HALEY & ALDRICH

BOEING REALTY CORPORATION
FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA

TECHNICAL MEMORANDUM

IMPORT SOIL EVALUATION
USE OF SOIL SOURCE P AS IMPORT TO PARCEL C

To: **Mr. Brian Mossman**
Boeing Realty Corporation
3855 Lakewood Blvd.
Building 1A MC D001-0097
Long Beach, CA 90846

From: **Haley & Aldrich, Inc.**

Date: **June 8, 2001**

Re: **Import Soil Evaluation, Use of Soil Source P as Import to Parcel C, Boeing Realty Corporation, Former C-6 Facility – Parcel C, Los Angeles, California**

Haley & Aldrich, Inc. is herein providing this technical memorandum to summarize our recommendations regarding the use of an identified potential soil source, herein referred to as Source P, as import to Parcel C of the Boeing Realty Corporation's (BRC's) Former C-6 Facility in Los Angeles, California (subject parcel). Based on our review of the environmental information provided for the Source P import soil, this soil may be used as fill soil on Parcel C.

OVERVIEW/PURPOSE

A source of soil, totaling up to approximately 120,000 cubic yards, has been identified as potential import soil for use on Parcel C. Kennedy Jenks Consultants (K/J) collected twelve soil samples from Source P and tested these samples in accordance with the protocol presented in the December 11, 2000 Import Soil Screening Program Plan prepared for Parcel C. This plan has been used as guidance to evaluate import soil from "offsite" sources. The criteria presented in the plan were then compared to the analytical results of the soil samples. The purpose of this technical memorandum is to present a summary of the evaluation of the Source P soil and to provide recommendations for use as import for Parcel C.

LOCATION OF PROPOSED SOURCE P IMPORT SOIL

The Source P potential import soil comprises approximately 120,000 cubic yards. Source P soil is located at 10270 Constellation Boulevard in Los Angeles, California. This soil will be excavated from beneath an existing parking lot, referred to as the Constellation Place Parking Lot. This property has historically been used as a parking lot and movie studio, and formerly contained movie stage construction shops.

COMPARISON OF ANALYTICAL RESULTS TO IMPORT SOIL GUIDANCE CRITERIA

The laboratory report for the soil samples collected from the subject potential source is presented as Attachment 1. Each sample was tested for metals, and various organic chemicals, including total petroleum hydrocarbons (TPH), polynuclear aromatic hydrocarbons (PAH), and volatile organic compounds (VOCs). A review of the laboratory results indicates that the organic chemical results are within the site-specific import soil evaluation criteria presented in the December 11, 2000 Import Soil Screening Program Plan. A summary of the detected organic compounds and their associated site-specific soil import criteria are presented in Table 1. The remaining organic compounds on the analyte list were not detected, and their detection limits are consistent with the soil import criteria.

Table 1. Summary of Detected Organic Results and Associated Site-Specific Import Soil Criteria

Sample Identification	Chemical	Reported Concentration (mg/kg)	Site-Specific Import Soil Criterion (mg/kg)
Source-P-041201-1	Acenaphthene	0.0035	< 0.400 – 8,100
	Anthracene	0.0050	< 0.008 – 4,060
	Benzo(a)anthracene	0.016	< 0.016 – 11.4
	Benzo(a)pyrene	0.013	< 0.004 – 1.14
	Benzo(b)fluoranthene	0.019	< 0.004 – 11.4
	Benzo(k)fluoranthene	0.0080	< 0.010 – 11.4
	Chrysene	0.019	< 0.020 – 114
	Dibenzo(a,h)anthracene	0.0049	< 0.040 – 3.35
	Fluoranthene	0.026	< 0.020 – 6,970
	Pyrene	0.030	< 0.040 – 2,350
	Indeno(1,2,3-cd)pyrene	0.011	< 0.020 – 14.7
Source-P-041201-2	Benzo(b)fluoranthene	0.018	< 0.004 – 11.4
	Benzo(k)fluoranthene	0.015	< 0.010 – 11.4
	Fluoranthene	0.0037	< 0.020 – 6,970
	Pyrene	0.0032	< 0.040 – 2,350
Source-P-042401-5	Fluoranthene	0.0052	< 0.020 – 6,970
	Pyrene	0.0035	< 0.040 – 2,350
Source-P-042401-9	Total petroleum hydrocarbons (C23+)	9.7	< 10 – 5,000
	Pyrene	0.0038	< 0.040 – 2,350
Source-P-042401-12	Benzo(a)anthracene	0.0042	< 0.016 – 11.4
	Benzo(a)pyrene	0.0054	< 0.004 – 1.14
	Chrysene	0.0032	< 0.020 – 114
	Fluoranthene	0.0069	< 0.020 – 6,970
	Pyrene	0.010	< 0.040 – 2,350

Several of the metals results are greater than the site-specific criteria, but are within the reported southern California background literature value criteria. Others metals results are greater than the reported southern California background literature value criteria, and are identified in bold in Table 2. A summary of these metals results is presented in Table 2. The remaining metals on the analyte list are consistent with the import soil criteria.

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Table 2. Summary of Metals Results Greater Than Site-Specific Import Soil Criteria and Associated Site-Specific and Southern California Import Soil Criteria

Sample Identification	Chemical	Reported Concentration (mg/kg)	Site-Specific Import Soil Criterion (mg/kg)	Maximum Regional (Southern California) Background Criterion (mg/kg)
Source-P-041201-1	Arsenic	8.3	8	15.2
	Beryllium	0.52	< 0.5	1.2
	Cadmium	1.1	< 0.5	1.45
	Copper	32	20	54
	Molybdenum	**2.9**	**< 1**	**1.4**
	Nickel	21	18	28.2
	Vanadium	45	38	84.8
Source-P-041201-2	Arsenic	9.4	8	15.2
	Cadmium	0.67	< 0.5	1.45
	Copper	26	20	54
	Lead	8.8	8	189.4
	Molybdenum	**1.8**	**< 1**	**1.4**
Source-P-041201-3	Arsenic	8.3	8	15.2
	Beryllium	0.57	< 0.5	1.2
	Cadmium	0.68	< 0.5	1.45
	Copper	24	20	54
	Lead	10	8	189.4
	Nickel	21	18	28.2
	Vanadium	42	38	84.8
	Zinc	65	64	247
Source-P-042401-4	Cadmium	0.51	< 0.5	1.45
	Molybdenum	**2.4**	**< 1**	**1.4**
Source-P-042401-5	Arsenic	8.4	8	15.2
	Beryllium	0.6	<0.5	1.2
	Cadmium	**3.6**	**< 0.5**	**1.45**
	Copper	23	20	54
	Molybdenum	**3.1**	**< 1**	**1.4**
	Nickel	23	18	28.2
	Vanadium	45	38	84.8
Source-P-042401-6	Arsenic	10	8	15.2
	Beryllium	0.52	<0.5	1.2
	Cadmium	1.0	< 0.5	1.45
	Copper	21	20	54
	Molybdenum	**3.9**	**< 1**	**1.4**
	Nickel	23	18	28.2
	Vanadium	46	38	84.8
Source-P-042401-7	Cadmium	0.63	< 0.5	1.45
	Chromium (total)	**51**	**39**	**32.6**
	Copper	23	20	54
	Molybdenum	**5.7**	**< 1**	**1.4**
	Nickel	**31**	**18**	**28.2**

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	Vanadium	52	38	84.8
Source-P-042401-8	Barium	160	135	560
	Beryllium	0.68	<0.5	1.2
	Cadmium	0.62	< 0.5	1.45
	Copper	36	20	54
	Molybdenum	**1.5**	**< 1**	**1.4**
	Nickel	22	18	28.2
	Vanadium	50	38	84.8
Source-P-042401-9	Barium	140	135	560
	Beryllium	0.51	<0.5	1.2
	Cadmium	0.52	< 0.5	1.45
	Molybdenum	**1.5**	**< 1**	**1.4**
Source-P-042401-10	Arsenic	9.2	8	15.2
	Beryllium	0.59	<0.5	1.2
	Cadmium	**3.2**	**< 0.5**	**1.45**
	Cobalt	9.6	9.4	23.2
	Copper	26	20	54
	Molybdenum	**5.3**	**< 1**	**1.4**
	Nickel	**32**	**18**	**28.2**
	Vanadium	48	38	84.8
Source-P-042401-11	Arsenic	15	8	15.2
	Beryllium	0.65	<0.5	1.2
	Cadmium	**2.1**	**< 0.5**	**1.45**
	Copper	27	20	54
	Molybdenum	**3.2**	**< 1**	**1.4**
	Nickel	28	18	28.2
	Vanadium	51	38	84.8
	Zinc	66	64	247
Source-P-042401-12	Barium	170	135	560
	Beryllium	0.66	<0.5	1.2
	Cadmium	0.93	< 0.5	1.45
	Copper	20	20	54
	Molybdenum	**2.1**	**< 1**	**1.4**
	Nickel	23	18	28.2
	Vanadium	48	38	84.8

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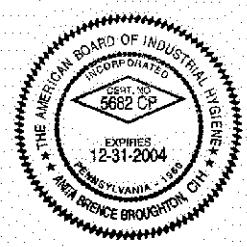
RECOMMENDATIONS FOR USE AS IMPORT SOIL

It is recommended that the subject approximately 120,000 cubic yards of soils comprising Source P be used as fill soil on Parcel C. The reported soil concentrations for organic compounds are consistent with the site-specific criteria, and those for inorganic chemicals are consistent with the site-specific and/or southern California background criteria, with the exception of molybdenum, cadmium, chromium, and nickel. The relatively narrow range of molybdenum, cadmium, and nickel concentrations for the samples tested suggest that they are representative of background metals concentrations for the general geographic region from which these soils originated. In addition, the property from which the Source P soils originated has not been used for industrial activities, the samples were collected from various depths and no chemical concentration "hot spots" were identified, and no other typical indicators of contamination were present in any of the samples. Thus, the chromium concentration above the southern California background criterion is not considered to be a result of chemical contamination. Further, the reported range of molybdenum results are consistent with sample results collected from other apparently non-impacted potential soil sources identified in Los Angeles, California during the search for acceptable import soil for Parcel C.

Sincerely yours,
HALEY & ALDRICH, INC.



Anita Broughton, CIH
Risk Assessment Task Manager

Scott Zachary
Project Manager

Attachments:

Appendix A Laboratory Report

BOE-C6-0007238

ORANGE COAST ANALYTICAL, INC.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification
(ELAP) No.: 1416 Expiration Date: 2001

Laboratory Director's Name (Print) : Mark Noorani

Client: Kennedy Jenks Consultants

Project No.: 004034.00

Project Name: Boeing Parcel C

Laboratory Reference: KJC 12346

Analytical Method: 8015 CCID, 8260, Metals, Cr. VI, 8310

Date Sampled: 04/12/01
Date Received: 04/13/01
Date Reported: 04/16/01

Sample Matrix: Soil

Chain of Custody Received: Yes

Laboratory Director's Signature: Mark Noorani

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

Analysis Method: 8015m

Sample Description: Soil

Laboratory Reference #: KJC 12346

Sampled: 04/12/01
Received: 04/13/01
Analyzed 04/13/01
Reported: 04/13/01

Client Sample #:	---	Source-P -041201-1	Source-P -041201-2	Source-P -041201-3
Lab Sample #:	MB0413	01040219	01040220	01040221
Reporting Unit:	mg/kg	mg/kg	mg/kg	mg/kg
Up to & Including C-12	N.D.	N.D.	N.D.	N.D.
C13-22	N.D.	N.D.	N.D.	N.D.
C23 & Higher	N.D.	N.D.	N.D.	N.D.
Total	N.D.	N.D.	N.D.	N.D.
Detection Limit	8.0	8.0	8.0	8.0

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Orange Coast Analytical, Inc.

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12346

Sampled:	---	04/12/01	04/12/01	04/12/01
Received:	---	04/13/01	04/13/01	04/13/01
Analyzed:	04/13/01	04/13/01	04/13/01	04/13/01
Reported:	04/16/01	04/16/01	04/16/01	04/16/01
Lab Sample I.D.	MB0413	01040219	01040220	01040221
Client Sample I.D.	---	Source-P -041201-1	Source-P -041201-2	Source-P -041201-3

ANALYTICAL TEST RESULTS EPA 8310

ANALYTE	***DETECTION LIMIT µg/kg***	***SAMPLE RESULTS***			
		µg/kg	***µg/kg***	***µg/kg***	***µg/kg***
Acenaphthene	2.0	<2.0	3.5	<2.0	<2.0
Acenaphthylene	2.0	<2.0	<2.0	<2.0	<2.0
Anthracene	2.0	<2.0	5.0	<2.0	<2.0
Benzo(a)anthracene	2.0	<2.0	16	<2.0	<2.0
Benzo(a)pyrene	2.0	<2.0	13	<2.0	<2.0
Benzo(b)fluoranthene	2.0	<2.0	19	18	<2.0
Benzo(k)fluoranthene	2.0	<2.0	8.0	15	<2.0
Benzo(g,h,i)perylene	2.0	<2.0	16	<2.0	<2.0
Chrysene	2.0	<2.0	19	<2.0	<2.0
Dibenzo(a,h)anthracene	2.0	<2.0	4.9	<2.0	<2.0
Fluoranthene	2.0	<2.0	26	3.7	<2.0
Pyrene	2.0	<2.0	30	3.2	<2.0
Fluorene	2.0	<2.0	<2.0	<2.0	<2.0
Phenanthrene	2.0	<2.0	13	<2.0	<2.0
Indeno(1,2,3-cd)pyrene	2.0	<2.0	11	<2.0	<2.0
Naphthalene	2.0	<2.0	<2.0	<2.0	<2.0

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Orange Coast Analytical, Inc

VOLATILE ORGANICS BY GC/MS (EPA 8260) (continued)

Laboratory Reference #: KJC 12346

Client Project ID: Boeing Parcel C

Client Project #: 004034.00

Sampled:	---	04/12/01	04/12/01	04/12/01
Received:	---	04/13/01	04/13/01	04/13/01
Analyzed:	04/13/01	04/13/01	04/13/01	04/13/01
Reported:	04/13/01	04/13/01	04/13/01	04/13/01
Lab Sample I.D.	MB0413	01040219	01040220	01040221
Client Sample I.D.	---	Source-P -041201-1	Source-P -041201-2	Source-P -041201-3

ANALYTE (CONT)	***CAS NUMBER***	***DETECTION LIMIT***	***SAMPLE RESULTS***			
		µg/kg	***µg/kg***	***µg/kg***	***µg/kg***	***µg/kg***
Bromochloromethane	74-97-5	2.5	<2.5	<2.5	<2.5	<2.5
1,1-Dichloropropene	563-58-6	2.5	<2.5	<2.5	<2.5	<2.5
Dibromomethane	74-95-3	2.5	<2.5	<2.5	<2.5	<2.5
1,2-Dibromoethane	106-93-4	2.5	<2.5	<2.5	<2.5	<2.5
1,3-Dichloropropane	142-28-9	2.5	<2.5	<2.5	<2.5	<2.5
Isopropylbenzene	98-82-8	2.5	<2.5	<2.5	<2.5	<2.5
1,1,2,2-Tetrachloroethane	79-34-5	2.5	<2.5	<2.5	<2.5	<2.5
1,2,3-Trichloropropane	96-18-4	2.5	<2.5	<2.5	<2.5	<2.5
Bromobenzene	108-86-1	2.5	<2.5	<2.5	<2.5	<2.5
n-Propylbenzene	103-65-1	2.5	<2.5	<2.5	<2.5	<2.5
2-Chlorotoluene	95-49-8	2.5	<2.5	<2.5	<2.5	<2.5
1,3,5-Trimethylbenzene	108-67-8	2.5	<2.5	<2.5	<2.5	<2.5
4-Chlorotoluene	106-43-4	2.5	<2.5	<2.5	<2.5	<2.5
tert-Butylbenzene	98-06-6	2.5	<2.5	<2.5	<2.5	<2.5
1,2,4-Trimethylbenzene	95-63-6	2.5	<2.5	<2.5	<2.5	<2.5
sec-Butylbenzene	135-98-8	2.5	<2.5	<2.5	<2.5	<2.5
4-Isopropyltoluene	99-87-6	2.5	<2.5	<2.5	<2.5	<2.5
1,3-Dichlorobenzene	541-73-1	2.5	<2.5	<2.5	<2.5	<2.5
1,4-Dichlorobenzene	106-46-7	2.5	<2.5	<2.5	<2.5	<2.5
n-Butylbenzene	104-51-8	2.5	<2.5	<2.5	<2.5	<2.5
1,2-Dichlorobenzene	95-50-1	2.5	<2.5	<2.5	<2.5	<2.5
1-2-Dibromo-3-CPA	96-12-8	5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	120-82-1	2.5	<2.5	<2.5	<2.5	<2.5
Hexachlorobutadiene	87-68-3	2.5	<2.5	<2.5	<2.5	<2.5
Naphthalene	91-20-3	2.5	<2.5	<2.5	<2.5	<2.5
1,2,3-Trichlorobenzene	87-61-6	2.5	<2.5	<2.5	<2.5	<2.5
MTBE	1634-04-4	5.0	<5.0	<5.0	<5.0	<5.0

SURROGATE RECOVERY	%RC	%RC	%RC	%RC
Dibromofluoromethane	101	117	117	129
Toluene-d8	106	106	106	105
4-Bromofluorobenzene	94	95	91	91

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Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12346

Sampled:	---	04/12/01	04/12/01	04/12/01
Received:	---	04/13/01	04/13/01	04/13/01
Reported:	04/17/01	04/17/01	04/17/01	04/17/01
Lab Sample I.D.	MB	01040219	01040220	01040221
Client Sample I.D.	---	Source-P -041201-1	Source-P -041201-2	Source-P -041201-3

METALS

ANALYTE	***DATE TESTED***	***EPA METHOD***	***DETECTION LIMIT mg/kg***	***SAMPLE RESULTS***			
				mg/kg	***mg/kg***	***mg/kg***	***mg/kg***
Aluminum	04/17/01	6010	2.5	<2.5	11,000	10,000	12,000
Antimony	04/13/01	6010	5.0	<5.0	<5.0	<5.0	<5.0
Arsenic	04/13/01	6010	1.0	<1.0	8.3	9.4	8.3
Barium	04/13/01	6010	0.5	<0.5	110	84	130
Beryllium	04/13/01	6010	0.5	<0.5	0.52	<0.5	0.57
Cadmium	04/13/01	6010	0.5	<0.5	1.1	0.67	0.68
Chromium (Total)	04/13/01	6010	0.5	<0.5	23	22	25
Chromium (VI)	04/13/01	6010	0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	04/13/01	6010	0.5	<0.5	5.9	5.9	6.9
Copper	04/13/01	6010	0.5	<0.5	32	26	24
Lead	04/13/01	6010	1.0	<1.0	5.9	8.8	10
Mercury	04/13/01	7471	0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	04/13/01	6010	1.0	<1.0	2.9	1.8	1.4
Nickel	04/13/01	6010	0.5	<0.5	21	18	21
Selenium	04/13/01	6010	5.0	<5.0	<5.0	<5.0	<5.0
Silver	04/13/01	6010	0.5	<0.5	<0.5	<0.5	<0.5
Thallium	04/13/01	6010	5.0	<5.0	<5.0	<5.0	<5.0
Vanadium	04/13/01	6010	0.5	<0.5	45	37	42
Zinc	04/13/01	6010	0.5	<0.5	60	50	65

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Orange Coast Analytical, Inc

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12346

Sampled:	---	04/12/01	04/12/01	04/12/01
Received:	---	04/13/01	04/13/01	04/13/01
Reported:	04/17/01	04/17/01	04/17/01	04/17/01
Lab Sample I.D.	MB	01040219	01040220	01040221
Client Sample I.D.	---	Source-P -041201-1	Source-P -041201-2	Source-P -041201-3

METALS

ANALYTE	***DATE TESTED***	***EPA METHOD***	***DETECTION LIMIT mg/kg***	***SAMPLE RESULTS***			
				mg/kg	***mg/kg***	***mg/kg***	***mg/kg***
Antimony	04/17/01	7041	1.9	<1.9	<1.9	<1.9	<1.9
Selenium	04/17/01	7740	0.43	<0.43	<0.43	<0.43	<0.43

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Orange Coast Analytical, Inc

QC DATA REPORT

Analysis : Metals

Laboratory Reference No : KJC 12346

Analyte	Date Tested	QC Sample	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Antimony	04/17/01	01040219	0.0	5.0	4.32	4.39	86	88	2
Selenium	04/17/01	01040219	0.0	2.0	1.79	1.76	90	88	2

Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: {(MS-R1) / SP} x100
PR2	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2

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Orange Coast Analytical, Inc.

QC DATA REPORT

Analysis : Metals

Laboratory Reference No : KJC 12346

Analyte	Date Tested	QC Sample	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Aluminum	04/17/01	01040220	41	50.0	88.5	85.4	95	89	4
Antimony	04/13/01	01040204	0.0	10.0	9.69	9.56	97	96	1
Arsenic	04/13/01	01040204	0.059	10.0	9.85	9.71	98	97	1
Barium	04/13/01	01040204	0.98	5.00	5.65	5.58	93	92	1
Beryllium	04/13/01	01040204	0.0	1.00	1.03	1.03	103	103	0
Cadmium	04/13/01	01040204	0.0	1.00	1.04	1.03	104	103	1
Chromium (VI)	04/13/01	01040220	0.0	5.00	4.88	5.01	98	100	3
Chromium (Total)	04/13/01	01040204	0.20	1.00	1.18	1.17	98	97	1
Cobalt	04/13/01	01040204	0.077	1.00	1.01	1.00	93	92	1
Copper	04/13/01	01040204	0.18	1.00	1.20	1.20	102	102	0
Lead	04/13/01	01040204	0.056	5.00	4.69	4.64	93	92	1
Mercury	04/13/01	01040215	0.0	1.00	0.919	0.909	92	91	1
Molybdenum	04/13/01	01040204	0.0	5.00	4.77	4.91	95	98	3
Nickel	04/13/01	01040204	0.14	5.00	4.72	4.71	92	91	0
Selenium	04/13/01	01040204	0.0	10.0	9.87	9.74	99	97	1
Silver	04/13/01	01040204	0.0	1.00	0.970	0.956	97	96	1
Thallium	04/13/01	01040204	0.0	10.0	8.24	7.99	82	80	3
Vanadium	04/13/01	01040204	0.42	5.00	5.29	5.25	97	97	1
Zinc	04/13/01	01040204	0.58	5.00	5.30	5.27	94	94	1

Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: {(MS-R1) / SP} x100
PR2	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2

INT_____

Orange Coast Analytical, Inc.

QC DATA REPORT

Analysis : Volatile Organics by GC/MS (EPA 8260)

Date of Analysis : 04/13/01
Laboratory Sample No : 01040219
Laboratory Reference No : KJC 12346

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Benzene	0.0	50	50	49	100	98	2
1,1-Dichloroethene	0.0	50	48	47	96	94	2
Trichloroethene	0.0	50	51	55	102	110	8
Toluene	0.0	50	52	52	104	104	0
Chlorobenzene	0.0	50	51	51	102	102	0

Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: {(MS-R1) / SP} x100
PR2	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2

INT_____.

Orange Coast Analytical, Inc.

QC DATA REPORT

Analysis : Polynuclear Aromatic Hydrocarbons (EPA 8310)

Date of Analysis : 04/13/01
Laboratory Sample No : OCA 200
Laboratory Reference No : KJC 12346

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Acenaphthene	0.0	10	5.9	6.4	59	64	8
Anthracene	0.0	10	6.6	6.3	66	63	5
Pyrene	0.0	10	8.1	6.7	81	67	19
Chrysene	0.0	10	6.9	6.0	69	60	14
Benzo (a) Pyrene	0.0	10	8.0	7.0	80	70	13

Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: {(MS-R1) / SP} x100
PR2	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2

INT

Orange Coast Analytical, Inc.

QC DATA REPORT

Analysis : Extractable Fuel Hydrocarbons (EPA 8015m)

Date of Analysis : 04/13/01
Laboratory Sample No : 01040229
Laboratory Reference No : KJC 12346

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Hydrocarbons	0.0	100	84	89	84	89	6

Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: {(MS-R1) / SP} x100
PR2	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2

INT

Orange Coast Analytical, Inc.

Analysis Request and Chain of Custody Record

ORANGE COAST ANALYTICAL, INC.

3002 Dow, Suite 532
Tustin, CA 92780
(714) 832-0064, Fax (714) 832-0067

4620 E. Elwood, Suite 4
Phoenix, AZ 85040
(480) 736-0960 Fax (480) 736-0970

Lab Job No: 1
Page 1 of 1

REQUIRED TAT:

CUSTOMER INFORMATION	PROJECT INFORMATION
COMPANY: Kennedy / Jenks	PROJECT NAME: Boeing Parcel C
SEND REPORT TO: Bob Logan	NUMBER: 004034.00
ADDRESS: 2151 Michelson Dr. Suite 100	LOCATION: Torrance
Irvine CA. 92612	ADDRESS:
PHONE 949-261-1577 FAX:	SAMPLED BY: Shane Scrimshire

ANALYSIS/METHOD REQUEST: 8260 / VOCs; 8015C / TPH; 6000/7000 Series metals; 8310 / PAHs

48 hr Turn

SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE*	PRES.	8260 / VOCs	8015C / TPH	6000/7000 Series metals	8310 / PAHs					REMARKS/PRECAUTIONS
Source - P-041201-1	1	4-12-01	1520	Soil	2oz brass	—	X	X	X	X					Please fax preliminary
Source - P-041201-2	1	↓	1535	↓	↓	—	X	X	X	X					results to Bob Logan
Source - P-041201-3	1	↓	1550	↓	↓	—	X	X	X	X					and Jay Knight at
															949-261-2134.

Total No. of Samples: 3		Method of Shipment:	
Relinquished By: [signature]	Date/Time: 4-13-01 0645	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received For Lab By: [signature]	Date/Time: 4-13-01 8:05

Reporting Format: (check)
NORMAL _____ S.D. HMMD _____
RWQCB _____ OTHER _____

Sample Integrity: (check)
intact _____ on ice _____

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.

ORANGE COAST ANALYTICAL, INC.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification
(ELAP) No.: 1416 Expiration Date: 2001

Laboratory Director's Name (Print) : Mark Noorani

Client: Kennedy Jenks Consultants

Project No.: 004034.00

Project Name: Boeing Parcel C

Laboratory Reference: KJC 12395

Analytical Method: 8015 CCID, 8260, Metals

Date Sampled: 04/24/01
Date Received: 04/24/01
Date Reported: 05/02/01

Sample Matrix: Soil

Chain of Custody Received: Yes

Laboratory Director's Signature: Mark Noorani

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

Analysis Method: 8015m

Sampled: 04/24/01
Received: 04/24/01
Analyzed 04/25/01
Reported: 05/02/01

Sample Description: Soil

Laboratory Reference #: KJC 12395

Client Sample #:	---	Source-P -042401-4	Source-P -042401-5	Source-P -042401-6	Source-P -042401-7
Lab Sample #:	MB0425	01040564	01040565	01040566	01040567
Reporting Unit:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Up to & Including C-12	N.D.	N.D.	N.D.	N.D.	N.D.
C13-22	N.D.	N.D.	N.D.	N.D.	N.D.
C23 & Higher	N.D.	N.D.	N.D.	N.D.	N.D.
Total	N.D.	N.D.	N.D.	N.D.	N.D.
Detection Limit	8.0	8.0	8.0	8.0	8.0

INT

Orange Coast Analytical, Inc.

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

Analysis Method: 8015m

Sample Description: Soil

Laboratory Reference #: KJC 12395

Sampled: 04/24/01
Received: 04/24/01
Analyzed 04/25/01
Reported: 05/02/01

Client Sample #:	Source-P -042401-8	Source-P -042401-9	Source-P -042401-10	Source-P -042401-11	Source-P -042401-12
Lab Sample #:	01040568	01040569	01040570	01040571	01040572
Reporting Unit:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Up to & Including C-12	N.D.	N.D.	N.D.	N.D.	N.D.
C13-22	N.D.	N.D.	N.D.	N.D.	N.D.
C23 & Higher	N.D.	9.7	N.D.	N.D.	N.D.
Total	N.D.	9.7	N.D.	N.D.	N.D.
Detection Limit	8.0	8.0	8.0	8.0	8.0

INT M.N.

Orange Coast Analytical, Inc.

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395

Sampled:	---	04/24/01	04/24/01	04/24/01
Received:	---	04/24/01	04/24/01	04/24/01
Analyzed:	04/27/01	04/27/01	04/27/01	04/27/01
Reported:	05/02/01	05/02/01	05/02/01	05/02/01
Lab Sample I.D.	MB0427	01040564	01040565	01040566
Client Sample I.D.	---	Source-P -042401-4	Source-P -042401-5	Source-P -042401-6

VOLATILE ORGANICS BY GC/MS (EPA 8260)

ANALYTE	***CAS NUMBER***	***DETECTION LIMIT µg/kg***	***SAMPLE RESULTS µg/kg***	***µg/kg***	***µg/kg***	***µg/kg***
Benzene	71-43-2	2.5	<2.5	<2.5	<2.5	<2.5
Bromodichloromethane	75-27-4	2.5	<2.5	<2.5	<2.5	<2.5
Bromoform	75-25-2	2.5	<2.5	<2.5	<2.5	<2.5
Bromomethane	74-83-9	2.5	<2.5	<2.5	<2.5	<2.5
Carbon Disulfide	75-15-0	5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	56-23-5	2.5	<2.5	<2.5	<2.5	<2.5
Chlorobenzene	108-90-7	2.5	<2.5	<2.5	<2.5	<2.5
Chlorodibromomethane	124-48-1	2.5	<2.5	<2.5	<2.5	<2.5
Chloroethane	75-00-3	2.5	<2.5	<2.5	<2.5	<2.5
2-Chloroethyl vinyl ether	110-75-8	5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	67-66-3	2.5	<2.5	<2.5	<2.5	<2.5
Chloromethane	74-87-3	2.5	<2.5	<2.5	<2.5	<2.5
1,1-Dichloroethane	75-34-3	2.5	<2.5	<2.5	<2.5	<2.5
1,2-Dichloroethane	107-06-2	2.5	<2.5	<2.5	<2.5	<2.5
1,1-Dichloroethene	75-35-4	2.5	<2.5	<2.5	<2.5	<2.5
trans-1,2-Dichloroethene	156-60-5	2.5	<2.5	<2.5	<2.5	<2.5
1,2-Dichloropropane	78-87-5	2.5	<2.5	<2.5	<2.5	<2.5
cis-1,3-Dichloropropene	10061-01-5	2.5	<2.5	<2.5	<2.5	<2.5
trans-1,3-Dichloropropene	10061-02-6	2.5	<2.5	<2.5	<2.5	<2.5
Ethylbenzene	100-41-4	2.5	<2.5	<2.5	<2.5	<2.5
Methylene chloride	75-09-2	5.0	<5.0	<5.0	<5.0	<5.0
Styrene	100-42-5	2.5	<2.5	<2.5	<2.5	<2.5
1,1,1,2-Tetrachloroethane	630-20-6	2.5	<2.5	<2.5	<2.5	<2.5
Tetrachloroethene	127-18-4	2.5	<2.5	<2.5	<2.5	<2.5
Toluene	108-88-3	2.5	<2.5	<2.5	<2.5	<2.5
1,1,1-Trichloroethane	71-55-6	2.5	<2.5	<2.5	<2.5	<2.5
1,1,2-Trichloroethane	79-00-5	2.5	<2.5	<2.5	<2.5	<2.5
Trichloroethene	79-01-6	2.5	<2.5	<2.5	<2.5	<2.5
Trichlorofluoromethane	75-69-4	5.0	<5.0	<5.0	<5.0	<5.0
Vinyl acetate	108-05-4	5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	75-01-4	2.5	<2.5	<2.5	<2.5	<2.5
Total Xylenes	1330-20-7	2.5	<2.5	<2.5	<2.5	<2.5
Dichlorodifluoromethane	75-71-8	2.5	<2.5	<2.5	<2.5	<2.5
cis-1,2-Dichloroethene	156-59-2	2.5	<2.5	<2.5	<2.5	<2.5
2,2-Dichloropropane	594-20-7	2.5	<2.5	<2.5	<2.5	<2.5

INT mm.

Orange Coast Analytical, Inc

VOLATILE ORGANICS BY GC/MS (EPA 8260) (continued)

Laboratory Reference #: KJC 12395

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

Sampled:	---	04/24/01	04/24/01	04/24/01
Received:	---	04/24/01	04/24/01	04/24/01
Analyzed:	04/27/01	04/27/01	04/27/01	04/27/01
Reported:	05/02/01	05/02/01	05/02/01	05/02/01
Lab Sample I.D.	MB0427	01040564	01040565	01040566
Client Sample I.D.	---	Source-P -042401-4	Source-P -042401-5	Source-P -042401-6

ANALYTE (CONT)	***CAS NUMBER***	***DETECTION LIMIT***	***SAMPLE RESULTS***			
		µg/kg	***µg/kg***	***µg/kg***	***µg/kg***	***µg/kg***
Bromochloromethane	74-97-5	2.5	<2.5	<2.5	<2.5	<2.5
1,1-Dichloropropene	563-58-6	2.5	<2.5	<2.5	<2.5	<2.5
Dibromomethane	74-95-3	2.5	<2.5	<2.5	<2.5	<2.5
1,2-Dibromoethane	106-93-4	2.5	<2.5	<2.5	<2.5	<2.5
1,3-Dichloropropane	142-28-9	2.5	<2.5	<2.5	<2.5	<2.5
Isopropylbenzene	98-82-8	2.5	<2.5	<2.5	<2.5	<2.5
1,1,2,2-Tetrachloroethane	79-34-5	2.5	<2.5	<2.5	<2.5	<2.5
1,2,3-Trichloropropane	96-18-4	2.5	<2.5	<2.5	<2.5	<2.5
Bromobenzene	108-86-1	2.5	<2.5	<2.5	<2.5	<2.5
n-Propylbenzene	103-65-1	2.5	<2.5	<2.5	<2.5	<2.5
2-Chlorotoluene	95-49-8	2.5	<2.5	<2.5	<2.5	<2.5
1,3,5-Trimethylbenzene	108-67-8	2.5	<2.5	<2.5	<2.5	<2.5
4-Chlorotoluene	106-43-4	2.5	<2.5	<2.5	<2.5	<2.5
tert-Butylbenzene	98-06-6	2.5	<2.5	<2.5	<2.5	<2.5
1,2,4-Trimethylbenzene	95-63-6	2.5	<2.5	<2.5	<2.5	<2.5
sec-Butylbenzene	135-98-8	2.5	<2.5	<2.5	<2.5	<2.5
4-Isopropyltoluene	99-87-6	2.5	<2.5	<2.5	<2.5	<2.5
1,3-Dichlorobenzene	541-73-1	2.5	<2.5	<2.5	<2.5	<2.5
1,4-Dichlorobenzene	106-46-7	2.5	<2.5	<2.5	<2.5	<2.5
n-Butylbenzene	104-51-8	2.5	<2.5	<2.5	<2.5	<2.5
1,2-Dichlorobenzene	95-50-1	2.5	<2.5	<2.5	<2.5	<2.5
1-2-Dibromo-3-CPA	96-12-8	5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	120-82-1	2.5	<2.5	<2.5	<2.5	<2.5
Hexachlorobutadiene	87-68-3	2.5	<2.5	<2.5	<2.5	<2.5
Naphthalene	91-20-3	2.5	<2.5	<2.5	<2.5	<2.5
1,2,3-Trichlorobenzene	87-61-6	2.5	<2.5	<2.5	<2.5	<2.5
MTBE	1634-04-4	5.0	<5.0	<5.0	<5.0	<5.0

SURROGATE RECOVERY	%RC	%RC	%RC	%RC
Dibromofluoromethane	101	108	113	122
Toluene-d8	90	95	95	91
4-Bromofluorobenzene	102	100	105	106

INT m.n.

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395

Sampled:	04/24/01	04/24/01	04/24/01
Received:	04/24/01	04/24/01	04/24/01
Analyzed:	04/27/01	05/02/01	04/27/01
Reported:	05/02/01	05/02/01	05/02/01
Lab Sample I.D.	01040567	01040568	01040569
Client Sample I.D.	Source-P -042401-7	Source-P -042401-8	Source-P -042401-9

VOLATILE ORGANICS BY GC/MS (EPA 8260)

ANALYTE	***CAS NUMBER***	***DETECTION LIMIT µg/kg***	***SAMPLE RESULTS µg/kg***	***µg/kg***	***µg/kg***
Benzene	71-43-2	2.5	<2.5	<2.5	<2.5
Bromodichloromethane	75-27-4	2.5	<2.5	<2.5	<2.5
Bromoform	75-25-2	2.5	<2.5	<2.5	<2.5
Bromomethane	74-83-9	2.5	<2.5	<2.5	<2.5
Carbon Disulfide	75-15-0	5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	56-23-5	2.5	<2.5	<2.5	<2.5
Chlorobenzene	108-90-7	2.5	<2.5	<2.5	<2.5
Chlorodibromomethane	124-48-1	2.5	<2.5	<2.5	<2.5
Chloroethane	75-00-3	2.5	<2.5	<2.5	<2.5
2-Chloroethyl vinyl ether	110-75-8	5.0	<5.0	<5.0	<5.0
Chloroform	67-66-3	2.5	<2.5	<2.5	<2.5
Chloromethane	74-87-3	2.5	<2.5	<2.5	<2.5
1,1-Dichloroethane	75-34-3	2.5	<2.5	<2.5	<2.5
1,2-Dichloroethane	107-06-2	2.5	<2.5	<2.5	<2.5
1,1-Dichloroethene	75-35-4	2.5	<2.5	<2.5	<2.5
trans-1,2-Dichloroethene	156-60-5	2.5	<2.5	<2.5	<2.5
1,2-Dichloropropane	78-87-5	2.5	<2.5	<2.5	<2.5
cis-1,3-Dichloropropene	10061-01-5	2.5	<2.5	<2.5	<2.5
trans-1,3-Dichloropropene	10061-02-6	2.5	<2.5	<2.5	<2.5
Ethylbenzene	100-41-4	2.5	<2.5	<2.5	<2.5
Methylene chloride	75-09-2	5.0	<5.0	<5.0	<5.0
Styrene	100-42-5	2.5	<2.5	<2.5	<2.5
1,1,1,2-Tetrachloroethane	630-20-6	2.5	<2.5	<2.5	<2.5
Tetrachloroethene	127-18-4	2.5	<2.5	<2.5	<2.5
Toluene	108-88-3	2.5	<2.5	<2.5	<2.5
1,1,1-Trichloroethane	71-55-6	2.5	<2.5	<2.5	<2.5
1,1,2-Trichloroethane	79-00-5	2.5	<2.5	<2.5	<2.5
Trichloroethene	79-01-6	2.5	<2.5	<2.5	<2.5
Trichlorofluoromethane	75-69-4	5.0	<5.0	<5.0	<5.0
Vinyl acetate	108-05-4	5.0	<5.0	<5.0	<5.0
Vinyl chloride	75-01-4	2.5	<2.5	<2.5	<2.5
Total Xylenes	1330-20-7	2.5	<2.5	<2.5	<2.5
Dichlorodifluoromethane	75-71-8	2.5	<2.5	<2.5	<2.5
cis-1,2-Dichloroethene	156-59-2	2.5	<2.5	<2.5	<2.5
2,2-Dichloropropane	594-20-7	2.5	<2.5	<2.5	<2.5

INT M.M.

Orange Coast Analytical, Inc.

VOLATILE ORGANICS BY GC/MS (EPA 8260) (continued)

Laboratory Reference #:	KJC 12395	***Sampled:***	04/24/01	04/24/01	04/24/01
		Received:	04/24/01	04/24/01	04/24/01
Client Project ID:	Boeing Parcel C	***Analyzed:***	04/27/01	05/02/01	04/27/01
Client Project #:	004034.00	***Reported:***	05/02/01	05/02/01	05/02/01
		Lab Sample I.D.	01040567	01040568	01040569
		Client Sample I.D.	Source-P -042401-7	Source-P -042401-8	Source-P -042401-9

ANALYTE (CONT)	***CAS NUMBER***	***DETECTION LIMIT µg/kg***	***SAMPLE RESULTS***		
			µg/kg	***µg/kg***	***µg/kg***
Bromochloromethane	74-97-5	2.5	<2.5	<2.5	<2.5
1,1-Dichloropropene	563-58-6	2.5	<2.5	<2.5	<2.5
Dibromomethane	74-95-3	2.5	<2.5	<2.5	<2.5
1,2-Dibromoethane	106-93-4	2.5	<2.5	<2.5	<2.5
1,3-Dichloropropane	142-28-9	2.5	<2.5	<2.5	<2.5
Isopropylbenzene	98-82-8	2.5	<2.5	<2.5	<2.5
1,1,2,2-Tetrachloroethane	79-34-5	2.5	<2.5	<2.5	<2.5
1,2,3-Trichloropropane	96-18-4	2.5	<2.5	<2.5	<2.5
Bromobenzene	108-86-1	2.5	<2.5	<2.5	<2.5
n-Propylbenzene	103-65-1	2.5	<2.5	<2.5	<2.5
2-Chlorotoluene	95-49-8	2.5	<2.5	<2.5	<2.5
1,3,5-Trimethylbenzene	108-67-8	2.5	<2.5	<2.5	<2.5
4-Chlorotoluene	106-43-4	2.5	<2.5	<2.5	<2.5
tert-Butylbenzene	98-06-6	2.5	<2.5	<2.5	<2.5
1,2,4-Trimethylbenzene	95-63-6	2.5	<2.5	<2.5	<2.5
sec-Butylbenzene	135-98-8	2.5	<2.5	<2.5	<2.5
4-Isopropyltoluene	99-87-6	2.5	<2.5	<2.5	<2.5
1,3-Dichlorobenzene	541-73-1	2.5	<2.5	<2.5	<2.5
1,4-Dichlorobenzene	106-46-7	2.5	<2.5	<2.5	<2.5
n-Butylbenzene	104-51-8	2.5	<2.5	<2.5	<2.5
1,2-Dichlorobenzene	95-50-1	2.5	<2.5	<2.5	<2.5
1-2-Dibromo-3-CPA	96-12-8	5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	120-82-1	2.5	<2.5	<2.5	<2.5
Hexachlorobutadiene	87-68-3	2.5	<2.5	<2.5	<2.5
Naphthalene	91-20-3	2.5	<2.5	<2.5	<2.5
1,2,3-Trichlorobenzene	87-61-6	2.5	<2.5	<2.5	<2.5
MTBE	1634-04-4	5.0	<5.0	<5.0	<5.0

SURROGATE RECOVERY	%RC	%RC	%RC
Dibromofluoromethane	124	97	128
Toluene-d8	91	93	96
4-Bromofluorobenzene	108	101	109

INT

Orange Coast Analytical, Inc

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395

Sampled:	04/24/01	04/24/01	04/24/01
Received:	04/24/01	04/24/01	04/24/01
Analyzed:	04/26/01	04/27/01	05/02/01
ported:	05/02/01	05/02/01	05/02/01
Lab Sample I.D.	01040570	01040571	01040572
Client Sample I.D.	Source-P -042401-10	Source-P -042401-11	Source-P -042401-12

VOLATILE ORGANICS BY GC/MS (EPA 8260)

ANALYTE	***CAS NUMBER***	***DETECTION LIMIT µg/kg***	***SAMPLE RESULTS µg/kg***	***µg/kg***	***µg/kg***
Benzene	71-43-2	2.5	<2.5	<2.5	<2.5
Bromodichloromethane	75-27-4	2.5	<2.5	<2.5	<2.5
Bromoform	75-25-2	2.5	<2.5	<2.5	<2.5
Bromomethane	74-83-9	2.5	<2.5	<2.5	<2.5
Carbon Disulfide	75-15-0	5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	56-23-5	2.5	<2.5	<2.5	<2.5
Chlorobenzene	108-90-7	2.5	<2.5	<2.5	<2.5
Chlorodibromomethane	124-48-1	2.5	<2.5	<2.5	<2.5
Chloroethane	75-00-3	2.5	<2.5	<2.5	<2.5
2-Chloroethyl vinyl ether	110-75-8	5.0	<5.0	<5.0	<5.0
Chloroform	67-66-3	2.5	<2.5	<2.5	<2.5
Chloromethane	74-87-3	2.5	<2.5	<2.5	<2.5
1,1-Dichloroethane	75-34-3	2.5	<2.5	<2.5	<2.5
1,2-Dichloroethane	107-06-2	2.5	<2.5	<2.5	<2.5
1,1-Dichloroethene	75-35-4	2.5	<2.5	<2.5	<2.5
trans-1,2-Dichloroethene	156-60-5	2.5	<2.5	<2.5	<2.5
1,2-Dichloropropane	78-87-5	2.5	<2.5	<2.5	<2.5
cis-1,3-Dichloropropene	10061-01-5	2.5	<2.5	<2.5	<2.5
trans-1,3-Dichloropropene	10061-02-6	2.5	<2.5	<2.5	<2.5
Ethylbenzene	100-41-4	2.5	<2.5	<2.5	<2.5
Methylene chloride	75-09-2	5.0	<5.0	<5.0	<5.0
Styrene	100-42-5	2.5	<2.5	<2.5	<2.5
1,1,1,2-Tetrachloroethane	630-20-6	2.5	<2.5	<2.5	<2.5
Tetrachloroethene	127-18-4	2.5	<2.5	<2.5	<2.5
Toluene	108-88-3	2.5	<2.5	<2.5	<2.5
1,1,1-Trichloroethane	71-55-6	2.5	<2.5	<2.5	<2.5
1,1,2-Trichloroethane	79-00-5	2.5	<2.5	<2.5	<2.5
Trichloroethene	79-01-6	2.5	<2.5	<2.5	<2.5
Trichlorofluoromethane	75-69-4	5.0	<5.0	<5.0	<5.0
Vinyl acetate	108-05-4	5.0	<5.0	<5.0	<5.0
Vinyl chloride	75-01-4	2.5	<2.5	<2.5	<2.5
Total Xylenes	1330-20-7	2.5	<2.5	<2.5	<2.5
Dichlorodifluoromethane	75-71-8	2.5	<2.5	<2.5	<2.5
cis-1,2-Dichloroethene	156-59-2	2.5	<2.5	<2.5	<2.5
2,2-Dichloropropane	594-20-7	2.5	<2.5	<2.5	<2.5

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Orange Coast Analytical, Inc

VOLATILE ORGANICS BY GC/MS (EPA 8260) (continued)

Laboratory Reference #:	KJC 12395	***Sampled:***	04/24/01	04/24/01	04/24/01
		Received:	04/24/01	04/24/01	04/24/01
Client Project ID:	Boeing Parcel C	***Analyzed:***	04/26/01	04/27/01	05/02/01
Client Project #:	004034.00	***Reported:***	05/02/01	05/02/01	05/02/01
		Lab Sample I.D.	01040570	01040571	01040572
		Client Sample I.D.	Source-P -042401-10	Source-P -042401-11	Source-P -042401-12

ANALYTE (CONT)	***CAS NUMBER***	***DETECTION LIMIT µg/kg***	***SAMPLE RESULTS*** µg/kg	µg/kg	µg/kg
Bromochloromethane	74-97-5	2.5	<2.5	<2.5	<2.5
1,1-Dichloropropene	563-58-6	2.5	<2.5	<2.5	<2.5
Dibromomethane	74-95-3	2.5	<2.5	<2.5	<2.5
1,2-Dibromoethane	106-93-4	2.5	<2.5	<2.5	<2.5
1,3-Dichloropropane	142-28-9	2.5	<2.5	<2.5	<2.5
Isopropylbenzene	98-82-8	2.5	<2.5	<2.5	<2.5
1,1,2,2-Tetrachloroethane	79-34-5	2.5	<2.5	<2.5	<2.5
1,2,3-Trichloropropane	96-18-4	2.5	<2.5	<2.5	<2.5
Bromobenzene	108-86-1	2.5	<2.5	<2.5	<2.5
n-Propylbenzene	103-65-1	2.5	<2.5	<2.5	<2.5
2-Chlorotoluene	95-49-8	2.5	<2.5	<2.5	<2.5
1,3,5-Trimethylbenzene	108-67-8	2.5	<2.5	<2.5	<2.5
4-Chlorotoluene	106-43-4	2.5	<2.5	<2.5	<2.5
tert-Butylbenzene	98-06-6	2.5	<2.5	<2.5	<2.5
1,2,4-Trimethylbenzene	95-63-6	2.5	<2.5	<2.5	<2.5
sec-Butylbenzene	135-98-8	2.5	<2.5	<2.5	<2.5
4-Isopropyltoluene	99-87-6	2.5	<2.5	<2.5	<2.5
1,3-Dichlorobenzene	541-73-1	2.5	<2.5	<2.5	<2.5
1,4-Dichlorobenzene	106-46-7	2.5	<2.5	<2.5	<2.5
n-Butylbenzene	104-51-8	2.5	<2.5	<2.5	<2.5
1,2-Dichlorobenzene	95-50-1	2.5	<2.5	<2.5	<2.5
1-2-Dibromo-3-CPA	96-12-8	5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	120-82-1	2.5	<2.5	<2.5	<2.5
Hexachlorobutadiene	87-68-3	2.5	<2.5	<2.5	<2.5
Naphthalene	91-20-3	2.5	<2.5	<2.5	<2.5
1,2,3-Trichlorobenzene	87-61-6	2.5	<2.5	<2.5	<2.5
MTBE	1634-04-4	5.0	<5.0	<5.0	<5.0

SURROGATE RECOVERY	%RC	%RC	%RC
Dibromofluoromethane	87	130	96
Toluene-d8	92	95	92
4-Bromofluorobenzene	101	105	99

INT

Orange Coast Analytical, Inc

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395

Sampled:	---	04/24/01	04/24/01	04/24/01
Received:	---	04/24/01	04/24/01	04/24/01
Reported:	05/02/01	05/02/01	05/02/01	05/02/01
Lab Sample I.D.	MB	01040564	01040565	01040566
Client Sample I.D.	---	Source-P -042401-4	Source-P -042401-5	Source-P -042401-6

METALS

ANALYTE	***DATE TESTED***	***EPA METHOD***	***DETECTION LIMIT mg/kg***	***SAMPLE RESULTS***			
				mg/kg	***mg/kg***	***mg/kg***	***mg/kg***
Aluminum	04/27/01	6010	2.5	<2.5	11000	12000	9800
Arsenic	04/26/01	6010	1.0	<1.0	5.7	8.4	10
Barium	04/26/01	6010	0.5	<0.5	130	120	78
Beryllium	04/26/01	6010	0.5	<0.5	<0.5	0.60	0.52
Cadmium	04/26/01	6010	0.5	<0.5	0.51	3.6	1.0
Chromium (Total)	04/26/01	6010	0.5	<0.5	23	26	22
Chromium (VI)	04/26/01	6010	0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	04/26/01	6010	0.5	<0.5	5.0	6.8	6.5
Copper	04/26/01	6010	0.5	<0.5	19	23	21
Lead	04/26/01	6010	1.0	<1.0	10	12	4.4
Mercury	04/26/01	7471	0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	04/26/01	6010	1.0	<1.0	2.4	3.1	3.9
Nickel	04/26/01	6010	0.5	<0.5	15	23	23
Silver	04/26/01	6010	0.5	<0.5	<0.5	<0.5	<0.5
Thallium	04/26/01	6010	5.0	<5.0	<5.0	<5.0	<5.0
Vanadium	04/26/01	6010	0.5	<0.5	35	45	46
Zinc	04/26/01	6010	0.5	<0.5	48	60	46

INT

Orange Coast Analytical, Inc

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395

Sampled:	04/24/01	04/24/01	04/24/01
Received:	04/24/01	04/24/01	04/24/01
Reported:	05/02/01	05/02/01	05/02/01
Lab Sample I.D.	01040567	01040568	01040569
Client Sample I.D.	Source-P -042401-7	Source-P -042401-8	Source-P -042401-9

METALS

ANALYTE	***DATE TESTED***	***EPA METHOD***	***DETECTION LIMIT mg/kg***	***SAMPLE RESULTS***		
				mg/kg	***mg/kg***	***mg/kg***
Aluminum	04/27/01	6010	2.5	13000	16000	9500
Arsenic	04/26/01	6010	1.0	6.4	15	6.2
Barium	04/26/01	6010	0.5	120	160	140
Beryllium	04/26/01	6010	0.5	0.51	0.68	0.51
Cadmium	04/26/01	6010	0.5	0.63	0.62	0.52
Chromium (Total)	04/26/01	6010	0.5	51	31	24
Chromium (VI)	04/26/01	6010	0.5	<0.5	<0.5	<0.5
Cobalt	04/26/01	6010	0.5	6.7	8.4	6.1
Copper	04/26/01	6010	0.5	23	36	19
Lead	04/26/01	6010	1.0	9.8	6.4	64
Mercury	04/26/01	7471	0.1	<0.1	<0.1	<0.1
Molybdenum	04/26/01	6010	1.0	5.7	1.5	1.5
Nickel	04/26/01	6010	0.5	31	22	16
Silver	04/26/01	6010	0.5	<0.5	<0.5	<0.5
Thallium	04/26/01	6010	5.0	<5.0	<5.0	<5.0
Vanadium	04/26/01	6010	0.5	52	50	31
Zinc	04/26/01	6010	0.5	57	50	51

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Orange Coast Analytical, Inc

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

Sampled:	04/24/01	04/24/01	04/24/01
Received:	04/24/01	04/24/01	04/24/01
Reported:	05/02/01	05/02/01	05/02/01

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395

Lab Sample I.D.	01040570	01040571	01040572
Client Sample I.D.	Source-P -042401-10	Source-P -042401-11	Source-P -042401-12

METALS

ANALYTE	***DATE TESTED***	***EPA METHOD***	***DETECTION LIMIT mg/kg***	***SAMPLE RESULTS***		
				mg/kg	***mg/kg***	***mg/kg***
Aluminum	04/27/01	6010	2.5	14000	13000	16000
Arsenic	04/26/01	6010	1.0	9.2	15	7.3
Barium	04/26/01	6010	0.5	110	120	170
Beryllium	04/26/01	6010	0.5	0.59	0.65	0.66
Cadmium	04/26/01	6010	0.5	3.2	2.1	0.93
Chromium (Total)	04/26/01	6010	0.5	31	26	26
Chromium (VI)	04/26/01	6010	0.5	<0.5	<0.5	<0.5
Cobalt	04/26/01	6010	0.5	9.6	8.8	7.7
Copper	04/26/01	6010	0.5	26	27	20
Lead	04/26/01	6010	1.0	6.3	6.1	7.3
Mercury	04/26/01	7471	0.1	<0.1	<0.1	<0.1
Molybdenum	04/26/01	6010	1.0	5.3	3.2	2.1
Nickel	04/26/01	6010	0.5	32	28	23
Silver	04/26/01	6010	0.5	<0.5	<0.5	<0.5
Thallium	04/26/01	6010	5.0	<5.0	<5.0	<5.0
Vanadium	04/26/01	6010	0.5	48	51	48
Zinc	04/26/01	6010	0.5	60	66	52

INT

Orange Coast Analytical, Inc

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395

Sampled:	---	04/24/01	04/24/01	04/24/01
Received:	---	04/24/01	04/24/01	04/24/01
Reported:	05/02/01	05/02/01	05/02/01	05/02/01
Lab Sample I.D.	MB	01040564	01040565	01040566
Client Sample I.D.	---	Source-P -042401-4	Source-P -042401-5	Source-P -042401-6

METALS

ANALYTE	***DATE TESTED***	***EPA METHOD***	***DETECTION LIMIT mg/kg***	***SAMPLE RESULTS***			
				mg/kg	***mg/kg***	***mg/kg***	***mg/kg***
Antimony	04/27/01	7041	1.9	<1.9	<1.9	<1.9	<1.9
Selenium	04/27/01	7740	0.43	<0.43	<0.43	<0.43	<0.43

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Orange Coast Analytical, Inc

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395

Sampled:	04/24/01	04/24/01	04/24/01
Received:	04/24/01	04/24/01	04/24/01
Reported:	05/02/01	05/02/01	05/02/01
Lab Sample I.D.	01040567	01040568	01040569
Client Sample I.D.	Source-P -042401-7	Source-P -042401-8	Source-P -042401-9

METALS

ANALYTE	***DATE TESTED***	***EPA METHOD***	***DETECTION LIMIT mg/kg***	***SAMPLE RESULTS***		
				mg/kg	***mg/kg***	***mg/kg***
Antimony	04/27/01	7041	1.9	<1.9	<1.9	<1.9
Selenium	04/27/01	7740	0.43	<0.43	<0.43	<0.43

INT MM

Orange Coast Analytical, Inc

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395

Sampled:	04/24/01	04/24/01	04/24/01
Received:	04/24/01	04/24/01	04/24/01
Reported:	05/02/01	05/02/01	05/02/01
Lab Sample I.D.	01040570	01040571	01040572
Client Sample I.D.	Source-P -042401-10	Source-P -042401-11	Source-P -042401-12

METALS

ANALYTE	***DATE TESTED***	***EPA METHOD***	***DETECTION LIMIT mg/kg***	***SAMPLE RESULTS***		
				mg/kg	***mg/kg***	***mg/kg***
Antimony	04/27/01	7041	1.9	<1.9	<1.9	<1.9
Selenium	04/27/01	7740	0.43	<0.43	<0.43	<0.43

INT

Orange Coast Analytical, Inc

QC DATA REPORT

Analysis : Volatile Organics by GC/MS (EPA 8260)

Date of Analysis : 04/27/01
Laboratory Sample No : 01040548
Laboratory Reference No : KJC 12395

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Benzene	0.0	50	51	51	102	102	0
1,1-Dichloroethene	0.0	50	58	61	116	122	5
Trichloroethene	0.0	50	49	48	98	96	2
Toluene	0.0	50	47	48	94	96	2
Chlorobenzene	0.0	50	51	51	102	102	0

Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: {(MS-R1) / SP} x100
PR2	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2

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Orange Coast Analytical, Inc.

QC DATA REPORT

Analysis : Metals

Laboratory Reference No : KJC 12346

Analyte	Date Tested	QC Sample	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Aluminum	04/27/01	01040564	44	50.0	96.4	96.5	105	105	0
Arsenic	04/26/01	01040572	0.15	10.0	9.97	10.2	98	101	2
Barium	04/26/01	01040572	3.5	5.00	8.17	8.22	93	94	1
Beryllium	04/26/01	01040572	0.013	1.00	1.06	1.07	105	106	1
Cadmium	04/26/01	01040572	0.019	1.00	1.05	1.07	103	105	2
Chromium (VI)*	04/26/01	01040583	0.0	5.00	3.00	3.25	60	65	8
Chromium (VI)	04/26/01	OCA200	0.0	5.00	4.63	4.44	93	89	4
Chromium (Total)	04/26/01	01040572	0.52	1.00	1.49	1.49	97	97	0
Cobalt	04/26/01	01040572	0.15	1.00	1.12	1.14	97	99	2
Copper	04/26/01	01040572	0.40	1.00	1.47	1.47	107	107	0
Lead	04/26/01	01040572	0.15	5.00	4.95	4.80	96	93	3
Mercury	04/26/01	01040583	0.0	1.00	1.02	1.04	102	104	2
Molybdenum	04/26/01	01040572	0.043	5.00	4.90	5.00	97	99	2
Nickel	04/26/01	01040572	0.46	5.00	5.11	5.16	93	94	1
Silver	04/26/01	01040572	0.0	1.00	1.03	1.050	103	105	2
Thallium	04/26/01	01040572	0.0	10.0	8.83	8.98	88	90	2
Vanadium	04/26/01	01040572	0.96	5.00	5.85	5.92	98	99	1
Zinc	04/26/01	01040572	1.0	5.00	5.81	5.85	96	97	1

*Matrix Interference

Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: {(MS-R1) / SP} x100
PR2	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2

INT

Orange Coast Analytical, Inc.

QC DATA REPORT

Analysis : Metals

Laboratory Reference No : KJC 12395

Analyte	Date Tested	QC Sample	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Antimony	04/27/01	01040572	0.0	5.0	5.07	4.88	101	98	4
Selenium	04/27/01	OCA100	0.0	2.0	1.83	1.83	92	92	0

Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: {(MS-R1) / SP} x100
PR2	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2

INT

Orange Coast Analytical, Inc.

QC DATA REPORT

Analysis : Extractable Fuel Hydrocarbons (EPA 8015m)

Date of Analysis : 04/25/01
Laboratory Sample No : 01040570
Laboratory Reference No : KJC 12395

Analyte	R1 (ppm)	SP (ppm)	MS (ppm)	MSD (ppm)	PR1 %	PR2 %	RPD %
Hydrocarbons	0.0	100	68	71	68	71	4

Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: {(MS-R1) / SP} x100
PR2	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2

INT MS.

Orange Coast Analytical, Inc.

Chain of Custody Record

SEVERN TRENT SERVICES

Severn Trent Laboratories, Inc.

STL-4124 (0700)

Client: Kennedy/Tenks	Project Manager: Rus Purcell	Date: 4-24-01	Chain of Custody Number: 051856
Address: 2151 Michelson Dr. Suite 100	Telephone Number (Area Code)/Fax Number: 949-261-1577	Lab Number:	Page 1 of 1
City: Irvine; State: CA; Zip Code: 92612	Site Contact: Shane Scrimshire; Lab Contact:		
Project Name and Location (State): Boeing Parcel C	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 004034.00			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	8015C/TPH	6000/7000 Series Metals	8260/VOCs	Special Instructions/ Conditions of Receipt
Source-P-042401-4	4-24-01	0930				X	X						X	X	X	Please add Antimony + Selenium
Source-P-042401-5		0945				X	X						X	X	X	
Source-P-042401-6		0955				X	X						X	X	X	
Source-P-042401-7		1010				X	X						X	X	X	
Source-P-042401-8		1015				X	X						X	X	X	
Source-P-042401-9		1030				X	X						X	X	X	
Source-P-042401-10		1045				X	X						X	X	X	
Source-P-042401-11		1100				X	X						X	X	X	
Source-P-042401-12		1115				X	X						X	X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other 5 day

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: [signature]	4-24-01	1500	1. Received By: [signature]	4-24-01	15:00
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

ORANGE COAST ANALYTICAL, INC.
3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

LABORATORY REPORT FORM

Laboratory Name: ORANGE COAST ANALYTICAL, INC.

Address: 3002 Dow Suite 532 Tustin, CA 92780

Telephone: (714) 832-0064

Laboratory Certification (ELAP) No.: 1416 Expiration Date: 2003

Laboratory Director's Name (Print): Mark Noorani

Client: Kennedy Jenks Consultants

Project No.: 004034.00

Project Name: Boeing Parcel C

Laboratory Reference: KJC 12395A

Analytical Method: 8310

Date Sampled: 04/24/01
Date Received: 04/24/01
Date Reported: 05/17/01

Sample Matrix: Soil

Chain of Custody Received: Yes

Laboratory Director's Signature: Mark Noorani

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395A

Sampled:	—	04/24/01	04/24/01	04/24/01
Received:	—	04/24/01	04/24/01	04/24/01
Analyzed:	05/14/01	05/14/01	05/14/01	05/10/01
Reported:	05/17/01	05/17/01	05/17/01	05/17/01
Lab Sample I.D.	MB0514	01040564	01040565	01040566
Client Sample I.D.	—	Source-P -042401-4	Source-P -042401-5	Source-P -042401-6

ANALYTICAL TEST RESULTS EPA 8310

ANALYTE	*DETECTION LIMIT µg/kg*	*SAMPLE RESULTS µg/kg*	*µg/kg*	*µg/kg*	*µg/kg*
Acenaphthene	2.0	<2.0	<20	<2.0	<2.0
cenaphthylene	2.0	<2.0	<20	<2.0	<2.0
nthracene	2.0	<2.0	<20	<2.0	<2.0
Benzo(a)anthracene	2.0	<2.0	<20	<2.0	<2.0
Benzo(a)pyrene	2.0	<2.0	<20	<2.0	<2.0
enzo(b)fluoranthene	2.0	<2.0	<20	<2.0	<2.0
Benzo(k)fluoranthene	2.0	<2.0	<20	<2.0	<2.0
Benzo(g,h,i)perylene	2.0	<2.0	<20	<2.0	<2.0
hrysene	2.0	<2.0	<20	<2.0	<2.0
ibenzo(a,h)anthracene	2.0	<2.0	<20	<2.0	<2.0
Fluoranthene	2.0	<2.0	<20	5.2	<2.0
rene	2.0	<2.0	<20	3.5	<2.0
uorene	2.0	<2.0	<20	<2.0	<2.0
Phenanthrene	2.0	<2.0	<20	<2.0	<2.0
deno(1,2,3-cd)pyrene	2.0	<2.0	<20	<2.0	<2.0
aphthalene	2.0	<2.0	<20	<2.0	<2.0

INT

Orange Coast Analytical, Inc

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395A

Sampled:	04/24/01	04/24/01	04/24/01
Received:	04/24/01	04/24/01	04/24/01
Analyzed:	05/14/01	05/14/01	05/14/01
Reported:	05/17/01	05/17/01	05/17/01
Lab Sample I.D.	01040567	01040568	01040569
Client Sample I.D.	Source-P -042401-7	Source-P -042401-8	Source-P -042401-9

ANALYTICAL TEST RESULTS EPA 8310

ANALYTE	*DETECTION LIMIT µg/kg*	*SAMPLE RESULTS µg/kg*	*µg/kg*	*µg/kg*
Acenaphthene	2.0	<20	<2.0	<2.0
Acenaphthylene	2.0	<20	<2.0	<2.0
Anthracene	2.0	<20	<2.0	<2.0
Benzo(a)anthracene	2.0	<20	<2.0	<2.0
Benzo(a)pyrene	2.0	<20	<2.0	<2.0
Benzo(b)fluoranthene	2.0	<20	<2.0	<2.0
Benzo(k)fluoranthene	2.0	<20	<2.0	<2.0
Benzo(g,h,i)perylene	2.0	<20	<2.0	<2.0
Chrysene	2.0	<20	<2.0	<2.0
Dibenzo(a,h)anthracene	2.0	<20	<2.0	<2.0
Fluoranthene	2.0	<20	<2.0	<2.0
Pyrene	2.0	<20	<2.0	3.8
Fluorene	2.0	<20	<2.0	<2.0
Phenanthrene	2.0	<20	<2.0	<2.0
Indeno(1,2,3-cd)pyrene	2.0	<20	<2.0	<2.0
Naphthalene	2.0	<20	<2.0	<2.0

INT

Orange Coast Analytical, Inc

Kennedy Jenks Consultants
ATTN: Mr. Bob Logan
2151 Michelson Dr. #100
Irvine, CA 92612

Client Project ID: Boeing Parcel C
Client Project #: 004034.00

SAMPLE DESCRIPTION (Soil)

Laboratory Reference #: KJC 12395A

Sampled:	04/24/01	04/24/01	04/24/01
Received:	04/24/01	04/24/01	04/24/01
Analyzed:	05/14/01	05/10/01	05/14/01
Reported:	05/17/01	05/17/01	05/17/01
Lab Sample I.D.	01040570	01040571	01040572
Client Sample I.D.	Source-P -042401-10	Source-P -042401-11	Source-P -042401-12

ANALYTICAL TEST RESULTS EPA 8310

ANALYTE	*DETECTION LIMIT µg/kg*	*SAMPLE RESULTS µg/kg*	*µg/kg*	*µg/kg*
Acenaphthene	2.0	<2.0	<2.0	<2.0
Acenaphthylene	2.0	<2.0	<2.0	<2.0
Anthracene	2.0	<2.0	<2.0	<2.0
Benzo(a)anthracene	2.0	<2.0	<2.0	4.2
Benzo(a)pyrene	2.0	<2.0	<2.0	5.4
Benzo(b)fluoranthene	2.0	<2.0	<2.0	<2.0
Benzo(k)fluoranthene	2.0	<2.0	<2.0	<2.0
Benzo(g,h,i)perylene	2.0	<2.0	<2.0	<2.0
Chrysene	2.0	<2.0	<2.0	3.2
Dibenzo(a,h)anthracene	2.0	<2.0	<2.0	<2.0
Fluoranthene	2.0	<2.0	<2.0	6.9
Pyrene	2.0	<2.0	<2.0	10
Fluorene	2.0	<2.0	<2.0	<2.0
Phenanthrene	2.0	<2.0	<2.0	4.7
Indeno(1,2,3-cd)pyrene	2.0	<2.0	<2.0	<2.0
Naphthalene	2.0	<2.0	<2.0	<2.0

INT

Orange Coast Analytical, Inc

QC DATA REPORT

Analysis : Polynuclear Aromatic Hydrocarbons (EPA 8310)

Date of Analysis : 05/14/01
Laboratory Sample No : 01040570
Laboratory Reference No : KJC 12395A

Analyte	R1 (ppb)	SP (ppb)	MS (ppb)	MSD (ppb)	PR1 %	PR2 %	RPD %
Acenaphthene	0.0	10	6.0	5.9	60	59	2
Anthracene	0.0	10	6.6	6.7	66	67	2
Pyrene	0.0	10	7.5	6.5	75	65	14
Chrysene	0.0	10	6.1	6.9	61	69	12
Benzo (a) Pyrene	0.0	10	5.8	5.9	58	59	2

Definition of Terms :

R1	Results Of First Analysis
SP	Spike Concentration Added to Sample
MS	Matrix Spike Results
MSD	Matrix Spike Duplicate Results
PR1	Percent Recovery Of MS: {(MS-R1) / SP} x100
PR2	Percent Recovery Of MSD: {(MSD-R1) / SP} x 100
RPD	Relative Percent Difference: {(MS-MSD) / (MS+MSD)} x 100 x 2

INT

Orange Coast Analytical, Inc.