

**WASTE CHARACTERIZATION: IN-SITU SOIL LOCATED AT AREA II
ISRA OUTFALL 009 PLANNED EXCAVATION AP/STP-1C-2-WEST**

Introduction

This report presents supporting detailed information for the August 17, 2010 in-situ characterization sampling of prospective soil wastes from planned SSFL Area II ISRA excavations in the vicinity of the former Area II incinerator.

Background

In-situ characterization was performed for soil destined to be excavated from designated locations in SSFL Area II in accordance with the ISRA Workplan. A step-by-step approach was followed to accomplish characterization of the soil prior to excavation. The first step was to review available information regarding historical area usage and existing analytical data from past soil sampling in or near planned excavation sites. The objective was to identify all substances potentially impacting the soil in each planned excavation footprint to the degree that hazardous waste regulatory thresholds would be exceeded.

The next step was to develop and implement a random sampling plan for each of the planned excavation footprints. The collected soil samples were analyzed by a state certified laboratory

The review of historical information and existing analytical data relevant to planned excavation AP/STP-1C-2-West was based partly on the Group 2 RFI results. Evaluation of these data and other sources of relevant information, including recent sampling conducted specifically for ISRA, suggested that Regulated Metals (CAM17), Volatile Organic Compounds (VOC), Polychlorinated Biphenyls (PCB), and Petroleum Hydrocarbons should be addressed in the AP/STP-1C-2-West excavation footprint. The new random sampling plan was developed for collection of four (4) samples from the planned excavation footprint. The samples were analyzed for CAM 17 metals, VOCs, PCBs, and Petroleum Hydrocarbons. All samples were collected, contained, and handled according to field practice requirements in SW-846.

Results

Analytical results for the planned excavation area at A

INTERIM SOURCE REMOVAL ACTION (ISRA) - OUTFALL 009

WASTE CHARACTERIZATION SAMPLE RESULTS – AP/STP-1C-2 (West)

THE BOEING COMPANY

SANTA SUSANA FIELD LABORATORY

ANALYTE	UNITS	TTLC	WET Leachate Testing Trigger ^a	TCLP Leachate Testing Trigger ^b	APWC0102	APWC0104	APWC0115	APWC0116	APWC0117	APWC0118
					APWC0102S001	APWC0104S001	APWC0115S001	APWC0116S001	APWC0117S001	APWC0118S001
					7/29/2010	7/29/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010
					0.5 - 1.0	0.0 - 0.5	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
					RESULT ^c	RESULT ^c	RESULT ^d	RESULT ^d	RESULT ^d	RESULT ^d
METALS										
Antimony	mg/kg	500	150	--	0.98 J	1.3 J	1.6	1.8	1.8	1.7
Arsenic	mg/kg	500	50	100	6.7	6	5.3	5.4	5.2	6.5
Barium	mg/kg	10,000	1,000	2,000	120	240	280	140	210	130
Beryllium	mg/kg	75	7.5	--	0.49	0.42 J	0.42	0.45	0.45	0.49
Cadmium	mg/kg	100	10	20	<0.20	0.21 J	2.6	<0.50 {<0.20}	<0.50 {<0.20}	<0.50 {<0.20}
Chromium	mg/kg	500	50	100	22	20	23	23	23	21
Cobalt	mg/kg	8,000	8002 J		0.4000	8002 J	0.4000	8002 J	0.40.01mg/kmg/kmg/k	g/(,-4.60948(0)1.65326(0)1.65326(0)-29J

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**WASTE CHARACTERIZATION SAMPLE RESULTS – AP/STP-1C-2 (West)
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY**

			Object Name:		APWC0102	APWC0104	APWC0115	APWC0116	APWC0117	APWC0118
			Sample Name:		APWC0102S001	APWC0104S001	APWC0115S001	APWC0116S001	APWC0117S001	APWC0118S001
			Collection Date:		7/29/2010	7/29/2010	8/17/2010	8/17/2010	8/17/2010	8/17/2010
			Sample Depth (feet):		0.5 - 1.0	0.0 - 0.5	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
ANALYTE	UNITS	TTLC	WET Leachate Testing Trigger ^a	TCLP Leachate Testing Trigger ^b	RESULT ^c	RESULT ^c	RESULT ^d	RESULT ^d	RESULT ^d	RESULT ^d
1,1-Dichloroethane	ug/kg	--	--	--	<1 {<0.5}	<0.99 {<0.5}	<0.96 {<0.48}	<0.99 {<0.50}	<1.1 {<0.55}	<1.0 {<0.51}
1,1-Dichloroethene	ug/kg	--	--	14,000	<2 {<0.6}	<2 {<0.6}	<1.9 {<0.58}	<2.0 {<0.60}	<2.2 {<0.66}	<2.0 {<0.61}
1,1-Dichloropropene	ug/kg	--	--	--	<1 {<0.4}	<0.99 {<0.4}	<0.96 {<0.38}	<0.99 {<0.40}	<1.1 {<0.44}	<1.0 {<0.41}
1,2,3-Trichlorobenzene	ug/kg	--	--	--	<2 {<1}	<2 {<0.99}	<1.9 {<0.96}	<2.0 {<0.99}	<2.2 {<1.1}	<2.0 {<1.0}
1,2,3-Trichloropropane	ug/kg	--	--	--	<2 {<1}	<2 {<0.99}	<1.9 {<0.96}	<2.0 {<0.99}	<2.2 {<1.1}	<2.0 {<1.0}
1,2,4-Trichlorobenzene	ug/kg	--	--	--	<2 {<1}	<2 {<0.99}	<1.9 {<0.96}	<2.0 {<0.99}	<2.2 {<1.1}	<2.0 {<1.0}
1,2,4-Trimethylbenzene	ug/kg	--	--	--	<1 {<0.78}	<0.99 {<0.77}	<0.96 {<0.75}	<0.99 {<0.77}	<1.1 {<0.86}	<1.0 {<0.80}
1,2-Dibromo-3-chloropropane	ug/kg	--	--	--	<10 {<1.5}	<9.9 {<1.5}	<9.6 {<1.4}	<9.9 {<1.5}	<11 {<1.7}	<10 {<1.5}
1,2-Dibromoethane (EDB)	ug/kg	--	--	--	<1 {<0.8}	<0.99 {<0.79}	<0.96 {<0.77}	<0.99 {<0.79}	<1.1 {<0.88}	<1.0 {<0.82}
1,2-Dichlorobenzene	ug/kg	--	--	--	<1 {<0.95}	<0.99 {<0.94}	<0.96 {<0.91}	<0.99 {<0.94}	<1.1 {<1.0}	<1.0 {<0.97}
1,2-Dichloroethane	ug/kg	--	--	10,000	<1 {<0.8}	<0.99 {<0.79}	<0.96 {<0.77}	<0.99 {<0.79}	<1.1 {<0.88}	<1.0 {<0.82}
1,2-Dichloropropane	ug/kg	--	--	--	<1 {<0.8}	<0.99 {<0.79}	<0.96 {<0.77}	<0.99 {<0.79}	<1.1 {<0.88}	<1.0 {<0.82}
1,3,5-Trimethylbenzene	ug/kg	--	--	--	<1 {<0.63}	<0.99 {<0.62}	<0.96 {<0.61}	<0.99 {<0.62}	<1.1 {<0.70}	<1.0 {<0.64}
1,3-Dichlorobenzene	ug/kg	--	--	--	<1 {<0.84}	<0.99 {<0.83}	<0.96 {<0.81}	<0.99 {<0.83}	<1.1 {<0.93}	<1.0 {<0.86}
1,3-Dichloropropane	ug/kg	--	--	--	<1 {<0.63}	<0.99 {<0.62}	<0.96 {<0.61}	<0.99 {<0.62}	<1.1 {<0.70}	<1.0 {<0.64}
1,4-Dichlorobenzene	ug/kg	--	--	--	<1 {<0.94}	<0.99 {<0.93}	<0.96 {<0.90}	<0.99 {<0.93}	<1.1 {<1.0}	<1.0 {<0.96}
2,2-Dichloropropane	ug/kg	--	--	--						

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**WASTE CHARACTERIZATION SAMPLE RESULTS – AP/STP
THE BOEING COMPANY
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Notes:

--" - not analyzed / not applicable

<5 - Analyte not detected at or above the stated method detection limit (metals) or analyte not detected at or above the stated reporting limit (organics)

{<1} - Analyte not detected at or above the stated method detection limit (organics)

^a - WET Leachate Testing Trigger = STLC limit * 10

^b - TCLP Leachate Testing Trigger = TCLP limit * 20

^c Waste characterization sample results not validated

B - Analyte was detected in the associated method blank