

# TECHNICAL MEMORANDUM

TO: Joe Flaherty, Boeing Environment, Health, and Safety Remediation

FROM: Tim Syverson, Kathryn Hartley, and Chris Burke

DATE: December 12, 2011

RE: **NORTH DETENTION POND SAMPLING RESULTS  
BOEING STRIKER PROPERTY  
KENT, WASHINGTON**

## INTRODUCTION

At the request of The Boeing Company (Boeing), Landau Associates conducted an investigation to document the current chemical quality of accumulated stormwater solids within and soils underlying the North Detention Pond located to the north of the Striker Property, on the west side of the Boeing Space Center at 20403 68<sup>th</sup> Avenue South, in Kent, Washington (subject property; Figure 1). The investigation was conducted as part of Boeing's pre-sale due diligence activities to document current site conditions and assess potential liabilities for Boeing due to its operations at the subject property. The scope of work (SOW) performed was established in our letter to Boeing dated October 18, 2011.

This technical memorandum summarizes the results of the soil and solids investigation conducted on November 1, 2011. The sampling locations and sample analytical results are shown on Figure 2. Table 1 summarizes the results of the soil and solids sampling analyses.

## SOIL AND SOILS SAMPLING

On November 1, 2011, Landau Associates personnel mobilized to collect soil and stormwater solids samples from the North Detention Pond (NDP, Figure 2). The investigation included the collection of 21 samples from 12 locations to document the chemical quality of accumulated stormwater solids and underlying soils from the NDP. Sample locations were selected to provide spatial coverage of the NDP and included locations with ponded water, ditches leading into and out of the pond, and areas lower than the apparent high water mark of the pond where solids may have accumulated. At all locations, an attempt was made to collect two vertically discrete samples at approximate 1-foot (ft) intervals including samples of the accumulated stormwater solids (or of soil from the ground surface to a depth of 1 ft at locations where stormwater solids were not observed), and from the underlying soil (an interval from 1 to 2 ft below ground surface). Due to refusal at three locations, NDP-1, NDP-11 and NDP-12, only the upper sample interval could be collected. The samples were collected from both intervals as described above at the remaining locations.

Prior to all investigation activities, a one-call public utility clearance was requested to identify the location(s) of public subsurface utilities in the investigation area. The samples were collected at each location using a hand auger, or sediment core sampler. Samples from each interval were homogenized before being placed in the appropriate sample jars, except the samples to be analyzed for volatile organic compounds (VOCs), which were placed directly into the appropriate sample jars and not homogenized. All sampling equipment was decontaminated prior to sample collection at each interval.

The samples were delivered to Analytical Resources, Inc. (ARI) in Tukwila, Washington by a Landau Associates employee, under standard chain-of-custody procedures for analysis. All samples from the upper 1-ft interval collected during the investigation were submitted for analysis for VOCs by Method SW8260C, total petroleum hydrocarbons (TPH) using the hydrocarbon identification (HCID) method, and metals (arsenic, beryllium, cadmium, chromium, copper, lead, mercury, zinc) by Methods 6020 and 7040. The deeper samples collected were submitted to ARI and archived at the laboratory pending the analytical results for the shallower samples. Selected deeper samples were later analyzed for parameters that exceeded the screening levels in the corresponding upper-sample interval as described below.

## **SAMPLING RESULTS**

The analytical results for the soil and solids samples were compared to preliminary Washington State Model Toxics Control Act (MTCA) Method B cleanup levels for screening purposes. The analytical results for the soil and solids samples are provided in Table 1 and are summarized as follows:

- Petroleum hydrocarbons in the diesel and gasoline ranges were not detected at concentrations greater than the laboratory reporting limits in the upper-interval samples by the HCID analysis. Therefore, none of the deeper samples were analyzed for petroleum hydrocarbons.
- VOCs were detected in each of the 12 upper-interval samples, at concentrations greater than the laboratory reporting limits, but less than the screening levels. Acetone was detected in each of the 12 samples; methylene chloride was detected in 8 samples (NDP-2, NDP-3, NDP-4, NDP-6, NDP-7, NDP-9, NDP-10, and NDP-12); and 2-butanone was detected at sampling locations NDP-1 and NDP-9. The compound 4-methyl-2-pentanone was detected at sampling location NDP-1 at a concentration greater than the laboratory reporting limit. There are no screening levels available for this compound. None of the samples collected from the lower interval was analyzed for VOCs.
- Arsenic was detected in each of the 12 upper-interval samples at concentrations greater than the laboratory reporting limits. The detected arsenic concentrations at 5 of the 12 locations were greater than the screening level [7 milligrams per kilogram (mg/kg)]: NDP-1 (21.0 mg/kg), NDP-2 (10.1 mg/kg), NDP-4 (13.2 mg/kg), NDP-5 (7.6 mg/kg), and NDP-6 (10.8 mg/kg). The deeper-interval samples collected at these locations were subsequently analyzed for arsenic, except for location NDP-1, where a deeper sample interval was not collected due to refusal. Arsenic was detected in each of the four deeper-interval samples submitted for analysis at concentrations greater than the laboratory reporting limits. The detected concentrations ranged from 4.0 mg/kg to 5.8 mg/kg and were less than in the shallower sample from the same location, and were all less than the screening level.

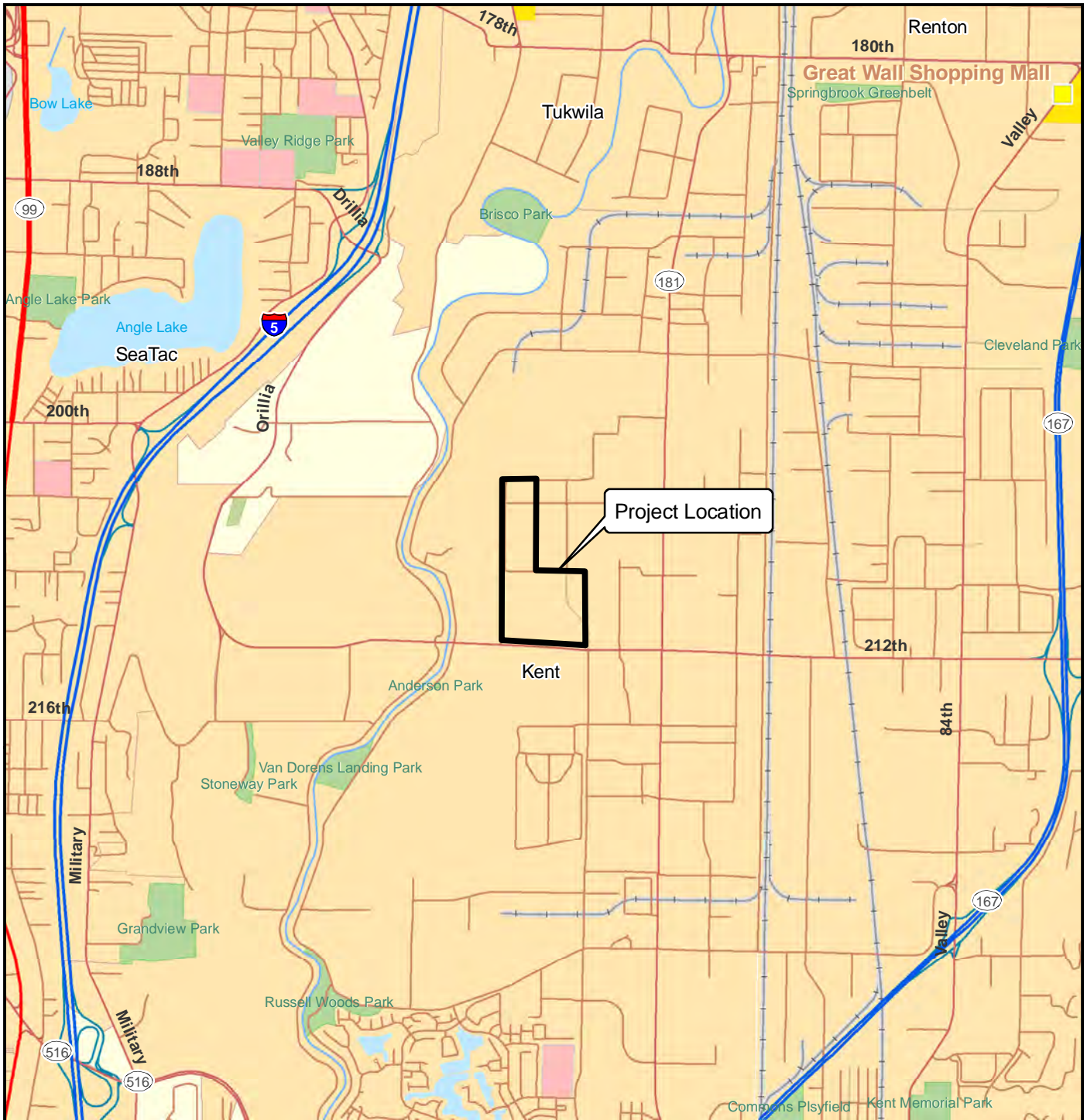
- Copper was detected in the upper-interval sample at NDP-1 at a concentration of 295 mg/kg, which is slightly greater than the screening level of 260 mg/kg. Cadmium was detected in this sample at a concentration of 1.7 mg/kg, which is slightly greater than the screening level of 1 mg/kg. As previously indicated, a deeper-interval sample was not collected at NDP-1.
- Beryllium, chromium, lead, mercury, and zinc were detected at concentrations greater than the laboratory reporting limits at all of the sampling locations, but the detected concentrations were all less than the respective screening levels.

## **CONCLUSIONS AND RECOMMENDATIONS**

The purpose of the soil and solids investigation discussed above was to document the current chemical quality of the accumulated stormwater solids within and soils underlying the NDP. The analytical results for the samples collected indicate that only metals (primarily arsenic) were detected at concentrations greater than the screening levels, which were based on preliminary MTCA Method B cleanup levels. The detected concentrations in the deeper samples from the locations where the shallow metals concentrations were greater than the screening levels are all less than the screening levels. The detected metals concentrations are similar to concentrations found within stormwater solids and do not represent a potential threat to human health or the environment. Based on the findings of the investigation, further evaluation is not warranted. However, due to the presence of metals, any planning for removal of solids or soil from the pond should include provisions for appropriate handling and disposal of the material in accordance with applicable regulations.

## **ATTACHMENTS**

- Figure 1: Vicinity Map
- Figure 2: North Detention Pond Sampling Locations and Arsenic Exceedances
- Table 1: Soil and Solids Analytical Results
- Attachment 1: Laboratory Analytical Reports (on CD-ROM)



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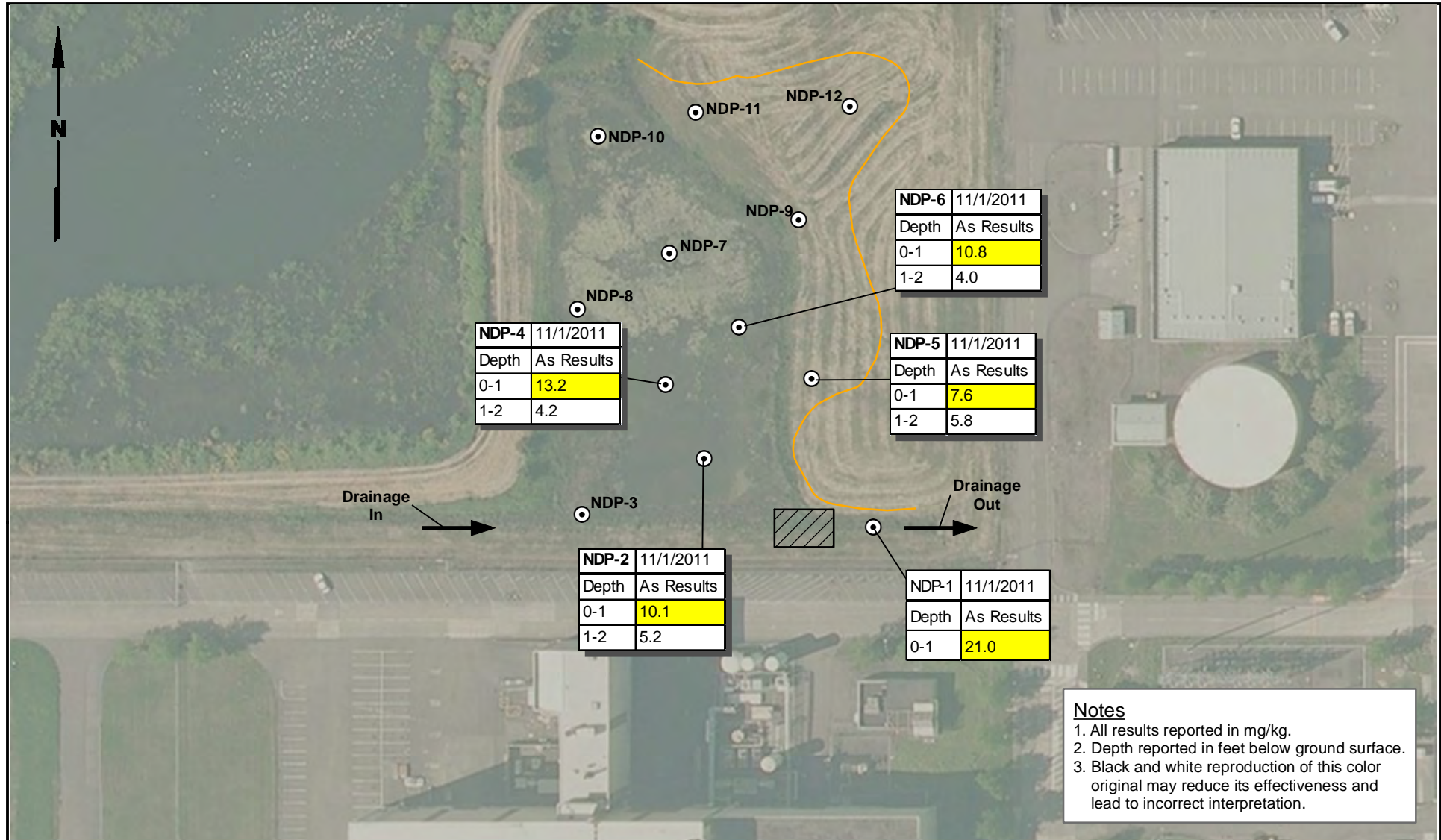
Data Source: ESRI 2008



Project Striker  
Kent, Washington

Vicinity Map

Figure  
1

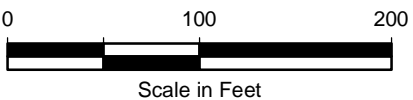


**Notes**  
 1. All results reported in mg/kg.  
 2. Depth reported in feet below ground surface.  
 3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

**Legend**

- ⊙ Solids/Soil Sampling Locations
- ⬆ Indicates Exceedance of Screening Level
- ➔ Flow Direction
- Approximate Terrace Bench
- ▨ Dam

Data Source: ESRI World Imagery



Project Striker Kent, Washington	<b>North Detention Pond Sampling Locations and Arsenic Exceedances</b>	Figure <b>2</b>
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**TABLE 1  
SOIL ANALYTICAL RESULTS  
NORTH DETENTION POND  
BOEING STRIKER PROPERTY – KENT, WASHINGTON**

	MCTA Method B Screening Levels	NDP-1(0-0.5)	NDP-2(0-1)	NDP-2(1-2)	NDP-3(0-1)	NDP-4(0-1)	NDP-4(1-2)	NDP-5(0-1)	NDP-5(1-2)	NDP-6(0-1)	NDP-6(1-2)	NDP-7(0-1)	NDP-8(0-1)	NDP-9(0-1)	NDP-10(0-1)	NDP-11(0-1)	NDP-12(0-1)
		TU89E 11/01/2011	TU89D 11/01/2011	TW18A 11/1/2011	TU89C 11/01/2011	TU89H 11/01/2011	TW18C 11/1/2011	TU89L 11/01/2011	TW18D 11/1/2011	TU89G 11/01/2011	TW18B 11/1/2011	TU89B 11/01/2011	TU89I 11/01/2011	TU89A 11/01/2011	TU89F 11/01/2011	TU89J 11/01/2011	TU89K 11/01/2011
<b>HCID (mg/kg)</b>																	
<b>Method NWTPH-HCID</b>																	
Gasoline Range Organics	100	36 U	20 U	NA	20 U	20 U	NA	20 U	NA	20 U	NA	20 U	20 U	20 U	20 U	20 U	20 U
Diesel Range Organics	2,000	89 U	50 U	NA	50 U	50 U	NA	50 U	NA	50 U	NA	50 U	50 U	50 U	50 U	50 U	50 U
Lube Oil	2,000	180 U	100 U	NA	100 U	100 U	NA	100 U	NA	100 U	NA	100 U	100 U	100 U	100 U	100 U	100 U
<b>TOTAL METALS (mg/kg)</b>																	
<b>Methods EPA200.8/SW7471A</b>																	
Arsenic	7	21.0	10.1	5.2 J	6.7	13.2	4.2	7.6	5.8	10.8	4.0	6.6	6.4	5.9	7.0	6.7	5.7
Beryllium	2	0.7 U	0.4	NA	0.4	0.4	NA	0.5	NA	0.4	NA	0.5	0.6	0.4	0.3	0.4	0.3
Cadmium	1	1.7	0.7	NA	0.6	0.5	NA	0.2	NA	0.2	NA	0.3	0.1 U	0.2	0.2 U	0.2	0.1 U
Chromium	120,000	49	21.3	NA	17.9	20.5	NA	19.5	NA	17.0	NA	17.4	20.3	15.7	17.0	16.7	22.4
Copper	260	295	63.4	NA	62.7	51.6	NA	40.4	NA	50.3	NA	45.7	42.3	30.6	30.7	29.4	20.5
Lead	250	132	27.8	NA	36.6	27.1	NA	15.8	NA	26.7	NA	14.2	12.0	66.8 J	9.8	88.3	7.3
Mercury	2.1	0.33	0.06	NA	0.07	0.07	NA	0.07	NA	0.05	NA	0.09	0.05	0.04	0.05	0.05	0.02 U
Zinc	6,000	400	147	NA	122	144	NA	67	NA	87	NA	65	57	62	54	50	40
<b>VOLATILES (µg/kg)</b>																	
<b>Method SW8260C</b>																	
Chloromethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Bromomethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Vinyl Chloride	1.8	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Chloroethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Methylene Chloride	22	8.2 U	3.9	NA	3.6	3.1	NA	2.7 U	NA	4.6	NA	4.7	2.9 U	4.2	4.7	2.3 U	1.7
Acetone	3,200	390	48	NA	61	28	NA	120	NA	50	NA	28	24	140	37	48	32
Carbon Disulfide	5,700	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,1-Dichloroethene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,1-Dichloroethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
trans-1,2-Dichloroethene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
cis-1,2-Dichloroethene	350	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Chloroform		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,2-Dichloroethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
2-Butanone	20,000	28	8.0 U	NA	7.4 U	7.3 U	NA	6.9 U	NA	9.1 U	NA	7.9 U	7.3 U	10	8.9 U	5.7 U	4.2 U
1,1,1-Trichloroethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Carbon Tetrachloride		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Vinyl Acetate		20 U	8.0 U	NA	7.4 U	7.3 U	NA	6.9 U	NA	9.1 U	NA	7.9 U	7.3 U	6.7 U	8.9 U	5.7 U	4.2 U
Bromodichloromethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,2-Dichloropropane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
cis-1,3-Dichloropropene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Trichloroethene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Dibromochloromethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,1,2-Trichloroethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Benzene	28	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
trans-1,3-Dichloropropene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
2-Chloroethylvinylether		20 U	8.0 U	NA	7.4 U	7.3 U	NA	6.9 U	NA	9.1 U	NA	7.9 U	7.3 U	6.7 U	8.9 U	5.7 U	4.2 U
Bromoform		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
4-Me hyl-2-Pentanone (MIBK)		29 M	8.0 U	NA	7.4 U	7.3 U	NA	6.9 U	NA	9.1 U	NA	7.9 U	7.3 U	6.7 U	8.9 U	5.7 U	4.2 U
2-Hexanone		280 U	8.0 U	NA	7.4 U	7.3 U	NA	51 U	NA	9.1 U	NA	7.9 U	7.3 U	76 U	8.9 U	36 U	35 U
Tetrachloroethene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,1,2,2-Tetrachloroethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Toluene	4,700	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Chlorobenzene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Ethylbenzene	6,000	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Styrene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Trichlorofluoromethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,1,2-Trichloro-1,2,2-trifluoroethane		8.2 U	3.2 U	NA	3.0 U	2.9 U	NA	2.7 U	NA	3.6 U	NA	3.2 U	2.9 U	2.7 U	3.6 U	2.3 U	1.7 U
m, p-Xylene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
o-Xylene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,2-Dichlorobenzene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U

**TABLE 1  
SOIL ANALYTICAL RESULTS  
NORTH DETENTION POND  
BOEING STRIKER PROPERTY – KENT, WASHINGTON**

	MCTA Method B Screening Levels	NDP-1(0-0.5)	NDP-2(0-1)	NDP-2(1-2)	NDP-3(0-1)	NDP-4(0-1)	NDP-4(1-2)	NDP-5(0-1)	NDP-5(1-2)	NDP-6(0-1)	NDP-6(1-2)	NDP-7(0-1)	NDP-8(0-1)	NDP-9(0-1)	NDP-10(0-1)	NDP-11(0-1)	NDP-12(0-1)
		TU89E 11/01/2011	TU89D 11/01/2011	TW18A 11/1/2011	TU89C 11/01/2011	TU89H 11/01/2011	TW18C 11/1/2011	TU89L 11/01/2011	TW18D 11/1/2011	TU89G 11/01/2011	TW18B 11/1/2011	TU89B 11/01/2011	TU89I 11/01/2011	TU89A 11/01/2011	TU89F 11/01/2011	TU89J 11/01/2011	TU89K 11/01/2011
1,3-Dichlorobenzene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,4-Dichlorobenzene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Acrolein		200 U	80 U	NA	74 U	73 U	NA	69 U	NA	91 U	NA	79 U	73 U	67 U	89 U	57 U	42 U
Methyl Iodide		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Bromoethane		8.2 U	3.2 U	NA	3.0 U	2.9 U	NA	2.7 U	NA	3.6 U	NA	3.2 U	2.9 U	2.7 U	3.6 U	2.3 U	1.7 U
Acrylonitrile		20 U	8.0 U	NA	7.4 U	7.3 U	NA	6.9 U	NA	9.1 U	NA	7.9 U	7.3 U	6.7 U	8.9 U	5.7 U	4.2 U
1,1-Dichloropropene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Dibromomethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,1,1,2-Tetrachloroethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,2-Dibromo-3-chloropropane		20 U	8.0 U	NA	7.4 U	7.3 U	NA	6.9 U	NA	9.1 U	NA	7.9 U	7.3 U	6.7 U	8.9 U	5.7 U	4.2 U
1,2,3-Trichloropropane		8.2 U	3.2 U	NA	3.0 U	2.9 U	NA	2.7 U	NA	3.6 U	NA	3.2 U	2.9 U	2.7 U	3.6 U	2.3 U	1.7 U
trans-1,4-Dichloro-2-butene		20 U	8.0 U	NA	7.4 U	7.3 U	NA	6.9 U	NA	9.1 U	NA	7.9 U	7.3 U	6.7 U	8.9 U	5.7 U	4.2 U
1,3,5-Trimethylbenzene	4,000,000	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,2,4-Trimethylbenzene	4,000,000	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Hexachlorobutadiene		20 U	8.0 U	NA	7.4 U	7.3 U	NA	6.9 U	NA	9.1 U	NA	7.9 U	7.3 U	6.7 U	8.9 U	5.7 U	4.2 U
Ethylene Dibromide		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Bromochloromethane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
2,2-Dichloropropane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,3-Dichloropropane		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Isopropylbenzene	--	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
n-Propylbenzene	--	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
Bromobenzene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
2-Chlorotoluene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
4-Chlorotoluene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
tert-Butylbenzene		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
sec-Butylbenzene	--	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
4-Isopropyltoluene	--	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
n-Butylbenzene	--	4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U
1,2,4-Trichlorobenzene		20 U	8.0 U	NA	7.4 U	7.3 U	NA	6.9 U	NA	9.1 U	NA	7.9 U	7.3 U	6.7 U	8.9 U	5.7 U	4.2 U
Naphthalene	4,500	20 U	8.0 U	NA	7.4 U	7.3 U	NA	6.9 U	NA	9.1 U	NA	7.9 U	7.3 U	6.7 U	8.9 U	5.7 U	4.2 U
1,2,3-Trichlorobenzene		20 U	8.0 U	NA	7.4 U	7.3 U	NA	6.9 U	NA	9.1 U	NA	7.9 U	7.3 U	6.7 U	8.9 U	5.7 U	4.2 U
Methyl tert-Butyl Ether		4.1 U	1.6 U	NA	1.5 U	1.5 U	NA	1.4 U	NA	1.8 U	NA	1.6 U	1.5 U	1.3 U	1.8 U	1.1 U	0.8 U

U = Indicates the compound was not detected at the reported concentration.  
M = Indicates an estimated value of analyte found and confirmed by analyst but with low spectral match.  
J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.  
**Bold** = Detected compound.  
**Box** = Detected concentration is greater than screening level.

# **Laboratory Analytical Reports (on CD-ROM)**





**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

November 7, 2011

Kathryn Hartley  
Landau Associates  
130 Second Avenue South  
Edmonds, WA 98020

**RE: Project: Boeing Striker: North Detention Pond, 025195.040.045**  
**ARI Job: TU89**

Dear Kathryn,

Enclosed please find the original and revised Chain-of-Custody (COC) records, sample receipt documentation, email documentation, and the final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted six soil samples, fifteen solid samples, and a trip blank on November 1, 2011. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form. Select samples were placed on hold pending further instructions.

The samples were analyzed for VOCs, NWTPH-HCID, and Total Metals, as requested on the COC.

N-Butylbenzene was out of control high in the VOCs continuing calibration. The calibration met overall acceptance criteria. There were no detections for this compound in the samples. "Q" qualifiers have been applied to the form III to indicate this outage.

Naphthalene was out of control high in the VOCs LCSD. It was in control in the LCS. The LCS and LCSD met overall acceptance criteria. There were no detections for this compound in the samples.

Lead was recovered out of control high in the Total Metals matrix spike. All other quality control measures passed, and no further corrective action was taken.

There were no other analytical complications noted.

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC

Eric Branson  
Project Manager  
-for-  
Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)

# Sample ID Cross Reference Report



ARI Job No: TU89  
Client: Landau Associates, Inc.  
Project Event: 025195.040.045  
Project Name: Boeing Striker: North Detention Pon

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. NDP-9(0-1)-111101	TU89A	11-25251	Soil	11/01/11 09:30	11/01/11 16:25
2. NDP-7(0-1)-111101	TU89B	11-25252	Solid	11/01/11 10:30	11/01/11 16:25
3. NDP-3(0-1)-111101	TU89C	11-25253	Soild	11/01/11 11:00	11/01/11 16:25
4. NDP-2(0-1)-111101	TU89D	11-25254	Solid	11/01/11 11:30	11/01/11 16:25
5. NDP-1(0-0.5)-111101	TU89E	11-25255	Solid	11/01/11 12:00	11/01/11 16:25
6. NDP-10(0-1)-111101	TU89F	11-25256	Solid	11/01/11 12:20	11/01/11 16:25
7. NDP-6(0-1)-111101	TU89G	11-25257	Solid	11/01/11 12:40	11/01/11 16:25
8. NDP-4(0-1)-111101	TU89H	11-25258	Solid	11/01/11 13:00	11/01/11 16:25
9. NDP-8(0-1)-111101	TU89I	11-25259	Solid	11/01/11 14:00	11/01/11 16:25
10. NDP-11(0-1)-111101	TU89J	11-25260	Soil	11/01/11 14:20	11/01/11 16:25
11. NDP-12(0-1)-111101	TU89K	11-25261	Soil	11/01/11 14:40	11/01/11 16:25
12. NDP-5(0-1)-111101	TU89L	11-25262	Soil	11/01/11 15:00	11/01/11 16:25
13. NDP-9(1-2)-111101	TU89M	11-25263	Soil	11/01/11 09:45	11/01/11 16:25
14. NDP-7(1-2)-111101	TU89N	11-25264	Solid	11/01/11 10:45	11/01/11 16:25
15. NDP-3(1-2)-111101	TU89O	11-25265	Solid	11/01/11 11:15	11/01/11 16:25
16. NDP-2(1-2)-111101	TU89P	11-25266	Solid	11/01/11 11:45	11/01/11 16:25
17. NDP-10(1-2)-111101	TU89Q	11-25267	Solid	11/01/11 12:25	11/01/11 16:25
18. NDP-6(1-2)-111101	TU89R	11-25268	Solid	11/01/11 12:45	11/01/11 16:25
19. NDP-4(1-2)-111101	TU89S	11-25269	Solid	11/01/11 13:15	11/01/11 16:25
20. NDP-8(1-2)-111101	TU89T	11-25270	Solid	11/01/11 14:05	11/01/11 16:25
21. NDP-5(1-2)-111101	TU89U	11-25271	Soil	11/01/11 15:05	11/01/11 16:25
22. Trip Blanks	TU89V	11-25272	Water	11/01/11	11/01/11 16:25

Printed 11/07/11

**Subject:** Boeing Striker North Detention Pond sampling  
**From:** "Chris Burke" <cburke@landauinc.com>  
**Date:** Wed, 2 Nov 2011 13:37:18 -0700  
**To:** Kelly Bottem <kellyb@arilabs.com>  
**CC:** "Kathryn Hartley" <khartley@landauinc.com>

Hey Kelly,

Kathryn and I noticed a few errors on the COC from yesterday's sampling at the Striker property. I've edited the COCs and attached a scan of those edits.

The changes I made were:

- fixed the sample IDs to use proper date format, i.e., NDP-1(0-1)-110111 became the correct NDP-1(0-1)-111101
- Changed matrix type from sediment to solids
- Checked VOCs analysis for the trip blanks
- Added 'Boeing' to the project name

I highlighted all the changes for clarity, let me know if you have any questions,

**Chris Burke** " Senior Staff Hydrogeologist  
Landau Associates, Inc.

130 2<sup>nd</sup> Ave. S, Edmonds, WA 98020  
425.329.0297 " fax 425.778.6409" cell 716.579.2975  
[cburke@landauinc.com](mailto:cburke@landauinc.com) " <http://www.landauinc.com>

*Email is a sustainable communications tool – please consider this before printing.*

Notice: This communication may contain privileged or other confidential information. If you have received it in error, please advise the sender by reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.

<b>Boeing Striker NPD COC 110111 - revised.pdf</b>	<p style="text-align: right;">Boeing Striker NPD</p> <p><b>Content-Description:</b> COC 110111 - revised.pdf</p> <p><b>Content-Type:</b> application/pdf</p> <p><b>Content-Encoding:</b> base64</p>
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# Chain-of-Custody Record

Project Name		Project No.		Testing Parameters				Turnaround Time	
Project Location/Event								Standard	
Sampler's Name								Accelerated	
Project Contact								<b>X 3-day</b>	
Send Results To									
Sample I.D.	Date	Time	Matrix	No. of Containers	HLID*	Metals**	VOCs	Archive	Observations/Comments
NDP-1(0-1)-H0111	11/1/11	0930	Soil	7	X	X	X		<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion  <input checked="" type="checkbox"/> NWTPH-Dx - run acid wash/silica gel cleanup  <input type="checkbox"/> run samples standardized to _____ product  <input type="checkbox"/> Analyze for EPH if no specific product identified  VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input type="checkbox"/> Dissolved metal water samples field filtered  Other * Halo ... + 4 ... ...
NDP-1(1-2)-H0111	11/1/11	0945	Soil	7				X	
NDP-7(0-1)-H0111	11/1/11	1030	Sediment	7	X	X	X		
NDP-7(1-2)-H0111	11/1/11	1045	Sediment	7				X	
NDP-3(0-1)-H0111	11/1/11	1100	Sediment	7	X	X	X		
NDP-3(1-2)-H0111	11/1/11	1115	Sediment	7				X	
NDP-2(0-1)-H0111	11/1/11	1130	Sediment	7	X	X	X		
NDP-2(1-2)-H0111	11/1/11	1145	Sediment	7				X	
NDP-1(0-0.5)-H0111	11/1/11	1200	Sediment	7	X	X	X		
NDP-10(0-1)-H0111	11/1/11	1220	Sediment	7	X	X	X		
NDP-10(1-2)-H0111	11/1/11	1225	Sediment	7				X	
NDP-6(0-1)-H0111	11/1/11	1240	Sediment	7	X	X	X		
NDP-6(1-2)-H0111	11/1/11	1245	Sediment	7				X	
NDP-4(0-1)-H0111	11/1/11	1300	Sediment	7	X	X	X		
NDP-4(1-2)-H0111	11/1/11	1315	Sediment	7				X	
NDP-8(0-1)-H0111	11/1/11	1400	Sediment	7	X	X	X		
NDP-8(1-2)-H0111	11/1/11	1405	Sediment	7				X	
NDP-11(0-1)-H0111	11/1/11	1420	Soil	7	X	X	X		
Special Shipment/Handling or Storage Requirements		On ice						Method of Shipment	
Relinquished by		Received by		Relinquished by		Received by			
Signature		Signature		Signature		Signature			
Printed Name		Printed Name		Printed Name		Printed Name			
Company		Company		Company		Company			
Date		Date		Date		Date			
Time		Time		Time		Time			



# Chain-of-Custody Record

Project Name: <u>Staker</u> Project No. <u>025195.070.075</u>					<b>Testing Parameters</b>					Turnaround Time <input type="checkbox"/> Standard <input type="checkbox"/> Accelerated		
Project Location/Event: <u>Kent, WA</u>					HCID* Metals* VOCs Aroclor							
Sampler's Name: <u>CFB/mud</u>												
Project Contact: <u>Kathryn Hentle, Tom Spurgeon</u>												
Send Results To: <u>ILU, CFB, Joe Flaherty</u>												
Sample I.D.	Date	Time	Matrix	No. of Containers	HCID*	Metals*	VOCs	Aroclor	Observations/Comments			
<u>NDP-12 (0-1)-40TH</u>	<u>11/11/11</u>	<u>1440</u>	<u>Soil</u>	<u>7</u>	<u>X</u>	<u>X</u>	<u>X</u>		<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion			
<u>NDP-5 (0-1)-40TH</u>	<u>11/11/11</u>	<u>1500</u>	<u>Soil</u>	<u>7</u>	<u>X</u>	<u>X</u>	<u>X</u>		<input type="checkbox"/> NWTPH-Dx run acid wash/silica gel cleanup			
<u>NDP-5 (1-2)-40TH</u>	<u>11/11/11</u>	<u>1505</u>	<u>Soil</u>	<u>7</u>			<u>X</u>		<input type="checkbox"/> run samples standardized to _____ product			
<u>TRIP BLANKS</u>			<u>Blank</u>	<u>6</u>					<input type="checkbox"/> Analyze for EPH if no specific product identified			
									VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt <input type="checkbox"/> Dissolved metal water samples field filtered			
Special Shipment/Handling or Storage Requirements: <u>DR 111</u>					Method of Shipment: <u>Delivered to ARI</u>					Other: <u>*Hold over 20 anti</u> <u>HCID Results are in</u> <u>* metals: Ag, As, Cd, Cr, Cu, Fe, Pb, Hg, Zn</u>		
<b>Relinquished by</b>		<b>Received by</b>			<b>Relinquished by</b>		<b>Received by</b>					
Signature: <u>[Signature]</u>		Signature: <u>[Signature]</u>			Signature: _____		Signature: _____					
Printed Name: <u>Chris Breen</u>		Printed Name: _____			Printed Name: _____		Printed Name: _____					
Company: <u>LANDAU</u>		Company: _____			Company: _____		Company: _____					
Date: <u>11/11/11</u> Time: <u>6:55</u>		Date: _____ Time: _____			Date: _____ Time: _____		Date: _____ Time: _____					



- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- \_\_\_\_\_

Date 11/1/11

Page 1 of 2

# Chain-of-Custody Record

175

Project Name Steiker: North Detention Pond Project No. 025195.040.045

Project Location/Event Kent, WA

Sampler's Name CFB / MWB

Project Contact Kathryn Hartley, Tim Sverson

Send Results To " , TLS, CFB, Joe Flaherty

Turnaround Time  
 Standard  
 Accelerated  
 3-day

Sample I.D.	Date	Time	Matrix	No. of Containers	HLID*	Metals**	VOCs	Archive	Observations/Comments
NDP-9(0-1)-110111	11/1/11	0930	Soil	7	X	X	X		<input checked="" type="checkbox"/> Allow water samples to settle, collect aliquot from clear portion <input checked="" type="checkbox"/> NWTPH-Dx - run acid wash/silica gel cleanup  run samples standardized to _____ product Analyze for EPH if no specific product identified VOC/BTEX/VPH (soil): <input type="checkbox"/> non-preserved <input type="checkbox"/> preserved w/methanol <input type="checkbox"/> preserved w/sodium bisulfate <input type="checkbox"/> Freeze upon receipt  <input type="checkbox"/> Dissolved metal water samples field filtered Other <u>* Hold Gx+Dx until HCD results are in</u> <u>** metals: As, Be, Cd, Cr, Cu, Pb, Hg, Zn</u>
NDP-9(1-2)-110111	11/1/11	0945	Soil	7				X	
NDP-7(0-1)-110111	11/1/11	1030	Sediment	7	X	X	X		
NDP-7(1-2)-110111	11/1/11	1045	Sediment	7				X	
NDP-3(0-1)-110111	11/1/11	1100	Sediment	7	X	X	X		
NDP-3(1-2)-110111	11/1/11	1115	Sediment	7				X	
NDP-2(0-1)-110111	11/1/11	1130	Sediment	7	X	X	X		
NDP-2(1-2)-110111	11/1/11	1145	Sediment	7				X	
NDP-1(0-0.5)-110111	11/1/11	1200	Sediment	7	X	X	X		
NDP-10(0-1)-110111	11/1/11	1220	Sediment	7	X	X	X		
NDP-10(1-2)-110111	11/1/11	1225	Sediment	7				X	
NDP-6(0-1)-110111	11/1/11	1240	Sediment	7	X	X	X		
NDP-6(1-2)-110111	11/1/11	1245	Sediment	7				X	
NDP-4(0-1)-110111	11/1/11	1300	Sediment	7	X	X	X		
NDP-4(1-2)-110111	11/1/11	1315	Sediment	7				X	
NDP-8(0-1)-110111	11/1/11	1400	Sediment	7	X	X	X		
NDP-8(1-2)-110111	11/1/11	1405	Sediment	7				X	
NDP-11(0-1)-110111	11/1/11	1420	Soil	7	X	X	X		

Special Shipment/Handling or Storage Requirements On ice

Method of Shipment Dropped @ AR1

<b>Relinquished by</b> Signature <u>[Signature]</u> Printed Name <u>Chris Burke</u> Company <u>Landau</u> Date <u>11/1/11</u> Time <u>1625</u>	<b>Received by</b> Signature <u>[Signature]</u> Printed Name <u>A. Volgardsen</u> Company <u>ARI</u> Date <u>11/1/11</u> Time <u>1625</u>	<b>Relinquished by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____	<b>Received by</b> Signature _____ Printed Name _____ Company _____ Date _____ Time _____
--	---	---	---





# Cooler Receipt Form

ARI Client Boeing  
 COC No(s) \_\_\_\_\_ (NA)  
 Assigned ARI Job No 7297

Project Name: Striker: North Detention Pond  
 Delivered by: Fed-Ex UPS Courier Hand Delivered Other: \_\_\_\_\_  
 Tracking No \_\_\_\_\_ (NA)

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO  
 Were custody papers included with the cooler? YES NO  
 Were custody papers properly filled out (ink, signed, etc) YES NO  
 Temperature of Cooler(s) (°C) (recommended 2 0-6 0 °C for chemistry) 5.9 3.3  
 If cooler temperature is out of compliance fill out form 00070F

Cooler Accepted by AV Date 11/1/11 Time 1625  
 Temp Gun ID#: 90941619  
**Complete custody forms and attach all shipping documents**

**Log-In Phase:**

Was a temperature blank included in the cooler? YES NO  
 What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: \_\_\_\_\_  
 Was sufficient ice used (if appropriate)? NA YES NO  
 Were all bottles sealed in individual plastic bags? YES NO  
 Did all bottles arrive in good condition (unbroken)? YES NO  
 Were all bottle labels complete and legible? YES NO  
 Did the number of containers listed on COC match with the number of containers received? YES NO  
 Did all bottle labels and tags agree with custody papers? YES NO  
 Were all bottles used correct for the requested analyses? YES NO  
 Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) NO YES NO  
 Were all VOC vials free of air bubbles? NA YES NO  
 Was sufficient amount of sample sent in each bottle? YES NO  
 Date VOC Trip Blank was made at ARI. NA 11-27-11  
 Was Sample Split by ARI: NO YES Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by \_\_\_\_\_

Samples Logged by TS Date 11-2-11 Time 800  
**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**  
Trip blank 1 'pb'  
 By TS Date 11-2-11

			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"



**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-9(0-1)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89A


QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25251

Project: Boeing Striker: North Detention Pon

Matrix: Soil

025195.040.045

Data Release Authorized: 

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 3.71 g-dry-wt

Date Analyzed: 11/02/11 12:44

Purge Volume: 5.0 mL

Moisture: 26.6%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.3	< 1.3	U
74-83-9	Bromomethane	1.3	< 1.3	U
75-01-4	Vinyl Chloride	1.3	< 1.3	U
75-00-3	Chloroethane	1.3	< 1.3	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>2.7</b>	<b>4.2</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>6.7</b>	<b>140</b>	
75-15-0	Carbon Disulfide	1.3	< 1.3	U
75-35-4	1,1-Dichloroethene	1.3	< 1.3	U
75-34-3	1,1-Dichloroethane	1.3	< 1.3	U
156-60-5	trans-1,2-Dichloroethene	1.3	< 1.3	U
156-59-2	cis-1,2-Dichloroethene	1.3	< 1.3	U
67-66-3	Chloroform	1.3	< 1.3	U
107-06-2	1,2-Dichloroethane	1.3	< 1.3	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>6.7</b>	<b>10</b>	
71-55-6	1,1,1-Trichloroethane	1.3	< 1.3	U
56-23-5	Carbon Tetrachloride	1.3	< 1.3	U
108-05-4	Vinyl Acetate	6.7	< 6.7	U
75-27-4	Bromodichloromethane	1.3	< 1.3	U
78-87-5	1,2-Dichloropropane	1.3	< 1.3	U
10061-01-5	cis-1,3-Dichloropropene	1.3	< 1.3	U
79-01-6	Trichloroethene	1.3	< 1.3	U
124-48-1	Dibromochloromethane	1.3	< 1.3	U
79-00-5	1,1,2-Trichloroethane	1.3	< 1.3	U
71-43-2	Benzene	1.3	< 1.3	U
10061-02-6	trans-1,3-Dichloropropene	1.3	< 1.3	U
110-75-8	2-Chloroethylvinylether	6.7	< 6.7	U
75-25-2	Bromoform	1.3	< 1.3	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	6.7	< 6.7	U
591-78-6	2-Hexanone	76	< 76	Y
127-18-4	Tetrachloroethene	1.3	< 1.3	U
79-34-5	1,1,2,2-Tetrachloroethane	1.3	< 1.3	U
108-88-3	Toluene	1.3	< 1.3	U
108-90-7	Chlorobenzene	1.3	< 1.3	U
100-41-4	Ethylbenzene	1.3	< 1.3	U
100-42-5	Styrene	1.3	< 1.3	U
75-69-4	Trichlorofluoromethane	1.3	< 1.3	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.7	< 2.7	U
179601-23-1	m,p-Xylene	1.3	< 1.3	U
95-47-6	o-Xylene	1.3	< 1.3	U
95-50-1	1,2-Dichlorobenzene	1.3	< 1.3	U
541-73-1	1,3-Dichlorobenzene	1.3	< 1.3	U
106-46-7	1,4-Dichlorobenzene	1.3	< 1.3	U
107-02-8	Acrolein	67	< 67	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

Page 2 of 2

**Sample ID: NDP-9(0-1)-111101**

**SAMPLE**

Lab Sample ID: TU89A

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25251

Project: Boeing Striker: North Detention Pon

Matrix: Soil

025195.040.045

Date Analyzed: 11/02/11 12:44

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.3	< 1.3	U
74-96-4	Bromoethane	2.7	< 2.7	U
107-13-1	Acrylonitrile	6.7	< 6.7	U
563-58-6	1,1-Dichloropropene	1.3	< 1.3	U
74-95-3	Dibromomethane	1.3	< 1.3	U
630-20-6	1,1,1,2-Tetrachloroethane	1.3	< 1.3	U
96-12-8	1,2-Dibromo-3-chloropropane	6.7	< 6.7	U
96-18-4	1,2,3-Trichloropropane	2.7	< 2.7	U
110-57-6	trans-1,4-Dichloro-2-butene	6.7	< 6.7	U
108-67-8	1,3,5-Trimethylbenzene	1.3	< 1.3	U
95-63-6	1,2,4-Trimethylbenzene	1.3	< 1.3	U
87-68-3	Hexachlorobutadiene	6.7	< 6.7	U
106-93-4	Ethylene Dibromide	1.3	< 1.3	U
74-97-5	Bromochloromethane	1.3	< 1.3	U
594-20-7	2,2-Dichloropropane	1.3	< 1.3	U
142-28-9	1,3-Dichloropropane	1.3	< 1.3	U
98-82-8	Isopropylbenzene	1.3	< 1.3	U
103-65-1	n-Propylbenzene	1.3	< 1.3	U
108-86-1	Bromobenzene	1.3	< 1.3	U
95-49-8	2-Chlorotoluene	1.3	< 1.3	U
106-43-4	4-Chlorotoluene	1.3	< 1.3	U
98-06-6	tert-Butylbenzene	1.3	< 1.3	U
135-98-8	sec-Butylbenzene	1.3	< 1.3	U
99-87-6	4-Isopropyltoluene	1.3	< 1.3	U
104-51-8	n-Butylbenzene	1.3	< 1.3	U
120-82-1	1,2,4-Trichlorobenzene	6.7	< 6.7	U
91-20-3	Naphthalene	6.7	< 6.7	U
87-61-6	1,2,3-Trichlorobenzene	6.7	< 6.7	U
1634-04-4	Methyl tert-Butyl Ether	1.3	< 1.3	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	125%
d8-Toluene	103%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	103%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-7(0-1)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89B

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25252

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Data Release Authorized:

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 3.15 g-dry-wt

Date Analyzed: 11/02/11 13:06

Purge Volume: 5.0 mL

Moisture: 30.2%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.6	< 1.6	U
74-83-9	Bromomethane	1.6	< 1.6	U
75-01-4	Vinyl Chloride	1.6	< 1.6	U
75-00-3	Chloroethane	1.6	< 1.6	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>3.2</b>	<b>4.7</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>7.9</b>	<b>28</b>	
75-15-0	Carbon Disulfide	1.6	< 1.6	U
75-35-4	1,1-Dichloroethene	1.6	< 1.6	U
75-34-3	1,1-Dichloroethane	1.6	< 1.6	U
156-60-5	trans-1,2-Dichloroethene	1.6	< 1.6	U
156-59-2	cis-1,2-Dichloroethene	1.6	< 1.6	U
67-66-3	Chloroform	1.6	< 1.6	U
107-06-2	1,2-Dichloroethane	1.6	< 1.6	U
78-93-3	2-Butanone	7.9	< 7.9	U
71-55-6	1,1,1-Trichloroethane	1.6	< 1.6	U
56-23-5	Carbon Tetrachloride	1.6	< 1.6	U
108-05-4	Vinyl Acetate	7.9	< 7.9	U
75-27-4	Bromodichloromethane	1.6	< 1.6	U
78-87-5	1,2-Dichloropropane	1.6	< 1.6	U
10061-01-5	cis-1,3-Dichloropropene	1.6	< 1.6	U
79-01-6	Trichloroethene	1.6	< 1.6	U
124-48-1	Dibromochloromethane	1.6	< 1.6	U
79-00-5	1,1,2-Trichloroethane	1.6	< 1.6	U
71-43-2	Benzene	1.6	< 1.6	U
10061-02-6	trans-1,3-Dichloropropene	1.6	< 1.6	U
110-75-8	2-Chloroethylvinylether	7.9	< 7.9	U
75-25-2	Bromoform	1.6	< 1.6	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	7.9	< 7.9	U
591-78-6	2-Hexanone	7.9	< 7.9	U
127-18-4	Tetrachloroethene	1.6	< 1.6	U
79-34-5	1,1,2,2-Tetrachloroethane	1.6	< 1.6	U
108-88-3	Toluene	1.6	< 1.6	U
108-90-7	Chlorobenzene	1.6	< 1.6	U
100-41-4	Ethylbenzene	1.6	< 1.6	U
100-42-5	Styrene	1.6	< 1.6	U
75-69-4	Trichlorofluoromethane	1.6	< 1.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	3.2	< 3.2	U
179601-23-1	m,p-Xylene	1.6	< 1.6	U
95-47-6	o-Xylene	1.6	< 1.6	U
95-50-1	1,2-Dichlorobenzene	1.6	< 1.6	U
541-73-1	1,3-Dichlorobenzene	1.6	< 1.6	U
106-46-7	1,4-Dichlorobenzene	1.6	< 1.6	U
107-02-8	Acrolein	79	< 79	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-7(0-1)-111101**

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**SAMPLE**

Lab Sample ID: TU89B

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25252

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Date Analyzed: 11/02/11 13:06

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.6	< 1.6	U
74-96-4	Bromoethane	3.2	< 3.2	U
107-13-1	Acrylonitrile	7.9	< 7.9	U
563-58-6	1,1-Dichloropropene	1.6	< 1.6	U
74-95-3	Dibromomethane	1.6	< 1.6	U
630-20-6	1,1,1,2-Tetrachloroethane	1.6	< 1.6	U
96-12-8	1,2-Dibromo-3-chloropropane	7.9	< 7.9	U
96-18-4	1,2,3-Trichloropropane	3.2	< 3.2	U
110-57-6	trans-1,4-Dichloro-2-butene	7.9	< 7.9	U
108-67-8	1,3,5-Trimethylbenzene	1.6	< 1.6	U
95-63-6	1,2,4-Trimethylbenzene	1.6	< 1.6	U
87-68-3	Hexachlorobutadiene	7.9	< 7.9	U
106-93-4	Ethylene Dibromide	1.6	< 1.6	U
74-97-5	Bromochloromethane	1.6	< 1.6	U
594-20-7	2,2-Dichloropropane	1.6	< 1.6	U
142-28-9	1,3-Dichloropropane	1.6	< 1.6	U
98-82-8	Isopropylbenzene	1.6	< 1.6	U
103-65-1	n-Propylbenzene	1.6	< 1.6	U
108-86-1	Bromobenzene	1.6	< 1.6	U
95-49-8	2-Chlorotoluene	1.6	< 1.6	U
106-43-4	4-Chlorotoluene	1.6	< 1.6	U
98-06-6	tert-Butylbenzene	1.6	< 1.6	U
135-98-8	sec-Butylbenzene	1.6	< 1.6	U
99-87-6	4-Isopropyltoluene	1.6	< 1.6	U
104-51-8	n-Butylbenzene	1.6	< 1.6	U
120-82-1	1,2,4-Trichlorobenzene	7.9	< 7.9	U
91-20-3	Naphthalene	7.9	< 7.9	U
87-61-6	1,2,3-Trichlorobenzene	7.9	< 7.9	U
1634-04-4	Methyl tert-Butyl Ether	1.6	< 1.6	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	126%
d8-Toluene	103%
Bromofluorobenzene	103%
d4-1,2-Dichlorobenzene	104%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-3(0-1)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89C

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25253

Project: Boeing Striker: North Detention Pon

Matrix: Soild

025195.040.045

Data Release Authorized:

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 3.37 g-dry-wt

Date Analyzed: 11/02/11 13:27

Purge Volume: 5.0 mL

Moisture: 24.4%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.5	< 1.5	U
74-83-9	Bromomethane	1.5	< 1.5	U
75-01-4	Vinyl Chloride	1.5	< 1.5	U
75-00-3	Chloroethane	1.5	< 1.5	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>3.0</b>	<b>3.6</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>7.4</b>	<b>61</b>	
75-15-0	Carbon Disulfide	1.5	< 1.5	U
75-35-4	1,1-Dichloroethene	1.5	< 1.5	U
75-34-3	1,1-Dichloroethane	1.5	< 1.5	U
156-60-5	trans-1,2-Dichloroethene	1.5	< 1.5	U
156-59-2	cis-1,2-Dichloroethene	1.5	< 1.5	U
67-66-3	Chloroform	1.5	< 1.5	U
107-06-2	1,2-Dichloroethane	1.5	< 1.5	U
78-93-3	2-Butanone	7.4	< 7.4	U
71-55-6	1,1,1-Trichloroethane	1.5	< 1.5	U
56-23-5	Carbon Tetrachloride	1.5	< 1.5	U
108-05-4	Vinyl Acetate	7.4	< 7.4	U
75-27-4	Bromodichloromethane	1.5	< 1.5	U
78-87-5	1,2-Dichloropropane	1.5	< 1.5	U
10061-01-5	cis-1,3-Dichloropropene	1.5	< 1.5	U
79-01-6	Trichloroethene	1.5	< 1.5	U
124-48-1	Dibromochloromethane	1.5	< 1.5	U
79-00-5	1,1,2-Trichloroethane	1.5	< 1.5	U
71-43-2	Benzene	1.5	< 1.5	U
10061-02-6	trans-1,3-Dichloropropene	1.5	< 1.5	U
110-75-8	2-Chloroethylvinylether	7.4	< 7.4	U
75-25-2	Bromoform	1.5	< 1.5	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	7.4	< 7.4	U
591-78-6	2-Hexanone	7.4	< 7.4	U
127-18-4	Tetrachloroethene	1.5	< 1.5	U
79-34-5	1,1,2,2-Tetrachloroethane	1.5	< 1.5	U
108-88-3	Toluene	1.5	< 1.5	U
108-90-7	Chlorobenzene	1.5	< 1.5	U
100-41-4	Ethylbenzene	1.5	< 1.5	U
100-42-5	Styrene	1.5	< 1.5	U
75-69-4	Trichlorofluoromethane	1.5	< 1.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoro	3.0	< 3.0	U
179601-23-1	m,p-Xylene	1.5	< 1.5	U
95-47-6	o-Xylene	1.5	< 1.5	U
95-50-1	1,2-Dichlorobenzene	1.5	< 1.5	U
541-73-1	1,3-Dichlorobenzene	1.5	< 1.5	U
106-46-7	1,4-Dichlorobenzene	1.5	< 1.5	U
107-02-8	Acrolein	74	< 74	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

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**Sample ID: NDP-3(0-1)-111101**

**SAMPLE**

Lab Sample ID: TU89C

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25253

Project: Boeing Striker: North Detention Pon

Matrix: Soild

025195.040.045

Date Analyzed: 11/02/11 13:27

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.5	< 1.5	U
74-96-4	Bromoethane	3.0	< 3.0	U
107-13-1	Acrylonitrile	7.4	< 7.4	U
563-58-6	1,1-Dichloropropene	1.5	< 1.5	U
74-95-3	Dibromomethane	1.5	< 1.5	U
630-20-6	1,1,1,2-Tetrachloroethane	1.5	< 1.5	U
96-12-8	1,2-Dibromo-3-chloropropane	7.4	< 7.4	U
96-18-4	1,2,3-Trichloropropane	3.0	< 3.0	U
110-57-6	trans-1,4-Dichloro-2-butene	7.4	< 7.4	U
108-67-8	1,3,5-Trimethylbenzene	1.5	< 1.5	U
95-63-6	1,2,4-Trimethylbenzene	1.5	< 1.5	U
87-68-3	Hexachlorobutadiene	7.4	< 7.4	U
106-93-4	Ethylene Dibromide	1.5	< 1.5	U
74-97-5	Bromochloromethane	1.5	< 1.5	U
594-20-7	2,2-Dichloropropane	1.5	< 1.5	U
142-28-9	1,3-Dichloropropane	1.5	< 1.5	U
98-82-8	Isopropylbenzene	1.5	< 1.5	U
103-65-1	n-Propylbenzene	1.5	< 1.5	U
108-86-1	Bromobenzene	1.5	< 1.5	U
95-49-8	2-Chlorotoluene	1.5	< 1.5	U
106-43-4	4-Chlorotoluene	1.5	< 1.5	U
98-06-6	tert-Butylbenzene	1.5	< 1.5	U
135-98-8	sec-Butylbenzene	1.5	< 1.5	U
99-87-6	4-Isopropyltoluene	1.5	< 1.5	U
104-51-8	n-Butylbenzene	1.5	< 1.5	U
120-82-1	1,2,4-Trichlorobenzene	7.4	< 7.4	U
91-20-3	Naphthalene	7.4	< 7.4	U
87-61-6	1,2,3-Trichlorobenzene	7.4	< 7.4	U
1634-04-4	Methyl tert-Butyl Ether	1.5	< 1.5	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	122%
d8-Toluene	102%
Bromofluorobenzene	100%
d4-1,2-Dichlorobenzene	103%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-2(0-1)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89D

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25254

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Data Release Authorized:

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 3.13 g-dry-wt

Date Analyzed: 11/02/11 13:48

Purge Volume: 5.0 mL

Moisture: 35.3%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.6	< 1.6	U
74-83-9	Bromomethane	1.6	< 1.6	U
75-01-4	Vinyl Chloride	1.6	< 1.6	U
75-00-3	Chloroethane	1.6	< 1.6	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>3.2</b>	<b>3.9</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>8.0</b>	<b>48</b>	
75-15-0	Carbon Disulfide	1.6	< 1.6	U
75-35-4	1,1-Dichloroethene	1.6	< 1.6	U
75-34-3	1,1-Dichloroethane	1.6	< 1.6	U
156-60-5	trans-1,2-Dichloroethene	1.6	< 1.6	U
156-59-2	cis-1,2-Dichloroethene	1.6	< 1.6	U
67-66-3	Chloroform	1.6	< 1.6	U
107-06-2	1,2-Dichloroethane	1.6	< 1.6	U
78-93-3	2-Butanone	8.0	< 8.0	U
71-55-6	1,1,1-Trichloroethane	1.6	< 1.6	U
56-23-5	Carbon Tetrachloride	1.6	< 1.6	U
108-05-4	Vinyl Acetate	8.0	< 8.0	U
75-27-4	Bromodichloromethane	1.6	< 1.6	U
78-87-5	1,2-Dichloropropane	1.6	< 1.6	U
10061-01-5	cis-1,3-Dichloropropene	1.6	< 1.6	U
79-01-6	Trichloroethene	1.6	< 1.6	U
124-48-1	Dibromochloromethane	1.6	< 1.6	U
79-00-5	1,1,2-Trichloroethane	1.6	< 1.6	U
71-43-2	Benzene	1.6	< 1.6	U
10061-02-6	trans-1,3-Dichloropropene	1.6	< 1.6	U
110-75-8	2-Chloroethylvinylether	8.0	< 8.0	U
75-25-2	Bromoform	1.6	< 1.6	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	8.0	< 8.0	U
591-78-6	2-Hexanone	8.0	< 8.0	U
127-18-4	Tetrachloroethene	1.6	< 1.6	U
79-34-5	1,1,2,2-Tetrachloroethane	1.6	< 1.6	U
108-88-3	Toluene	1.6	< 1.6	U
108-90-7	Chlorobenzene	1.6	< 1.6	U
100-41-4	Ethylbenzene	1.6	< 1.6	U
100-42-5	Styrene	1.6	< 1.6	U
75-69-4	Trichlorofluoromethane	1.6	< 1.6	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	3.2	< 3.2	U
179601-23-1	m,p-Xylene	1.6	< 1.6	U
95-47-6	o-Xylene	1.6	< 1.6	U
95-50-1	1,2-Dichlorobenzene	1.6	< 1.6	U
541-73-1	1,3-Dichlorobenzene	1.6	< 1.6	U
106-46-7	1,4-Dichlorobenzene	1.6	< 1.6	U
107-02-8	Acrolein	80	< 80	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

Page 2 of 2

**Sample ID: NDP-2(0-1)-111101  
SAMPLE**

Lab Sample ID: TU89D

LIMS ID: 11-25254

Matrix: Solid

Date Analyzed: 11/02/11 13:48

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon  
025195.040.045

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.6	< 1.6	U
74-96-4	Bromoethane	3.2	< 3.2	U
107-13-1	Acrylonitrile	8.0	< 8.0	U
563-58-6	1,1-Dichloropropene	1.6	< 1.6	U
74-95-3	Dibromomethane	1.6	< 1.6	U
630-20-6	1,1,1,2-Tetrachloroethane	1.6	< 1.6	U
96-12-8	1,2-Dibromo-3-chloropropane	8.0	< 8.0	U
96-18-4	1,2,3-Trichloropropane	3.2	< 3.2	U
110-57-6	trans-1,4-Dichloro-2-butene	8.0	< 8.0	U
108-67-8	1,3,5-Trimethylbenzene	1.6	< 1.6	U
95-63-6	1,2,4-Trimethylbenzene	1.6	< 1.6	U
87-68-3	Hexachlorobutadiene	8.0	< 8.0	U
106-93-4	Ethylene Dibromide	1.6	< 1.6	U
74-97-5	Bromochloromethane	1.6	< 1.6	U
594-20-7	2,2-Dichloropropane	1.6	< 1.6	U
142-28-9	1,3-Dichloropropane	1.6	< 1.6	U
98-82-8	Isopropylbenzene	1.6	< 1.6	U
103-65-1	n-Propylbenzene	1.6	< 1.6	U
108-86-1	Bromobenzene	1.6	< 1.6	U
95-49-8	2-Chlorotoluene	1.6	< 1.6	U
106-43-4	4-Chlorotoluene	1.6	< 1.6	U
98-06-6	tert-Butylbenzene	1.6	< 1.6	U
135-98-8	sec-Butylbenzene	1.6	< 1.6	U
99-87-6	4-Isopropyltoluene	1.6	< 1.6	U
104-51-8	n-Butylbenzene	1.6	< 1.6	U
120-82-1	1,2,4-Trichlorobenzene	8.0	< 8.0	U
91-20-3	Naphthalene	8.0	< 8.0	U
87-61-6	1,2,3-Trichlorobenzene	8.0	< 8.0	U
1634-04-4	Methyl tert-Butyl Ether	1.6	< 1.6	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	123%
d8-Toluene	103%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	103%



**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-1(0-0.5)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89E


QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25255

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Data Release Authorized: 

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 1.22 g-dry-wt

Date Analyzed: 11/02/11 14:09

Purge Volume: 5.0 mL

Moisture: 72.0%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	4.1	< 4.1	U
74-83-9	Bromomethane	4.1	< 4.1	U
75-01-4	Vinyl Chloride	4.1	< 4.1	U
75-00-3	Chloroethane	4.1	< 4.1	U
75-09-2	Methylene Chloride	8.2	< 8.2	U
<b>67-64-1</b>	<b>Acetone</b>	<b>20</b>	<b>390</b>	
75-15-0	Carbon Disulfide	4.1	< 4.1	U
75-35-4	1,1-Dichloroethene	4.1	< 4.1	U
75-34-3	1,1-Dichloroethane	4.1	< 4.1	U
156-60-5	trans-1,2-Dichloroethene	4.1	< 4.1	U
156-59-2	cis-1,2-Dichloroethene	4.1	< 4.1	U
67-66-3	Chloroform	4.1	< 4.1	U
107-06-2	1,2-Dichloroethane	4.1	< 4.1	U
<b>78-93-3</b>	<b>2-Butanone</b>	<b>20</b>	<b>28</b>	
71-55-6	1,1,1-Trichloroethane	4.1	< 4.1	U
56-23-5	Carbon Tetrachloride	4.1	< 4.1	U
108-05-4	Vinyl Acetate	20	< 20	U
75-27-4	Bromodichloromethane	4.1	< 4.1	U
78-87-5	1,2-Dichloropropane	4.1	< 4.1	U
10061-01-5	cis-1,3-Dichloropropene	4.1	< 4.1	U
79-01-6	Trichloroethene	4.1	< 4.1	U
124-48-1	Dibromochloromethane	4.1	< 4.1	U
79-00-5	1,1,2-Trichloroethane	4.1	< 4.1	U
71-43-2	Benzene	4.1	< 4.1	U
10061-02-6	trans-1,3-Dichloropropene	4.1	< 4.1	U
110-75-8	2-Chloroethylvinylether	20	< 20	U
75-25-2	Bromoform	4.1	< 4.1	U
<b>108-10-1</b>	<b>4-Methyl-2-Pentanone (MIBK)</b>	<b>20</b>	<b>29</b>	<b>M</b>
591-78-6	2-Hexanone	280	< 280	Y
127-18-4	Tetrachloroethene	4.1	< 4.1	U
79-34-5	1,1,2,2-Tetrachloroethane	4.1	< 4.1	U
108-88-3	Toluene	4.1	< 4.1	U
108-90-7	Chlorobenzene	4.1	< 4.1	U
100-41-4	Ethylbenzene	4.1	< 4.1	U
100-42-5	Styrene	4.1	< 4.1	U
75-69-4	Trichlorofluoromethane	4.1	< 4.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	8.2	< 8.2	U
179601-23-1	m,p-Xylene	4.1	< 4.1	U
95-47-6	o-Xylene	4.1	< 4.1	U
95-50-1	1,2-Dichlorobenzene	4.1	< 4.1	U
541-73-1	1,3-Dichlorobenzene	4.1	< 4.1	U
106-46-7	1,4-Dichlorobenzene	4.1	< 4.1	U
107-02-8	Acrolein	200	< 200	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

Page 2 of 2

Sample ID: NDP-1(0-0.5)-111101

SAMPLE

Lab Sample ID: TU89E

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25255

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Date Analyzed: 11/02/11 14:09

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	4.1	< 4.1	U
74-96-4	Bromoethane	8.2	< 8.2	U
107-13-1	Acrylonitrile	20	< 20	U
563-58-6	1,1-Dichloropropene	4.1	< 4.1	U
74-95-3	Dibromomethane	4.1	< 4.1	U
630-20-6	1,1,1,2-Tetrachloroethane	4.1	< 4.1	U
96-12-8	1,2-Dibromo-3-chloropropane	20	< 20	U
96-18-4	1,2,3-Trichloropropane	8.2	< 8.2	U
110-57-6	trans-1,4-Dichloro-2-butene	20	< 20	U
108-67-8	1,3,5-Trimethylbenzene	4.1	< 4.1	U
95-63-6	1,2,4-Trimethylbenzene	4.1	< 4.1	U
87-68-3	Hexachlorobutadiene	20	< 20	U
106-93-4	Ethylene Dibromide	4.1	< 4.1	U
74-97-5	Bromochloromethane	4.1	< 4.1	U
594-20-7	2,2-Dichloropropane	4.1	< 4.1	U
142-28-9	1,3-Dichloropropane	4.1	< 4.1	U
98-82-8	Isopropylbenzene	4.1	< 4.1	U
103-65-1	n-Propylbenzene	4.1	< 4.1	U
108-86-1	Bromobenzene	4.1	< 4.1	U
95-49-8	2-Chlorotoluene	4.1	< 4.1	U
106-43-4	4-Chlorotoluene	4.1	< 4.1	U
98-06-6	tert-Butylbenzene	4.1	< 4.1	U
135-98-8	sec-Butylbenzene	4.1	< 4.1	U
99-87-6	4-Isopropyltoluene	4.1	< 4.1	U
104-51-8	n-Butylbenzene	4.1	< 4.1	U
120-82-1	1,2,4-Trichlorobenzene	20	< 20	U
91-20-3	Naphthalene	20	< 20	U
87-61-6	1,2,3-Trichlorobenzene	20	< 20	U
1634-04-4	Methyl tert-Butyl Ether	4.1	< 4.1	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	121%
d8-Toluene	103%
Bromofluorobenzene	99.6%
d4-1,2-Dichlorobenzene	104%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-10(0-1)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89F

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25256

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Data Release Authorized: *AB*

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 2.81 g-dry-wt

Date Analyzed: 11/02/11 14:30

Purge Volume: 5.0 mL

Moisture: 36.8%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.8	< 1.8	U
74-83-9	Bromomethane	1.8	< 1.8	U
75-01-4	Vinyl Chloride	1.8	< 1.8	U
75-00-3	Chloroethane	1.8	< 1.8	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>3.6</b>	<b>4.7</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>8.9</b>	<b>37</b>	
75-15-0	Carbon Disulfide	1.8	< 1.8	U
75-35-4	1,1-Dichloroethene	1.8	< 1.8	U
75-34-3	1,1-Dichloroethane	1.8	< 1.8	U
156-60-5	trans-1,2-Dichloroethene	1.8	< 1.8	U
156-59-2	cis-1,2-Dichloroethene	1.8	< 1.8	U
67-66-3	Chloroform	1.8	< 1.8	U
107-06-2	1,2-Dichloroethane	1.8	< 1.8	U
78-93-3	2-Butanone	8.9	< 8.9	U
71-55-6	1,1,1-Trichloroethane	1.8	< 1.8	U
56-23-5	Carbon Tetrachloride	1.8	< 1.8	U
108-05-4	Vinyl Acetate	8.9	< 8.9	U
75-27-4	Bromodichloromethane	1.8	< 1.8	U
78-87-5	1,2-Dichloropropane	1.8	< 1.8	U
10061-01-5	cis-1,3-Dichloropropene	1.8	< 1.8	U
79-01-6	Trichloroethene	1.8	< 1.8	U
124-48-1	Dibromochloromethane	1.8	< 1.8	U
79-00-5	1,1,2-Trichloroethane	1.8	< 1.8	U
71-43-2	Benzene	1.8	< 1.8	U
10061-02-6	trans-1,3-Dichloropropene	1.8	< 1.8	U
110-75-8	2-Chloroethylvinylether	8.9	< 8.9	U
75-25-2	Bromoform	1.8	< 1.8	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	8.9	< 8.9	U
591-78-6	2-Hexanone	8.9	< 8.9	U
127-18-4	Tetrachloroethene	1.8	< 1.8	U
79-34-5	1,1,2,2-Tetrachloroethane	1.8	< 1.8	U
108-88-3	Toluene	1.8	< 1.8	U
108-90-7	Chlorobenzene	1.8	< 1.8	U
100-41-4	Ethylbenzene	1.8	< 1.8	U
100-42-5	Styrene	1.8	< 1.8	U
75-69-4	Trichlorofluoromethane	1.8	< 1.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	3.6	< 3.6	U
179601-23-1	m,p-Xylene	1.8	< 1.8	U
95-47-6	o-Xylene	1.8	< 1.8	U
95-50-1	1,2-Dichlorobenzene	1.8	< 1.8	U
541-73-1	1,3-Dichlorobenzene	1.8	< 1.8	U
106-46-7	1,4-Dichlorobenzene	1.8	< 1.8	U
107-02-8	Acrolein	89	< 89	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-10(0-1)-111101**

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**SAMPLE**

Lab Sample ID: TU89F

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25256

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Date Analyzed: 11/02/11 14:30

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.8	< 1.8	U
74-96-4	Bromoethane	3.6	< 3.6	U
107-13-1	Acrylonitrile	8.9	< 8.9	U
563-58-6	1,1-Dichloropropene	1.8	< 1.8	U
74-95-3	Dibromomethane	1.8	< 1.8	U
630-20-6	1,1,1,2-Tetrachloroethane	1.8	< 1.8	U
96-12-8	1,2-Dibromo-3-chloropropane	8.9	< 8.9	U
96-18-4	1,2,3-Trichloropropane	3.6	< 3.6	U
110-57-6	trans-1,4-Dichloro-2-butene	8.9	< 8.9	U
108-67-8	1,3,5-Trimethylbenzene	1.8	< 1.8	U
95-63-6	1,2,4-Trimethylbenzene	1.8	< 1.8	U
87-68-3	Hexachlorobutadiene	8.9	< 8.9	U
106-93-4	Ethylene Dibromide	1.8	< 1.8	U
74-97-5	Bromochloromethane	1.8	< 1.8	U
594-20-7	2,2-Dichloropropane	1.8	< 1.8	U
142-28-9	1,3-Dichloropropane	1.8	< 1.8	U
98-82-8	Isopropylbenzene	1.8	< 1.8	U
103-65-1	n-Propylbenzene	1.8	< 1.8	U
108-86-1	Bromobenzene	1.8	< 1.8	U
95-49-8	2-Chlorotoluene	1.8	< 1.8	U
106-43-4	4-Chlorotoluene	1.8	< 1.8	U
98-06-6	tert-Butylbenzene	1.8	< 1.8	U
135-98-8	sec-Butylbenzene	1.8	< 1.8	U
99-87-6	4-Isopropyltoluene	1.8	< 1.8	U
104-51-8	n-Butylbenzene	1.8	< 1.8	U
120-82-1	1,2,4-Trichlorobenzene	8.9	< 8.9	U
91-20-3	Naphthalene	8.9	< 8.9	U
87-61-6	1,2,3-Trichlorobenzene	8.9	< 8.9	U
1634-04-4	Methyl tert-Butyl Ether	1.8	< 1.8	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	120%
d8-Toluene	103%
Bromofluorobenzene	99.4%
d4-1,2-Dichlorobenzene	102%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-6(0-1)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89G

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25257

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Data Release Authorized:

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 2.74 g-dry-wt

Date Analyzed: 11/02/11 14:52

Purge Volume: 5.0 mL

Moisture: 39.0%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.8	< 1.8	U
74-83-9	Bromomethane	1.8	< 1.8	U
75-01-4	Vinyl Chloride	1.8	< 1.8	U
75-00-3	Chloroethane	1.8	< 1.8	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>3.6</b>	<b>4.6</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>9.1</b>	<b>50</b>	
75-15-0	Carbon Disulfide	1.8	< 1.8	U
75-35-4	1,1-Dichloroethene	1.8	< 1.8	U
75-34-3	1,1-Dichloroethane	1.8	< 1.8	U
156-60-5	trans-1,2-Dichloroethene	1.8	< 1.8	U
156-59-2	cis-1,2-Dichloroethene	1.8	< 1.8	U
67-66-3	Chloroform	1.8	< 1.8	U
107-06-2	1,2-Dichloroethane	1.8	< 1.8	U
78-93-3	2-Butanone	9.1	< 9.1	U
71-55-6	1,1,1-Trichloroethane	1.8	< 1.8	U
56-23-5	Carbon Tetrachloride	1.8	< 1.8	U
108-05-4	Vinyl Acetate	9.1	< 9.1	U
75-27-4	Bromodichloromethane	1.8	< 1.8	U
78-87-5	1,2-Dichloropropane	1.8	< 1.8	U
10061-01-5	cis-1,3-Dichloropropene	1.8	< 1.8	U
79-01-6	Trichloroethene	1.8	< 1.8	U
124-48-1	Dibromochloromethane	1.8	< 1.8	U
79-00-5	1,1,2-Trichloroethane	1.8	< 1.8	U
71-43-2	Benzene	1.8	< 1.8	U
10061-02-6	trans-1,3-Dichloropropene	1.8	< 1.8	U
110-75-8	2-Chloroethylvinylether	9.1	< 9.1	U
75-25-2	Bromoform	1.8	< 1.8	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	9.1	< 9.1	U
591-78-6	2-Hexanone	9.1	< 9.1	U
127-18-4	Tetrachloroethene	1.8	< 1.8	U
79-34-5	1,1,2,2-Tetrachloroethane	1.8	< 1.8	U
108-88-3	Toluene	1.8	< 1.8	U
108-90-7	Chlorobenzene	1.8	< 1.8	U
100-41-4	Ethylbenzene	1.8	< 1.8	U
100-42-5	Styrene	1.8	< 1.8	U
75-69-4	Trichlorofluoromethane	1.8	< 1.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroe	3.6	< 3.6	U
179601-23-1	m,p-Xylene	1.8	< 1.8	U
95-47-6	o-Xylene	1.8	< 1.8	U
95-50-1	1,2-Dichlorobenzene	1.8	< 1.8	U
541-73-1	1,3-Dichlorobenzene	1.8	< 1.8	U
106-46-7	1,4-Dichlorobenzene	1.8	< 1.8	U
107-02-8	Acrolein	91	< 91	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

Page 2 of 2

Sample ID: NDP-6(0-1)-111101

SAMPLE

Lab Sample ID: TU89G

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25257

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Date Analyzed: 11/02/11 14:52

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.8	< 1.8	U
74-96-4	Bromoethane	3.6	< 3.6	U
107-13-1	Acrylonitrile	9.1	< 9.1	U
563-58-6	1,1-Dichloropropene	1.8	< 1.8	U
74-95-3	Dibromomethane	1.8	< 1.8	U
630-20-6	1,1,1,2-Tetrachloroethane	1.8	< 1.8	U
96-12-8	1,2-Dibromo-3-chloropropane	9.1	< 9.1	U
96-18-4	1,2,3-Trichloropropane	3.6	< 3.6	U
110-57-6	trans-1,4-Dichloro-2-butene	9.1	< 9.1	U
108-67-8	1,3,5-Trimethylbenzene	1.8	< 1.8	U
95-63-6	1,2,4-Trimethylbenzene	1.8	< 1.8	U
87-68-3	Hexachlorobutadiene	9.1	< 9.1	U
106-93-4	Ethylene Dibromide	1.8	< 1.8	U
74-97-5	Bromochloromethane	1.8	< 1.8	U
594-20-7	2,2-Dichloropropane	1.8	< 1.8	U
142-28-9	1,3-Dichloropropane	1.8	< 1.8	U
98-82-8	Isopropylbenzene	1.8	< 1.8	U
103-65-1	n-Propylbenzene	1.8	< 1.8	U
108-86-1	Bromobenzene	1.8	< 1.8	U
95-49-8	2-Chlorotoluene	1.8	< 1.8	U
106-43-4	4-Chlorotoluene	1.8	< 1.8	U
98-06-6	tert-Butylbenzene	1.8	< 1.8	U
135-98-8	sec-Butylbenzene	1.8	< 1.8	U
99-87-6	4-Isopropyltoluene	1.8	< 1.8	U
104-51-8	n-Butylbenzene	1.8	< 1.8	U
120-82-1	1,2,4-Trichlorobenzene	9.1	< 9.1	U
91-20-3	Naphthalene	9.1	< 9.1	U
87-61-6	1,2,3-Trichlorobenzene	9.1	< 9.1	U
1634-04-4	Methyl tert-Butyl Ether	1.8	< 1.8	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	128%
d8-Toluene	102%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	105%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-4(0-1)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89H

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25258

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Data Release Authorized: *AB*

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 3.42 g-dry-wt

Date Analyzed: 11/02/11 15:13

Purge Volume: 5.0 mL

Moisture: 36.0%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.5	< 1.5	U
74-83-9	Bromomethane	1.5	< 1.5	U
75-01-4	Vinyl Chloride	1.5	< 1.5	U
75-00-3	Chloroethane	1.5	< 1.5	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>2.9</b>	<b>3.1</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>7.3</b>	<b>28</b>	
75-15-0	Carbon Disulfide	1.5	< 1.5	U
75-35-4	1,1-Dichloroethene	1.5	< 1.5	U
75-34-3	1,1-Dichloroethane	1.5	< 1.5	U
156-60-5	trans-1,2-Dichloroethene	1.5	< 1.5	U
156-59-2	cis-1,2-Dichloroethene	1.5	< 1.5	U
67-66-3	Chloroform	1.5	< 1.5	U
107-06-2	1,2-Dichloroethane	1.5	< 1.5	U
78-93-3	2-Butanone	7.3	< 7.3	U
71-55-6	1,1,1-Trichloroethane	1.5	< 1.5	U
56-23-5	Carbon Tetrachloride	1.5	< 1.5	U
108-05-4	Vinyl Acetate	7.3	< 7.3	U
75-27-4	Bromodichloromethane	1.5	< 1.5	U
78-87-5	1,2-Dichloropropane	1.5	< 1.5	U
10061-01-5	cis-1,3-Dichloropropene	1.5	< 1.5	U
79-01-6	Trichloroethene	1.5	< 1.5	U
124-48-1	Dibromochloromethane	1.5	< 1.5	U
79-00-5	1,1,2-Trichloroethane	1.5	< 1.5	U
71-43-2	Benzene	1.5	< 1.5	U
10061-02-6	trans-1,3-Dichloropropene	1.5	< 1.5	U
110-75-8	2-Chloroethylvinylether	7.3	< 7.3	U
75-25-2	Bromoform	1.5	< 1.5	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	7.3	< 7.3	U
591-78-6	2-Hexanone	7.3	< 7.3	U
127-18-4	Tetrachloroethene	1.5	< 1.5	U
79-34-5	1,1,2,2-Tetrachloroethane	1.5	< 1.5	U
108-88-3	Toluene	1.5	< 1.5	U
108-90-7	Chlorobenzene	1.5	< 1.5	U
100-41-4	Ethylbenzene	1.5	< 1.5	U
100-42-5	Styrene	1.5	< 1.5	U
75-69-4	Trichlorofluoromethane	1.5	< 1.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.9	< 2.9	U
179601-23-1	m,p-Xylene	1.5	< 1.5	U
95-47-6	o-Xylene	1.5	< 1.5	U
95-50-1	1,2-Dichlorobenzene	1.5	< 1.5	U
541-73-1	1,3-Dichlorobenzene	1.5	< 1.5	U
106-46-7	1,4-Dichlorobenzene	1.5	< 1.5	U
107-02-8	Acrolein	73	< 73	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-4(0-1)-111101**

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**SAMPLE**

Lab Sample ID: TU89H

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25258

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Date Analyzed: 11/02/11 15:13

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.5	< 1.5	U
74-96-4	Bromoethane	2.9	< 2.9	U
107-13-1	Acrylonitrile	7.3	< 7.3	U
563-58-6	1,1-Dichloropropene	1.5	< 1.5	U
74-95-3	Dibromomethane	1.5	< 1.5	U
630-20-6	1,1,1,2-Tetrachloroethane	1.5	< 1.5	U
96-12-8	1,2-Dibromo-3-chloropropane	7.3	< 7.3	U
96-18-4	1,2,3-Trichloropropane	2.9	< 2.9	U
110-57-6	trans-1,4-Dichloro-2-butene	7.3	< 7.3	U
108-67-8	1,3,5-Trimethylbenzene	1.5	< 1.5	U
95-63-6	1,2,4-Trimethylbenzene	1.5	< 1.5	U
87-68-3	Hexachlorobutadiene	7.3	< 7.3	U
106-93-4	Ethylene Dibromide	1.5	< 1.5	U
74-97-5	Bromochloromethane	1.5	< 1.5	U
594-20-7	2,2-Dichloropropane	1.5	< 1.5	U
142-28-9	1,3-Dichloropropane	1.5	< 1.5	U
98-82-8	Isopropylbenzene	1.5	< 1.5	U
103-65-1	n-Propylbenzene	1.5	< 1.5	U
108-86-1	Bromobenzene	1.5	< 1.5	U
95-49-8	2-Chlorotoluene	1.5	< 1.5	U
106-43-4	4-Chlorotoluene	1.5	< 1.5	U
98-06-6	tert-Butylbenzene	1.5	< 1.5	U
135-98-8	sec-Butylbenzene	1.5	< 1.5	U
99-87-6	4-Isopropyltoluene	1.5	< 1.5	U
104-51-8	n-Butylbenzene	1.5	< 1.5	U
120-82-1	1,2,4-Trichlorobenzene	7.3	< 7.3	U
91-20-3	Naphthalene	7.3	< 7.3	U
87-61-6	1,2,3-Trichlorobenzene	7.3	< 7.3	U
1634-04-4	Methyl tert-Butyl Ether	1.5	< 1.5	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	131%
d8-Toluene	104%
Bromofluorobenzene	103%
d4-1,2-Dichlorobenzene	104%



**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-8(0-1)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89I

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25259

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Data Release Authorized:

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 3.45 g-dry-wt

Date Analyzed: 11/02/11 15:34

Purge Volume: 5.0 mL

Moisture: 30.4%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.5	< 1.5	U
74-83-9	Bromomethane	1.5	< 1.5	U
75-01-4	Vinyl Chloride	1.5	< 1.5	U
75-00-3	Chloroethane	1.5	< 1.5	U
75-09-2	Methylene Chloride	2.9	< 2.9	U
<b>67-64-1</b>	<b>Acetone</b>	<b>7.3</b>	<b>24</b>	
75-15-0	Carbon Disulfide	1.5	< 1.5	U
75-35-4	1,1-Dichloroethene	1.5	< 1.5	U
75-34-3	1,1-Dichloroethane	1.5	< 1.5	U
156-60-5	trans-1,2-Dichloroethene	1.5	< 1.5	U
156-59-2	cis-1,2-Dichloroethene	1.5	< 1.5	U
67-66-3	Chloroform	1.5	< 1.5	U
107-06-2	1,2-Dichloroethane	1.5	< 1.5	U
78-93-3	2-Butanone	7.3	< 7.3	U
71-55-6	1,1,1-Trichloroethane	1.5	< 1.5	U
56-23-5	Carbon Tetrachloride	1.5	< 1.5	U
108-05-4	Vinyl Acetate	7.3	< 7.3	U
75-27-4	Bromodichloromethane	1.5	< 1.5	U
78-87-5	1,2-Dichloropropane	1.5	< 1.5	U
10061-01-5	cis-1,3-Dichloropropene	1.5	< 1.5	U
79-01-6	Trichloroethene	1.5	< 1.5	U
124-48-1	Dibromochloromethane	1.5	< 1.5	U
79-00-5	1,1,2-Trichloroethane	1.5	< 1.5	U
71-43-2	Benzene	1.5	< 1.5	U
10061-02-6	trans-1,3-Dichloropropene	1.5	< 1.5	U
110-75-8	2-Chloroethylvinylether	7.3	< 7.3	U
75-25-2	Bromoform	1.5	< 1.5	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	7.3	< 7.3	U
591-78-6	2-Hexanone	7.3	< 7.3	U
127-18-4	Tetrachloroethene	1.5	< 1.5	U
79-34-5	1,1,2,2-Tetrachloroethane	1.5	< 1.5	U
108-88-3	Toluene	1.5	< 1.5	U
108-90-7	Chlorobenzene	1.5	< 1.5	U
100-41-4	Ethylbenzene	1.5	< 1.5	U
100-42-5	Styrene	1.5	< 1.5	U
75-69-4	Trichlorofluoromethane	1.5	< 1.5	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.9	< 2.9	U
179601-23-1	m,p-Xylene	1.5	< 1.5	U
95-47-6	o-Xylene	1.5	< 1.5	U
95-50-1	1,2-Dichlorobenzene	1.5	< 1.5	U
541-73-1	1,3-Dichlorobenzene	1.5	< 1.5	U
106-46-7	1,4-Dichlorobenzene	1.5	< 1.5	U
107-02-8	Acrolein	73	< 73	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-8(0-1)-111101**

Page 2 of 2

**SAMPLE**

Lab Sample ID: TU89I

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25259

Project: Boeing Striker: North Detention Pon

Matrix: Solid

025195.040.045

Date Analyzed: 11/02/11 15:34

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.5	< 1.5	U
74-96-4	Bromoethane	2.9	< 2.9	U
107-13-1	Acrylonitrile	7.3	< 7.3	U
563-58-6	1,1-Dichloropropene	1.5	< 1.5	U
74-95-3	Dibromomethane	1.5	< 1.5	U
630-20-6	1,1,1,2-Tetrachloroethane	1.5	< 1.5	U
96-12-8	1,2-Dibromo-3-chloropropane	7.3	< 7.3	U
96-18-4	1,2,3-Trichloropropane	2.9	< 2.9	U
110-57-6	trans-1,4-Dichloro-2-butene	7.3	< 7.3	U
108-67-8	1,3,5-Trimethylbenzene	1.5	< 1.5	U
95-63-6	1,2,4-Trimethylbenzene	1.5	< 1.5	U
87-68-3	Hexachlorobutadiene	7.3	< 7.3	U
106-93-4	Ethylene Dibromide	1.5	< 1.5	U
74-97-5	Bromochloromethane	1.5	< 1.5	U
594-20-7	2,2-Dichloropropane	1.5	< 1.5	U
142-28-9	1,3-Dichloropropane	1.5	< 1.5	U
98-82-8	Isopropylbenzene	1.5	< 1.5	U
103-65-1	n-Propylbenzene	1.5	< 1.5	U
108-86-1	Bromobenzene	1.5	< 1.5	U
95-49-8	2-Chlorotoluene	1.5	< 1.5	U
106-43-4	4-Chlorotoluene	1.5	< 1.5	U
98-06-6	tert-Butylbenzene	1.5	< 1.5	U
135-98-8	sec-Butylbenzene	1.5	< 1.5	U
99-87-6	4-Isopropyltoluene	1.5	< 1.5	U
104-51-8	n-Butylbenzene	1.5	< 1.5	U
120-82-1	1,2,4-Trichlorobenzene	7.3	< 7.3	U
91-20-3	Naphthalene	7.3	< 7.3	U
87-61-6	1,2,3-Trichlorobenzene	7.3	< 7.3	U
1634-04-4	Methyl tert-Butyl Ether	1.5	< 1.5	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	129%
d8-Toluene	104%
Bromofluorobenzene	103%
d4-1,2-Dichlorobenzene	105%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-11(0-1)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89J


QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25260

Project: Boeing Striker: North Detention Pon

Matrix: Soil

025195.040.045

Data Release Authorized: 

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 4.41 g-dry-wt

Date Analyzed: 11/02/11 15:55

Purge Volume: 5.0 mL

Moisture: 21.1%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.1	< 1.1	U
74-83-9	Bromomethane	1.1	< 1.1	U
75-01-4	Vinyl Chloride	1.1	< 1.1	U
75-00-3	Chloroethane	1.1	< 1.1	U
75-09-2	Methylene Chloride	2.3	< 2.3	U
<b>67-64-1</b>	<b>Acetone</b>	<b>5.7</b>	<b>48</b>	
75-15-0	Carbon Disulfide	1.1	< 1.1	U
75-35-4	1,1-Dichloroethene	1.1	< 1.1	U
75-34-3	1,1-Dichloroethane	1.1	< 1.1	U
156-60-5	trans-1,2-Dichloroethene	1.1	< 1.1	U
156-59-2	cis-1,2-Dichloroethene	1.1	< 1.1	U
67-66-3	Chloroform	1.1	< 1.1	U
107-06-2	1,2-Dichloroethane	1.1	< 1.1	U
78-93-3	2-Butanone	5.7	< 5.7	U
71-55-6	1,1,1-Trichloroethane	1.1	< 1.1	U
56-23-5	Carbon Tetrachloride	1.1	< 1.1	U
108-05-4	Vinyl Acetate	5.7	< 5.7	U
75-27-4	Bromodichloromethane	1.1	< 1.1	U
78-87-5	1,2-Dichloropropane	1.1	< 1.1	U
10061-01-5	cis-1,3-Dichloropropene	1.1	< 1.1	U
79-01-6	Trichloroethene	1.1	< 1.1	U
124-48-1	Dibromochloromethane	1.1	< 1.1	U
79-00-5	1,1,2-Trichloroethane	1.1	< 1.1	U
71-43-2	Benzene	1.1	< 1.1	U
10061-02-6	trans-1,3-Dichloropropene	1.1	< 1.1	U
110-75-8	2-Chloroethylvinylether	5.7	< 5.7	U
75-25-2	Bromoform	1.1	< 1.1	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.7	< 5.7	U
591-78-6	2-Hexanone	36	< 36	Y
127-18-4	Tetrachloroethene	1.1	< 1.1	U
79-34-5	1,1,2,2-Tetrachloroethane	1.1	< 1.1	U
108-88-3	Toluene	1.1	< 1.1	U
108-90-7	Chlorobenzene	1.1	< 1.1	U
100-41-4	Ethylbenzene	1.1	< 1.1	U
100-42-5	Styrene	1.1	< 1.1	U
75-69-4	Trichlorofluoromethane	1.1	< 1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.3	< 2.3	U
179601-23-1	m,p-Xylene	1.1	< 1.1	U
95-47-6	o-Xylene	1.1	< 1.1	U
95-50-1	1,2-Dichlorobenzene	1.1	< 1.1	U
541-73-1	1,3-Dichlorobenzene	1.1	< 1.1	U
106-46-7	1,4-Dichlorobenzene	1.1	< 1.1	U
107-02-8	Acrolein	57	< 57	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

Page 2 of 2

**Sample ID: NDP-11(0-1)-111101  
SAMPLE**

Lab Sample ID: TU89J

LIMS ID: 11-25260

Matrix: Soil

Date Analyzed: 11/02/11 15:55

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon  
025195.040.045

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.1	< 1.1	U
74-96-4	Bromoethane	2.3	< 2.3	U
107-13-1	Acrylonitrile	5.7	< 5.7	U
563-58-6	1,1-Dichloropropene	1.1	< 1.1	U
74-95-3	Dibromomethane	1.1	< 1.1	U
630-20-6	1,1,1,2-Tetrachloroethane	1.1	< 1.1	U
96-12-8	1,2-Dibromo-3-chloropropane	5.7	< 5.7	U
96-18-4	1,2,3-Trichloropropane	2.3	< 2.3	U
110-57-6	trans-1,4-Dichloro-2-butene	5.7	< 5.7	U
108-67-8	1,3,5-Trimethylbenzene	1.1	< 1.1	U
95-63-6	1,2,4-Trimethylbenzene	1.1	< 1.1	U
87-68-3	Hexachlorobutadiene	5.7	< 5.7	U
106-93-4	Ethylene Dibromide	1.1	< 1.1	U
74-97-5	Bromochloromethane	1.1	< 1.1	U
594-20-7	2,2-Dichloropropane	1.1	< 1.1	U
142-28-9	1,3-Dichloropropane	1.1	< 1.1	U
98-82-8	Isopropylbenzene	1.1	< 1.1	U
103-65-1	n-Propylbenzene	1.1	< 1.1	U
108-86-1	Bromobenzene	1.1	< 1.1	U
95-49-8	2-Chlorotoluene	1.1	< 1.1	U
106-43-4	4-Chlorotoluene	1.1	< 1.1	U
98-06-6	tert-Butylbenzene	1.1	< 1.1	U
135-98-8	sec-Butylbenzene	1.1	< 1.1	U
99-87-6	4-Isopropyltoluene	1.1	< 1.1	U
104-51-8	n-Butylbenzene	1.1	< 1.1	U
120-82-1	1,2,4-Trichlorobenzene	5.7	< 5.7	U
91-20-3	Naphthalene	5.7	< 5.7	U
87-61-6	1,2,3-Trichlorobenzene	5.7	< 5.7	U
1634-04-4	Methyl tert-Butyl Ether	1.1	< 1.1	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	130%
d8-Toluene	104%
Bromofluorobenzene	101%
d4-1,2-Dichlorobenzene	106%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-12(0-1)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89K


QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25261

Project: Boeing Striker: North Detention Pon

Matrix: Soil

025195.040.045

Data Release Authorized: 

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 5.94 g-dry-wt

Date Analyzed: 11/02/11 16:17

Purge Volume: 5.0 mL

Moisture: 9.6%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	0.8	< 0.8	U
74-83-9	Bromomethane	0.8	< 0.8	U
75-01-4	Vinyl Chloride	0.8	< 0.8	U
75-00-3	Chloroethane	0.8	< 0.8	U
<b>75-09-2</b>	<b>Methylene Chloride</b>	<b>1.7</b>	<b>1.7</b>	
<b>67-64-1</b>	<b>Acetone</b>	<b>4.2</b>	<b>32</b>	
75-15-0	Carbon Disulfide	0.8	< 0.8	U
75-35-4	1,1-Dichloroethene	0.8	< 0.8	U
75-34-3	1,1-Dichloroethane	0.8	< 0.8	U
156-60-5	trans-1,2-Dichloroethene	0.8	< 0.8	U
156-59-2	cis-1,2-Dichloroethene	0.8	< 0.8	U
67-66-3	Chloroform	0.8	< 0.8	U
107-06-2	1,2-Dichloroethane	0.8	< 0.8	U
78-93-3	2-Butanone	4.2	< 4.2	U
71-55-6	1,1,1-Trichloroethane	0.8	< 0.8	U
56-23-5	Carbon Tetrachloride	0.8	< 0.8	U
108-05-4	Vinyl Acetate	4.2	< 4.2	U
75-27-4	Bromodichloromethane	0.8	< 0.8	U
78-87-5	1,2-Dichloropropane	0.8	< 0.8	U
10061-01-5	cis-1,3-Dichloropropene	0.8	< 0.8	U
79-01-6	Trichloroethene	0.8	< 0.8	U
124-48-1	Dibromochloromethane	0.8	< 0.8	U
79-00-5	1,1,2-Trichloroethane	0.8	< 0.8	U
71-43-2	Benzene	0.8	< 0.8	U
10061-02-6	trans-1,3-Dichloropropene	0.8	< 0.8	U
110-75-8	2-Chloroethylvinylether	4.2	< 4.2	U
75-25-2	Bromoform	0.8	< 0.8	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	4.2	< 4.2	U
591-78-6	2-Hexanone	35	< 35	Y
127-18-4	Tetrachloroethene	0.8	< 0.8	U
79-34-5	1,1,2,2-Tetrachloroethane	0.8	< 0.8	U
108-88-3	Toluene	0.8	< 0.8	U
108-90-7	Chlorobenzene	0.8	< 0.8	U
100-41-4	Ethylbenzene	0.8	< 0.8	U
100-42-5	Styrene	0.8	< 0.8	U
75-69-4	Trichlorofluoromethane	0.8	< 0.8	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.7	< 1.7	U
179601-23-1	m,p-Xylene	0.8	< 0.8	U
95-47-6	o-Xylene	0.8	< 0.8	U
95-50-1	1,2-Dichlorobenzene	0.8	< 0.8	U
541-73-1	1,3-Dichlorobenzene	0.8	< 0.8	U
106-46-7	1,4-Dichlorobenzene	0.8	< 0.8	U
107-02-8	Acrolein	42	< 42	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

Page 2 of 2

Sample ID: NDP-12(0-1)-111101

**SAMPLE**

Lab Sample ID: TU89K

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25261

Project: Boeing Striker: North Detention Pon

Matrix: Soil

025195.040.045

Date Analyzed: 11/02/11 16:17

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	0.8	< 0.8	U
74-96-4	Bromoethane	1.7	< 1.7	U
107-13-1	Acrylonitrile	4.2	< 4.2	U
563-58-6	1,1-Dichloropropene	0.8	< 0.8	U
74-95-3	Dibromomethane	0.8	< 0.8	U
630-20-6	1,1,1,2-Tetrachloroethane	0.8	< 0.8	U
96-12-8	1,2-Dibromo-3-chloropropane	4.2	< 4.2	U
96-18-4	1,2,3-Trichloropropane	1.7	< 1.7	U
110-57-6	trans-1,4-Dichloro-2-butene	4.2	< 4.2	U
108-67-8	1,3,5-Trimethylbenzene	0.8	< 0.8	U
95-63-6	1,2,4-Trimethylbenzene	0.8	< 0.8	U
87-68-3	Hexachlorobutadiene	4.2	< 4.2	U
106-93-4	Ethylene Dibromide	0.8	< 0.8	U
74-97-5	Bromochloromethane	0.8	< 0.8	U
594-20-7	2,2-Dichloropropane	0.8	< 0.8	U
142-28-9	1,3-Dichloropropane	0.8	< 0.8	U
98-82-8	Isopropylbenzene	0.8	< 0.8	U
103-65-1	n-Propylbenzene	0.8	< 0.8	U
108-86-1	Bromobenzene	0.8	< 0.8	U
95-49-8	2-Chlorotoluene	0.8	< 0.8	U
106-43-4	4-Chlorotoluene	0.8	< 0.8	U
98-06-6	tert-Butylbenzene	0.8	< 0.8	U
135-98-8	sec-Butylbenzene	0.8	< 0.8	U
99-87-6	4-Isopropyltoluene	0.8	< 0.8	U
104-51-8	n-Butylbenzene	0.8	< 0.8	U
120-82-1	1,2,4-Trichlorobenzene	4.2	< 4.2	U
91-20-3	Naphthalene	4.2	< 4.2	U
87-61-6	1,2,3-Trichlorobenzene	4.2	< 4.2	U
1634-04-4	Methyl tert-Butyl Ether	0.8	< 0.8	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	133%
d8-Toluene	105%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	105%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: NDP-5(0-1)-111101**

Page 1 of 2

**SAMPLE**

Lab Sample ID: TU89L


QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25262

Project: Boeing Striker: North Detention Pon

Matrix: Soil

025195.040.045

Data Release Authorized: 

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 3.65 g-dry-wt

Date Analyzed: 11/02/11 16:38

Purge Volume: 5.0 mL

Moisture: 26.6%

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.4	< 1.4	U
74-83-9	Bromomethane	1.4	< 1.4	U
75-01-4	Vinyl Chloride	1.4	< 1.4	U
75-00-3	Chloroethane	1.4	< 1.4	U
75-09-2	Methylene Chloride	2.7	< 2.7	U
<b>67-64-1</b>	<b>Acetone</b>	<b>6.9</b>	<b>120</b>	
75-15-0	Carbon Disulfide	1.4	< 1.4	U
75-35-4	1,1-Dichloroethene	1.4	< 1.4	U
75-34-3	1,1-Dichloroethane	1.4	< 1.4	U
156-60-5	trans-1,2-Dichloroethene	1.4	< 1.4	U
156-59-2	cis-1,2-Dichloroethene	1.4	< 1.4	U
67-66-3	Chloroform	1.4	< 1.4	U
107-06-2	1,2-Dichloroethane	1.4	< 1.4	U
78-93-3	2-Butanone	6.9	< 6.9	U
71-55-6	1,1,1-Trichloroethane	1.4	< 1.4	U
56-23-5	Carbon Tetrachloride	1.4	< 1.4	U
108-05-4	Vinyl Acetate	6.9	< 6.9	U
75-27-4	Bromodichloromethane	1.4	< 1.4	U
78-87-5	1,2-Dichloropropane	1.4	< 1.4	U
10061-01-5	cis-1,3-Dichloropropene	1.4	< 1.4	U
79-01-6	Trichloroethene	1.4	< 1.4	U
124-48-1	Dibromochloromethane	1.4	< 1.4	U
79-00-5	1,1,2-Trichloroethane	1.4	< 1.4	U
71-43-2	Benzene	1.4	< 1.4	U
10061-02-6	trans-1,3-Dichloropropene	1.4	< 1.4	U
110-75-8	2-Chloroethylvinylether	6.9	< 6.9	U
75-25-2	Bromoform	1.4	< 1.4	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	6.9	< 6.9	U
591-78-6	2-Hexanone	51	< 51	Y
127-18-4	Tetrachloroethene	1.4	< 1.4	U
79-34-5	1,1,2,2-Tetrachloroethane	1.4	< 1.4	U
108-88-3	Toluene	1.4	< 1.4	U
108-90-7	Chlorobenzene	1.4	< 1.4	U
100-41-4	Ethylbenzene	1.4	< 1.4	U
100-42-5	Styrene	1.4	< 1.4	U
75-69-4	Trichlorofluoromethane	1.4	< 1.4	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.7	< 2.7	U
179601-23-1	m,p-Xylene	1.4	< 1.4	U
95-47-6	o-Xylene	1.4	< 1.4	U
95-50-1	1,2-Dichlorobenzene	1.4	< 1.4	U
541-73-1	1,3-Dichlorobenzene	1.4	< 1.4	U
106-46-7	1,4-Dichlorobenzene	1.4	< 1.4	U
107-02-8	Acrolein	69	< 69	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

Page 2 of 2

Sample ID: NDP-5(0-1)-111101

SAMPLE

Lab Sample ID: TU89L

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25262

Project: Boeing Striker: North Detention Pon

Matrix: Soil

025195.040.045

Date Analyzed: 11/02/11 16:38

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.4	< 1.4	U
74-96-4	Bromoethane	2.7	< 2.7	U
107-13-1	Acrylonitrile	6.9	< 6.9	U
563-58-6	1,1-Dichloropropene	1.4	< 1.4	U
74-95-3	Dibromomethane	1.4	< 1.4	U
630-20-6	1,1,1,2-Tetrachloroethane	1.4	< 1.4	U
96-12-8	1,2-Dibromo-3-chloropropane	6.9	< 6.9	U
96-18-4	1,2,3-Trichloropropane	2.7	< 2.7	U
110-57-6	trans-1,4-Dichloro-2-butene	6.9	< 6.9	U
108-67-8	1,3,5-Trimethylbenzene	1.4	< 1.4	U
95-63-6	1,2,4-Trimethylbenzene	1.4	< 1.4	U
87-68-3	Hexachlorobutadiene	6.9	< 6.9	U
106-93-4	Ethylene Dibromide	1.4	< 1.4	U
74-97-5	Bromochloromethane	1.4	< 1.4	U
594-20-7	2,2-Dichloropropane	1.4	< 1.4	U
142-28-9	1,3-Dichloropropane	1.4	< 1.4	U
98-82-8	Isopropylbenzene	1.4	< 1.4	U
103-65-1	n-Propylbenzene	1.4	< 1.4	U
108-86-1	Bromobenzene	1.4	< 1.4	U
95-49-8	2-Chlorotoluene	1.4	< 1.4	U
106-43-4	4-Chlorotoluene	1.4	< 1.4	U
98-06-6	tert-Butylbenzene	1.4	< 1.4	U
135-98-8	sec-Butylbenzene	1.4	< 1.4	U
99-87-6	4-Isopropyltoluene	1.4	< 1.4	U
104-51-8	n-Butylbenzene	1.4	< 1.4	U
120-82-1	1,2,4-Trichlorobenzene	6.9	< 6.9	U
91-20-3	Naphthalene	6.9	< 6.9	U
87-61-6	1,2,3-Trichlorobenzene	6.9	< 6.9	U
1634-04-4	Methyl tert-Butyl Ether	1.4	< 1.4	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	129%
d8-Toluene	105%
Bromofluorobenzene	102%
d4-1,2-Dichlorobenzene	104%



**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: Trip Blanks  
SAMPLE**

Page 1 of 2

Lab Sample ID: TU89V


QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25272

Project: Boeing Striker: North Detention Pon

Matrix: Water

025195.040.045

Data Release Authorized: 

Date Sampled: 11/01/11

Reported: 11/03/11

Date Received: 11/01/11

Instrument/Analyst: NT9/PAB

Sample Amount: 5.00 mL

Date Analyzed: 11/02/11 16:59

Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	10	< 10	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethene	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

Page 2 of 2

**Sample ID: Trip Blanks  
SAMPLE**

Lab Sample ID: TU89V

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25272

Project: Boeing Striker: North Detention Pon

Matrix: Water

025195.040.045

Date Analyzed: 11/02/11 16:59

CAS Number	Analyte	RL	Result	Q
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
179601-23-1	m,p-Xylene	2.0	< 2.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	10	< 10	U
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	5.0	< 5.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U
1634-04-4	Methyl tert-Butyl Ether	1.0	< 1.0	U

Reported in µg/L (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	124%
d8-Toluene	104%
Bromofluorobenzene	99.8%
d4-1,2-Dichlorobenzene	106%

2-Chloroethylvinylether is an acid labile compound and may not be recovered from an acid preserved sample.

VOA SURROGATE RECOVERY SUMMARY



Matrix: Soil

QC Report No: TU89-Landau Associates, Inc.  
 Project: Boeing Striker: North Detention Pon  
 025195.040.045

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-110211	Method Blank	Low	102%	100%	99.0%	102%	0
LCS-110211	Lab Control	Low	98.7%	100%	102%	99.5%	0
LCSD-110211	Lab Control Dup	Low	98.2%	99.1%	97.8%	103%	0
TU89A	NDP-9(0-1)-111101	Low	125%	103%	102%	103%	0
TU89B	NDP-7(0-1)-111101	Low	126%	103%	103%	104%	0
TU89C	NDP-3(0-1)-111101	Low	122%	102%	100%	103%	0
TU89D	NDP-2(0-1)-111101	Low	123%	103%	102%	103%	0
TU89E	NDP-1(0-0.5)-111101	Low	121%	103%	99.6%	104%	0
TU89F	NDP-10(0-1)-111101	Low	120%	103%	99.4%	102%	0
TU89G	NDP-6(0-1)-111101	Low	128%	102%	102%	105%	0
TU89H	NDP-4(0-1)-111101	Low	131%	104%	103%	104%	0
TU89I	NDP-8(0-1)-111101	Low	129%	104%	103%	105%	0
TU89J	NDP-11(0-1)-111101	Low	130%	104%	101%	106%	0
TU89K	NDP-12(0-1)-111101	Low	133%	105%	102%	105%	0
TU89L	NDP-5(0-1)-111101	Low	129%	105%	102%	104%	0

LCS/MB LIMITS

QC LIMITS

SW8260C	LCS/MB LIMITS		QC LIMITS	
	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	79-121	76-120	75-152	69-120
(TOL) = d8-Toluene	80-120	80-120	82-115	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	64-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 11-25251 to 11-25262

VOA SURROGATE RECOVERY SUMMARY



Matrix: Water

QC Report No: TU89-Landau Associates, Inc.  
 Project: Boeing Striker: North Detention Pon  
 025195.040.045

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
TU89V	Trip Blanks	5	124%	104%	99.8%	106%	0

LCS/MB LIMITS

QC LIMITS

SW8260C

(DCE) = d4-1,2-Dichloroethane	80-122	80-125
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B  
 Log Number Range: 11-25272 to 11-25272

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: LCS-110211**

Page 1 of 2

**LAB CONTROL SAMPLE**

Lab Sample ID: LCS-110211

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25251

Project: Boeing Striker: North Detention Pon

Matrix: Soil

025195.040.045

Data Release Authorized: *BB*

Date Sampled: NA

Reported: 11/03/11

Date Received: NA

Instrument/Analyst LCS: NT9/PAB

Sample Amount LCS: 5.00 g-dry-wt

LCSD: NT9/PAB

LCSD: 5.00 g-dry-wt

Date Analyzed LCS: 11/02/11 09:43

Purge Volume LCS: 5.0 mL

LCSD: 11/02/11 10:04

LCSD: 5.0 mL

Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Chloromethane	43.3	50.0	86.6%	43.8	50.0	87.6%	1.1%
Bromomethane	49.5	50.0	99.0%	50.6	50.0	101%	2.2%
Vinyl Chloride	44.8	50.0	89.6%	45.9	50.0	91.8%	2.4%
Chloroethane	43.4	50.0	86.8%	47.1	50.0	94.2%	8.2%
Methylene Chloride	40.3	50.0	80.6%	40.4	50.0	80.8%	0.2%
Acetone	263	250	105%	266	250	106%	1.1%
Carbon Disulfide	43.9	50.0	87.8%	45.3	50.0	90.6%	3.1%
1,1-Dichloroethene	43.5	50.0	87.0%	45.0	50.0	90.0%	3.4%
1,1-Dichloroethane	42.2	50.0	84.4%	43.6	50.0	87.2%	3.3%
trans-1,2-Dichloroethene	41.9	50.0	83.8%	43.3	50.0	86.6%	3.3%
cis-1,2-Dichloroethene	44.6	50.0	89.2%	46.0	50.0	92.0%	3.1%
Chloroform	44.0	50.0	88.0%	44.8	50.0	89.6%	1.8%
1,2-Dichloroethane	42.9	50.0	85.8%	44.8	50.0	89.6%	4.3%
2-Butanone	229	250	91.6%	251	250	100%	9.2%
1,1,1-Trichloroethane	45.2	50.0	90.4%	47.1	50.0	94.2%	4.1%
Carbon Tetrachloride	47.2	50.0	94.4%	50.0	50.0	100%	5.8%
Vinyl Acetate	47.4	50.0	94.8%	50.0	50.0	100%	5.3%
Bromodichloromethane	46.1	50.0	92.2%	47.5	50.0	95.0%	3.0%
1,2-Dichloropropane	43.6	50.0	87.2%	45.3	50.0	90.6%	3.8%
cis-1,3-Dichloropropene	48.7	50.0	97.4%	50.1	50.0	100%	2.8%
Trichloroethene	44.5	50.0	89.0%	46.8	50.0	93.6%	5.0%
Dibromochloromethane	47.2	50.0	94.4%	50.8	50.0	102%	7.3%
1,1,2-Trichloroethane	44.2	50.0	88.4%	46.0	50.0	92.0%	4.0%
Benzene	43.4	50.0	86.8%	46.0	50.0	92.0%	5.8%
trans-1,3-Dichloropropene	49.1	50.0	98.2%	50.6	50.0	101%	3.0%
2-Chloroethylvinylether	51.2	50.0	102%	55.3	50.0	111%	7.7%
Bromoform	47.4	50.0	94.8%	56.7	50.0	113%	17.9%
4-Methyl-2-Pentanone (MIBK)	231	250	92.4%	259	250	104%	11.4%
2-Hexanone	240	250	96.0%	285	250	114%	17.1%
Tetrachloroethene	44.6	50.0	89.2%	49.1	50.0	98.2%	9.6%
1,1,2,2-Tetrachloroethane	41.9	50.0	83.8%	52.2	50.0	104%	21.9%
Toluene	43.1	50.0	86.2%	45.3	50.0	90.6%	5.0%
Chlorobenzene	42.7	50.0	85.4%	46.1	50.0	92.2%	7.7%
Ethylbenzene	44.0	50.0	88.0%	47.8	50.0	95.6%	8.3%
Styrene	48.2	50.0	96.4%	52.0	50.0	104%	7.6%
Trichlorofluoromethane	40.8	50.0	81.6%	46.2	50.0	92.4%	12.4%
1,1,2-Trichloro-1,2,2-trifluoroethane	43.5	50.0	87.0%	44.9	50.0	89.8%	3.2%
m,p-Xylene	93.0	100	93.0%	101	100	101%	8.2%
o-Xylene	47.4	50.0	94.8%	51.1	50.0	102%	7.5%
1,2-Dichlorobenzene	42.2	50.0	84.4%	49.5	50.0	99.0%	15.9%
1,3-Dichlorobenzene	43.5	50.0	87.0%	50.6	50.0	101%	15.1%
1,4-Dichlorobenzene	42.8	50.0	85.6%	50.0	50.0	100%	15.5%
Acrolein	224	250	89.6%	241	250	96.4%	7.3%
Methyl Iodide	43.8	50.0	87.6%	45.5	50.0	91.0%	3.8%
Bromoethane	41.3	50.0	82.6%	43.2	50.0	86.4%	4.5%
Acrylonitrile	48.8	50.0	97.6%	48.2	50.0	96.4%	1.2%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: LCS-110211**

Page 2 of 2

**LAB CONTROL SAMPLE**

Lab Sample ID: LCS-110211

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25251

Project: Boeing Striker: North Detention Pon

Matrix: Soil

025195.040.045

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCS	LCS	Spike Added-LCS	LCS	RPD
1,1-Dichloropropene	45.9	50.0	91.8%	49.4	50.0	98.8%	7.3%	
Dibromomethane	44.2	50.0	88.4%	46.4	50.0	92.8%	4.9%	
1,1,1,2-Tetrachloroethane	45.0	50.0	90.0%	48.3	50.0	96.6%	7.1%	
1,2-Dibromo-3-chloropropane	46.6	50.0	93.2%	58.8	50.0	118%	23.1%	
1,2,3-Trichloropropane	42.8	50.0	85.6%	53.2	50.0	106%	21.7%	
trans-1,4-Dichloro-2-butene	44.3	50.0	88.6%	57.0	50.0	114%	25.1%	
1,3,5-Trimethylbenzene	45.7	50.0	91.4%	53.9	50.0	108%	16.5%	
1,2,4-Trimethylbenzene	46.4	50.0	92.8%	54.4	50.0	109%	15.9%	
Hexachlorobutadiene	45.4	50.0	90.8%	55.7	50.0	111%	20.4%	
Ethylene Dibromide	46.2	50.0	92.4%	48.5	50.0	97.0%	4.9%	
Bromochloromethane	44.3	50.0	88.6%	45.6	50.0	91.2%	2.9%	
2,2-Dichloropropane	47.3	50.0	94.6%	49.1	50.0	98.2%	3.7%	
1,3-Dichloropropane	43.9	50.0	87.8%	47.7	50.0	95.4%	8.3%	
Isopropylbenzene	45.8	50.0	91.6%	55.3	50.0	111%	18.8%	
n-Propylbenzene	44.0	50.0	88.0%	52.9	50.0	106%	18.4%	
Bromobenzene	42.1	50.0	84.2%	49.3	50.0	98.6%	15.8%	
2-Chlorotoluene	43.6	50.0	87.2%	51.8	50.0	104%	17.2%	
4-Chlorotoluene	44.4	50.0	88.8%	52.2	50.0	104%	16.1%	
tert-Butylbenzene	45.4	50.0	90.8%	54.3	50.0	109%	17.9%	
sec-Butylbenzene	45.2	50.0	90.4%	54.3	50.0	109%	18.3%	
4-Isopropyltoluene	47.8	50.0	95.6%	57.0	50.0	114%	17.6%	
n-Butylbenzene	48.4 Q	50.0	96.8%	58.0 Q	50.0	116%	18.0%	
1,2,4-Trichlorobenzene	50.6	50.0	101%	58.3	50.0	117%	14.1%	
Naphthalene	53.0	50.0	106%	63.8	50.0	128%	18.5%	
1,2,3-Trichlorobenzene	50.4	50.0	101%	57.4	50.0	115%	13.0%	
Methyl tert-Butyl Ether	44.6	50.0	89.2%	44.7	50.0	89.4%	0.2%	

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

**Volatile Surrogate Recovery**

	LCS	LCS
d4-1,2-Dichloroethane	98.7%	98.2%
d8-Toluene	100%	99.1%
Bromofluorobenzene	102%	97.8%
d4-1,2-Dichlorobenzene	99.5%	103%

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

Page 1 of 2

**Sample ID: MB-110211**

**METHOD BLANK**

Lab Sample ID: MB-110211

LIMS ID: 11-25251

Matrix: Soil

Data Release Authorized: *AB*

Reported: 11/03/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon

025195.040.045

Date Sampled: NA

Date Received: NA

Instrument/Analyst: NT9/PAB

Date Analyzed: 11/02/11 10:25

Sample Amount: 5.00 g-dry-wt

Purge Volume: 5.0 mL

Moisture: NA

CAS Number	Analyte	RL	Result	Q
74-87-3	Chloromethane	1.0	< 1.0	U
74-83-9	Bromomethane	1.0	< 1.0	U
75-01-4	Vinyl Chloride	1.0	< 1.0	U
75-00-3	Chloroethane	1.0	< 1.0	U
75-09-2	Methylene Chloride	2.0	< 2.0	U
67-64-1	Acetone	5.0	< 5.0	U
75-15-0	Carbon Disulfide	1.0	< 1.0	U
75-35-4	1,1-Dichloroethane	1.0	< 1.0	U
75-34-3	1,1-Dichloroethane	1.0	< 1.0	U
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
67-66-3	Chloroform	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
78-93-3	2-Butanone	5.0	< 5.0	U
71-55-6	1,1,1-Trichloroethane	1.0	< 1.0	U
56-23-5	Carbon Tetrachloride	1.0	< 1.0	U
108-05-4	Vinyl Acetate	5.0	< 5.0	U
75-27-4	Bromodichloromethane	1.0	< 1.0	U
78-87-5	1,2-Dichloropropane	1.0	< 1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
124-48-1	Dibromochloromethane	1.0	< 1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	< 1.0	U
71-43-2	Benzene	1.0	< 1.0	U
10061-02-6	trans-1,3-Dichloropropene	1.0	< 1.0	U
110-75-8	2-Chloroethylvinylether	5.0	< 5.0	U
75-25-2	Bromoform	1.0	< 1.0	U
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0	< 5.0	U
591-78-6	2-Hexanone	5.0	< 5.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	< 1.0	U
108-88-3	Toluene	1.0	< 1.0	U
108-90-7	Chlorobenzene	1.0	< 1.0	U
100-41-4	Ethylbenzene	1.0	< 1.0	U
100-42-5	Styrene	1.0	< 1.0	U
75-69-4	Trichlorofluoromethane	1.0	< 1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0	< 2.0	U
179601-23-1	m,p-Xylene	1.0	< 1.0	U
95-47-6	o-Xylene	1.0	< 1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	< 1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	< 1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	< 1.0	U
107-02-8	Acrolein	50	< 50	U

**ORGANICS ANALYSIS DATA SHEET**

**Volatiles by Purge & Trap GC/MS-Method SW8260C**

**Sample ID: MB-110211**

Page 2 of 2

**METHOD BLANK**

Lab Sample ID: MB-110211

QC Report No: TU89-Landau Associates, Inc.

LIMS ID: 11-25251

Project: Boeing Striker: North Detention Pon

Matrix: Soil

025195.040.045

Date Analyzed: 11/02/11 10:25

CAS Number	Analyte	RL	Result	Q
74-88-4	Methyl Iodide	1.0	< 1.0	U
74-96-4	Bromoethane	2.0	< 2.0	U
107-13-1	Acrylonitrile	5.0	< 5.0	U
563-58-6	1,1-Dichloropropene	1.0	< 1.0	U
74-95-3	Dibromomethane	1.0	< 1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	< 1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	5.0	< 5.0	U
96-18-4	1,2,3-Trichloropropane	2.0	< 2.0	U
110-57-6	trans-1,4-Dichloro-2-butene	5.0	< 5.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	< 1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	< 1.0	U
87-68-3	Hexachlorobutadiene	5.0	< 5.0	U
106-93-4	Ethylene Dibromide	1.0	< 1.0	U
74-97-5	Bromochloromethane	1.0	< 1.0	U
594-20-7	2,2-Dichloropropane	1.0	< 1.0	U
142-28-9	1,3-Dichloropropane	1.0	< 1.0	U
98-82-8	Isopropylbenzene	1.0	< 1.0	U
103-65-1	n-Propylbenzene	1.0	< 1.0	U
108-86-1	Bromobenzene	1.0	< 1.0	U
95-49-8	2-Chlorotoluene	1.0	< 1.0	U
106-43-4	4-Chlorotoluene	1.0	< 1.0	U
98-06-6	tert-Butylbenzene	1.0	< 1.0	U
135-98-8	sec-Butylbenzene	1.0	< 1.0	U
99-87-6	4-Isopropyltoluene	1.0	< 1.0	U
104-51-8	n-Butylbenzene	1.0	< 1.0	U
120-82-1	1,2,4-Trichlorobenzene	5.0	< 5.0	U
91-20-3	Naphthalene	5.0	< 5.0	U
87-61-6	1,2,3-Trichlorobenzene	5.0	< 5.0	U
1634-04-4	Methyl tert-Butyl Ether	1.0	< 1.0	U

Reported in µg/kg (ppb)

**Volatile Surrogate Recovery**

d4-1,2-Dichloroethane	102%
d8-Toluene	100%
Bromofluorobenzene	99.0%
d4-1,2-Dichlorobenzene	102%



**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID


Page 1 of 2

Matrix: Soil

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention

025195.040.045

Data Release Authorized: 

Reported: 11/04/11

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
TU89A 11-25251	NDP-9(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 114%
TU89B 11-25252	NDP-7(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 111%
TU89C 11-25253	NDP-3(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 111%
TU89D 11-25254	NDP-2(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 112%
TU89E 11-25255	NDP-1(0-0.5)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 36 U < 89 U < 180 U 111%
TU89F 11-25256	NDP-10(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 117%
TU89G 11-25257	NDP-6(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 113%
TU89H 11-25258	NDP-4(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 109%
TU89I 11-25259	NDP-8(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 107%

**ORGANICS ANALYSIS DATA SHEET**

NWTPH-HCID Method by GC/FID

Page 2 of 2

Matrix: Soil

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention

025195.040.045

Data Release Authorized: *RB*

Reported: 11/04/11

ARI ID	Sample ID	Extraction Date	Analysis Date	DL	Range	Result
TU89J 11-25260	NDP-11(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 108%
MB-110211 11-25261	Method Blank	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 100%
TU89K 11-25261	NDP-12(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 107%
TU89KDP 11-25261	NDP-12(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 105%
TU89L 11-25262	NDP-5(0-1)-111101 HC ID: ---	11/02/11	11/03/11	1.0	Gas Diesel Oil o-Terphenyl	< 20 U < 50 U < 100 U 105%

Reported in mg/kg (ppm)

Gas value based on total peaks in the range from Toluene to C12.

Diesel value based on the total peaks in the range from C12 to C24.

Oil value based on the total peaks in the range from C24 to C38.

**HCID SURROGATE RECOVERY SUMMARY**

Matrix: Soil

QC Report No: TU89-Landau Associates, Inc.  
Project: Boeing Striker: North Detention Pon  
025195.040.045

<u>Client ID</u>	<u>O-TER TOT OUT</u>	
NDP-9 (0-1)-111101	114%	0
NDP-7 (0-1)-111101	111%	0
NDP-3 (0-1)-111101	111%	0
NDP-2 (0-1)-111101	112%	0
NDP-1 (0-0.5)-111101	111%	0
NDP-10 (0-1)-111101	117%	0
NDP-6 (0-1)-111101	113%	0
NDP-4 (0-1)-111101	109%	0
NDP-8 (0-1)-111101	107%	0
NDP-11 (0-1)-111101	108%	0
110211MB	100%	0
NDP-12 (0-1)-111101	107%	0
NDP-12 (0-1)-111101 DP	105%	0
NDP-5 (0-1)-111101	105%	0

**LCS/MB LIMITS      QC LIMITS**

(O-TER) = o-Terphenyl

(68-122)

(50-150)

Prep Method: SW3550B  
Log Number Range: 11-25251 to 11-25262

**TOTAL HCID RANGE HYDROCARBONS-EXTRACTION REPORT**

Matrix: Soil  
Date Received: 11/01/11

ARI Job: TU89  
Project: Boeing Striker: North Detention Pon  
025195.040.045

ARI ID	Client ID	Sample Amt	Final Vol	Basis	Prep Date
11-25251-TU89A	NDP-9(0-1)-111101	7.37 g	5.00 mL	D	11/02/11
11-25252-TU89B	NDP-7(0-1)-111101	6.99 g	5.00 mL	D	11/02/11
11-25253-TU89C	NDP-3(0-1)-111101	7.63 g	5.00 mL	D	11/02/11
11-25254-TU89D	NDP-2(0-1)-111101	6.47 g	5.00 mL	D	11/02/11
11-25255-TU89E	NDP-1(0-0.5)-111101	2.80 g	5.00 mL	D	11/02/11
11-25256-TU89F	NDP-10(0-1)-111101	6.39 g	5.00 mL	D	11/02/11
11-25257-TU89G	NDP-6(0-1)-111101	6.25 g	5.00 mL	D	11/02/11
11-25258-TU89H	NDP-4(0-1)-111101	6.55 g	5.00 mL	D	11/02/11
11-25259-TU89I	NDP-8(0-1)-111101	6.96 g	5.00 mL	D	11/02/11
11-25260-TU89J	NDP-11(0-1)-111101	8.08 g	5.00 mL	D	11/02/11
11-25261-110211MB	Method Blank	10.0 g	5.00 mL	-	11/02/11
11-25261-TU89K	NDP-12(0-1)-111101	9.04 g	5.00 mL	D	11/02/11
11-25261-TU89KDP	NDP-12(0-1)-111101	9.28 g	5.00 mL	D	11/02/11
11-25262-TU89L	NDP-5(0-1)-111101	7.36 g	5.00 mL	D	11/02/11

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1


Sample ID: NDP-9(0-1)-111101

**SAMPLE**

Lab Sample ID: TU89A

LIMS ID: 11-25251

Matrix: Soil

Data Release Authorized: 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon

025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 76.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.3	5.9	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.3	0.4	
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.1	0.2	
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.6	15.7	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.6	30.6	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.1	66.8	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.03	0.04	
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	5	62	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

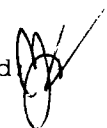
Page 1 of 1

Sample ID: NDP-7(0-1)-111101  
SAMPLE

Lab Sample ID: TU89B

LIMS ID: 11-25252

Matrix: Solid

Data Release Authorized 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon

025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 68.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.3	6.6	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.3	0.5	
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.1	0.3	
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.7	17.4	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.7	45.7	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.1	14.2	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.03	0.09	
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	6	65	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: NDP-3(0-1)-111101  
SAMPLE

Lab Sample ID: TU89C

LIMS ID: 11-25253

Matrix: Soil

Data Release Authorized: 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon  
025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 75.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.2	6.7	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.2	0.4	
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.1	0.6	
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.6	17.9	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.6	62.7	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.1	36.6	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.03	0.07	
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	5	122	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1


Sample ID: NDP-2(0-1)-111101

**SAMPLE**

Lab Sample ID: TU89D

LIMS ID: 11-25254

Matrix: Solid

Data Release Authorized: 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon  
025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 64.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.3	10.1	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.3	0.4	
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.1	0.7	
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.7	21.3	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.7	63.4	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.1	27.8	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.04	0.06	
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	6	147	

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: NDP-1(0-0.5)-111101  
SAMPLE

Lab Sample ID: TU89E

LIMS ID: 11-25255

Matrix: Solid

Data Release Authorized: 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon

025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 28.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.7	21.0	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.7	0.7	U
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.3	1.7	
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	2	49	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	2	295	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.3	132	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.08	0.33	
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	10	400	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: NDP-10(0-1)-111101  
SAMPLE

Lab Sample ID: TU89F

LIMS ID: 11-25256

Matrix: Solid

Data Release Authorized: 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon  
025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 62.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.3	7.0	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.3	0.3	
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.2	0.2	U
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.8	17.0	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.8	30.7	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.2	9.8	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.03	0.05	
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	6	54	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: NDP-6(0-1)-111101  
SAMPLE

Lab Sample ID: TU89G

LIMS ID: 11-25257

Matrix: Solid

Data Release Authorized 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon

025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 56.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.3	10.8	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.3	0.4	
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.2	0.2	
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.8	17.0	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.8	50.3	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.2	26.7	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.04	0.05	
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	7	87	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: NDP-4(0-1)-111101  
SAMPLE

Lab Sample ID: TU89H

LIMS ID: 11-25258

Matrix: Solid

Data Release Authorized: 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon  
025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 62.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.3	13.2	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.3	0.4	
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.1	0.5	
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.7	20.5	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.7	51.6	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.1	27.1	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.03	0.07	
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	6	144	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

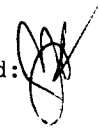
Page 1 of 1

Sample ID: NDP-8(0-1)-111101  
SAMPLE

Lab Sample ID: TU89I

LIMS ID: 11-25259

Matrix: Solid

Data Release Authorized: 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon

025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 68.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.3	6.4	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.3	0.6	
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.1	0.1	U
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.7	20.3	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.7	42.3	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.1	12.0	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.03	0.05	
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	6	57	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

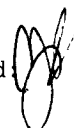
Page 1 of 1

Sample ID: NDP-11(0-1)-111101  
SAMPLE

Lab Sample ID: TU89J

LIMS ID: 11-25260

Matrix: Soil

Data Release Authorized: 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon

025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 78.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.2	6.7	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.2	0.4	
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.1	0.2	
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.6	16.7	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.6	29.4	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.1	88.3	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.03	0.05	
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	5	50	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

**Sample ID: NDP-12(0-1)-111101  
SAMPLE**

Lab Sample ID: TU89K

LIMS ID: 11-25261

Matrix: Soil

Data Release Authorized: 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon  
025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 90.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.2	5.7	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.2	0.3	
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.1	0.1	U
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.5	22.4	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.5	20.5	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.1	7.3	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.02	0.02	U
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	4	40	


U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**  
Page 1 of 1

**Sample ID: NDP-5(0-1)-111101**  
**SAMPLE**

Lab Sample ID: TU89L  
LIMS ID: 11-25262  
Matrix: Soil  
Data Release Authorized:   
Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.  
Project: Boeing Striker: North Detention Pon  
025195.040.045  
Date Sampled: 11/01/11  
Date Received: 11/01/11

Percent Total Solids: 72.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.3	7.6	
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.3	0.5	
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.1	0.2	
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.7	19.5	
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.7	40.4	
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.1	15.8	
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.03	0.07	
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	5	67	

U-Analyte undetected at given RL  
RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

**Sample ID: NDP-9(0-1)-111101  
MATRIX SPIKE**

Lab Sample ID: TU89A

LIMS ID: 11-25251

Matrix: Soil

Data Release Authorized: 

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon

025195.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

**MATRIX SPIKE QUALITY CONTROL REPORT**

<b>Analyte</b>	<b>Analysis Method</b>	<b>Sample</b>	<b>Spike</b>	<b>Spike Added</b>	<b>% Recovery</b>	<b>Q</b>
Arsenic	200.8	5.9	35.3	32.0	91.9%	
Beryllium	200.8	0.4	34.5	32.0	107%	
Cadmium	200.8	0.2	32.2	32.0	100%	
Chromium	200.8	15.7	43.7	32.0	87.5%	
Copper	200.8	30.6	66.0	32.0	111%	
Lead	200.8	66.8	110	32.0	135%	N
Mercury	7471A	0.04	0.31	0.266	102%	
Zinc	200.8	62	175	102	111%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

**Sample ID: NDP-9(0-1)-111101  
DUPLICATE**

Lab Sample ID: TU89A  
LIMS ID: 11-25251  
Matrix: Soil  
Data Release Authorized  
Reported: 11/07/11



QC Report No: TU89-Landau Associates, Inc.  
Project: Boeing Striker: North Detention Pon  
025195.040.045  
Date Sampled: 11/01/11  
Date Received: 11/01/11

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	5.9	6.5	9.7%	+/- 20%	
Beryllium	200.8	0.4	0.4	0.0%	+/- 0.3	L
Cadmium	200.8	0.2	0.2	0.0%	+/- 0.1	L
Chromium	200.8	15.7	16.4	4.4%	+/- 20%	
Copper	200.8	30.6	31.0	1.3%	+/- 20%	
Lead	200.8	66.8	64.8	3.0%	+/- 20%	
Mercury	7471A	0.04	0.05	22.2%	+/- 0.03	L
Zinc	200.8	62	62	0.0%	+/- 20%	

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

**Sample ID: LAB CONTROL**

Lab Sample ID: TU89LCS

LIMS ID: 11-25252

Matrix: Solid

Data Release Authorized

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon

025195.040.045

Date Sampled: NA

Date Received: NA

**BLANK SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	26.1	25.0	104%	
Beryllium	200.8	27.0	25.0	108%	
Cadmium	200.8	27.2	25.0	109%	
Chromium	200.8	26.6	25.0	106%	
Copper	200.8	29.3	25.0	117%	
Lead	200.8	28.5	25.0	114%	
Mercury	7471A	0.50	0.50	100%	
Zinc	200.8	92	80	115%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

**Sample ID: METHOD BLANK**

Lab Sample ID: TU89MB

LIMS ID: 11-25252

Matrix: Solid

Data Release Authorized:

Reported: 11/07/11

QC Report No: TU89-Landau Associates, Inc.

Project: Boeing Striker: North Detention Pon

025195.040.045

Date Sampled: NA

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/02/11	200.8	11/03/11	7440-38-2	Arsenic	0.2	0.2	U
3050B	11/02/11	200.8	11/03/11	7440-41-7	Beryllium	0.2	0.2	U
3050B	11/02/11	200.8	11/03/11	7440-43-9	Cadmium	0.1	0.1	U
3050B	11/02/11	200.8	11/03/11	7440-47-3	Chromium	0.5	0.5	U
3050B	11/02/11	200.8	11/03/11	7440-50-8	Copper	0.5	0.5	U
3050B	11/02/11	200.8	11/03/11	7439-92-1	Lead	0.1	0.1	U
CLP	11/02/11	7471A	11/03/11	7439-97-6	Mercury	0.02	0.02	U
3050B	11/02/11	200.8	11/03/11	7440-66-6	Zinc	4	4	U

U-Analyte undetected at given RL

RL-Reporting Limit



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

November 22, 2011

Kathryn Hartley  
Landau Associates  
130 Second Avenue South  
Edmonds, WA 98020

**RE: Project: Boeing Striker: North Detention Pond, 025195.040.045**  
**ARI Job: TW18**

Dear Kathryn,

Enclosed please find a revised Chain-of-Custody (COC) record, sample receipt documentation, email documentation, and the final data report for the samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted six soil samples, fifteen solid samples, and a trip blank on November 1, 2011. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form. Select samples were placed on hold pending further instructions.

The samples were originally analyzed for VOCs, NWTPH-HCID, and Total Metals, as requested on the COC and reported under ARI SDG TU89.

At the request of Landau Associates, select samples were analyzed for arsenic.

The matrix spike duplicate RPD is outside the +/-20% control limit in association with sample NDP-2 (1-2)110111.

There were no other analytical complications noted.

Quality control analysis results are included for your review. An electronic copy of this report and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,  
ANALYTICAL RESOURCES, INC

A handwritten signature in black ink, appearing to read "Kelly Bottem".

Kelly Bottem  
Client Services Manager  
(206) 695-6211  
[kellyb@arilabs.com](mailto:kellyb@arilabs.com)  
[www.arilabs.com](http://www.arilabs.com)



LANDAU ASSOCIATES

- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2493
- Spokane (509) 327-9737
- Portland (503) 542-1080
- 

Edited by CFB 11/21

Edited by CFB 11/8/11

Date 11/11/11

Page 1 of 2

# Chain-of-Custody Record

Project Information						Testing Parameters										Turnaround Time	
Project Name: <u>Beering</u> <u>Worked: North Detention Pond</u> Project No. <u>025145.010.015</u>						<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">HLID*</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Metals*</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Analyte</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Asbestos</div> </div>										<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <u>2 day</u>	
Project Location/Event: <u>Kent, WA</u>																	
Sampler's Name: <u>CFB/mwob</u>																	
Project Contact: <u>Kathryn Hartley, Tom Strickson</u>																	
Send Results To: <u>TLS, CFB, Joe Flaherty</u>						Observations/Comments											
Sample I.D.	Date	Time	Matrix	No. of Containers													
NDP-9(0-1)-HOTT	11/1/11	0930	Soil	7	X	X	X										X Allow water samples to settle, collect aliquot from clear portion
NDP-9(1-2)-HOTT	11/1/11	0945	Soil	7													
NDP-7(0-1)-HOTT	11/1/11	1030	Sediment	7	X	X	X										X NWTPH-Dx - run acid wash/silica gel cleanup
NDP-7(1-2)-HOTT	11/1/11	1045	Sediment	7													
NDP-3(0-1)-HOTT	11/1/11	1100	Sediment	7	X	X	X										run samples standardized to _____ product
NDP-3(1-2)-HOTT	11/1/11	1115	Sediment	7													Analyze for EPH if no specific product identified
NDP-2(0-1)-HOTT	11/1/11	1130	Sediment	7	X	X	X										VOC/BTEX/VPH (soil):
NDP-2(1-2)-HOTT	11/1/11	1145	Sediment	7													non-preserved
NDP-1(0-0.5)-HOTT	11/1/11	1200	Sediment	7	X	X	X										preserved w/methanol
NDP-10(0-1)-HOTT	11/1/11	1220	Sediment	7	X	X	X										preserved w/sodium bisulfate
NDP-10(1-2)-HOTT	11/1/11	1225	Sediment	7													Freeze upon receipt
NDP-6(0-1)-HOTT	11/1/11	1240	Sediment	7	X	X	X										Dissolved metal water samples field filtered
NDP-6(1-2)-HOTT	11/1/11	1245	Sediment	7													Other *Halo Sw De wood
NDP-4(0-1)-HOTT	11/1/11	1300	Sediment	7	X	X	X										HID results are in
NDP-4(1-2)-HOTT	11/1/11	1315	Sediment	7													for metals: As, Be, Cd, Cr,
NDP-8(0-1)-HOTT	11/1/11	1400	Sediment	7	X	X	X										Cu, Pb, Hg, Zn
NDP-8(1-2)-HOTT	11/1/11	1405	Sediment	7													
NDP-11(0-1)-HOTT	11/1/11	1420	Soil	7	X	X	X										
Special Shipment/Handling or Storage Requirements: <u>On ice</u>						Method of Shipment: <u>Dropped @ ARI</u>											
Relinquished by			Received by			Relinquished by			Received by								
Signature: <u>[Signature]</u>			Signature: <u>[Signature]</u>			Signature: _____			Signature: _____								
Printed Name: <u>Chris Suarez</u>			Printed Name: <u>A. Volgardsen</u>			Printed Name: _____			Printed Name: _____								
Company: <u>Landau</u>			Company: <u>ARI</u>			Company: _____			Company: _____								
Date: <u>11/1/11</u>		Time: <u>1625</u>	Date: <u>11/1/11</u>		Time: <u>1625</u>	Date: _____		Time: _____	Date: _____		Time: _____			Date: _____	Time: _____		



- Seattle/Edmonds (425) 778-0907
- Tacoma (253) 926-2498
- Spokane (509) 327-9737
- Portland (503) 542-1080
- 

Edited by CFB 11/1/11

Date 11/1/11  
Page 2 of 2

## Chain-of-Custody Record

Project Name: <u>Stellar: North Detention Pond</u> Project No. <u>025145.010.015</u>						Testing Parameters						Turnaround Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Accelerated <del>7 days</del>		
Project Location/Event: <u>Kent, WA</u>						<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">HCLID</div> <div style="margin-bottom: 5px;">Metals</div> <div style="margin-bottom: 5px;">VOCs</div> <div style="margin-bottom: 5px;">Aroclor</div> <div style="margin-bottom: 5px;">Misc</div> </div>								
Sampler's Name: <u>CFB/mwd</u>														
Project Contact: <u>Kathryn Hartley, Tim Sverson</u>														
Send Results To: <u>"", TUS, CFB, Joe Flaherty</u>														
Sample I.D.	Date	Time	Matrix	No. of Containers							Observations/Comments			
NDP-12 (0-1)-401H	11/1/11	1440	Soil	7	X	X	X						X Allow water samples to settle, collect aliquot from clear portion	
NDP-5 (0-1)-401H	11/1/11	1500	Soil	7	X	X	X							
NDP-5 (1-2)-401H	11/1/11	1505	Soil	7				X	X				X NWTPH-Dx - run acid wash/silica gel cleanup	
TRIP BLANKS				Water	6									
<del>NDP 2 (1-2) 11101</del>	<del>11/1/11</del>													run samples standardized to product
<del>NDP 4 (1-2) 11101</del>	<del>11/1/11</del>													Analyze for EPH if no specific product identified
<del>NDP 5 (1-2) 11101</del>	<del>11/1/11</del>													VOC/BTEX/VPH (soil):
<del>NDP 6 (1-2) 11101</del>	<del>11/1/11</del>													non-preserved
														preserved w/methanol
														preserved w/sodium bisulfate
														Freeze upon receipt
														Dissolved metal water samples field filtered
														Other: <u>* Hold Cr + D<sub>x</sub> until HCLID Results are in</u>
														<u>* Metals: Ag, Be, Cd, Cr, Cu, Pb, Hg, Zn</u>

CFB #1

Special Shipment/Handling or Storage Requirements: <u>on ice</u>		Method of Shipment: <u>Deliver to ARI</u>	
<b>Relinquished by</b>  Signature <u>Chris Breece</u> Printed Name <u>LANDAU</u> Company Date <u>11/1/11</u> Time <u>1625</u>	<b>Received by</b>  Signature <u>A. Volgardsen</u> Printed Name <u>ARI</u> Company Date <u>11/1/11</u> Time <u>1625</u>	<b>Relinquished by</b>  Signature  Printed Name  Company Date _____ Time _____	<b>Received by</b>  Signature  Printed Name  Company Date _____ Time _____



# Cooler Receipt Form

ARI Client Boeing  
 COC No(s) \_\_\_\_\_ (NA)  
 Assigned ARI Job No 7297

Project Name: Striker: North Detention Pond  
 Delivered by: Fed-Ex UPS Courier  Hand Delivered  Other: \_\_\_\_\_  
 Tracking No \_\_\_\_\_ (NA)

**Preliminary Examination Phase:**

Were intact, properly signed and dated custody seals attached to the outside of to cooler?  YES  NO  
 Were custody papers included with the cooler?  YES  NO  
 Were custody papers properly filled out (ink, signed, etc)  YES  NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 5.9 3.3  
 If cooler temperature is out of compliance fill out form 00070F Temp Gun ID# 90941619

Cooler Accepted by AV Date 11/1/11 Time 1625

**Complete custody forms and attach all shipping documents**

**Log-In Phase:**

Was a temperature blank included in the cooler?  YES  NO  
 What kind of packing material was used? Bubble Wrap  Ice  Gel Packs  Baggies  Foam Block  Paper  Other: \_\_\_\_\_  
 Was sufficient ice used (if appropriate)? NA  YES  NO  
 Were all bottles sealed in individual plastic bags?  YES  NO  
 Did all bottles arrive in good condition (unbroken)?  YES  NO  
 Were all bottle labels complete and legible?  YES  NO  
 Did the number of containers listed on COC match with the number of containers received?  YES  NO  
 Did all bottle labels and tags agree with custody papers?  YES  NO  
 Were all bottles used correct for the requested analyses?  YES  NO  
 Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)  YES  NO  
 Were all VOC vials free of air bubbles? NA  YES  NO  
 Was sufficient amount of sample sent in each bottle?  YES  NO  
 Date VOC Trip Blank was made at ARI. NA 11-21-11  
 Was Sample Split by ARI:  YES  NO Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by TS Date 11-2-11 Time 800

**\*\* Notify Project Manager of discrepancies or concerns \*\***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

**Additional Notes, Discrepancies, & Resolutions:**  
trip blank 1 pb  
 By TS Date 11-2-11

<b>Small Air Bubbles</b> ~2mm 	<b>Peabubbles</b> 2-4 mm 	<b>LARGE Air Bubbles</b> > 4 mm 	Small → "sm" Peabubbles → "pb" Large → "lg" Headspace → "hs"
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# Sample ID Cross Reference Report



ARI Job No: TW18  
Client: The Boeing Company  
Project Event: 02519.040.045  
Project Name: Striker: North Detention Pond

Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1. NDP-2(1-2)110111	TW18A	11-25906	Solid	11/01/11 11:45	11/01/11 16:25
2. NDP-6(1-2)110111	TW18B	11-25907	Solid	11/01/11 12:45	11/01/11 16:25
3. NDP-4(1-2)110111	TW18C	11-25908	Solid	11/01/11 13:15	11/01/11 16:25
4. NDP-5(1-2)110111	TW18D	11-25909	Soil	11/01/11 15:05	11/01/11 16:25

Printed 11/08/11

**Subject:** Boeing Striker North Detention Pond sampling  
**From:** "Chris Burke" <cburke@landauinc.com>  
**Date:** Wed, 2 Nov 2011 13:37:18 -0700  
**To:** Kelly Bottem <kellyb@arilabs.com>  
**CC:** "Kathryn Hartley" <khartley@landauinc.com>

Hey Kelly,

Kathryn and I noticed a few errors on the COC from yesterday's sampling at the Striker property. I've edited the COCs and attached a scan of those edits.

The changes I made were:

- fixed the sample IDs to use proper date format, i.e., NDP-1(0-1)-110111 became the correct NDP-1(0-1)-111101
- Changed matrix type from sediment to solids
- Checked VOCs analysis for the trip blanks
- Added 'Boeing' to the project name

I highlighted all the changes for clarity, let me know if you have any questions,

**Chris Burke** " Senior Staff Hydrogeologist  
Landau Associates, Inc.

130 2<sup>nd</sup> Ave. S, Edmonds, WA 98020  
425.329.0297 fax 425.778.6409 cell 716.579.2975  
[cburke@landauinc.com](mailto:cburke@landauinc.com) " <http://www.landauinc.com>

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Notice: This communication may contain privileged or other confidential information. If you have received it in error, please advise the sender by reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.

<b>Boeing Striker NPD COC 110111 - revised.pdf</b>	<b>Boeing Striker NPD</b> <b>Content-Description:</b> COC 110111 - revised.pdf <b>Content-Type:</b> application/pdf <b>Content-Encoding:</b> base64
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**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1


Sample ID: NDP-2(1-2)110111

SAMPLE

Lab Sample ID: TW18A

LIMS ID: 11-25906

Matrix: Solid

Data Release Authorized: 

Reported: 11/22/11

QC Report No: TW18-The Boeing Company

Project: Striker: North Detention Pond

02519.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 70.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/11	200.8	11/21/11	7440-38-2	Arsenic	0.3	5.2	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: NDP-2(1-2)110111  
DUPLICATE

Lab Sample ID: TW18A

LIMS ID: 11-25906

Matrix: Solid

Data Release Authorized: 

Reported: 11/22/11

QC Report No: TW18-The Boeing Company

Project: Striker: North Detention Pond

02519.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

**MATRIX DUPLICATE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	5.2	3.6	36.4%	+/- 20%	*

Reported in mg/kg-dry

\*-Control Limit Not Met

L-RPD Invalid, Limit = Detection Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: NDP-2(1-2)110111  
MATRIX SPIKE

Lab Sample ID: TW18A

LIMS ID: 11-25906

Matrix: Solid

Data Release Authorized: 

Reported: 11/22/11

QC Report No: TW18-The Boeing Company

Project: Striker: North Detention Pond

02519.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

**MATRIX SPIKE QUALITY CONTROL REPORT**

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	200.8	5.2	39.0	33.6	101%	

Reported in mg/kg-dry

N-Control Limit Not Met

H-% Recovery Not Applicable, Sample Concentration Too High

NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**


Page 1 of 1

Sample ID: NDP-6(1-2)110111  
SAMPLE

Lab Sample ID: TW18B

LIMS ID: 11-25907

Matrix: Solid

Data Release Authorized: 

Reported: 11/22/11

QC Report No: TW18-The Boeing Company

Project: Striker: North Detention Pond

02519.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 72.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/11	200.8	11/21/11	7440-38-2	Arsenic	0.3	4.0	

U-Analyte undetected at given RL  
RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

Sample ID: NDP-4(1-2)110111  
SAMPLE

Lab Sample ID: TW18C

LIMS ID: 11-25908

Matrix: Solid

Data Release Authorized: 

Reported: 11/22/11

QC Report No: TW18-The Boeing Company

Project: Striker: North Detention Pond

02519.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 73.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/11	200.8	11/21/11	7440-38-2	Arsenic	0.3	4.2	

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

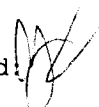
Page 1 of 1

Sample ID: NDP-5(1-2)110111  
SAMPLE

Lab Sample ID: TW18D

LIMS ID: 11-25909

Matrix: Soil

Data Release Authorized: 

Reported: 11/22/11

QC Report No: TW18-The Boeing Company

Project: Striker: North Detention Pond

02519.040.045

Date Sampled: 11/01/11

Date Received: 11/01/11

Percent Total Solids: 74.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/11	200.8	11/21/11	7440-38-2	Arsenic	0.3	5.8	

U-Analyte undetected at given RL

RL-Reporting Limit



**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

**Sample ID: METHOD BLANK**

Page 1 of 1

Lab Sample ID: TW18MB

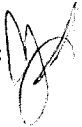
QC Report No: TW18-The Boeing Company

LIMS ID: 11-25907

Project: Striker: North Detention Pond

Matrix: Solid

02519.040.045

Data Release Authorized: 

Date Sampled: NA

Reported: 11/22/11

Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	11/14/11	200.8	11/21/11	7440-38-2	Arsenic	0.2	0.2	U

U-Analyte undetected at given RL

RL-Reporting Limit

**INORGANICS ANALYSIS DATA SHEET**

**TOTAL METALS**

Page 1 of 1

**Sample ID: LAB CONTROL**

Lab Sample ID: TW18LCS

LIMS ID: 11-25907

Matrix: Solid

Data Release Authorized

Reported: 11/22/11

QC Report No: TW18-The Boeing Company

Project: Striker: North Detention Pond

02519.040.045

Date Sampled: NA

Date Received: NA



**BLANK SPIKE QUALITY CONTROL REPORT**

<b>Analyte</b>	<b>Analysis Method</b>	<b>Spike Found</b>	<b>Spike Added</b>	<b>% Recovery</b>	<b>Q</b>
Arsenic	200.8	26.2	25.0	105%	

Reported in mg/kg-dry

N-Control limit not met

NA-Not Applicable, Analyte Not Spiked

Control Limits: 80-120%