Scott Lo

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HALEY & ALDRICH

ENGLAND GEOSYSTEM
ENVIRONMENTAL ENGINEERING

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

TECHNICAL MEMORANDUM

IMPORT SOIL EVALUATION
USE OF SOIL SOURCES F AND G AS IMPORT TO PARCEL C

To: **Mr. Brian Mossman**
Boeing Realty Corporation
3760 Kilroy Airport Way, Suite 500
Long Beach, CA 90806

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

Date: **March 6, 2001**

Re: **Import Soil Evaluation, Use of Soil Sources F and G 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 use of two identified potential import soil sources, herein referred to as Sources F and G, as import to Parcel C of the Boeing Realty Corporation's (BRC's) Former C-6 Facility in Los Angleles, California (subject parcel).

OVERVIEW/PURPOSE

Two sources of soil, totaling up to approximately 9,000 cubic yards, have been identified as potential import soil for use on Parcel C. Kennedy Jenks Consultants (K/J) collected a soil sample from each of these sources 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 import soil evaluation of the Sources F and G soils and to provide recommendations for use as import for Parcel C.

LOCATION OF PROPOSED SOURCES F AND G IMPORT SOIL

The Source F potential import soil comprises between 4,000 and 5,000 cubic yards. Source F soil originated from a property situated at 166th and Falda in Torrance, California. It is understood through conversations with Mr. Scott Tredick of Viking Equipment Company that the Source F property has historically been developed for residential use and is currently being redeveloped for residential purposes.

The Source G potential import soil comprises approximately 4,000 cubic yards. Source G soil originated from residential property situated on Ocean Boulevard between the Pacific Coast Highway and Lomita in Torrance, California. The soil was excavated to allow for the construction of a sidewalk along Ocean Boulevard.

COMPARISON OF ANALYTICAL RESULTS TO IMPORT SOIL GUIDANCE CRITERIA

The laboratory report for the soil samples collected from the subject potential import soils is presented as Attachment 1. Each sample was tested for metals, and various organic chemicals, including total petroleum hydrocarbons, polynuclear aromatic hydrocarbons, and volatile organic hydrocarbons. A review of the laboratory results indicates that the organic chemical results are within the 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 soil import criteria are presented in Table 1. The remaining organic compounds analyzed for were not detected, and their detection limits are within the soil import criteria.

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

Sample Identification	Chemical	Reported Concentration (mg/kg)	Import Soil Criterion (mg/kg)
SOURCE F_02_14_01_1	Total petroleum hydrocarbons (C18-C40+)	25	< 10 – 5,000
SOURCE G_02_14_01_1	Total petroleum hydrocarbons (C24-C31)	310	< 10 – 5,000
	1,2-Dichloroethane	0.001	< 0.005 – 206
	Anthracene	0.0036	< 0.008 – 4,060
	Benzo(a)anthracene	0.073	< 0.016 – 11.4
	Benzo(a)pyrene	0.036	< 0.004 – 1.14
	Benzo(b)fluoranthene	0.035	< 0.004 – 11.4
	Fluoranthene	0.020	< 0.020 – 6,970

Several of the metals results are greater than the criteria, but are within the reported southern California background literature values. A summary of these metals results is presented in Table 2. The remaining metals analyzed for are within the import soil criteria.

Table 2. Summary of Metals Results Greater Than Import Soil Criteria and Associated Import Soil Criteria and Regional Background Concentrations

Sample Identification	Chemical	Reported Concentration (mg/kg)	Import Soil Criterion (mg/kg)	Southern California Background (mg/kg)
SOURCE F_02_14_01_1	Barium	184	135	23 – 560
	Beryllium	0.56	< 0.5	< 0.1 – 1.2
	Cadmium	0.58	< 0.5	0.05 – 1.45
	Cobalt	10.7	9.4	1.6 – 23.2
	Copper	43.4	20	3.8 – 54
	Lead	8.4	8	2.5 – 189.4
	Vanadium	45.8	38	18 – 84.8
	Zinc	68.6	64	10.3 – 247
SOURCE G_02_14_01_1	Barium	200	135	23 – 560
	Beryllium	0.61	< 0.5	< 0.1 – 1.2
	Cadmium	0.71	< 0.5	0.05 – 1.45
	Cobalt	12.4	9.4	1.6 – 23.2
	Copper	59.9	20	3.8 – 54
	Vanadium	53.3	38	18 – 84.8
	Zinc	80.2	64	10.3 – 247

BOE-C6-0211693

RECOMMENDATIONS FOR USE AS IMPORT SOIL

It is recommended that the subject approximately 9,000 cubic yards of soil comprising Sources F and G be used as fill soil on Parcel C. Even though various metals results did not meet the soil import guidance criteria, the reported soil concentrations are within the southern California background literature values. These background values are considered to be representative of the general geographic region from which the Sources F and G import soils originated, and are not considered to be a result of chemical contamination.

Sincerely yours,
HALEY & ALDRICH, INC.

Anita Broughton
Risk Assessment Task Manager

Scott Zachary
Project Manager

THE AMERICAN BOARD OF INDUSTRIAL HYGIENE INCORPORATED
CERT. NO 5682 CP
EXPIRES 12-31-2004
PENNSYLVANIA - 1960
ANITA BRENCE BROUGHTON, CIH

Attachments:

Appendix A Laboratory Report

BOE-C6-0211694

Appendix A

BOE-C6-0211695

APPENDIX A

LABORATORY REPORT

(619) 595-7056

ANALYTICAL REPORT

PROJECT NO. HARBOR GATEWAY

Boeing Parcel C; C-6 (Torrance)

Lot #: B1B160288

~~Frank Hagar~~
Anita

SEVERN TRENT LABORATORIES, INC.

Diane Suzuki
Project Manager

February 28, 2001

STL Committed To Your Success

SEVERN TRENT LABORATORIES

No. 203084

CHAIN OF CUSTODY RECORD

CUSTOMER INFORMATION	PROJECT INFORMATION
COMPANY: Kennedy Jenks	PROJECT NAME/NUMBER:
SEND REPORT TO: Jay Knight	BILLING INFORMATION
ADDRESS: 2151 Michelson Dr	BILL TO:
Suite 100	ADDRESS:
Irvine, CA 92612	
PHONE: 949-261-1577	PHONE:
FAX: 949-261-2134	FAX: PO NO.:

LAB JOB NO.

SAMPLE NO.	SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER	PRESERV.	NUMBER OF CONTAINERS	VOCs (EPA 8260)	TPH (total carbon chain) 8015	Title 22 metals (EPA 6010 7470 and 7471)	PAHs (EPA 8310)				REMARKS/PRECAUTIONS
	Source F-02-14-01-1	2/14/01	3:30pm	Soil	2x6 Brass	None		X	X	X		X			
	Source G-02-14-01-1	"	4:15	Soil	2x6 Brass	None		X	X	X		X			

SAMPLER: [signature]

SHIPMENT METHOD:

AIRBILL NO.:

REQUIRED TURNAROUND* ☐ SAME DAY ☐ 24 HOURS ☒ 48 HOURS ☐ 72 HOURS ☐ 5 DAYS ☐ 10 DAYS ☐ ROUTINE ☐ OTHER

1. RELINQUISHED BY:	DATE	2. RELINQUISHED BY:	DATE	3. RELINQUISHED BY:	DATE
SIGNATURE: Susan Penney	2-16-01	SIGNATURE: [signature]	2-16-01	SIGNATURE:	
PRINTED NAME/COMPANY: SUSAN PENNEY / KENNEDY / JENKS	TIME 1:38PM	PRINTED NAME/COMPANY: SR	TIME 1:40	PRINTED NAME/COMPANY:	TIME
1. RECEIVED BY:	DATE	2. RECEIVED BY:	DATE	3. RECEIVED BY:	DATE
SIGNATURE: [signature]	2-16-01	SIGNATURE: [signature] for RB		SIGNATURE:	
PRINTED NAME/COMPANY: SR	TIME 1:33	PRINTED NAME/COMPANY:	TIME	PRINTED NAME/COMPANY:	TIME

* RUSH TURNAROUND MAY REQUIRE SURCHARGE

SEVERN TRENT LABORATORIES
1721 South Grand Avenue
Santa Ana, CA 92705
Phone: (714) 258-8610 / Fax: (714) 258-0921

STL – LOS ANGELES
PROJECT RECEIPT CHECKLIST

Date: 02/16/01

Quantims Lot #: EIB160288

Quote #:

Client Name: Kennedy Jenks

Project: Boeing C-6

Received by: [illegible]

Date/Time Received: 02/16/01 @ 1400

Delivered by : ☐ Client ☐ Airborne ☐ Fed Ex ☐ DHL ☐ Ultra-Ex ☐ Rey B. ☐ UPS ☐ DES ☒ Other courier

	Initial / Date
Custody Seal Status: ☐ Intact ☐ Broken ☒ None	AB 02/16/01
Custody Seal #(s): ☐ No Seal #	
Sample Container(s): ☐ STL-LA ☒ Client ☐ N/A	
Temperature(s) (COOLER/BLANK) in °C: 1 [illegible] (CORRECTED TEMP)	
Thermometer Used : ☒ IR (Infra-red) ☐ Digital (Probe)	
Samples: ☒ Intact ☐ Broken ☐ Other	
Anomalies: ☒ No ☐ Yes (See Clouseau)	
Labeled by	
Labeling checked by	

Turn Around Time: ☐ RUSH-24HR ☒ RUSH-48HR ☐ RUSH-72HR ☐ NORMAL

Short-Hold Notification: ☐ Ph ☐ Wet Chem ☐ Metals (Filter/Pres) ☒ Encore ☒ N/A ✓

Outside Analysis(es) (Test/Lab/Date Sent Out) :

********** LEAVE NO BLANK SPACES ; USE N/A **********

Fraction	1,2										PH
VOAh /*											N/A
[illegible]	1										—

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

CGL Clear Glass Jar CGS Clear Glass Bottle AGS Amber Glass Jar AGS Amber Glass Bottle PB Poly Bottle R Encore Sampler V VOA

* Number of VOA's w/ Headspace present

LOGGED BY/DATE: AB 02/16/01 REVIEWED BY/DATE: [illegible]

EXECUTIVE SUMMARY - Detection Highlights

E1B160288

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SOURCE F_02_14_01_1 02/14/01 15:30 001				
C24-C27	5.3 J	10	mg/kg	SW846 8015B
C28-C31	5.2 J	10	mg/kg	SW846 8015B
Total Carbon Chain Range	25	10	mg/kg	SW846 8015B
Mercury	0.023 B	0.10	mg/kg	SW846 7471A
Aluminum	19500	20.0	mg/kg	SW846 6010B
Arsenic	3.4	1.0	mg/kg	SW846 6010B
Barium	184	2.0	mg/kg	SW846 6010B
Cadmium	0.58	0.50	mg/kg	SW846 6010B
Chromium	22.9	1.0	mg/kg	SW846 6010B
Beryllium	0.56	0.50	mg/kg	SW846 6010B
Lead	8.4	0.50	mg/kg	SW846 6010B
Cobalt	10.7	5.0	mg/kg	SW846 6010B
Copper	43.4	2.5	mg/kg	SW846 6010B
Molybdenum	0.49 B	4.0	mg/kg	SW846 6010B
Nickel	16.2	4.0	mg/kg	SW846 6010B
Vanadium	45.8	5.0	mg/kg	SW846 6010B
Zinc	68.6	2.0	mg/kg	SW846 6010B
SOURCE G_02_14_01_1 02/14/01 16:15 002				
C18-C19	5.2 J	10	mg/kg	SW846 8015B
C20-C23	9.1 J	10	mg/kg	SW846 8015B
C24-C27	19	10	mg/kg	SW846 8015B
C28-C31	44	10	mg/kg	SW846 8015B
C32-C35	49	10	mg/kg	SW846 8015B
C36-C39	51	10	mg/kg	SW846 8015B
C40+	120	10	mg/kg	SW846 8015B
Total Carbon Chain Range	310	10	mg/kg	SW846 8015B
Anthracene	3.6 J	16	ug/kg	SW846 8310
Benzo(a)anthracene	73	32	ug/kg	SW846 8310
Benzo(a)pyrene	36	20	ug/kg	SW846 8310
Benzo(b)fluoranthene	35	8.0	ug/kg	SW846 8310
Fluoranthene	20 J	40	ug/kg	SW846 8310
Mercury	0.098 B	0.10	mg/kg	SW846 7471A
Aluminum	21900	20.0	mg/kg	SW846 6010B
Arsenic	3.8	1.0	mg/kg	SW846 6010B
Barium	200	2.0	mg/kg	SW846 6010B
Cadmium	0.71	0.50	mg/kg	SW846 6010B
Chromium	24.4	1.0	mg/kg	SW846 6010B
Beryllium	0.61	0.50	mg/kg	SW846 6010B
Lead	7.9	0.50	mg/kg	SW846 6010B
Cobalt	12.4	5.0	mg/kg	SW846 6010B
Copper	59.9	2.5	mg/kg	SW846 6010B

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

E1B160288

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
SOURCE G_02_14_01_1 02/14/01 16:15 002				
Molybdenum	0.47 B	4.0	mg/kg	SW846 6010B
Nickel	17.6	4.0	mg/kg	SW846 6010B
Vanadium	53.3	5.0	mg/kg	SW846 6010B
Zinc	80.2	2.0	mg/kg	SW846 6010B
1,2-Dichloroethane	1.0 J	5.0	ug/kg	SW846 8260B

METHODS SUMMARY

E1B160288

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Extractable Petroleum Hydrocarbons	SW846 8015B	SANA AUTO-SHAKE
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
Polynuclear Aromatic Hydrocarbons by HPLC	SW846 8310	SW846 3550
Volatile Organics by GC/MS	SW846 8260B	SW846 5030
Volatile Petroleum Hydrocarbons	SW846 8015B	SW846 5030

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

E1B160288

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
DV9F1	001	SOURCE F_02_14_01_1	02/14/01	15:30
DV9F9	002	SOURCE G_02_14_01_1	02/14/01	16:15

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE F_02_14_01_1

GC Semivolatiles

Lot-Sample #...: E1B160288-001 **Work Order #...:** DV9F11AC **Matrix.....:** SOLID
Date Sampled...: 02/14/01 15:30 **Date Received..:** 02/16/01 14:10 **MS Run #.....:** 1047232
Prep Date.....: 02/16/01 **Analysis Date..:** 02/19/01
Prep Batch #...: 1047422 **Analysis Time..:** 11:54
Dilution Factor: 1
Analyst ID.....: 356074 **Instrument ID..:** G01
Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	ND	10	mg/kg	5.0
C20-C23	ND	10	mg/kg	5.0
C24-C27	**5.3 J**	**10**	**mg/kg**	**5.0**
C28-C31	**5.2 J**	**10**	**mg/kg**	**5.0**
C32-C35	ND	10	mg/kg	5.0
C36-C39	ND	10	mg/kg	5.0
C40+	ND	10	mg/kg	5.0
Total Carbon Chain Range	**25**	**10**	**mg/kg**	**5.0**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	86	(60 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE F_02_14_01_1

GC Volatiles

Lot-Sample #...:	E1B160288-001	**Work Order #...:**	DV9F11AD	**Matrix.....:**	SOLID
Date Sampled...:	02/14/01 15:30	**Date Received..:**	02/16/01 14:10	**MS Run #.....:**	1051151
Prep Date.....:	02/19/01	**Analysis Date..:**	02/19/01		
Prep Batch #...:	1051278	**Analysis Time..:**	11:23		
Dilution Factor:	1				
Analyst ID.....:	001464	**Instrument ID..:**	G16		
		Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	84	(60 - 130)

KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE F_02_14_01_1

GC/MS Volatiles

Lot-Sample #...: E1B160288-001
Date Sampled...: 02/14/01 15:30
Prep Date.....: 02/16/01
Prep Batch #...: 1050518
Dilution Factor: 1
Analyst ID.....: 015590

Work Order #...: DV9F11AA
Date Received..: 02/16/01 14:10
Analysis Date..: 02/16/01
Analysis Time..: 22:21

Instrument ID..: MSG
Method.....: SW846 8260B

Matrix.....: SOLID
MS Run #.....: 1050291

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	ND	5.0	ug/kg	1.0
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

(Continued on next page)

KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE F_02_14_01_1

GC/MS Volatiles

Lot-Sample #...: E1B160288-001 **Work Order #...:** DV9F11AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	105	(70 - 130)
1,2-Dichloroethane-d4	86	(60 - 140)
Toluene-d8	90	(70 - 130)

KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE F_02_14_01_1

HPLC

Lot-Sample #...: E1B160288-001 **Work Order #...:** DV9F11A1 **Matrix.....:** SOLID
Date Sampled...: 02/14/01 15:30 **Date Received..:** 02/16/01 14:10 **MS Run #.....:**
Prep Date.....: 02/19/01 **Analysis Date..:** 02/27/01
Prep Batch #...: 1050301 **Analysis Time..:** 12:07
Dilution Factor: 1
Analyst ID.....: 057134 **Instrument ID..:** LC7
Method.....: SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	400	ug/kg	63
Acenaphthylene	ND	200	ug/kg	46
Anthracene	ND	8.0	ug/kg	1.1
Benzo(a)anthracene	ND	16	ug/kg	1.7
Benzo(a)pyrene	ND	10	ug/kg	3.1
Benzo(b)fluoranthene	ND	4.0	ug/kg	2.4
Benzo(ghi)perylene	ND	16	ug/kg	3.1
Benzo(k)fluoranthene	ND	4.0	ug/kg	1.1
Chrysene	ND	20	ug/kg	14
Dibenz(a,h)anthracene	ND	40	ug/kg	9.2
Fluoranthene	ND	20	ug/kg	4.8
Fluorene	ND	40	ug/kg	6.7
Indeno(1,2,3-cd)pyrene	ND	20	ug/kg	3.1
Naphthalene	ND	200	ug/kg	23
Phenanthrene	ND	16	ug/kg	2.6
Pyrene	ND	40	ug/kg	11

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Methylnaphthalene	50	(41 - 115)

KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE G_02_14_01_1

GC Semivolatiles

Lot-Sample #...: E1B160288-002 Work Order #...: DV9F91AE Matrix.....: SOLID
Date Sampled...: 02/14/01 16:15 Date Received..: 02/16/01 14:10 MS Run #.....: 1047232
Prep Date.....: 02/16/01 Analysis Date..: 02/19/01
Prep Batch #...: 1047422 Analysis Time..: 12:24
Dilution Factor: 1
Analyst ID.....: 356074 Instrument ID..: G01
Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
C8-C9	ND	10	mg/kg	5.0
C10-C11	ND	10	mg/kg	5.0
C12-C13	ND	10	mg/kg	5.0
C14-C15	ND	10	mg/kg	5.0
C16-C17	ND	10	mg/kg	5.0
C18-C19	5.2 J	10	mg/kg	5.0
C20-C23	9.1 J	10	mg/kg	5.0
C24-C27	19	10	mg/kg	5.0
C28-C31	44	10	mg/kg	5.0
C32-C35	49	10	mg/kg	5.0
C36-C39	51	10	mg/kg	5.0
C40+	120	10	mg/kg	5.0
Total Carbon Chain Range	310	10	mg/kg	5.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	80	(60 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE G_02_14_01_1

GC Volatiles

Lot-Sample #...:	E1B160288-002	**Work Order #...:**	DV9F91AF	**Matrix.....:**	SOLID
Date Sampled...:	02/14/01 16:15	**Date Received..:**	02/16/01 14:10	**MS Run #.....:**	1051151
Prep Date.....:	02/19/01	**Analysis Date..:**	02/19/01		
Prep Batch #...:	1051278	**Analysis Time..:**	11:52		
Dilution Factor:	1				
Analyst ID.....:	001464	**Instrument ID..:**	G16		
		Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
C6-C8	ND	1.0	mg/kg	0.10

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	86	(60 - 130)

KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE G_02_14_01_1

GC/MS Volatiles

Lot-Sample #...: E1B160288-002 **Work Order #...:** DV9F91AD **Matrix.....:** SOLID
Date Sampled...: 02/14/01 16:15 **Date Received..:** 02/16/01 14:10 **MS Run #.....:** 1050291
Prep Date.....: 02/16/01 **Analysis Date..:** 02/16/01
Prep Batch #...: 1050518 **Analysis Time..:** 20:00
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSG
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorodifluoromethane	ND	10	ug/kg	1.0
Chloromethane	ND	10	ug/kg	3.0
Vinyl chloride	ND	10	ug/kg	2.0
Bromomethane	ND	10	ug/kg	2.0
Chloroethane	ND	10	ug/kg	2.0
Trichlorofluoromethane	ND	10	ug/kg	2.0
Acrolein	ND	100	ug/kg	30
1,1-Dichloroethene	ND	5.0	ug/kg	2.0
Iodomethane	ND	10	ug/kg	5.0
Acetone	ND	25	ug/kg	15
Carbon disulfide	ND	5.0	ug/kg	2.0
Methylene chloride	ND	5.0	ug/kg	3.0
trans-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
Acrylonitrile	ND	50	ug/kg	30
Methyl tert-butyl ether	ND	5.0	ug/kg	1.0
1,1-Dichloroethane	ND	5.0	ug/kg	1.0
Vinyl acetate	ND	10	ug/kg	5.0
2,2-Dichloropropane	ND	5.0	ug/kg	2.0
cis-1,2-Dichloroethene	ND	5.0	ug/kg	2.0
2-Butanone	ND	25	ug/kg	15
Bromochloromethane	ND	5.0	ug/kg	1.0
Chloroform	ND	5.0	ug/kg	1.0
Tetrahydrofuran	ND	20	ug/kg	10
1,1,1-Trichloroethane	ND	5.0	ug/kg	1.0
1,1-Dichloropropene	ND	5.0	ug/kg	1.0
Carbon tetrachloride	ND	5.0	ug/kg	1.0
Benzene	ND	5.0	ug/kg	2.0
1,2-Dichloroethane	**1.0 J**	**5.0**	**ug/kg**	**1.0**
Trichloroethene	ND	5.0	ug/kg	2.0
1,2-Dichloropropane	ND	5.0	ug/kg	1.0
Bromodichloromethane	ND	5.0	ug/kg	1.0
2-Chloroethyl vinyl ether	ND	10	ug/kg	5.0
cis-1,3-Dichloropropene	ND	5.0	ug/kg	1.0
4-Methyl-2-pentanone	ND	25	ug/kg	10
Toluene	ND	5.0	ug/kg	2.0
trans-1,3-Dichloropropene	ND	5.0	ug/kg	3.0
1,1,2-Trichloroethane	ND	5.0	ug/kg	3.0

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KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE G_02_14_01_1

GC/MS Volatiles

Lot-Sample #...: E1B160288-002 **Work Order #...:** DV9F91AD **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Tetrachloroethene	ND	5.0	ug/kg	2.0
2-Hexanone	ND	25	ug/kg	10
Dibromochloromethane	ND	5.0	ug/kg	5.0
1,2-Dibromoethane	ND	5.0	ug/kg	3.0
Chlorobenzene	ND	5.0	ug/kg	2.0
Ethylbenzene	ND	5.0	ug/kg	2.0
Xylenes (total)	ND	5.0	ug/kg	3.0
Styrene	ND	10	ug/kg	2.0
Bromoform	ND	5.0	ug/kg	3.0
Isopropylbenzene	ND	5.0	ug/kg	2.0
p-Isopropyltoluene	ND	5.0	ug/kg	2.0
Bromobenzene	ND	5.0	ug/kg	2.0
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	3.0
1,2,3-Trichloropropane	ND	5.0	ug/kg	3.0
n-Propylbenzene	ND	5.0	ug/kg	2.0
2-Chlorotoluene	ND	5.0	ug/kg	2.0
4-Chlorotoluene	ND	5.0	ug/kg	2.0
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	2.0
tert-Butylbenzene	ND	5.0	ug/kg	2.0
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	2.0
sec-Butylbenzene	ND	5.0	ug/kg	2.0
1,3-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,4-Dichlorobenzene	ND	5.0	ug/kg	2.0
1,2-Dichlorobenzene	ND	5.0	ug/kg	2.0
n-Butylbenzene	ND	5.0	ug/kg	2.0
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	3.0
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	2.0
Hexachlorobutadiene	ND	5.0	ug/kg	2.0
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	110	(70 - 130)
1,2-Dichloroethane-d4	89	(60 - 140)
Toluene-d8	93	(70 - 130)

NOTE(S):

J Estimated result. Result is less than RL.

KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE G_02_14_01_1

HPLC

Lot-Sample #...: E1B160288-002
Date Sampled...: 02/14/01 16:15
Prep Date.....: 02/19/01
Prep Batch #...: 1050301
Dilution Factor: 2
Analyst ID.....: 057134

Work Order #...: DV9F91AC
Date Received..: 02/16/01 14:10
Analysis Date..: 02/27/01
Analysis Time..: 11:26

Instrument ID..: LC7
Method.....: SW846 8310

Matrix.....: SOLID
MS Run #.....:

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	800	ug/kg	130
Acenaphthylene	ND	400	ug/kg	92
Anthracene	3.6 J	16	ug/kg	2.2
Benzo(a)anthracene	73	32	ug/kg	3.4
Benzo(a)pyrene	36	20	ug/kg	6.2
Benzo(b)fluoranthene	35	8.0	ug/kg	4.8
Benzo(ghi)perylene	ND G	160	ug/kg	6.2
Benzo(k)fluoranthene	ND	8.0	ug/kg	2.2
Chrysene	ND	40	ug/kg	28
Dibenz(a,h)anthracene	ND	80	ug/kg	18
Fluoranthene	20 J	40	ug/kg	9.6
Fluorene	ND	80	ug/kg	13
Indeno(1,2,3-cd)pyrene	ND G	50	ug/kg	6.2
Naphthalene	ND	400	ug/kg	46
Phenanthrene	ND	32	ug/kg	5.2
Pyrene	ND	80	ug/kg	22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Methylnaphthalene	66	(41 - 115)

NOTE(S):

J Estimated result. Result is less than RL.

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE F_02_14_01_1

TOTAL Metals

Lot-Sample #...: E1B160288-001 Matrix.....: SOLID
Date Sampled...: 02/14/01 15:30 Date Received..: 02/16/01 14:10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1046471						
Mercury	0.023 B	0.10	mg/kg	SW846 7471A	02/16-02/17/01	DV9F11A0
		Dilution Factor: 1		Analysis Time..: 11:10	Analyst ID.....: 021088	
		Instrument ID..: M04		MS Run #.....: 1046229	MDL.....: 0.020	
Prep Batch #...: 1047263						
Aluminum	19500	20.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AE
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031199	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 8.0	
Arsenic	3.4	1.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AF
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.40	
Antimony	ND	6.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AG
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.20	
Barium	184	2.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AH
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.10	
Cadmium	0.58	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AJ
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.050	
Chromium	22.9	1.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AK
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.10	
Beryllium	0.56	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AL
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.050	
Lead	8.4	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AM
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.30	

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KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE F_02_14_01_1

TOTAL Metals

Lot-Sample #...: E1B160288-001 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	ND	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AN
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.40	
Silver	ND	1.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AP
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.10	
Cobalt	10.7	5.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AQ
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.10	
Copper	43.4	2.5	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AR
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.40	
Molybdenum	0.49 B	4.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AT
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.30	
Nickel	16.2	4.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AU
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.30	
Thallium	ND	1.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AV
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.50	
Vanadium	45.8	5.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AW
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.10	
Zinc	68.6	2.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F11AX
		Dilution Factor: 1		Analysis Time..: 17:14	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 1.0	

NOTE(S):

B Estimated result. Result is less than RL.

KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE G_02_14_01_1

TOTAL Metals

Lot-Sample #...: E1B160288-002 Matrix.....: SOLID
Date Sampled...: 02/14/01 16:15 Date Received...: 02/16/01 14:10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1046471						
Mercury	0.098 B	0.10	mg/kg	SW846 7471A	02/16-02/17/01	DV9F91AA
		Dilution Factor: 1		Analysis Time..: 11:12	Analyst ID.....: 021088	
		Instrument ID..: M04		MS Run #.....: 1046229	MDL.....: 0.020	
Prep Batch #...: 1047263						
Aluminum	21900	20.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AG
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031199	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 8.0	
Arsenic	3.8	1.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AH
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.40	
Antimony	ND	6.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AJ
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.20	
Barium	200	2.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AK
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.10	
Cadmium	0.71	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AL
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.050	
Chromium	24.4	1.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AM
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.10	
Beryllium	0.61	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AN
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.050	
Lead	7.9	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AP
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.30	

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KENNEDY/JENKS CONSULTANTS

Client Sample ID: SOURCE G_02_14_01_1

TOTAL Metals

Lot-Sample #...: E1B160288-002 Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Selenium	ND	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AQ
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.40	
Silver	ND	1.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AR
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.10	
Cobalt	12.4	5.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AT
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.10	
Copper	59.9	2.5	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AU
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.40	
Molybdenum	0.47 B	4.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AV
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.30	
Nickel	17.6	4.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AW
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.30	
Thallium	ND	1.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91AX
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.50	
Vanadium	53.3	5.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91A0
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 0.10	
Zinc	80.2	2.0	mg/kg	SW846 6010B	02/16-02/19/01	DV9F91A1
		Dilution Factor: 1		Analysis Time..: 17:22	Analyst ID.....: 0031196	
		Instrument ID..: M01		MS Run #.....: 1047116	MDL.....: 1.0	

NOTE(S):

B Estimated result. Result is less than RL.

QC DATA ASSOCIATION SUMMARY

E1B160288

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	SOLID	SW846 8015B		1047422	1047232
	SOLID	SW846 8015B		1051278	1051151
	SOLID	SW846 7471A		1046471	1046229
	SOLID	SW846 8260B		1050518	1050291
	SOLID	SW846 6010B		1047263	1047116
	SOLID	SW846 8310		1050301	
002	SOLID	SW846 8015B		1047422	1047232
	SOLID	SW846 8015B		1051278	1051151
	SOLID	SW846 7471A		1046471	1046229
	SOLID	SW846 8260B		1050518	1050291
	SOLID	SW846 6010B		1047263	1047116
	SOLID	SW846 8310		1050301	

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: E1B160288
MB Lot-Sample #: E1B160000-422
Work Order #...: DV9G51AA
Matrix.....: SOLID
Prep Date.....: 02/16/01
Analysis Time..: 10:53
Analysis Date..: 02/19/01
Prep Batch #...: 1047422
Instrument ID..: G01
Dilution Factor: 1
Analyst ID.....: 356074

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
C8-C9	ND	10	mg/kg	SW846 8015B
C10-C11	ND	10	mg/kg	SW846 8015B
C12-C13	ND	10	mg/kg	SW846 8015B
C14-C15	ND	10	mg/kg	SW846 8015B
C16-C17	ND	10	mg/kg	SW846 8015B
C18-C19	ND	10	mg/kg	SW846 8015B
C20-C23	ND	10	mg/kg	SW846 8015B
C24-C27	ND	10	mg/kg	SW846 8015B
C28-C31	ND	10	mg/kg	SW846 8015B
C32-C35	ND	10	mg/kg	SW846 8015B
C36-C39	ND	10	mg/kg	SW846 8015B
C40+	ND	10	mg/kg	SW846 8015B
Total Carbon Chain Range	ND	10	mg/kg	SW846 8015B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	84	(60 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

HPLC

Client Lot #...: E1B160288
MB Lot-Sample #: G1B190000-301
Analysis Date..: 02/27/01
Dilution Factor: 1

Work Order #...: DWA1F1AA
Prep Date.....: 02/19/01
Prep Batch #...: 1050301
Analyst ID.....: 057134

Matrix.....: SOLID
Analysis Time..: 10:46
Instrument ID..: LC7

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	400	ug/kg	SW846 8310
Acenaphthylene	ND	200	ug/kg	SW846 8310
Anthracene	ND	8.0	ug/kg	SW846 8310
Benzo(a)anthracene	ND	16	ug/kg	SW846 8310
Benzo(a)pyrene	ND	10	ug/kg	SW846 8310
Benzo(b)fluoranthene	ND	4.0	ug/kg	SW846 8310
Benzo(ghi)perylene	ND	16	ug/kg	SW846 8310
Benzo(k)fluoranthene	ND	4.0	ug/kg	SW846 8310
Chrysene	ND	20	ug/kg	SW846 8310
Dibenz(a,h)anthracene	ND	40	ug/kg	SW846 8310
Fluoranthene	ND	20	ug/kg	SW846 8310
Fluorene	ND	40	ug/kg	SW846 8310
Indeno(1,2,3-cd)pyrene	ND	20	ug/kg	SW846 8310
Naphthalene	ND	200	ug/kg	SW846 8310
Phenanthrene	ND	16	ug/kg	SW846 8310
Pyrene	ND	40	ug/kg	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Methylnaphthalene	50	(41 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E1B160288 **Work Order #...:** DWCH31AA **Matrix.....:** SOLID
MB Lot-Sample #: E1B190000-518

Prep Date.....: 02/16/01 **Analysis Time..:** 18:14
Analysis Date..: 02/16/01 **Prep Batch #...:** 1050518 **Instrument ID..:** MSG
Dilution Factor: 1

Analyst ID.....: 015590

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Dichlorodifluoromethane	ND	10	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Vinyl chloride	ND	10	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Trichlorofluoromethane	ND	10	ug/kg	SW846 8260B
Acrolein	ND	100	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
Iodomethane	ND	10	ug/kg	SW846 8260B
Acetone	ND	25	ug/kg	SW846 8260B
Carbon disulfide	ND	5.0	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
Acrylonitrile	ND	50	ug/kg	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
Vinyl acetate	ND	10	ug/kg	SW846 8260B
2,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
2-Butanone	ND	25	ug/kg	SW846 8260B
Bromochloromethane	ND	5.0	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Tetrahydrofuran	ND	20	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B
2-Chloroethyl vinyl ether	ND	10	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
4-Methyl-2-pentanone	ND	25	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
2-Hexanone	ND	25	ug/kg	SW846 8260B
Dibromochloromethane	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E1B160288 **Work Order #...:** DWCH31AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
1,2-Dibromoethane	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	5.0	ug/kg	SW846 8260B
Styrene	ND	10	ug/kg	SW846 8260B
Bromoform	ND	5.0	ug/kg	SW846 8260B
Isopropylbenzene	ND	5.0	ug/kg	SW846 8260B
p-Isopropyltoluene	ND	5.0	ug/kg	SW846 8260B
Bromobenzene	ND	5.0	ug/kg	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichloropropane	ND	5.0	ug/kg	SW846 8260B
n-Propylbenzene	ND	5.0	ug/kg	SW846 8260B
2-Chlorotoluene	ND	5.0	ug/kg	SW846 8260B
4-Chlorotoluene	ND	5.0	ug/kg	SW846 8260B
1,3,5-Trimethylbenzene	ND	5.0	ug/kg	SW846 8260B
tert-Butylbenzene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trimethylbenzene	ND	5.0	ug/kg	SW846 8260B
sec-Butylbenzene	ND	5.0	ug/kg	SW846 8260B
1,3-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,4-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichlorobenzene	ND	5.0	ug/kg	SW846 8260B
n-Butylbenzene	ND	5.0	ug/kg	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	10	ug/kg	SW846 8260B
1,2,4-Trichloro-benzene	ND	5.0	ug/kg	SW846 8260B
Hexachlorobutadiene	ND	5.0	ug/kg	SW846 8260B
1,2,3-Trichlorobenzene	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	110	(70 - 130)
1,2-Dichloroethane-d4	81	(60 - 140)
Toluene-d8	95	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: E1B160288
MB Lot-Sample #: E1B200000-278
Work Order #...: DWDH61AA
Matrix.....: SOLID
Prep Date.....: 02/19/01
Analysis Time..: 10:55
Analysis Date..: 02/19/01
Prep Batch #...: 1051278
Instrument ID..: G16
Dilution Factor: 1
Analyst ID.....: 001464

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
C6-C8	ND	1.0	mg/kg	SW846 8015B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	78	(60 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: E1B150000-471 **Prep Batch #...:** 1046471						
Mercury	ND	0.10	mg/kg	SW846 7471A	02/16-02/17/01	DV7PT1AA
		Dilution Factor: 1				
		Analysis Time..: 10:30		Analyst ID.....: 021088	Instrument ID..: M04	
MB Lot-Sample #: E1B160000-263 **Prep Batch #...:** 1047263						
Aluminum	ND	20.0	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AA
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Arsenic	ND	1.0	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AC
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Antimony	ND	6.0	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AD
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Barium	ND	2.0	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AE
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Cadmium	ND	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AF
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Chromium	**0.12 B**	**1.0**	**mg/kg**	**SW846 6010B**	**02/16-02/19/01**	**DV8G41AG**
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Beryllium	ND	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AH
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Lead	ND	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AJ
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Selenium	ND	0.50	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AK
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	ND	1.0	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AL
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Cobalt	ND	5.0	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AM
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Copper	ND	2.5	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AN
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Molybdenum	ND	4.0	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AP
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Nickel	ND	4.0	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AQ
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Thallium	ND	1.0	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AR
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Vanadium	ND	5.0	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AT
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	
Zinc	ND	2.0	mg/kg	SW846 6010B	02/16-02/19/01	DV8G41AU
		Dilution Factor: 1				
		Analysis Time..: 17:00		Analyst ID.....: 003119	Instrument ID..: M01	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

8 Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: E1B160288 **Work Order #...:** DWA1F1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: G1B190000-301 DWA1F1AD-LCSD
Prep Date.....: 02/19/01 **Analysis Date..:** 02/27/01
Prep Batch #...: 1050301 **Analysis Time..:** 18:39
Dilution Factor: 1 **Instrument ID..:** LC7
Analyst ID.....: 057134

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Acenaphthene	1330	971	ug/kg	73		SW846 8310
	1330	967	ug/kg	73	0.35	SW846 8310
Acenaphthylene	667	436	ug/kg	65		SW846 8310
	667	483	ug/kg	72	10	SW846 8310
Anthracene	26.6	17.6	ug/kg	66		SW846 8310
	26.6	19.8	ug/kg	74	12	SW846 8310
Benzo(a)anthracene	66.7	55.1	ug/kg	83		SW846 8310
	66.7	57.3	ug/kg	86	4.0	SW846 8310
Benzo(a)pyrene	**66.7**	**44.0**	**ug/kg**	**66**		**SW846 8310**
	66.7	**53.6**	**ug/kg**	**80**	**20**	**SW846 8310**
Benzo(b)fluoranthene	26.6	21.5	ug/kg	81		SW846 8310
	26.6	23.0	ug/kg	86	6.5	SW846 8310
Benzo(ghi)perylene	106	86.8	ug/kg	82		SW846 8310
	106	91.9	ug/kg	86	5.7	SW846 8310
Benzo(k)fluoranthene	26.6	20.6	ug/kg	77		SW846 8310
	26.6	22.1	ug/kg	83	7.0	SW846 8310
Chrysene	66.7	53.2	ug/kg	80		SW846 8310
	66.7	57.5	ug/kg	86	7.7	SW846 8310
Dibenz(a,h)anthracene	266	207	ug/kg	78		SW846 8310
	266	215	ug/kg	81	4.0	SW846 8310
Fluoranthene	66.7	53.6	ug/kg	80		SW846 8310
	66.7	55.7	ug/kg	84	3.8	SW846 8310
Fluorene	**133**	**97.8**	**ug/kg**	**74**		**SW846 8310**
	133	**96.9**	**ug/kg**	**73**	**0.93**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**66.7**	**52.8**	**ug/kg**	**79**		**SW846 8310**
	66.7	**57.2**	**ug/kg**	**86**	**7.9**	**SW846 8310**
Naphthalene	**667**	**460**	**ug/kg**	**69**		**SW846 8310**
	667	**467**	**ug/kg**	**70**	**1.5**	**SW846 8310**
Phenanthrene	53.2	41.0	ug/kg	77		SW846 8310
	53.2	41.2	ug/kg	77	0.50	SW846 8310
Pyrene	**133**	**110**	**ug/kg**	**82**		**SW846 8310**
	133	**113**	**ug/kg**	**85**	**3.1**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Methylnaphthalene	68	(41 - 115)
	67	(41 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: E1B160288 **Work Order #...:** DWA1F1AC-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: G1B190000-301 DWA1F1AD-LCSD
Prep Date.....: 02/19/01 **Analysis Date..:** 02/27/01
Prep Batch #...: 1050301 **Analysis Time..:** 18:39
Dilution Factor: 1 **Instrument ID..:** LC7
Analyst ID.....: 057134

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Acenaphthene	73	(50 - 150)			SW846 8310
	73	(50 - 150)	0.35	(0-50)	SW846 8310
Acenaphthylene	65	(50 - 150)			SW846 8310
	72	(50 - 150)	10	(0-50)	SW846 8310
Anthracene	66	(50 - 150)			SW846 8310
	74	(50 - 150)	12	(0-50)	SW846 8310
Benzo(a)anthracene	83	(50 - 150)			SW846 8310
	86	(50 - 150)	4.0	(0-50)	SW846 8310
Benzo(a)pyrene	**66**	**(49 - 107)**			**SW846 8310**
	80	**(49 - 107)**	**20**	**(0-53)**	**SW846 8310**
Benzo(b)fluoranthene	81	(50 - 150)			SW846 8310
	86	(50 - 150)	6.5	(0-50)	SW846 8310
Benzo(ghi)perylene	82	(50 - 150)			SW846 8310
	86	(50 - 150)	5.7	(0-50)	SW846 8310
Benzo(k)fluoranthene	77	(50 - 150)			SW846 8310
	83	(50 - 150)	7.0	(0-50)	SW846 8310
Chrysene	80	(50 - 150)			SW846 8310
	86	(50 - 150)	7.7	(0-50)	SW846 8310
Dibenz(a,h)anthracene	78	(50 - 150)			SW846 8310
	81	(50 - 150)	4.0	(0-50)	SW846 8310
Fluoranthene	80	(50 - 150)			SW846 8310
	84	(50 - 150)	3.8	(0-50)	SW846 8310
Fluorene	**74**	**(43 - 112)**			**SW846 8310**
	73	(43 - 112)	0.93	(0-56)	SW846 8310
Indeno(1,2,3-cd)pyrene	**79**	**(54 - 114)**			**SW846 8310**
	86	**(54 - 114)**	**7.9**	**(0-51)**	**SW846 8310**
Naphthalene	**69**	**(44 - 110)**			**SW846 8310**
	70	**(44 - 110)**	**1.5**	**(0-50)**	**SW846 8310**
Phenanthrene	77	(50 - 150)			SW846 8310
	77	(50 - 150)	0.50	(0-50)	SW846 8310
Pyrene	**82**	**(49 - 115)**			**SW846 8310**
	85	**(49 - 115)**	**3.1**	**(0-54)**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1-Methylnaphthalene	68	(41 - 115)
	67	(41 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: E1B160288
LCS Lot-Sample#: E1B160000-422
Prep Date.....: 02/16/01
Prep Batch #...: 1047422
Dilution Factor: 1
Analyst ID.....: 356074

Work Order #...: DV9G51AC
Analysis Date..: 02/19/01
Analysis Time..: 11:23
Instrument ID..: G01

Matrix.....: SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
TPH (as Diesel)	250	211	**mg/kg**	**84**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	90	(60 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E1B160288
LCS Lot-Sample#: E1B190000-518
Prep Date.....: 02/16/01
Prep Batch #...: 1050518
Dilution Factor: 1
Analyst ID.....: 015590

Work Order #...: DWCH31AC
Analysis Date..: 02/16/01
Analysis Time..: 17:39
Instrument ID..: MSG

Matrix.....: SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
1,1-Dichloroethene	50.0	59.2	ug/kg	118	SW846 8260B
Benzene	50.0	61.9	ug/kg	124	SW846 8260B
Trichloroethene	50.0	63.0	ug/kg	126	SW846 8260B
Toluene	50.0	51.5	ug/kg	103	SW846 8260B
Chlorobenzene	50.0	51.2	ug/kg	102	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	113	(70 - 130)
1,2-Dichloroethane-d4	84	(60 - 140)
Toluene-d8	95	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: E1B160288 **Work Order #...:** DWDH61AC **Matrix.....:** SOLID
LCS Lot-Sample#: E1B200000-278
Prep Date.....: 02/19/01 **Analysis Date..:** 02/19/01
Prep Batch #...: 1051278 **Analysis Time..:** 10:26
Dilution Factor: 1 **Instrument ID..:** G16
Analyst ID.....: 001464

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
TPH (as Gasoline)	5.00	4.91	**mg/kg**	**98**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	106	(60 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E1B150000-471 **Prep Batch #...:** 1046471							
Mercury	0.833	0.827	mg/kg	99	SW846 7471A	02/16-02/17/01	DV7PT1AC
Dilution Factor: 1							
Analysis Time..: 10:32					Analyst ID.....: 021088	Instrument ID..: M04	
LCS Lot-Sample#: E1B160000-263 **Prep Batch #...:** 1047263							
Aluminum	200	192	mg/kg	96	SW846 6010B	02/16-02/19/01	DV8G41AV
Dilution Factor: 1							
Analysis Time..: 17:06					Analyst ID.....: 003119	Instrument ID..: M01	
Arsenic	200	195	mg/kg	98	SW846 6010B	02/16-02/19/01	DV8G41AW
Dilution Factor: 1							
Analysis Time..: 17:06					Analyst ID.....: 003119	Instrument ID..: M01	
Antimony	50.0	49.7	mg/kg	99	SW846 6010B	02/16-02/19/01	DV8G41AX
Dilution Factor: 1							
Analysis Time..: 17:06					Analyst ID.....: 003119	Instrument ID..: M01	
Barium	200	203	mg/kg	101	SW846 6010B	02/16-02/19/01	DV8G41A0
Dilution Factor: 1							
Analysis Time..: 17:06					Analyst ID.....: 003119	Instrument ID..: M01	
Cadmium	5.00	5.20	mg/kg	104	SW846 6010B	02/16-02/19/01	DV8G41A1
Dilution Factor: 1							
Analysis Time..: 17:06					Analyst ID.....: 003119	Instrument ID..: M01	
Chromium	20.0	20.9	mg/kg	104	SW846 6010B	02/16-02/19/01	DV8G41A2
Dilution Factor: 1							
Analysis Time..: 17:06					Analyst ID.....: 003119	Instrument ID..: M01	
Beryllium	5.00	5.25	mg/kg	105	SW846 6010B	02/16-02/19/01	DV8G41A3
Dilution Factor: 1							
Analysis Time..: 17:06					Analyst ID.....: 003119	Instrument ID..: M01	
Lead	50.0	49.5	mg/kg	99	SW846 6010B	02/16-02/19/01	DV8G41A4
Dilution Factor: 1							
Analysis Time..: 17:06					Analyst ID.....: 003119	Instrument ID..: M01	
Selenium	200	193	mg/kg	96	SW846 6010B	02/16-02/19/01	DV8G41A5
Dilution Factor: 1							
Analysis Time..: 17:06					Analyst ID.....: 003119	Instrument ID..: M01	

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	5.00	4.97	mg/kg	99	SW846 6010B	02/16-02/19/01	DV8G41A6
			Dilution Factor: 1				
			Analysis Time..: 17:06		Analyst ID.....: 003119	Instrument ID..: M01	
Cobalt	50.0	52.1	mg/kg	104	SW846 6010B	02/16-02/19/01	DV8G41A7
			Dilution Factor: 1				
			Analysis Time..: 17:06		Analyst ID.....: 003119	Instrument ID..: M01	
Copper	25.0	25.1	mg/kg	100	SW846 6010B	02/16-02/19/01	DV8G41A8
			Dilution Factor: 1				
			Analysis Time..: 17:06		Analyst ID.....: 003119	Instrument ID..: M01	
Molybdenum	100	99.1	mg/kg	99	SW846 6010B	02/16-02/19/01	DV8G41A9
			Dilution Factor: 1				
			Analysis Time..: 17:06		Analyst ID.....: 003119	Instrument ID..: M01	
Nickel	50.0	51.4	mg/kg	103	SW846 6010B	02/16-02/19/01	DV8G41CA
			Dilution Factor: 1				
			Analysis Time..: 17:06		Analyst ID.....: 003119	Instrument ID..: M01	
Thallium	200	202	mg/kg	101	SW846 6010B	02/16-02/19/01	DV8G41CC
			Dilution Factor: 1				
			Analysis Time..: 17:06		Analyst ID.....: 003119	Instrument ID..: M01	
Vanadium	50.0	50.8	mg/kg	102	SW846 6010B	02/16-02/19/01	DV8G41CD
			Dilution Factor: 1				
			Analysis Time..: 17:06		Analyst ID.....: 003119	Instrument ID..: M01	
Zinc	50.0	50.7	mg/kg	101	SW846 6010B	02/16-02/19/01	DV8G41CE
			Dilution Factor: 1				
			Analysis Time..: 17:06		Analyst ID.....: 003119	Instrument ID..: M01	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: E1B160288 **Work Order #...:** DV9G51AC **Matrix.....:** SOLID
LCS Lot-Sample#: E1B160000-422
Prep Date.....: 02/16/01 **Analysis Date..:** 02/19/01
Prep Batch #...: 1047422 **Analysis Time..:** 11:23
Dilution Factor: 1 **Instrument ID..:** G01
Analyst ID.....: 356074

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TPH (as Diesel)	**84**	**(60 - 130)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	90	(60 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E1B160288 **Work Order #...:** DWCH31AC **Matrix.....:** SOLID
LCS Lot-Sample#: E1B190000-518
Prep Date.....: 02/16/01 **Analysis Date..:** 02/16/01
Prep Batch #...: 1050518 **Analysis Time..:** 17:39
Dilution Factor: 1 **Instrument ID..:** MSG
Analyst ID.....: 015590

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
1,1-Dichloroethene	**118**	**(60 - 150)**	**SW846 8260B**
Benzene	**124**	**(70 - 140)**	**SW846 8260B**
Trichloroethene	**126**	**(70 - 130)**	**SW846 8260B**
Toluene	**103**	**(70 - 130)**	**SW846 8260B**
Chlorobenzene	**102**	**(70 - 130)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	113	(70 - 130)
1,2-Dichloroethane-d4	84	(60 - 140)
Toluene-d8	95	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: E1B160288
LCS Lot-Sample#: E1B200000-278
Prep Date.....: 02/19/01
Prep Batch #...: 1051278
Dilution Factor: 1
Analyst ID.....: 001464

Work Order #...: DWDH61AC
Analysis Date..: 02/19/01
Analysis Time..: 10:26
Instrument ID..: G16

Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TPH (as Gasoline)	**98**	**(80 - 140)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	106	(60 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: E1B150000-471 **Prep Batch #...:** 1046471					
Mercury	99	(85 - 115)	SW846 7471A	02/16-02/17/01	DV7PT1AC
		Dilution Factor: 1			
		Analysis Time..: 10:32	Analyst ID.....: 021088	Instrument ID..: M04	
LCS Lot-Sample#: E1B160000-263 **Prep Batch #...:** 1047263					
Aluminum	96	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41AV
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Arsenic	98	(75 - 115)	SW846 6010B	02/16-02/19/01	DV8G41AW
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Antimony	99	(75 - 115)	SW846 6010B	02/16-02/19/01	DV8G41AX
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Barium	101	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41A0
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Cadmium	104	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41A1
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Chromium	104	(85 - 120)	SW846 6010B	02/16-02/19/01	DV8G41A2
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Beryllium	105	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41A3
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Lead	99	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41A4
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Selenium	96	(70 - 115)	SW846 6010B	02/16-02/19/01	DV8G41A5
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Silver	99	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41A6
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Cobalt	104	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41A7
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Copper	100	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41A8
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Molybdenum	99	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41A9
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Nickel	103	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41CA
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Thallium	101	(75 - 120)	SW846 6010B	02/16-02/19/01	DV8G41CC
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Vanadium	102	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41CD
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	
Zinc	101	(80 - 120)	SW846 6010B	02/16-02/19/01	DV8G41CE
		Dilution Factor: 1			
		Analysis Time..: 17:06	Analyst ID.....: 003119	Instrument ID..: M01	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID
Date Sampled...: 02/13/01 09:55 **Date Received...:** 02/14/01 17:00

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E1B140272-002 **Prep Batch #...:** 1046471									
Mercury									
	ND	0.167	0.183	mg/kg	110		SW846 7471A	02/16-02/17/01	DV5NN1C3
	ND	0.167	0.172	mg/kg	103	6.6	SW846 7471A	02/16-02/17/01	DV5NN1C4

Dilution Factor: 1
Analysis Time..: 10:35 Instrument ID..: M04 Analyst ID.....: 021088
MS Run #.....: 1046229

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E1B160288 **Work Order #...:** DV7QD1AE-MS **Matrix.....:** SOLID
MS Lot-Sample #: E1B150298-004 DV7QD1AF-MSD
Date Sampled...: 02/14/01 13:50 **Date Received..:** 02/15/01 17:05 **MS Run #.....:** 1050291
Prep Date.....: 02/16/01 **Analysis Date..:** 02/16/01
Prep Batch #...: 1050518 **Analysis Time..:** 20:36
Dilution Factor: 1 **Analyst ID.....:** 015590 **Instrument ID..:** MSG

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
1,1-Dichloroethene	**ND**	50.0	51.6	ug/kg	103		SW846 8260B
	ND	50.0	51.2	ug/kg	102	0.68	SW846 8260B
Benzene	**ND**	50.0	56.7	ug/kg	113		SW846 8260B
	ND	50.0	55.6	ug/kg	111	2.0	SW846 8260B
Trichloroethene	**ND**	50.0	57.2	ug/kg	114		SW846 8260B
	ND	50.0	57.9	ug/kg	116	1.2	SW846 8260B
Toluene	**ND**	50.0	47.4	ug/kg	95		SW846 8260B
	ND	50.0	46.2	ug/kg	92	2.5	SW846 8260B
Chlorobenzene	**ND**	50.0	48.2	ug/kg	96		SW846 8260B
	ND	50.0	47.6	ug/kg	95	1.2	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	106	(70 - 130)
	110	(70 - 130)
1,2-Dichloroethane-d4	93	(60 - 140)
	92	(60 - 140)
Toluene-d8	95	(70 - 130)
	95	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID
Date Sampled...: 02/14/01 15:25 **Date Received..:** 02/15/01 17:05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT		UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E1B150298-007 **Prep Batch #...:** 1047263										
Aluminum										
	15200	200	15900	NC	mg/kg			SW846 6010B	02/16-02/19/01	DV7QG1A1
	15200	200	15700	NC	mg/kg			SW846 6010B	02/16-02/19/01	DV7QG1A2
			Dilution Factor: 1							
			Analysis Time..: 17:57				Instrument ID..: M01		Analyst ID.....: 003119	
			MS Run #.....: 1047116							
Arsenic										
	3.0	200	187		mg/kg	92		SW846 6010B	02/16-02/19/01	DV7QG1A3
	3.0	200	189		mg/kg	93	1.1	SW846 6010B	02/16-02/19/01	DV7QG1A4
			Dilution Factor: 1							
			Analysis Time..: 17:57				Instrument ID..: M01		Analyst ID.....: 003119	
			MS Run #.....: 1047116							
Antimony										
	ND	50.0	12.7	N	mg/kg	25		SW846 6010B	02/16-02/19/01	DV7QG1A5
	ND	50.0	11.3	N	mg/kg	23	11	SW846 6010B	02/16-02/19/01	DV7QG1A6
			Dilution Factor: 1							
			Analysis Time..: 17:57				Instrument ID..: M01		Analyst ID.....: 003119	
			MS Run #.....: 1047116							
Barium										
	87.9	200	275		mg/kg	93		SW846 6010B	02/16-02/19/01	DV7QG1A7
	87.9	200	281		mg/kg	96	2.2	SW846 6010B	02/16-02/19/01	DV7QG1A8
			Dilution Factor: 1							
			Analysis Time..: 17:57				Instrument ID..: M01		Analyst ID.....: 003119	
			MS Run #.....: 1047116							
Cadmium										
	0.31	5.00	5.24		mg/kg	98		SW846 6010B	02/16-02/19/01	DV7QG1A9
	0.31	5.00	5.22		mg/kg	98	0.36	SW846 6010B	02/16-02/19/01	DV7QG1CA
			Dilution Factor: 1							
			Analysis Time..: 17:57				Instrument ID..: M01		Analyst ID.....: 003119	
			MS Run #.....: 1047116							
Chromium										
	23.5	20.0	43.4		mg/kg	99		SW846 6010B	02/16-02/19/01	DV7QG1CC
	23.5	20.0	42.1		mg/kg	93	3.0	SW846 6010B	02/16-02/19/01	DV7QG1CD
			Dilution Factor: 1							
			Analysis Time..: 17:57				Instrument ID..: M01		Analyst ID.....: 003119	
			MS Run #.....: 1047116							

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID
Date Sampled...: 02/14/01 15:25 **Date Received..:** 02/15/01 17:05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT		UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Beryllium										
	0.48	5.00	5.40		mg/kg	98		SW846 6010B	02/16-02/19/01	DV7QG1CE
	0.48	5.00	5.43		mg/kg	99	0.55	SW846 6010B	02/16-02/19/01	DV7QG1CF
				Dilution Factor: 1						
				Analysis Time..: 17:57			Instrument ID..: M01		Analyst ID.....: 003119	
				MS Run #.....: 1047116						
Lead										
	6.0	50.0	50.9		mg/kg	90		SW846 6010B	02/16-02/19/01	DV7QG1CG
	6.0	50.0	90.4	N,*	mg/kg	169	56	SW846 6010B	02/16-02/19/01	DV7QG1CH
				Dilution Factor: 1						
				Analysis Time..: 17:57			Instrument ID..: M01		Analyst ID.....: 003119	
				MS Run #.....: 1047116						
Selenium										
	ND	200	181		mg/kg	91		SW846 6010B	02/16-02/19/01	DV7QG1CJ
	ND	200	184		mg/kg	92	1.3	SW846 6010B	02/16-02/19/01	DV7QG1CK
				Dilution Factor: 1						
				Analysis Time..: 17:57			Instrument ID..: M01		Analyst ID.....: 003119	
				MS Run #.....: 1047116						
Silver										
	ND	5.00	4.55		mg/kg	91		SW846 6010B	02/16-02/19/01	DV7QG1CL
	ND	5.00	4.72		mg/kg	94	3.6	SW846 6010B	02/16-02/19/01	DV7QG1CM
				Dilution Factor: 1						
				Analysis Time..: 17:57			Instrument ID..: M01		Analyst ID.....: 003119	
				MS Run #.....: 1047116						
Cobalt										
	6.6	50.0	55.3		mg/kg	97		SW846 6010B	02/16-02/19/01	DV7QG1CN
	6.6	50.0	55.8		mg/kg	98	0.93	SW846 6010B	02/16-02/19/01	DV7QG1CP
				Dilution Factor: 1						
				Analysis Time..: 17:57			Instrument ID..: M01		Analyst ID.....: 003119	
				MS Run #.....: 1047116						
Copper										
	23.6	25.0	51.1		mg/kg	110		SW846 6010B	02/16-02/19/01	DV7QG1CQ
	23.6	25.0	41.1	N	mg/kg	70	22	SW846 6010B	02/16-02/19/01	DV7QG1CR
				Dilution Factor: 1						
				Analysis Time..: 17:57			Instrument ID..: M01		Analyst ID.....: 003119	
				MS Run #.....: 1047116						
Molybdenum										
	0.57	100	91.0		mg/kg	90		SW846 6010B	02/16-02/19/01	DV7QG1CT
	0.57	100	91.4		mg/kg	91	0.45	SW846 6010B	02/16-02/19/01	DV7QG1CU
				Dilution Factor: 1						
				Analysis Time..: 17:57			Instrument ID..: M01		Analyst ID.....: 003119	
				MS Run #.....: 1047116						

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID
Date Sampled...: 02/14/01 15:25 **Date Received..:** 02/15/01 17:05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel									
	13.4	50.0	61.6	mg/kg	96		SW846 6010B	02/16-02/19/01	DV7QG1CV
	13.4	50.0	61.1	mg/kg	95	0.83	SW846 6010B	02/16-02/19/01	DV7QG1CW
				Dilution Factor: 1					
				Analysis Time..: 17:57		Instrument ID..: M01		Analyst ID.....: 003119	
				MS Run #.....: 1047116					
Thallium									
	ND	200	191	mg/kg	96		SW846 6010B	02/16-02/19/01	DV7QG1CX
	ND	200	192	mg/kg	96	0.52	SW846 6010B	02/16-02/19/01	DV7QG1C0
				Dilution Factor: 1					
				Analysis Time..: 17:57		Instrument ID..: M01		Analyst ID.....: 003119	
				MS Run #.....: 1047116					
Vanadium									
	40.5	50.0	88.0	mg/kg	95		SW846 6010B	02/16-02/19/01	DV7QG1C1
	40.5	50.0	89.0	mg/kg	97	1.1	SW846 6010B	02/16-02/19/01	DV7QG1C2
				Dilution Factor: 1					
				Analysis Time..: 17:57		Instrument ID..: M01		Analyst ID.....: 003119	
				MS Run #.....: 1047116					
Zinc									
	44.3	50.0	96.5	mg/kg	104		SW846 6010B	02/16-02/19/01	DV7QG1C3
	44.3	50.0	89.6	mg/kg	90	7.4	SW846 6010B	02/16-02/19/01	DV7QG1C4
				Dilution Factor: 1					
				Analysis Time..: 17:57		Instrument ID..: M01		Analyst ID.....: 003119	
				MS Run #.....: 1047116					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: E1B160288 **Work Order #...:** DV7Q41AE-MS **Matrix.....:** SOLID
MS Lot-Sample #: E1B150298-022 DV7Q41AF-MSD
Date Sampled...: 02/15/01 09:55 **Date Received..:** 02/15/01 17:05 **MS Run #.....:** 1047232
Prep Date.....: 02/16/01 **Analysis Date..:** 02/19/01
Prep Batch #...: 1047422 **Analysis Time..:** 13:54
Dilution Factor: 1 **Analyst ID.....:** 356074 **Instrument ID..:** G01

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
TPH (as Diesel)	**ND**	**250**	**190**	**mg/kg**	**76**		**SW846 8015B**
	ND	**250**	**204**	**mg/kg**	**81**	**6.7**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	79	(60 - 130)
	84	(60 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: E1B160288 **Work Order #...:** DV7RD1AE-MS **Matrix.....:** SOLID
MS Lot-Sample #: E1B150298-028 DV7RD1AF-MSD
Date Sampled...: 02/15/01 12:25 **Date Received..:** 02/15/01 17:05 **MS Run #.....:** 1051151
Prep Date.....: 02/19/01 **Analysis Date..:** 02/19/01
Prep Batch #...: 1051278 **Analysis Time..:** 16:08
Dilution Factor: 1 **Analyst ID.....:** 001464 **Instrument ID..:** G16

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
TPH (as Gasoline)	**ND**	5.00	5.43	**mg/kg**	**109**		**SW846 8015B**
	ND	5.00	5.30	**mg/kg**	**106**	**2.4**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	122	(60 - 130)
	114	(60 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID
Date Sampled...: 02/13/01 09:55 **Date Received..:** 02/14/01 17:00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E1B140272-002 **Prep Batch #...:** 1046471							
Mercury	110	(80 - 120)			SW846 7471A	02/16-02/17/01	DV5NN1C3
	103	(80 - 120)	6.6	(0-20)	SW846 7471A	02/16-02/17/01	DV5NN1C4

Dilution Factor: 1
Analysis Time..: 10:35 Instrument ID..: M04 Analyst ID.....: 021088
MS Run #.....: 1046229

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E1B160288 **Work Order #...:** DV7QD1AE-MS **Matrix.....:** SOLID
MS Lot-Sample #: E1B150298-004 DV7QD1AF-MSD
Date Sampled...: 02/14/01 13:50 **Date Received..:** 02/15/01 17:05 **MS Run #.....:** 1050291
Prep Date.....: 02/16/01 **Analysis Date..:** 02/16/01
Prep Batch #...: 1050518 **Analysis Time..:** 20:36
Dilution Factor: 1 **Analyst ID.....:** 015590 **Instrument ID..:** MSG

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethene	**103**	(60 - 150)			**SW846 8260B**
	102	(60 - 150)	0.68	(0-30)	**SW846 8260B**
Benzene	**113**	(70 - 140)			**SW846 8260B**
	111	(70 - 140)	2.0	(0-30)	**SW846 8260B**
Trichloroethene	**114**	(70 - 130)			**SW846 8260B**
	116	(70 - 130)	1.2	(0-30)	**SW846 8260B**
Toluene	**95**	(70 - 130)			**SW846 8260B**
	92	(70 - 130)	2.5	(0-30)	**SW846 8260B**
Chlorobenzene	**96**	(70 - 130)			**SW846 8260B**
	95	(70 - 130)	1.2	(0-30)	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	106	(70 - 130)
	110	(70 - 130)
1,2-Dichloroethane-d4	93	(60 - 140)
	92	(60 - 140)
Toluene-d8	95	(70 - 130)
	95	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID
Date Sampled...: 02/14/01 15:25 **Date Received..:** 02/15/01 17:05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: E1B150298-007 **Prep Batch #...:** 1047263							
Aluminum	NC	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1A1
	NC	(80 - 120)		(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1A2
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Arsenic	92	(75 - 115)			SW846 6010B	02/16-02/19/01	DV7QG1A3
	93	(75 - 115)	1.1	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1A4
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Antimony	25 N	(75 - 115)			SW846 6010B	02/16-02/19/01	DV7QG1A5
	23 N	(75 - 115)	11	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1A6
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Barium	93	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1A7
	96	(80 - 120)	2.2	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1A8
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Cadmium	98	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1A9
	98	(80 - 120)	0.36	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1CA
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Chromium	99	(85 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1CC
	93	(85 - 120)	3.0	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1CD
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Beryllium	98	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1CE
	99	(80 - 120)	0.55	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1CF
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID
Date Sampled...: 02/14/01 15:25 **Date Received..:** 02/15/01 17:05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead	90	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1CG
	169 N,*	(80 - 120)	56	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1CH
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Selenium	91	(70 - 115)			SW846 6010B	02/16-02/19/01	DV7QG1CJ
	92	(70 - 115)	1.3	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1CK
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Silver	91	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1CL
	94	(80 - 120)	3.6	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1CM
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Cobalt	97	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1CN
	98	(80 - 120)	0.93	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1CP
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Copper	110	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1CQ
	70 N	(80 - 120)	22	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1CR
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Molybdenum	90	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1CT
	91	(80 - 120)	0.45	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1CU
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Nickel	96	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1CV
	95	(80 - 120)	0.83	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1CW
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					
Thallium	96	(75 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1CX
	96	(75 - 120)	0.52	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1C0
		Dilution Factor: 1					
		Analysis Time..: 17:57			Instrument ID..: M01	Analyst ID.....: 003119	
		MS Run #.....: 1047116					

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: E1B160288 **Matrix.....:** SOLID
Date Sampled...: 02/14/01 15:25 **Date Received..:** 02/15/01 17:05

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Vanadium	95	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1C1
	97	(80 - 120)	1.1	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1C2

Dilution Factor: 1
Analysis Time..: 17:57 Instrument ID..: M01 Analyst ID.....: 003119
MS Run #.....: 1047116

Zinc	104	(80 - 120)			SW846 6010B	02/16-02/19/01	DV7QG1C3
	90	(80 - 120)	7.4	(0-25)	SW846 6010B	02/16-02/19/01	DV7QG1C4

Dilution Factor: 1
Analysis Time..: 17:57 Instrument ID..: M01 Analyst ID.....: 003119
MS Run #.....: 1047116

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

N Spiked analyte recovery is outside stated control limits.

* Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...:	E1B160288	**Work Order #...:**	DV7Q41AE-MS DV7Q41AF-MSD	**Matrix.....:**	SOLID
MS Lot-Sample #:	E1B150298-022				
Date Sampled...:	02/15/01 09:55	**Date Received..:**	02/15/01 17:05	**MS Run #.....:**	1047232
Prep Date.....:	02/16/01	**Analysis Date..:**	02/19/01		
Prep Batch #...:	1047422	**Analysis Time..:**	13:54		
Dilution Factor:	1	**Analyst ID.....:**	356074	**Instrument ID..:**	G01

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
TPH (as Diesel)	**76**	(60 - 130)			**SW846 8015B**
	81	(60 - 130)	6.7	(0-35)	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	79	(60 - 130)
	84	(60 - 130)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: E1B160288
MS Lot-Sample #: E1B150298-028
Date Sampled...: 02/15/01 12:25
Prep Date.....: 02/19/01
Prep Batch #...: 1051278
Dilution Factor: 1

Work Order #...: DV7RD1AE-MS
DV7RD1AF-MSD
Date Received..: 02/15/01 17:05
Analysis Date..: 02/19/01
Analysis Time..: 16:08
Analyst ID.....: 001464

Matrix.....: SOLID
MS Run #.....: 1051151
Instrument ID..: G16

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
TPH (as Gasoline)	109	(80 - 140)			SW846 8015B
	106	(80 - 140)	2.4	(0-40)	SW846 8015B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	122	(60 - 130)
	114	(60 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters