | All Data Qualified | 0.6 | NONE | NONE | NONE | NONE | 5 | 5 | No | No | No | NA | No |
| 19 | 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 |
| 19 | 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 |
| 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 | cis-1,3-Dichloropropene | ug/L | All Data Qualified | 0.6 | NONE | NONE | 10 | 1700 | 0.5 | 0.5 | No | No | No | NA | No |
| 19 | 032a | trans-1,3-Dichloropropene | 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 | All Data Qualified | 0.6 | NONE | NONE | 3100 | 29000 | 0.7 | 0.7 | No | 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 | All Data Qualified | 0.6 | NONE | NONE | 0.8 | 8.85 | 5 | 5 | No | No | No | NA | No |
| 19 | 039 | Toluene | ug/L | All Data Qualified | 0.6 | NONE | NONE | 6800 | 200000 | 150 | 150 | No | 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 | All Data Qualified | 0.6 | NONE | NONE | Narrative | Narrative | 200 | 200 | No | No | No | NA | No |
| 19 | 042 | 1,1,2-trichloroethane | ug/L | All Data Qualified | 0.6 | NONE | NONE | 0.6 | 42 | 5 | 5 | No | No | No | NA | No |
| 19 | 043 | Trichloroethene | ug/L | All Data Qualified | 0.6 | NONE | NONE | 2.7 | 81 | 5 | 5 | No | No | No | NA | No |
| 19 | 044 | Vinyl chloride | ug/L | All Data Qualified | 0.6 | NONE | NONE | 2 | 525 | 0.5 | 0.5 | No | 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 |

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

**Table F1**
**REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALL 019)**

**FIRST QUARTER 2013**
**THE BOEING COMPANY**
**SANTA SUSANA FIELD LABORATORY**
**NPDES PERMIT CA0001309**

| | | | | | | Step 1: Water Quality Criteria, Determine C | | | | | | Step 2 | Step 3 | | | Step 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | CTR CRITERIA | | | | | | | | | | |
| | | | | | | Freshwater | | Human Health | | Basin Plan | | | | | | |
| Outfall | CTR | Constituent | Units | MEC | CV | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | Title 22 GWR | C = Lowest Criteria | Is Effluent Data Available | Was Constituent Detected in Effluent Data | Are all Detection Limits > C | If DL > C, MEC = Min (DL) | MEC >= C |
| 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 | All Data Qualified | 0.6 | pH dependent | pH dependent | 0.28 | 8.2 | 1 | 1 | No | 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 | All Data Qualified | 0.6 | NONE | NONE | 2.1 | 6.5 | | 6.5 | No | 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 |
| 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 | All Data Qualified | 0.6 | NONE | NONE | 1.8 | 5.9 | 4 | 4 | No | 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 | All Data Qualified | 0.6 | NONE | NONE | 0.11 | 9.1 | | 9.1 | No | 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 |

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

**Table F1**
**REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALL 019)**

**FIRST QUARTER 2013**
**THE BOEING COMPANY**
**SANTA SUSANA FIELD LABORATORY**
**NPDES PERMIT CA0001309**

| | | | | | | Step 1: Water Quality Criteria, Determine C | | | | | | Step 2 | Step 3 | | | Step 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | CTR CRITERIA | | | | | | | | | | |
| | | | | | | Freshwater | | Human Health | | Basin Plan | | | | | | |
| Outfall | CTR | Constituent | Units | MEC | CV | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | Title 22 GWR | C = Lowest Criteria | Is Effluent Data Available | Was Constituent Detected in Effluent Data | Are all Detection Limits > C | If DL > C, MEC = Min (DL) | MEC >= C |
| 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 | All Data Qualified | 0.6 | NONE | NONE | 0.00069 | 8.1 | | 8.1 | No | 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 | All Data Qualified | 0.6 | NONE | NONE | 0.0039 | 0.013 | | 0.013 | No | 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 |
| 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 |

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

**Table F1**
**REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 003-007, 009 and 010)**

**FIRST QUARTER 2013**
**THE BOEING COMPANY**
**SANTA SUSANA FIELD LABORATORY**
**NPDES PERMIT CA0001309**

| | | | | | | Step 1: Water Quality Criteria, Determine C | | | | | | Step 2 | Step 3 | | | Step 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | CTR CRITERIA | | | | | | | | | | |
| | | | | | | Freshwater | | Human Health | | Basin Plan | | | | | | |
| Outfall | CTR | Constituent | Units | MEC | CV | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | Title 22 GWR | C = Lowest Criteria | 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 | 001 | Antimony | ug/L | 0.79 | 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 | 0.43 | 0.6 | | 2.462013793 | Narrative | Narrative | 5 | 2.46 | Yes | Yes | NA | NA | No |
| 3_7,9-10 | 005a | Chromium | ug/L | All Data Qualified | 0.6 | | 206 | Narrative | Narrative | | 207 | No | No | No | NA | No |
| 3_7,9-10 | 005b | Chromium VI | ug/L | Available Data <DL | 0.6 | 16.3 | 11.4 | Narrative | Narrative | 50 | 11.43 | Yes | No | No | NA | No |
| 3_7,9-10 | 006 | Copper | ug/L | 8 | 0.6 | | 9.3 | 1300 | NONE | | 9.33 | Yes | Yes | NA | NA | No |
| 3_7,9-10 | 007 | Lead | ug/L | 1.7 | 0.6 | | 3.18 | Narrative | Narrative | | 3.18 | Yes | Yes | NA | NA | No |
| 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 | No | No | No | NA | No |
| 3_7,9-10 | 010 | Selenium | ug/L | Available Data <DL | 0.6 | Reserved | 5 | Narrative | Narrative | 50 | 5 | Yes | 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 | 0.43 | 0.6 | NONE | NONE | 1.7 | 6.3 | 2 | 2 | Yes | Yes | NA | 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 | Available Data <DL | 0.6 | NONE | NONE | 7000000 | NONE | 7000000 | 700000 | Yes | No | No | NA | No |
| 3_7,9-10 | 016 | TCDD TEQ_NoDNQ | ug/L | 2.50E-10 | 0.6 | NONE | NONE | 1.30E-08 | 1.40E-08 | 3.00E-05 | 1.40E-08 | Yes | Yes | NA | NA | No |
| 3_7,9-10 | 017 | Acrolein | ug/L | Available Data <DL | 0.6 | NONE | NONE | 320 | 780 | | 780 | Yes | No | No | NA | No |
| 3_7,9-10 | 018 | Acrylonitrile | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.059 | 0.66 | | 0.66 | Yes | No | Yes | 0.66 | No |
| 3_7,9-10 | 019 | Benzene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 1.2 | 71 | 1 | 1 | Yes | No | No | NA | No |
| 3_7,9-10 | 020 | Bromoform | ug/L | Available Data <DL | 0.6 | NONE | NONE | 4.3 | 360 | | 360 | Yes | No | No | NA | No |
| 3_7,9-10 | 021 | Carbon Tetrachloride | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.25 | 4.4 | 600 | 4.4 | Yes | No | No | NA | No |
| 3_7,9-10 | 022 | Chlorobenzene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 680 | 21000 | | 21000 | Yes | No | No | NA | No |
| 3_7,9-10 | 023 | Dibromochloromethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.401 | 34 | | 34 | Yes | No | No | NA | No |
| 3_7,9-10 | 024 | Chloroethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | NONE | NONE | | NONE | Yes | No | No | NA | No |
| 3_7,9-10 | 025 | 2-Chloroethylvinylether | ug/L | Available Data <DL | 0.6 | NONE | NONE | NONE | NONE | | NONE | Yes | No | No | NA | No |
| 3_7,9-10 | 026 | Chloroform | ug/L | Available Data <DL | 0.6 | NONE | NONE | Reserved | Reserved | | NONE | Yes | No | No | NA | No |
| 3_7,9-10 | 027 | Bromodichloromethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.56 | 46 | | 46 | Yes | No | No | NA | No |
| 3_7,9-10 | 028 | 1,1-Dichloroethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | NONE | NONE | 5 | 5 | Yes | No | No | NA | No |
| 3_7,9-10 | 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 |
| 3_7,9-10 | 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 |
| 3_7,9-10 | 031 | 1,2-Dichloropropane | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.52 | 39 | 5 | 5 | Yes | No | No | NA | No |
| 3_7,9-10 | 032 | cis-1,3-Dichloropropene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 10 | 1700 | 0.5 | 0.5 | Yes | No | No | NA | No |
| 3_7,9-10 | 032a | trans-1,3-Dichloropropene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 10 | 1700 | 0.5 | 0.5 | Yes | No | No | NA | No |
| 3_7,9-10 | 033 | Ethylbenzene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 3100 | 29000 | 0.7 | 0.7 | Yes | No | No | NA | No |
| 3_7,9-10 | 034 | Bromomethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | 48 | 4000 | | 4000 | Yes | No | No | NA | No |
| 3_7,9-10 | 035 | Chloromethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | Narrative | Narrative | | NONE | Yes | No | No | NA | No |
| 3_7,9-10 | 036 | Methylene chloride | ug/L | Available Data <DL | 0.6 | NONE | NONE | 4.7 | 1600 | | 1600 | Yes | No | No | NA | No |
| 3_7,9-10 | 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 |
| 3_7,9-10 | 038 | Tetrachloroethene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.8 | 8.85 | 5 | 5 | Yes | No | No | NA | No |
| 3_7,9-10 | 039 | Toluene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 6800 | 200000 | 150 | 150 | Yes | No | No | NA | No |
| 3_7,9-10 | 040 | trans-1,2-Dichloroethene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 700 | 140000 | 10 | 10 | Yes | No | No | NA | No |
| 3_7,9-10 | 041 | 1,1,1-Trichloroethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | Narrative | Narrative | 200 | 200 | Yes | No | No | NA | No |
| 3_7,9-10 | 042 | 1,1,2-trichloroethane | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.6 | 42 | 5 | 5 | Yes | No | No | NA | No |
| 3_7,9-10 | 043 | Trichloroethene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 2.7 | 81 | 5 | 5 | Yes | No | No | NA | No |
| 3_7,9-10 | 044 | Vinyl chloride | ug/L | Available Data <DL | 0.6 | NONE | NONE | 2 | 525 | 0.5 | 0.5 | Yes | 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 |

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

**Table F1**
**REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 003-007, 009 and 010)**

**FIRST QUARTER 2013**
**THE BOEING COMPANY**
**SANTA SUSANA FIELD LABORATORY**
**NPDES PERMIT CA0001309**

| | | | | | | Step 1: Water Quality Criteria, Determine C | | | | | | Step 2 | Step 3 | | | Step 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | CTR CRITERIA | | | | | | | | | | |
| | | | | | | Freshwater | | Human Health | | Basin Plan | | | | | | |
| Outfall | CTR | Constituent | Units | MEC | CV | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | Title 22 GWR | C = Lowest Criteria | 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 | Available Data <DL | 0.6 | NONE | NONE | 2700 | 17000 | 600 | 600 | Yes | No | No | NA | No |
| 3_7,9-10 | 076 | 1,3-Dichlorobenzene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 400 | 2600 | | 2600 | Yes | No | No | NA | No |
| 3_7,9-10 | 077 | 1,4-Dichlorobenzene | ug/L | Available Data <DL | 0.6 | NONE | NONE | 400 | 2600 | 5 | 5 | Yes | 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 |
| 3_7,9-10 | 094 | Naphthalene | ug/L | Available Data <DL | 0.6 | NONE | NONE | NONE | NONE | | NONE | Yes | No | No | NA | No |

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

**Table F1**
**REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS, (OUTFALLS 003-007, 009 and 010)**

**FIRST QUARTER 2013**
**THE BOEING COMPANY**
**SANTA SUSANA FIELD LABORATORY**
**NPDES PERMIT CA0001309**

| | | | | | | Step 1: Water Quality Criteria, Determine C | | | | | | Step 2 | Step 3 | | | Step 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | CTR CRITERIA | | | | | | | | | | |
| | | | | | | Freshwater | | Human Health | | Basin Plan | | | | | | |
| Outfall | CTR | Constituent | Units | MEC | CV | CMC = Acute | CCC = Chronic | HH W&O (Not App) | HH O = HH | Title 22 GWR | C = Lowest Criteria | 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 | 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 | Available Data <DL | 0.6 | 3 | NONE | 0.00013 | 0.00014 | | 0.00014 | Yes | No | Yes | 0.00014 | No |
| 3_7,9-10 | 103 | alpha-BHC | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.0039 | 0.013 | | 0.013 | Yes | No | No | NA | No |
| 3_7,9-10 | 104 | beta-BHC | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.014 | 0.046 | | 0.046 | Yes | No | No | NA | No |
| 3_7,9-10 | 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 |
| 3_7,9-10 | 106 | delta-BHC | ug/L | Available Data <DL | 0.6 | NONE | NONE | NONE | NONE | | NONE | Yes | No | No | NA | No |
| 3_7,9-10 | 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 |
| 3_7,9-10 | 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 |
| 3_7,9-10 | 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 |
| 3_7,9-10 | 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 |
| 3_7,9-10 | 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 |
| 3_7,9-10 | 112 | Endosulfan I | ug/L | Available Data <DL | 0.6 | 0.22 | 0.056 | 110 | 240 | | 0.056 | Yes | No | No | NA | No |
| 3_7,9-10 | 113 | Endosulfan II | ug/L | Available Data <DL | 0.6 | 0.22 | 0.056 | 110 | 240 | | 0.056 | Yes | No | No | NA | No |
| 3_7,9-10 | 114 | Endosulfan Sulfate | ug/L | Available Data <DL | 0.6 | NONE | NONE | 110 | 240 | | 240 | Yes | No | No | NA | No |
| 3_7,9-10 | 115 | Endrin | ug/L | Available Data <DL | 0.6 | 0.086 | 0.036 | 0.76 | 0.81 | | 0.036 | Yes | No | No | NA | No |
| 3_7,9-10 | 116 | Endrin Aldehyde | ug/L | Available Data <DL | 0.6 | NONE | NONE | 0.76 | 0.81 | | 0.81 | Yes | No | No | NA | No |
| 3_7,9-10 | 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 |
| 3_7,9-10 | 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 |
| 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 | Available Data <DL | 0.6 | 0.73 | 0.0002 | 0.0073 | 0.00075 | | 0.0002 | Yes | No | Yes | 0.0002 | No |
| 3_7,9-10 | 127 | E. Coli | MPN/100 ml | 23 | 0.6 | NA | NA | NA | NA | 235 | 235 | Yes | Yes | NA | NA | No |

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

**Table F2**
**REASONABLE POTENTIAL ANALYSIS FOR SECONDARY POLLUTANTS, (OUTFALL 019)**

**FIRST QUARTER 2013**
**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0 | All Data Qualified | 0.6 | All Data Qualified | All Qualified Data | 0 | 0 | NA | 20 | BU |
| 19 | Chloride | Discharge | mg/L | 1 | 120 | 0.6 | 13.2 | 1583.6 | 0 | 0 | 1583.63 | 150 | BU |
| 19 | Fluoride | Discharge | mg/L | 1 | 0.31 | 0.6 | 13.2 | 4.1 | 0 | 0 | 4.09 | 1.6 | BU |
| 19 | Nitrate + Nitrite as Nitrogen (N) | Discharge | mg/L | 0 | All Data Qualified | 0.6 | All Data Qualified | All Qualified Data | 0 | 0 | NA | 8 | BU/TMDL |
| 19 | Oil & Grease | Discharge | mg/L | 0 | All Data Qualified | 0.6 | All Data Qualified | All Qualified Data | 0 | 0 | NA | 10 | BU |
| 19 | Sulfate | Discharge | mg/L | 1 | 250 | 0.6 | 13.2 | 3299.2 | 0 | 0 | 3299.22 | 300 | BU |
| 19 | Surfactants (MBAS) | Discharge | mg/L | 1 | 0.12 | 0.6 | 13.2 | 1.6 | 0 | 0 | 1.58 | 0.5 | BU |
| 19 | Total Dissolved Solids | Discharge | mg/L | 1 | 890 | 0.6 | 13.2 | 11745.2 | 0 | 0 | 11745.22 | 150 | BU |
| 19 | Total Settleable Solids | Discharge | ml/L | 0 | All Data Qualified | 0.6 | All Data Qualified | All Qualified Data | 0 | 0 | NA | 0.3 | BU |
| 19 | Total Suspended Solids | Discharge | mg/L | 0 | All Data Qualified | 0.6 | All Data Qualified | All Qualified Data | 0 | 0 | NA | 45 | BU |

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

**Table F2**
**REASONABLE POTENTIAL ANALYSIS FOR SECONDARY POLLUTANTS, (OUTFALLS 003-007, 009 and 010)**

**FIRST QUARTER 2013**
**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 | 2 | 2.3 | 0.6 | 7.4 | 17.0 | 0 | 0 | 17.01 | 150 | BU |
| 3_7,9-10 | Fluoride | Annual | mg/L | 1 | 0.12 | 0.6 | 13.2 | 1.6 | 0 | 0 | 1.58 | 1.6 | BU |
| 3_7,9-10 | Nitrate + Nitrite as Nitrogen (N) | Discharge | mg/L | 2 | 0.59 | 0.6 | 7.4 | 4.4 | 0 | 0 | 4.36 | 8 | BU/TMDL |
| 3_7,9-10 | Oil & Grease | Discharge | mg/L | 1 | Available Data <DL | 0.6 | 13.2 | Available Data < DL | 0 | 0 | NA | 10 | BU |
| 3_7,9-10 | Sulfate | Discharge | mg/L | 2 | 6 | 0.6 | 7.4 | 44.4 | 0 | 0 | 44.36 | 300 | BU |
| 3_7,9-10 | Total Dissolved Solids | Discharge | mg/L | 2 | 87 | 0.6 | 7.4 | 643.3 | 0 | 0 | 643.25 | 150 | BU |
| 3_7,9-10 | Total Suspended Solids | Annual | mg/L | 1 | Available Data <DL | 0.6 | 13.2 | Available Data < DL | 0 | 0 | NA | 45 | BU |

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