

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 720-91268-1

Client Project/Site: Foothill Expressway Operational Improvem

For:

County of Santa Clara
2310 N. First Street
San Jose, California 95131-1040

Attn: Chris Ellsbury



Authorized for release by:

2/18/2019 4:31:08 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Job ID: 720-91268-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-91268-1

Comments

No additional comments.

Receipt

The sample was received on 2/8/2019 12:25 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.5° C.

GC/MS VOA

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 720-260268 and analytical batch 720-260260 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 720-260039 and analytical batch 720-260273 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) 8082: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 720-260139 and analytical batch 720-260263 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: (LCS 720-260139/2-A), (MB 720-260139/1-A), (720-91257-A-4-A MS) and (720-91257-A-4-B MSD).

Method(s) 8082: The following sample required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: FEME020719 (720-91268-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 720-260100 and analytical batch 720-260330 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6010B: The serial dilution performed for the following sample associated with batch 720-260330 was outside control limits for Barium-37%, Cobalt-33%, Chromium-41%, Nickel-33%, Vanadium-37%: (720-91267-A-1-D SD).

Method(s) 6010B: The following sample was diluted due to the abundance of non-target analytes: FEME020719 (720-91268-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Client Sample ID: FEME020719

Lab Sample ID: 720-91268-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	580		330		ug/Kg	5		8270C	Total/NA
Anthracene	340		330		ug/Kg	5		8270C	Total/NA
Fluoranthene	740		330		ug/Kg	5		8270C	Total/NA
Pyrene	1900		330		ug/Kg	5		8270C	Total/NA
Chrysene	1600		640		ug/Kg	5		8270C	Total/NA
Benzo[b]fluoranthene	2000		330		ug/Kg	5		8270C	Total/NA
Benzo[a]pyrene	2000		330		ug/Kg	5		8270C	Total/NA
Benzo[k]fluoranthene	740		330		ug/Kg	5		8270C	Total/NA
Indeno[1,2,3-cd]pyrene	1200		330		ug/Kg	5		8270C	Total/NA
Benzo[g,h,i]perylene	2000		640		ug/Kg	5		8270C	Total/NA
Dibenz(a,h)anthracene	470		330		ug/Kg	5		8270C	Total/NA
Diesel Range Organics [C10-C28]	30		1.9		mg/Kg	1		8015B	Silica Gel Cleanup
Motor Oil Range Organics [C24-C36]	82		48		mg/Kg	1		8015B	Silica Gel Cleanup
Arsenic	85		3.5		mg/Kg	4		6010B	Total/NA
Barium	120		1.7		mg/Kg	4		6010B	Total/NA
Beryllium	1.2		0.35		mg/Kg	4		6010B	Total/NA
Chromium	170		1.7		mg/Kg	4		6010B	Total/NA
Cobalt	26		0.70		mg/Kg	4		6010B	Total/NA
Copper	57		5.2		mg/Kg	4		6010B	Total/NA
Lead	16		1.7		mg/Kg	4		6010B	Total/NA
Nickel	120		1.7		mg/Kg	4		6010B	Total/NA
Vanadium	120		1.7		mg/Kg	4		6010B	Total/NA
Zinc	77		5.2		mg/Kg	4		6010B	Total/NA
Mercury	0.28		0.016		mg/Kg	1		7471A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Client Sample ID: FEME020719

Lab Sample ID: 720-91268-1

Date Collected: 02/07/19 13:00

Matrix: Solid

Date Received: 02/08/19 12:25

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Acetone	ND		48		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Benzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Dichlorobromomethane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Bromobenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Chlorobromomethane	ND		19		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Bromoform	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Bromomethane	ND		9.7		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
2-Butanone (MEK)	ND		48		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
n-Butylbenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
sec-Butylbenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
tert-Butylbenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Carbon disulfide	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Carbon tetrachloride	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Chlorobenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Chloroethane	ND		9.7		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Chloroform	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Chloromethane	ND		9.7		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
2-Chlorotoluene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
4-Chlorotoluene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Chlorodibromomethane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,2-Dichlorobenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,3-Dichlorobenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,4-Dichlorobenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,3-Dichloropropane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,1-Dichloropropane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,2-Dibromo-3-Chloropropane	ND		9.7		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Ethylene Dibromide	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Dibromomethane	ND		9.7		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Dichlorodifluoromethane	ND		9.7		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,1-Dichloroethane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,2-Dichloroethane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,1-Dichloroethene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
cis-1,2-Dichloroethene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
trans-1,2-Dichloroethene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,2-Dichloropropane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
cis-1,3-Dichloropropene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
trans-1,3-Dichloropropene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Ethylbenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Hexachlorobutadiene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
2-Hexanone	ND		48		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Isopropylbenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
4-Isopropyltoluene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Methylene Chloride	ND		9.7		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
4-Methyl-2-pentanone (MIBK)	ND		48		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Naphthalene	ND		9.7		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
N-Propylbenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Styrene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,1,1,2-Tetrachloroethane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1

TestAmerica Pleasanton

Client Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Client Sample ID: FEME020719

Lab Sample ID: 720-91268-1

Date Collected: 02/07/19 13:00

Matrix: Solid

Date Received: 02/08/19 12:25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Tetrachloroethene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Toluene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,2,3-Trichlorobenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,2,4-Trichlorobenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,1,1-Trichloroethane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,1,2-Trichloroethane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Trichloroethene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Trichlorofluoromethane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,2,3-Trichloropropane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,2,4-Trimethylbenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
1,3,5-Trimethylbenzene	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Vinyl acetate	ND		19		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Vinyl chloride	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Xylenes, Total	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
2,2-Dichloropropane	ND		4.8		ug/Kg		02/13/19 09:29	02/13/19 15:13	1
Gasoline Range Organics (GRO) -C4-C12	ND		240		ug/Kg		02/13/19 09:29	02/13/19 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		45 - 131	02/13/19 09:29	02/13/19 15:13	1
1,2-Dichloroethane-d4 (Surr)	112		60 - 140	02/13/19 09:29	02/13/19 15:13	1
Toluene-d8 (Surr)	101		58 - 140	02/13/19 09:29	02/13/19 15:13	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Bis(2-chloroethyl)ether	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2-Chlorophenol	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
1,3-Dichlorobenzene	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
1,4-Dichlorobenzene	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Benzyl alcohol	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
1,2-Dichlorobenzene	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2-Methylphenol	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Methylphenol, 3 & 4	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
N-Nitrosodi-n-propylamine	ND		640		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Hexachloroethane	ND		640		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Nitrobenzene	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Isophorone	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2-Nitrophenol	ND		640		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2,4-Dimethylphenol	ND		640		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Bis(2-chloroethoxy)methane	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2,4-Dichlorophenol	ND		1600		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
1,2,4-Trichlorobenzene	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Naphthalene	ND		640		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
4-Chloroaniline	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Hexachlorobutadiene	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
4-Chloro-3-methylphenol	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2-Methylnaphthalene	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5

TestAmerica Pleasanton

Client Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Client Sample ID: FEME020719

Lab Sample ID: 720-91268-1

Date Collected: 02/07/19 13:00

Matrix: Solid

Date Received: 02/08/19 12:25

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2,4,6-Trichlorophenol	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2,4,5-Trichlorophenol	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2-Chloronaphthalene	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2-Nitroaniline	ND		1600		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Dimethyl phthalate	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Acenaphthylene	580		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
3-Nitroaniline	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Acenaphthene	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2,4-Dinitrophenol	ND		3300		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
4-Nitrophenol	ND		1600		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Dibenzofuran	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2,4-Dinitrotoluene	ND		640		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2,6-Dinitrotoluene	ND		640		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Diethyl phthalate	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
4-Chlorophenyl phenyl ether	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Fluorene	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
4-Nitroaniline	ND		1600		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
2-Methyl-4,6-dinitrophenol	ND		1600		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
N-Nitrosodiphenylamine	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
4-Bromophenyl phenyl ether	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Hexachlorobenzene	ND		640		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Pentachlorophenol	ND		1600		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Phenanthrene	ND		640		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Anthracene	340		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Di-n-butyl phthalate	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Fluoranthene	740		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Pyrene	1900		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Butyl benzyl phthalate	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
3,3'-Dichlorobenzidine	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Benzo[a]anthracene	ND		1600		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Bis(2-ethylhexyl) phthalate	ND		1600		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Chrysene	1600		640		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Di-n-octyl phthalate	ND		840		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Benzo[b]fluoranthene	2000		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Benzo[a]pyrene	2000		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Benzo[k]fluoranthene	740		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Indeno[1,2,3-cd]pyrene	1200		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Benzo[g,h,i]perylene	2000		640		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Benzoic acid	ND		1600		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Azobenzene	ND		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5
Dibenz(a,h)anthracene	470		330		ug/Kg		02/11/19 11:04	02/15/19 03:09	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	68		21 - 98	02/11/19 11:04	02/15/19 03:09	5
2-Fluorobiphenyl	80		30 - 112	02/11/19 11:04	02/15/19 03:09	5
Terphenyl-d14	102		59 - 134	02/11/19 11:04	02/15/19 03:09	5
2-Fluorophenol	71		28 - 98	02/11/19 11:04	02/15/19 03:09	5
Phenol-d5	80		23 - 101	02/11/19 11:04	02/15/19 03:09	5

TestAmerica Pleasanton

Client Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Client Sample ID: FEME020719

Lab Sample ID: 720-91268-1

Date Collected: 02/07/19 13:00

Matrix: Solid

Date Received: 02/08/19 12:25

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	81		37 - 114	02/11/19 11:04	02/15/19 03:09	5

Method: 8015B - Diesel Range Organics (DRO) (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	30		1.9		mg/Kg		02/11/19 11:10	02/15/19 11:48	1
Motor Oil Range Organics [C24-C36]	82		48		mg/Kg		02/11/19 11:10	02/15/19 11:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	85		38 - 148	02/11/19 11:10	02/15/19 11:48	1
Capric Acid (Surr)	0		0 - 1	02/11/19 11:10	02/15/19 11:48	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Dieldrin	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Endrin aldehyde	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Endrin	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Endrin ketone	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Heptachlor	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Heptachlor epoxide	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
4,4'-DDT	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
4,4'-DDE	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
4,4'-DDD	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Endosulfan I	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Endosulfan II	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
alpha-BHC	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
beta-BHC	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
gamma-BHC (Lindane)	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
delta-BHC	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Endosulfan sulfate	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Methoxychlor	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Toxaphene	ND		38		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
Chlordane (technical)	ND		38		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
cis-Chlordane	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1
trans-Chlordane	ND		1.9		ug/Kg		02/11/19 08:56	02/15/19 10:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		21 - 145	02/11/19 08:56	02/15/19 10:47	1
DCB Decachlorobiphenyl	92	p	21 - 136	02/11/19 08:56	02/15/19 10:47	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		47		ug/Kg		02/11/19 11:15	02/14/19 22:44	1
PCB-1221	ND		47		ug/Kg		02/11/19 11:15	02/14/19 22:44	1
PCB-1232	ND		47		ug/Kg		02/11/19 11:15	02/14/19 22:44	1
PCB-1242	ND		47		ug/Kg		02/11/19 11:15	02/14/19 22:44	1
PCB-1248	ND		47		ug/Kg		02/11/19 11:15	02/14/19 22:44	1
PCB-1254	ND		47		ug/Kg		02/11/19 11:15	02/14/19 22:44	1
PCB-1260	ND		47		ug/Kg		02/11/19 11:15	02/14/19 22:44	1

TestAmerica Pleasanton

Client Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Client Sample ID: FEME020719

Lab Sample ID: 720-91268-1

Date Collected: 02/07/19 13:00

Matrix: Solid

Date Received: 02/08/19 12:25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90		45 - 132	02/11/19 11:15	02/14/19 22:44	1
DCB Decachlorobiphenyl	140		42 - 146	02/11/19 11:15	02/14/19 22:44	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		1.7		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Arsenic	85		3.5		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Barium	120		1.7		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Beryllium	1.2		0.35		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Cadmium	ND		0.43		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Chromium	170		1.7		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Cobalt	26		0.70		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Copper	57		5.2		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Lead	16		1.7		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Molybdenum	ND		1.7		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Nickel	120		1.7		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Selenium	ND		3.5		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Silver	ND		0.87		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Thallium	ND		1.7		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Vanadium	120		1.7		mg/Kg		02/09/19 11:11	02/13/19 18:24	4
Zinc	77		5.2		mg/Kg		02/09/19 11:11	02/13/19 18:24	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.28		0.016		mg/Kg		02/13/19 18:35	02/14/19 16:52	1

Surrogate Summary

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (45-131)	DCA (60-140)	TOL (58-140)
720-91268-1	FEME020719	104	112	101
LCS 720-260260/4	Lab Control Sample	106	113	106
LCS 720-260260/6	Lab Control Sample	108	113	105
LCSD 720-260260/5	Lab Control Sample Dup	106	113	107
LCSD 720-260260/7	Lab Control Sample Dup	105	112	104
MB 720-260260/8	Method Blank	105	112	103

Surrogate Legend

BFB = 4-Bromofluorobenzene
 DCA = 1,2-Dichloroethane-d4 (Surr)
 TOL = Toluene-d8 (Surr)

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	NBZ (21-98)	FBP (30-112)	TPHL (59-134)	2FP (28-98)	PHL (23-101)	TBP (37-114)
720-91268-1	FEME020719	68	80	102	71	80	81
LCS 720-260039/2-A	Lab Control Sample	81	80	92	64	62	78
MB 720-260039/1-A	Method Blank	74	77	115	65	62	72

Surrogate Legend

NBZ = Nitrobenzene-d5
 FBP = 2-Fluorobiphenyl
 TPHL = Terphenyl-d14
 2FP = 2-Fluorophenol
 PHL = Phenol-d5
 TBP = 2,4,6-Tribromophenol

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Silica Gel Cleanup

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TPH1 (38-148)	NDA1 (0-1)
720-91268-1	FEME020719	85	0
LCS 720-260128/2-A	Lab Control Sample	121	
MB 720-260128/1-A	Method Blank	104	0

Surrogate Legend

TPH = p-Terphenyl
 NDA = Capric Acid (Surr)

Surrogate Summary

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (21-145)	DCBP1 (21-136)
720-91268-1	FEME020719	86	92 p

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2 (21-145)	DCBP2 (21-136)
LCS 720-260121/2-A	Lab Control Sample	98	112
MB 720-260121/1-A	Method Blank	88	107

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (45-132)	DCBP1 (42-146)
720-91268-1	FEME020719	90	140
LCS 720-260139/2-A	Lab Control Sample	69	66
MB 720-260139/1-A	Method Blank	67	70

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-260260/8

Matrix: Solid

Analysis Batch: 260260

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/Kg			02/13/19 11:15	1
Acetone	ND		50		ug/Kg			02/13/19 11:15	1
Benzene	ND		5.0		ug/Kg			02/13/19 11:15	1
Dichlorobromomethane	ND		5.0		ug/Kg			02/13/19 11:15	1
Bromobenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
Chlorobromomethane	ND		20		ug/Kg			02/13/19 11:15	1
Bromoform	ND		5.0		ug/Kg			02/13/19 11:15	1
Bromomethane	ND		10		ug/Kg			02/13/19 11:15	1
2-Butanone (MEK)	ND		50		ug/Kg			02/13/19 11:15	1
n-Butylbenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
sec-Butylbenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
tert-Butylbenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
Carbon disulfide	ND		5.0		ug/Kg			02/13/19 11:15	1
Carbon tetrachloride	ND		5.0		ug/Kg			02/13/19 11:15	1
Chlorobenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
Chloroethane	ND		10		ug/Kg			02/13/19 11:15	1
Chloroform	ND		5.0		ug/Kg			02/13/19 11:15	1
Chloromethane	ND		10		ug/Kg			02/13/19 11:15	1
2-Chlorotoluene	ND		5.0		ug/Kg			02/13/19 11:15	1
4-Chlorotoluene	ND		5.0		ug/Kg			02/13/19 11:15	1
Chlorodibromomethane	ND		5.0		ug/Kg			02/13/19 11:15	1
1,2-Dichlorobenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
1,3-Dichlorobenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
1,4-Dichlorobenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
1,3-Dichloropropane	ND		5.0		ug/Kg			02/13/19 11:15	1
1,1-Dichloropropene	ND		5.0		ug/Kg			02/13/19 11:15	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/Kg			02/13/19 11:15	1
Ethylene Dibromide	ND		5.0		ug/Kg			02/13/19 11:15	1
Dibromomethane	ND		10		ug/Kg			02/13/19 11:15	1
Dichlorodifluoromethane	ND		10		ug/Kg			02/13/19 11:15	1
1,1-Dichloroethane	ND		5.0		ug/Kg			02/13/19 11:15	1
1,2-Dichloroethane	ND		5.0		ug/Kg			02/13/19 11:15	1
1,1-Dichloroethene	ND		5.0		ug/Kg			02/13/19 11:15	1
cis-1,2-Dichloroethene	ND		5.0		ug/Kg			02/13/19 11:15	1
trans-1,2-Dichloroethene	ND		5.0		ug/Kg			02/13/19 11:15	1
1,2-Dichloropropane	ND		5.0		ug/Kg			02/13/19 11:15	1
cis-1,3-Dichloropropene	ND		5.0		ug/Kg			02/13/19 11:15	1
trans-1,3-Dichloropropene	ND		5.0		ug/Kg			02/13/19 11:15	1
Ethylbenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
Hexachlorobutadiene	ND		5.0		ug/Kg			02/13/19 11:15	1
2-Hexanone	ND		50		ug/Kg			02/13/19 11:15	1
Isopropylbenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
4-Isopropyltoluene	ND		5.0		ug/Kg			02/13/19 11:15	1
Methylene Chloride	ND		10		ug/Kg			02/13/19 11:15	1
4-Methyl-2-pentanone (MIBK)	ND		50		ug/Kg			02/13/19 11:15	1
Naphthalene	ND		10		ug/Kg			02/13/19 11:15	1
N-Propylbenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
Styrene	ND		5.0		ug/Kg			02/13/19 11:15	1

TestAmerica Pleasanton

QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-260260/8
Matrix: Solid
Analysis Batch: 260260

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0		ug/Kg			02/13/19 11:15	1
1,1,2,2-Tetrachloroethane	ND		5.0		ug/Kg			02/13/19 11:15	1
Tetrachloroethene	ND		5.0		ug/Kg			02/13/19 11:15	1
Toluene	ND		5.0		ug/Kg			02/13/19 11:15	1
1,2,3-Trichlorobenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
1,1,1-Trichloroethane	ND		5.0		ug/Kg			02/13/19 11:15	1
1,1,2-Trichloroethane	ND		5.0		ug/Kg			02/13/19 11:15	1
Trichloroethene	ND		5.0		ug/Kg			02/13/19 11:15	1
Trichlorofluoromethane	ND		5.0		ug/Kg			02/13/19 11:15	1
1,2,3-Trichloropropane	ND		5.0		ug/Kg			02/13/19 11:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0		ug/Kg			02/13/19 11:15	1
1,2,4-Trimethylbenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
1,3,5-Trimethylbenzene	ND		5.0		ug/Kg			02/13/19 11:15	1
Vinyl acetate	ND		20		ug/Kg			02/13/19 11:15	1
Vinyl chloride	ND		5.0		ug/Kg			02/13/19 11:15	1
Xylenes, Total	ND		5.0		ug/Kg			02/13/19 11:15	1
2,2-Dichloropropane	ND		5.0		ug/Kg			02/13/19 11:15	1
Gasoline Range Organics (GRO) -C4-C12	ND		250		ug/Kg			02/13/19 11:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		45 - 131		02/13/19 11:15	1
1,2-Dichloroethane-d4 (Surr)	112		60 - 140		02/13/19 11:15	1
Toluene-d8 (Surr)	103		58 - 140		02/13/19 11:15	1

Lab Sample ID: LCS 720-260260/4
Matrix: Solid
Analysis Batch: 260260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	50.0	54.2		ug/Kg		108	70 - 144
Acetone	250	241		ug/Kg		97	30 - 162
Benzene	50.0	49.7		ug/Kg		99	70 - 130
Dichlorobromomethane	50.0	58.1		ug/Kg		116	70 - 140
Bromobenzene	50.0	52.1		ug/Kg		104	70 - 130
Chlorobromomethane	50.0	55.0		ug/Kg		110	70 - 130
Bromoform	50.0	56.6		ug/Kg		113	59 - 158
Bromomethane	50.0	53.5		ug/Kg		107	59 - 132
2-Butanone (MEK)	250	244		ug/Kg		98	59 - 159
n-Butylbenzene	50.0	52.7		ug/Kg		105	70 - 142
sec-Butylbenzene	50.0	51.8		ug/Kg		104	70 - 136
tert-Butylbenzene	50.0	54.1		ug/Kg		108	70 - 130
Carbon disulfide	50.0	48.3		ug/Kg		97	60 - 140
Carbon tetrachloride	50.0	59.6		ug/Kg		119	70 - 142
Chlorobenzene	50.0	52.5		ug/Kg		105	70 - 130
Chloroethane	50.0	51.3		ug/Kg		103	65 - 130
Chloroform	50.0	55.2		ug/Kg		110	77 - 127

TestAmerica Pleasanton

QC Sample Results

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-260260/4

Matrix: Solid

Analysis Batch: 260260

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	50.0	45.6		ug/Kg		91	55 - 140
2-Chlorotoluene	50.0	50.5		ug/Kg		101	70 - 138
4-Chlorotoluene	50.0	50.2		ug/Kg		100	70 - 136
Chlorodibromomethane	50.0	58.4		ug/Kg		117	70 - 146
1,2-Dichlorobenzene	50.0	51.5		ug/Kg		103	70 - 130
1,3-Dichlorobenzene	50.0	51.9		ug/Kg		104	70 - 131
1,4-Dichlorobenzene	50.0	50.4		ug/Kg		101	70 - 130
1,3-Dichloropropane	50.0	51.9		ug/Kg		104	70 - 140
1,1-Dichloropropene	50.0	53.1		ug/Kg		106	70 - 130
1,2-Dibromo-3-Chloropropane	50.0	46.4		ug/Kg		93	60 - 145
Ethylene Dibromide	50.0	52.5		ug/Kg		105	70 - 140
Dibromomethane	50.0	53.4		ug/Kg		107	70 - 139
Dichlorodifluoromethane	50.0	48.5		ug/Kg		97	37 - 158
1,1-Dichloroethane	50.0	51.9		ug/Kg		104	70 - 130
1,2-Dichloroethane	50.0	59.2		ug/Kg		118	70 - 130
1,1-Dichloroethene	50.0	51.8		ug/Kg		104	74 - 122
cis-1,2-Dichloroethene	50.0	52.8		ug/Kg		106	70 - 138
trans-1,2-Dichloroethene	50.0	52.1		ug/Kg		104	67 - 130
1,2-Dichloropropane	50.0	50.9		ug/Kg		102	73 - 127
cis-1,3-Dichloropropene	50.0	55.5		ug/Kg		111	68 - 147
trans-1,3-Dichloropropene	50.0	55.7		ug/Kg		111	70 - 155
Ethylbenzene	50.0	52.6		ug/Kg		105	80 - 137
Hexachlorobutadiene	50.0	61.0		ug/Kg		122	70 - 132
2-Hexanone	250	242		ug/Kg		97	62 - 158
Isopropylbenzene	50.0	56.5		ug/Kg		113	70 - 130
4-Isopropyltoluene	50.0	53.8		ug/Kg		108	70 - 133
Methylene Chloride	50.0	52.6		ug/Kg		105	70 - 134
4-Methyl-2-pentanone (MIBK)	250	244		ug/Kg		97	60 - 160
Naphthalene	50.0	48.3		ug/Kg		97	60 - 147
N-Propylbenzene	50.0	51.6		ug/Kg		103	70 - 130
Styrene	50.0	56.6		ug/Kg		113	70 - 130
1,1,1,2-Tetrachloroethane	50.0	57.5		ug/Kg		115	70 - 130
1,1,1,2-Tetrachloroethane	50.0	45.2		ug/Kg		90	70 - 146
Tetrachloroethene	50.0	58.0		ug/Kg		116	70 - 132
Toluene	50.0	51.4		ug/Kg		103	75 - 120
1,2,3-Trichlorobenzene	50.0	54.6		ug/Kg		109	60 - 140
1,2,4-Trichlorobenzene	50.0	57.7		ug/Kg		115	60 - 140
1,1,1-Trichloroethane	50.0	57.8		ug/Kg		116	70 - 130
1,1,2-Trichloroethane	50.0	51.1		ug/Kg		102	70 - 130
Trichloroethene	50.0	54.8		ug/Kg		110	70 - 133
Trichlorofluoromethane	50.0	58.3		ug/Kg		117	60 - 140
1,2,3-Trichloropropane	50.0	47.7		ug/Kg		95	70 - 146
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	58.1		ug/Kg		116	60 - 140
1,2,4-Trimethylbenzene	50.0	54.5		ug/Kg		109	70 - 130
1,3,5-Trimethylbenzene	50.0	54.4		ug/Kg		109	70 - 131
Vinyl acetate	50.0	50.3		ug/Kg		101	38 - 176
Vinyl chloride	50.0	49.3		ug/Kg		99	58 - 125

TestAmerica Pleasanton

QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-260260/4
Matrix: Solid
Analysis Batch: 260260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
m-Xylene & p-Xylene	50.0	54.6		ug/Kg		109	70 - 146
o-Xylene	50.0	56.0		ug/Kg		112	70 - 140
2,2-Dichloropropane	50.0	58.1		ug/Kg		116	70 - 162

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	106		45 - 131
1,2-Dichloroethane-d4 (Surr)	113		60 - 140
Toluene-d8 (Surr)	106		58 - 140

Lab Sample ID: LCS 720-260260/6
Matrix: Solid
Analysis Batch: 260260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C4-C12	1000	997		ug/Kg		100	70 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	108		45 - 131
1,2-Dichloroethane-d4 (Surr)	113		60 - 140
Toluene-d8 (Surr)	105		58 - 140

Lab Sample ID: LCSD 720-260260/5
Matrix: Solid
Analysis Batch: 260260

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	50.0	51.7		ug/Kg		103	70 - 144	5	20
Acetone	250	232		ug/Kg		93	30 - 162	4	30
Benzene	50.0	48.7		ug/Kg		97	70 - 130	2	20
Dichlorobromomethane	50.0	56.7		ug/Kg		113	70 - 140	2	20
Bromobenzene	50.0	51.2		ug/Kg		102	70 - 130	2	20
Chlorobromomethane	50.0	53.6		ug/Kg		107	70 - 130	2	20
Bromoform	50.0	56.5		ug/Kg		113	59 - 158	0	20
Bromomethane	50.0	52.8		ug/Kg		106	59 - 132	1	20
2-Butanone (MEK)	250	238		ug/Kg		95	59 - 159	2	20
n-Butylbenzene	50.0	51.1		ug/Kg		102	70 - 142	3	20
sec-Butylbenzene	50.0	50.4		ug/Kg		101	70 - 136	3	20
tert-Butylbenzene	50.0	52.9		ug/Kg		106	70 - 130	2	20
Carbon disulfide	50.0	47.2		ug/Kg		94	60 - 140	2	20
Carbon tetrachloride	50.0	57.6		ug/Kg		115	70 - 142	3	20
Chlorobenzene	50.0	51.6		ug/Kg		103	70 - 130	2	20
Chloroethane	50.0	50.3		ug/Kg		101	65 - 130	2	20
Chloroform	50.0	53.9		ug/Kg		108	77 - 127	2	20
Chloromethane	50.0	44.9		ug/Kg		90	55 - 140	1	20
2-Chlorotoluene	50.0	49.8		ug/Kg		100	70 - 138	1	20
4-Chlorotoluene	50.0	49.6		ug/Kg		99	70 - 136	1	20
Chlorodibromomethane	50.0	57.2		ug/Kg		114	70 - 146	2	20

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QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-260260/5
Matrix: Solid
Analysis Batch: 260260

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	50.0	51.1		ug/Kg		102	70 - 130	1	20
1,3-Dichlorobenzene	50.0	50.5		ug/Kg		101	70 - 131	3	20
1,4-Dichlorobenzene	50.0	49.9		ug/Kg		100	70 - 130	1	20
1,3-Dichloropropane	50.0	51.6		ug/Kg		103	70 - 140	1	20
1,1-Dichloropropene	50.0	51.6		ug/Kg		103	70 - 130	3	20
1,2-Dibromo-3-Chloropropane	50.0	47.9		ug/Kg		96	60 - 145	3	20
Ethylene Dibromide	50.0	52.3		ug/Kg		105	70 - 140	0	20
Dibromomethane	50.0	52.9		ug/Kg		106	70 - 139	1	20
Dichlorodifluoromethane	50.0	46.4		ug/Kg		93	37 - 158	4	20
1,1-Dichloroethane	50.0	50.9		ug/Kg		102	70 - 130	2	20
1,2-Dichloroethane	50.0	58.1		ug/Kg		116	70 - 130	2	20
1,1-Dichloroethene	50.0	50.4		ug/Kg		101	74 - 122	3	20
cis-1,2-Dichloroethene	50.0	52.0		ug/Kg		104	70 - 138	1	20
trans-1,2-Dichloroethene	50.0	50.5		ug/Kg		101	67 - 130	3	20
1,2-Dichloropropane	50.0	49.2		ug/Kg		98	73 - 127	3	20
cis-1,3-Dichloropropene	50.0	54.3		ug/Kg		109	68 - 147	2	20
trans-1,3-Dichloropropene	50.0	55.0		ug/Kg		110	70 - 155	1	20
Ethylbenzene	50.0	51.4		ug/Kg		103	80 - 137	2	20
Hexachlorobutadiene	50.0	60.1		ug/Kg		120	70 - 132	1	20
2-Hexanone	250	238		ug/Kg		95	62 - 158	2	20
Isopropylbenzene	50.0	55.6		ug/Kg		111	70 - 130	2	20
4-Isopropyltoluene	50.0	52.4		ug/Kg		105	70 - 133	3	20
Methylene Chloride	50.0	53.0		ug/Kg		106	70 - 134	1	20
4-Methyl-2-pentanone (MIBK)	250	241		ug/Kg		97	60 - 160	1	20
Naphthalene	50.0	50.7		ug/Kg		101	60 - 147	5	20
N-Propylbenzene	50.0	50.6		ug/Kg		101	70 - 130	2	20
Styrene	50.0	55.7		ug/Kg		111	70 - 130	2	20
1,1,1,2-Tetrachloroethane	50.0	57.0		ug/Kg		114	70 - 130	1	20
1,1,1,2,2-Tetrachloroethane	50.0	45.1		ug/Kg		90	70 - 146	0	20
Tetrachloroethene	50.0	56.6		ug/Kg		113	70 - 132	2	20
Toluene	50.0	50.3		ug/Kg		101	75 - 120	2	20
1,2,3-Trichlorobenzene	50.0	56.7		ug/Kg		113	60 - 140	4	20
1,2,4-Trichlorobenzene	50.0	58.1		ug/Kg		116	60 - 140	1	20
1,1,1-Trichloroethane	50.0	56.0		ug/Kg		112	70 - 130	3	20
1,1,2-Trichloroethane	50.0	50.7		ug/Kg		101	70 - 130	1	20
Trichloroethene	50.0	53.8		ug/Kg		108	70 - 133	2	20
Trichlorofluoromethane	50.0	56.3		ug/Kg		113	60 - 140	3	20
1,2,3-Trichloropropane	50.0	46.9		ug/Kg		94	70 - 146	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	55.7		ug/Kg		111	60 - 140	4	20
1,2,4-Trimethylbenzene	50.0	53.5		ug/Kg		107	70 - 130	2	20
1,3,5-Trimethylbenzene	50.0	52.9		ug/Kg		106	70 - 131	3	20
Vinyl acetate	50.0	49.7		ug/Kg		99	38 - 176	1	20
Vinyl chloride	50.0	48.3		ug/Kg		97	58 - 125	2	20
m-Xylene & p-Xylene	50.0	52.9		ug/Kg		106	70 - 146	3	20
o-Xylene	50.0	55.2		ug/Kg		110	70 - 140	1	20
2,2-Dichloropropane	50.0	53.9		ug/Kg		108	70 - 162	7	20

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QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 720-260260/5
Matrix: Solid
Analysis Batch: 260260

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	106		45 - 131
1,2-Dichloroethane-d4 (Surr)	113		60 - 140
Toluene-d8 (Surr)	107		58 - 140

Lab Sample ID: LCSD 720-260260/7
Matrix: Solid
Analysis Batch: 260260

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C4-C12	1000	1000		ug/Kg		100	70 - 122	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	105		45 - 131
1,2-Dichloroethane-d4 (Surr)	112		60 - 140
Toluene-d8 (Surr)	104		58 - 140

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 720-260039/1-A
Matrix: Solid
Analysis Batch: 260273

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260039

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Bis(2-chloroethyl)ether	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2-Chlorophenol	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
1,3-Dichlorobenzene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
1,4-Dichlorobenzene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Benzyl alcohol	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
1,2-Dichlorobenzene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2-Methylphenol	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Methylphenol, 3 & 4	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
N-Nitrosodi-n-propylamine	ND		130		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Hexachloroethane	ND		130		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Nitrobenzene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Isophorone	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2-Nitrophenol	ND		130		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2,4-Dimethylphenol	ND		130		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Bis(2-chloroethoxy)methane	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2,4-Dichlorophenol	ND		330		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
1,2,4-Trichlorobenzene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Naphthalene	ND		130		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
4-Chloroaniline	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Hexachlorobutadiene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
4-Chloro-3-methylphenol	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2-Methylnaphthalene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Hexachlorocyclopentadiene	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1

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QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-260039/1-A
Matrix: Solid
Analysis Batch: 260273

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260039

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2,4,5-Trichlorophenol	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2-Chloronaphthalene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2-Nitroaniline	ND		330		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Dimethyl phthalate	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Acenaphthylene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
3-Nitroaniline	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Acenaphthene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2,4-Dinitrophenol	ND		660		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
4-Nitrophenol	ND		330		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Dibenzofuran	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2,4-Dinitrotoluene	ND		130		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2,6-Dinitrotoluene	ND		130		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Diethyl phthalate	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
4-Chlorophenyl phenyl ether	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Fluorene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
4-Nitroaniline	ND		330		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
2-Methyl-4,6-dinitrophenol	ND		330		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
N-Nitrosodiphenylamine	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
4-Bromophenyl phenyl ether	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Hexachlorobenzene	ND		130		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Pentachlorophenol	ND		330		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Phenanthrene	ND		130		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Anthracene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Di-n-butyl phthalate	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Fluoranthene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Pyrene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Butyl benzyl phthalate	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
3,3'-Dichlorobenzidine	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Benzo[a]anthracene	ND		330		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Bis(2-ethylhexyl) phthalate	ND		330		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Chrysene	ND		130		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Di-n-octyl phthalate	ND		170		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Benzo[b]fluoranthene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Benzo[a]pyrene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Benzo[k]fluoranthene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Indeno[1,2,3-cd]pyrene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Benzo[g,h,i]perylene	ND		130		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Benzoic acid	ND		330		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Azobenzene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1
Dibenz(a,h)anthracene	ND		67		ug/Kg		02/11/19 10:56	02/13/19 15:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	74		21 - 98	02/11/19 10:56	02/13/19 15:39	1
2-Fluorobiphenyl	77		30 - 112	02/11/19 10:56	02/13/19 15:39	1
Terphenyl-d14	115		59 - 134	02/11/19 10:56	02/13/19 15:39	1
2-Fluorophenol	65		28 - 98	02/11/19 10:56	02/13/19 15:39	1
Phenol-d5	62		23 - 101	02/11/19 10:56	02/13/19 15:39	1

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QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 720-260039/1-A
Matrix: Solid
Analysis Batch: 260273

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260039

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol	72		37 - 114	02/11/19 10:56	02/13/19 15:39	1

Lab Sample ID: LCS 720-260039/2-A
Matrix: Solid
Analysis Batch: 260273

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260039

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenol	2670	1630		ug/Kg		61	48 - 110
Bis(2-chloroethyl)ether	2670	1680		ug/Kg		63	40 - 110
2-Chlorophenol	2670	1770		ug/Kg		66	45 - 110
1,3-Dichlorobenzene	2670	1570		ug/Kg		59	38 - 110
1,4-Dichlorobenzene	2670	1600		ug/Kg		60	40 - 110
Benzyl alcohol	2670	1980		ug/Kg		74	47 - 110
1,2-Dichlorobenzene	2670	1600		ug/Kg		60	39 - 110
2-Methylphenol	2670	1760		ug/Kg		66	50 - 110
Methylphenol, 3 & 4	2670	1930		ug/Kg		72	51 - 110
N-Nitrosodi-n-propylamine	2670	1840		ug/Kg		69	46 - 110
Hexachloroethane	2670	1850		ug/Kg		69	40 - 110
Nitrobenzene	2670	2130		ug/Kg		80	45 - 110
Isophorone	2670	2090		ug/Kg		79	49 - 110
2-Nitrophenol	2670	1950		ug/Kg		73	41 - 105
2,4-Dimethylphenol	2670	1980		ug/Kg		74	52 - 100
Bis(2-chloroethoxy)methane	2670	1930		ug/Kg		72	46 - 110
2,4-Dichlorophenol	2670	1980		ug/Kg		74	49 - 100
1,2,4-Trichlorobenzene	2670	1760		ug/Kg		66	43 - 110
Naphthalene	2670	1880		ug/Kg		71	44 - 110
4-Chloroaniline	2670	1970		ug/Kg		74	42 - 110
Hexachlorobutadiene	2670	1990		ug/Kg		75	44 - 110
4-Chloro-3-methylphenol	2670	2200		ug/Kg		83	58 - 104
2-Methylnaphthalene	2670	1870		ug/Kg		70	49 - 110
Hexachlorocyclopentadiene	2670	1770		ug/Kg		67	24 - 106
2,4,6-Trichlorophenol	2670	1960		ug/Kg		74	50 - 105
2,4,5-Trichlorophenol	2670	2280		ug/Kg		86	53 - 106
2-Chloronaphthalene	2670	1830		ug/Kg		69	52 - 110
2-Nitroaniline	2670	2070		ug/Kg		78	51 - 115
Dimethyl phthalate	2670	2100		ug/Kg		79	56 - 103
Acenaphthylene	2670	1880		ug/Kg		70	53 - 102
3-Nitroaniline	2670	2030		ug/Kg		76	50 - 110
Acenaphthene	2670	1850		ug/Kg		69	53 - 103
2,4-Dinitrophenol	5330	2910		ug/Kg		55	10 - 115
4-Nitrophenol	5330	5670		ug/Kg		106	54 - 117
Dibenzofuran	2670	1970		ug/Kg		74	55 - 101
2,4-Dinitrotoluene	2670	2040		ug/Kg		76	54 - 115
2,6-Dinitrotoluene	2670	1970		ug/Kg		74	54 - 107
Diethyl phthalate	2670	2470		ug/Kg		92	56 - 107
4-Chlorophenyl phenyl ether	2670	2400		ug/Kg		90	57 - 106
Fluorene	2670	2120		ug/Kg		80	54 - 103
4-Nitroaniline	2670	2990		ug/Kg		112	49 - 115

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QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 720-260039/2-A
Matrix: Solid
Analysis Batch: 260273

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260039

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methyl-4,6-dinitrophenol	5330	3940		ug/Kg		74	31 - 122
N-Nitrosodiphenylamine	2670	2050		ug/Kg		77	56 - 104
4-Bromophenyl phenyl ether	2670	2100		ug/Kg		79	53 - 104
Hexachlorobenzene	2670	2150		ug/Kg		81	55 - 103
Pentachlorophenol	5330	4020		ug/Kg		75	46 - 115
Phenanthrene	2670	2150		ug/Kg		81	57 - 106
Anthracene	2670	2130		ug/Kg		80	55 - 105
Di-n-butyl phthalate	2670	2390		ug/Kg		90	58 - 109
Fluoranthene	2670	2040		ug/Kg		77	56 - 104
Pyrene	2670	2270		ug/Kg		85	52 - 115
Butyl benzyl phthalate	2670	2750		ug/Kg		103	57 - 115
3,3'-Dichlorobenzidine	2670	1870		ug/Kg		70	47 - 110
Benzo[a]anthracene	2670	2190		ug/Kg		82	55 - 103
Bis(2-ethylhexyl) phthalate	2670	2890		ug/Kg		108	58 - 115
Chrysene	2670	2170		ug/Kg		81	58 - 103
Di-n-octyl phthalate	2670	2720		ug/Kg		102	58 - 109
Benzo[b]fluoranthene	2670	2280		ug/Kg		85	57 - 109
Benzo[a]pyrene	2670	2180		ug/Kg		82	57 - 106
Benzo[k]fluoranthene	2670	2270		ug/Kg		85	55 - 110
Indeno[1,2,3-cd]pyrene	2670	2140		ug/Kg		80	56 - 108
Benzo[g,h,i]perylene	2670	2080		ug/Kg		78	56 - 115
Benzoic acid	2670	1810		ug/Kg		68	10 - 128
Azobenzene	2670	2440		ug/Kg		92	52 - 103
Dibenz(a,h)anthracene	2670	2140		ug/Kg		80	57 - 106

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	81		21 - 98
2-Fluorobiphenyl	80		30 - 112
Terphenyl-d14	92		59 - 134
2-Fluorophenol	64		28 - 98
Phenol-d5	62		23 - 101
2,4,6-Tribromophenol	78		37 - 114

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-260128/1-A
Matrix: Solid
Analysis Batch: 260257

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 260128

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		2.0		mg/Kg		02/11/19 10:36	02/13/19 11:22	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		02/11/19 10:36	02/13/19 11:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	104		38 - 148	02/11/19 10:36	02/13/19 11:22	1
Capric Acid (Surr)	0		0 - 1	02/11/19 10:36	02/13/19 11:22	1

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QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 720-260128/2-A
Matrix: Solid
Analysis Batch: 260257

Client Sample ID: Lab Control Sample
Prep Type: Silica Gel Cleanup
Prep Batch: 260128

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	167	152		mg/Kg		91	36 - 112
Surrogate		LCS %Recovery	LCS Qualifier				Limits
<i>p-Terphenyl</i>		121					38 - 148

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 720-260121/1-A
Matrix: Solid
Analysis Batch: 260176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Dieldrin	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Endrin aldehyde	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Endrin	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Endrin ketone	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Heptachlor	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Heptachlor epoxide	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
4,4'-DDT	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
4,4'-DDE	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
4,4'-DDD	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Endosulfan I	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Endosulfan II	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
alpha-BHC	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
beta-BHC	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
delta-BHC	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Endosulfan sulfate	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Methoxychlor	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Toxaphene	ND		40		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Chlordane (technical)	ND		40		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
cis-Chlordane	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
trans-Chlordane	ND		2.0		ug/Kg		02/11/19 08:56	02/12/19 05:31	1
Surrogate		MB %Recovery	MB Qualifier				Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>		88					02/11/19 08:56	02/12/19 05:31	1
<i>DCB Decachlorobiphenyl</i>		107					02/11/19 08:56	02/12/19 05:31	1

Lab Sample ID: LCS 720-260121/2-A
Matrix: Solid
Analysis Batch: 260176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	16.7	16.4		ug/Kg		98	65 - 120
Dieldrin	16.7	18.3		ug/Kg		110	72 - 120

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QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 720-260121/2-A
Matrix: Solid
Analysis Batch: 260176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Endrin aldehyde	16.7	19.2		ug/Kg		115	68 - 120
Endrin	16.7	19.3		ug/Kg		116	68 - 120
Endrin ketone	16.7	19.2		ug/Kg		115	75 - 136
Heptachlor	16.7	17.3		ug/Kg		104	69 - 120
Heptachlor epoxide	16.7	18.2		ug/Kg		109	68 - 120
4,4'-DDT	16.7	18.6		ug/Kg		112	63 - 127
4,4'-DDE	16.7	18.7		ug/Kg		112	76 - 126
4,4'-DDD	16.7	19.0		ug/Kg		114	75 - 128
Endosulfan I	16.7	18.8		ug/Kg		113	62 - 120
Endosulfan II	16.7	19.3		ug/Kg		116	65 - 120
alpha-BHC	16.7	15.9		ug/Kg		96	46 - 122
beta-BHC	16.7	18.5		ug/Kg		111	78 - 136
gamma-BHC (Lindane)	16.7	16.8		ug/Kg		101	72 - 120
delta-BHC	16.7	18.6		ug/Kg		111	43 - 125
Endosulfan sulfate	16.7	19.1		ug/Kg		115	72 - 121
Methoxychlor	16.7	19.9		ug/Kg		119	71 - 132
cis-Chlordane	16.7	18.4		ug/Kg		111	70 - 120
trans-Chlordane	16.7	18.2		ug/Kg		109	68 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	98		21 - 145
DCB Decachlorobiphenyl	112		21 - 136

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 720-260139/1-A
Matrix: Solid
Analysis Batch: 260263

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50		ug/Kg		02/11/19 11:15	02/13/19 19:57	1
PCB-1221	ND		50		ug/Kg		02/11/19 11:15	02/13/19 19:57	1
PCB-1232	ND		50		ug/Kg		02/11/19 11:15	02/13/19 19:57	1
PCB-1242	ND		50		ug/Kg		02/11/19 11:15	02/13/19 19:57	1
PCB-1248	ND		50		ug/Kg		02/11/19 11:15	02/13/19 19:57	1
PCB-1254	ND		50		ug/Kg		02/11/19 11:15	02/13/19 19:57	1
PCB-1260	ND		50		ug/Kg		02/11/19 11:15	02/13/19 19:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		45 - 132	02/11/19 11:15	02/13/19 19:57	1
DCB Decachlorobiphenyl	70		42 - 146	02/11/19 11:15	02/13/19 19:57	1

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QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 720-260139/2-A
Matrix: Solid
Analysis Batch: 260263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	133	95.7		ug/Kg		72	65 - 121
PCB-1260	133	91.2		ug/Kg		68	68 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	69		45 - 132
DCB Decachlorobiphenyl	66		42 - 146

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-260100/1-A
Matrix: Solid
Analysis Batch: 260368

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 260100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Arsenic	ND		1.0		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Barium	ND		0.50		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Beryllium	ND		0.10		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Cadmium	ND		0.13		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Chromium	ND		0.50		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Cobalt	ND		0.20		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Copper	ND		1.5		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Lead	ND		0.50		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Molybdenum	ND		0.50		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Nickel	ND		0.50		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Selenium	ND		1.0		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Silver	ND		0.25		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Thallium	ND		0.50		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Vanadium	ND		0.50		mg/Kg		02/09/19 11:11	02/14/19 11:28	1
Zinc	ND		1.5		mg/Kg		02/09/19 11:11	02/14/19 11:28	1

Lab Sample ID: LCS 720-260100/2-A
Matrix: Solid
Analysis Batch: 260330

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 260100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	49.1		mg/Kg		98	80 - 120
Arsenic	50.0	51.4		mg/Kg		103	80 - 120
Barium	50.0	50.8		mg/Kg		102	80 - 120
Beryllium	50.0	49.2		mg/Kg		98	80 - 120
Cadmium	50.0	52.8		mg/Kg		106	80 - 120
Chromium	50.0	54.1		mg/Kg		108	80 - 120
Cobalt	50.0	53.1		mg/Kg		106	80 - 120
Copper	50.0	54.2		mg/Kg		108	80 - 120
Lead	50.0	53.5		mg/Kg		107	80 - 120
Molybdenum	50.0	54.5		mg/Kg		109	80 - 120
Nickel	50.0	52.9		mg/Kg		106	80 - 120
Selenium	50.0	50.9		mg/Kg		102	80 - 120

TestAmerica Pleasanton

QC Sample Results

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 720-260100/2-A
 Matrix: Solid
 Analysis Batch: 260330

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 260100
 %Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Silver	25.0	26.1		mg/Kg		104	80 - 120
Thallium	50.0	51.6		mg/Kg		103	80 - 120
Vanadium	50.0	53.0		mg/Kg		106	80 - 120
Zinc	50.0	53.9		mg/Kg		108	80 - 120

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-260030/1-A
 Matrix: Solid
 Analysis Batch: 260393

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 260030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.017		mg/Kg		02/13/19 18:35	02/14/19 15:04	1

Lab Sample ID: LCS 720-260030/2-A
 Matrix: Solid
 Analysis Batch: 260393

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 260030
 %Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.833	0.780		mg/Kg		94	80 - 120

QC Association Summary

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

GC/MS VOA

Analysis Batch: 260260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	8260B	260268
MB 720-260260/8	Method Blank	Total/NA	Solid	8260B	
LCS 720-260260/4	Lab Control Sample	Total/NA	Solid	8260B	
LCS 720-260260/6	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 720-260260/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
LCSD 720-260260/7	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 260268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	5030B	

GC/MS Semi VOA

Prep Batch: 260039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	3546	
MB 720-260039/1-A	Method Blank	Total/NA	Solid	3546	
LCS 720-260039/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 260273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-260039/1-A	Method Blank	Total/NA	Solid	8270C	260039
LCS 720-260039/2-A	Lab Control Sample	Total/NA	Solid	8270C	260039

Analysis Batch: 260392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	8270C	260039

GC Semi VOA

Prep Batch: 260121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	3546	
MB 720-260121/1-A	Method Blank	Total/NA	Solid	3546	
LCS 720-260121/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 260128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Silica Gel Cleanup	Solid	3546	
MB 720-260128/1-A	Method Blank	Silica Gel Cleanup	Solid	3546	
LCS 720-260128/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	3546	

Prep Batch: 260139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	3546	
MB 720-260139/1-A	Method Blank	Total/NA	Solid	3546	
LCS 720-260139/2-A	Lab Control Sample	Total/NA	Solid	3546	

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QC Association Summary

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

GC Semi VOA (Continued)

Analysis Batch: 260176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-260121/1-A	Method Blank	Total/NA	Solid	8081A	260121
LCS 720-260121/2-A	Lab Control Sample	Total/NA	Solid	8081A	260121

Analysis Batch: 260257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-260128/1-A	Method Blank	Silica Gel Cleanup	Solid	8015B	260128
LCS 720-260128/2-A	Lab Control Sample	Silica Gel Cleanup	Solid	8015B	260128

Analysis Batch: 260263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-260139/1-A	Method Blank	Total/NA	Solid	8082	260139
LCS 720-260139/2-A	Lab Control Sample	Total/NA	Solid	8082	260139

Analysis Batch: 260334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	8082	260139

Analysis Batch: 260397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	8081A	260121

Analysis Batch: 260408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Silica Gel Cleanup	Solid	8015B	260128

Metals

Prep Batch: 260030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	7471A	
MB 720-260030/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 720-260030/2-A	Lab Control Sample	Total/NA	Solid	7471A	

Prep Batch: 260100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	3050B	
MB 720-260100/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-260100/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 260330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	6010B	260100
LCS 720-260100/2-A	Lab Control Sample	Total/NA	Solid	6010B	260100

Analysis Batch: 260368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-260100/1-A	Method Blank	Total/NA	Solid	6010B	260100

TestAmerica Pleasanton

QC Association Summary

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Metals (Continued)

Analysis Batch: 260393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-91268-1	FEME020719	Total/NA	Solid	7471A	260030
MB 720-260030/1-A	Method Blank	Total/NA	Solid	7471A	260030
LCS 720-260030/2-A	Lab Control Sample	Total/NA	Solid	7471A	260030

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Lab Chronicle

Client: County of Santa Clara
 Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Client Sample ID: FEME020719

Lab Sample ID: 720-91268-1

Date Collected: 02/07/19 13:00

Matrix: Solid

Date Received: 02/08/19 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			260268	02/13/19 09:29	LRC	TAL PLS
Total/NA	Analysis	8260B		1	260260	02/13/19 15:13	JRM	TAL PLS
Total/NA	Prep	3546			260039	02/11/19 11:04	KLM	TAL PLS
Total/NA	Analysis	8270C		5	260392	02/15/19 03:09	MQL	TAL PLS
Silica Gel Cleanup	Prep	3546			260128	02/11/19 11:10	KLM	TAL PLS
Silica Gel Cleanup	Analysis	8015B		1	260408	02/15/19 11:48	JXL	TAL PLS
Total/NA	Prep	3546			260121	02/11/19 08:56	KLM	TAL PLS
Total/NA	Analysis	8081A		1	260397	02/15/19 10:47	JZT	TAL PLS
Total/NA	Prep	3546			260139	02/11/19 11:15	KLM	TAL PLS
Total/NA	Analysis	8082		1	260334	02/14/19 22:44	DCH	TAL PLS
Total/NA	Prep	3050B			260100	02/09/19 11:11	SUN	TAL PLS
Total/NA	Analysis	6010B		4	260330	02/13/19 18:24	OBI	TAL PLS
Total/NA	Prep	7471A			260030	02/13/19 18:35	GLL	TAL PLS
Total/NA	Analysis	7471A		1	260393	02/14/19 16:52	MAG	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919



Accreditation/Certification Summary

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Laboratory: TestAmerica Pleasanton

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
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Method Summary

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PLS
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
8081A	Organochlorine Pesticides (GC)	SW846	TAL PLS
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7471A	Mercury (CVAA)	SW846	TAL PLS
3050B	Preparation, Metals	SW846	TAL PLS
3546	Microwave Extraction	SW846	TAL PLS
5030B	Purge and Trap	SW846	TAL PLS
7471A	Preparation, Mercury	SW846	TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Sample Summary

Client: County of Santa Clara
Project/Site: Foothill Expressway Operational Improvem

TestAmerica Job ID: 720-91268-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-91268-1	FEME020719	Solid	02/07/19 13:00	02/08/19 12:25

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720-91268

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact Santa Clara County Roads and Airports Department 1505 Schallenberger Road San Jose, CA 95131 (408) 690-9190 (408) 297-0530		Project Manager: Ellsbury Tel/Fax:		Site Contact: Date: February 7, 2019 Carrier:		COC No _____ of _____ COCs	
Analysis Turnaround Time Calendar (C) or Work Days (W) 5 work days TAT if different from below: <ul style="list-style-type: none"> <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day 		Sample Date: 2/7/2019 1:00 PM Sample Time: 1:00 PM Sample Type: Soil Matrix:		Filtered Sample: X CAM 17 TTLC: X VOCs: X SVOCs: X Pesticides: X PCBs: X TPH - m/diesel (with Sg cleanup): X TPH - Gasoline: X pH: X Ignitibility: X		Job No. _____ SDG No. _____ Sample Specific Notes: If Lead or Chromium TTLC exceeds 50 mg/kg then run STLC If Pb or Cr TTLC exceeds 100 mg/kg then run then run TCLP	
Sample Identification FEME020719		# of Cont.: 2		Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Special Instructions/OC Requirements & Comments: Samples taken at depth of 12-13 inches Medic - east of San Antonio Road. station (E Note)		Relinquished by: [Signature] Date/Time: 2/8/19 11:20		Company: TAPAS	
Relinquished by: [Signature] Date/Time: 2/8/19 11:25		Relinquished by: [Signature] Date/Time: 2/8/19 11:25		Relinquished by: [Signature] Date/Time: 2/8/19 12:25		Company: TAPAS	



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Login Sample Receipt Checklist

Client: County of Santa Clara

Job Number: 720-91268-1

Login Number: 91268
List Number: 1
Creator: Arauz, Dennis

List Source: TestAmerica Pleasanton

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

