TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 490-137586-1
Client Project/Site: Wilcox Oil Refinery Removal Asessment

For:
Weston Solutions, Inc.
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Building 7, Suite A
Baton Rouge, Louisiana 70817

Attn: Mr. Jeff Wright

Authorized for release by:
9/29/2017 8:59:46 PM

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Sample Summary

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-137586-1	Top Soil	Solid	09/27/17 16:30	09/28/17 09:25
490-137586-2	Backfill	Solid	09/27/17 16:35	09/28/17 09:25

Definitions/Glossary

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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)

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

Client Sample ID: Top Soil

Date Collected: 09/27/17 16:30
Date Received: 09/28/17 09:25

Lab Sample ID: 490-137586-1

Matrix: Solid
Percent Solids: 81.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.00264	U	0.00396	0.00264	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Acenaphthylene	0.00216	U	0.00396	0.00216	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Anthracene	0.00156	U	0.00396	0.00156	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Benzo[a]anthracene	**0.00156**	**J**	0.00396	0.00144	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Benzo[a]pyrene	**0.00230**	**J**	0.00396	0.00156	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Benzo[b]fluoranthene	**0.00400**		0.00396	0.00264	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Benzo[g,h,i]perylene	0.00168	U	0.00396	0.00168	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Benzo[k]fluoranthene	0.00216	U	0.00396	0.00216	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Chrysene	**0.00369**	**J**	0.00396	0.00144	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Dibenz(a,h)anthracene	0.00180	U	0.00396	0.00180	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Fluoranthene	**0.00288**	**J**	0.00396	0.00168	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Fluorene	0.00420	U	0.00600	0.00420	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Indeno[1,2,3-cd]pyrene	0.00192	U	0.00396	0.00192	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Naphthalene	0.00264	U	0.00396	0.00264	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Phenanthrene	0.00204	U	0.00396	0.00204	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
Pyrene	**0.00372**	**J**	0.00396	0.00180	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
2-Methylnaphthalene	0.00252	U	0.00396	0.00252	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1
1-Methylnaphthalene	0.00216	U	0.00396	0.00216	mg/Kg	☼	09/28/17 11:27	09/28/17 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*64*		*29 - 120*	*09/28/17 11:27*	*09/28/17 21:04*	*1*
Nitrobenzene-d5	*54*		*27 - 120*	*09/28/17 11:27*	*09/28/17 21:04*	*1*
Terphenyl-d14	*60*		*13 - 120*	*09/28/17 11:27*	*09/28/17 21:04*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12100**	**B**	5.81	2.33	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Antimony	0.233	U	0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Arsenic	**2.57**		0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Barium	**79.7**		0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Beryllium	**0.451**	**J**	0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Cadmium	0.233	U	0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Calcium	**1890**		58.1	29.1	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Chromium	**16.8**		0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Cobalt	**4.45**		0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Copper	**4.35**		0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Iron	**8860**		5.81	2.33	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Lead	**7.44**		0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Magnesium	**1330**		58.1	29.1	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Manganese	**242**		0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Nickel	**8.87**		0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Potassium	**1930**		58.1	29.1	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Selenium	0.233	U	0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Silver	0.116	U	0.581	0.116	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Sodium	**155**		58.1	29.1	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Thallium	0.233	U	0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Vanadium	**19.8**		0.581	0.233	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1
Zinc	**26.4**		5.81	2.33	mg/Kg	☼	09/29/17 00:06	09/29/17 17:02	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

Client Sample ID: Top Soil

Date Collected: 09/27/17 16:30
Date Received: 09/28/17 09:25

Lab Sample ID: 490-137586-1

Matrix: Solid
Percent Solids: 81.9

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0380	J	0.121	0.0363	mg/Kg	☼	09/28/17 15:36	09/29/17 12:23	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	18.1		0.1	0.1	%			09/28/17 12:49	1
Percent Solids	81.9		0.1	0.1	%			09/28/17 12:49	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

Client Sample ID: Backfill

Date Collected: 09/27/17 16:35
Date Received: 09/28/17 09:25

Lab Sample ID: 490-137586-2

Matrix: Solid
Percent Solids: 88.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.00243	U	0.00365	0.00243	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Acenaphthylene	0.00199	U	0.00365	0.00199	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Anthracene	0.00144	U	0.00365	0.00144	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Benzo[a]anthracene	**0.00327**	**J**	0.00365	0.00133	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Benzo[a]pyrene	**0.00397**		0.00365	0.00144	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Benzo[b]fluoranthene	**0.00689**		0.00365	0.00243	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Benzo[g,h,i]perylene	**0.00218**	**J**	0.00365	0.00155	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Benzo[k]fluoranthene	**0.00267**	**J**	0.00365	0.00199	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Chrysene	**0.00555**		0.00365	0.00133	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Dibenz(a,h)anthracene	0.00166	U	0.00365	0.00166	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Fluoranthene	**0.00692**		0.00365	0.00155	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Fluorene	0.00387	U	0.00553	0.00387	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Indeno[1,2,3-cd]pyrene	0.00177	U	0.00365	0.00177	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Naphthalene	0.00243	U	0.00365	0.00243	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Phenanthrene	**0.00273**	**J**	0.00365	0.00188	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
Pyrene	**0.00833**		0.00365	0.00166	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
2-Methylnaphthalene	0.00232	U	0.00365	0.00232	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1
1-Methylnaphthalene	0.00199	U	0.00365	0.00199	mg/Kg	☼	09/28/17 11:27	09/28/17 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*71*		*29 - 120*	*09/28/17 11:27*	*09/28/17 21:25*	*1*
Nitrobenzene-d5	*94*		*27 - 120*	*09/28/17 11:27*	*09/28/17 21:25*	*1*
Terphenyl-d14	*61*		*13 - 120*	*09/28/17 11:27*	*09/28/17 21:25*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**11300**	**B**	5.61	2.25	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Antimony	0.225	U	0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Arsenic	**3.47**		0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Barium	**66.7**		0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Beryllium	**0.404**	**J**	0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Cadmium	0.225	U	0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Calcium	**1300**		56.1	28.1	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Chromium	**14.0**		0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Cobalt	**3.30**		0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Copper	**3.17**		0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Iron	**7230**		5.61	2.25	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Lead	**6.64**		0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Magnesium	**1140**		56.1	28.1	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Manganese	**170**		0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Nickel	**6.66**		0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Potassium	**1860**		56.1	28.1	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Selenium	0.225	U	0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Silver	0.112	U	0.561	0.112	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Sodium	**99.4**		56.1	28.1	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Thallium	0.225	U	0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Vanadium	**17.7**		0.561	0.225	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1
Zinc	**25.6**		5.61	2.25	mg/Kg	☼	09/29/17 00:06	09/29/17 17:05	1

Client Sample Results

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

Client Sample ID: Backfill

Date Collected: 09/27/17 16:35
Date Received: 09/28/17 09:25

Lab Sample ID: 490-137586-2

Matrix: Solid
Percent Solids: 88.0

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.149		0.113	0.0339	mg/Kg	☼	09/28/17 15:36	09/29/17 12:26	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	12.0		0.1	0.1	%			09/28/17 12:49	1
Percent Solids	88.0		0.1	0.1	%			09/28/17 12:49	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

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

Lab Sample ID: MB 490-463779/1-A
Matrix: Solid
Analysis Batch: 463781

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 463779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.00220	U	0.00330	0.00220	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Acenaphthylene	0.00180	U	0.00330	0.00180	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Anthracene	0.00130	U	0.00330	0.00130	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Benzo[a]anthracene	0.00120	U	0.00330	0.00120	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Benzo[a]pyrene	0.00130	U	0.00330	0.00130	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Benzo[b]fluoranthene	0.00220	U	0.00330	0.00220	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Benzo[g,h,i]perylene	0.00140	U	0.00330	0.00140	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Benzo[k]fluoranthene	0.00180	U	0.00330	0.00180	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Chrysene	0.00120	U	0.00330	0.00120	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Dibenz(a,h)anthracene	0.00150	U	0.00330	0.00150	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Fluoranthene	0.00140	U	0.00330	0.00140	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Fluorene	0.00350	U	0.00500	0.00350	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Indeno[1,2,3-cd]pyrene	0.00160	U	0.00330	0.00160	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Naphthalene	0.00220	U	0.00330	0.00220	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Phenanthrene	0.00170	U	0.00330	0.00170	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
Pyrene	0.00150	U	0.00330	0.00150	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
2-Methylnaphthalene	0.00210	U	0.00330	0.00210	mg/Kg		09/28/17 11:26	09/28/17 20:23	1
1-Methylnaphthalene	0.00180	U	0.00330	0.00180	mg/Kg		09/28/17 11:26	09/28/17 20:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl (Surr)	*87*		*29 - 120*	*09/28/17 11:26*	*09/28/17 20:23*	*1*
Nitrobenzene-d5	*112*		*27 - 120*	*09/28/17 11:26*	*09/28/17 20:23*	*1*
Terphenyl-d14	*74*		*13 - 120*	*09/28/17 11:26*	*09/28/17 20:23*	*1*

Lab Sample ID: LCS 490-463779/2-A
Matrix: Solid
Analysis Batch: 463781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 463779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	0.0667	0.04513		mg/Kg		68	36 - 120
Acenaphthylene	0.0667	0.04644		mg/Kg		70	38 - 120
Anthracene	0.0667	0.04652		mg/Kg		70	46 - 124
Benzo[a]anthracene	0.0667	0.04982		mg/Kg		75	45 - 120
Benzo[a]pyrene	0.0667	0.04723		mg/Kg		71	45 - 120
Benzo[b]fluoranthene	0.0667	0.04946		mg/Kg		74	42 - 120
Benzo[g,h,i]perylene	0.0667	0.02912		mg/Kg		44	38 - 120
Benzo[k]fluoranthene	0.0667	0.05222		mg/Kg		78	42 - 120
Chrysene	0.0667	0.05073		mg/Kg		76	43 - 120
Dibenz(a,h)anthracene	0.0667	0.03218		mg/Kg		48	32 - 128
Fluoranthene	0.0667	0.04607		mg/Kg		69	46 - 120
Fluorene	0.0667	0.05164		mg/Kg		77	42 - 120
Indeno[1,2,3-cd]pyrene	0.0667	0.03250		mg/Kg		49	41 - 121
Naphthalene	0.0667	0.05189		mg/Kg		78	32 - 120
Phenanthrene	0.0667	0.04747		mg/Kg		71	45 - 120
Pyrene	0.0667	0.05460		mg/Kg		82	43 - 120
2-Methylnaphthalene	0.0667	0.04762		mg/Kg		71	28 - 120
1-Methylnaphthalene	0.0667	0.05408		mg/Kg		81	32 - 120

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

Lab Sample ID: LCS 490-463779/2-A
Matrix: Solid
Analysis Batch: 463781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 463779

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*83*		*29 - 120*
Nitrobenzene-d5	*91*		*27 - 120*
Terphenyl-d14	*75*		*13 - 120*

Lab Sample ID: 490-137586-2 MS
Matrix: Solid
Analysis Batch: 463781

Client Sample ID: Backfill
Prep Type: Total/NA
Prep Batch: 463779

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	0.00243	U	0.0757	0.03387		mg/Kg	☼	45	19 - 120
Acenaphthylene	0.00199	U	0.0757	0.02820		mg/Kg	☼	37	25 - 120
Anthracene	0.00144	U	0.0757	0.03649		mg/Kg	☼	48	28 - 125
Benzo[a]anthracene	0.00327	J	0.0757	0.04503		mg/Kg	☼	55	23 - 120
Benzo[a]pyrene	0.00397		0.0757	0.03999		mg/Kg	☼	48	15 - 128
Benzo[b]fluoranthene	0.00689		0.0757	0.04718		mg/Kg	☼	53	12 - 133
Benzo[g,h,i]perylene	0.00218	J	0.0757	0.02258		mg/Kg	☼	27	22 - 120
Benzo[k]fluoranthene	0.00267	J	0.0757	0.04928		mg/Kg	☼	62	28 - 120
Chrysene	0.00555		0.0757	0.04484		mg/Kg	☼	52	20 - 120
Dibenz(a,h)anthracene	0.00166	U	0.0757	0.02133		mg/Kg	☼	28	12 - 128
Fluoranthene	0.00692		0.0757	0.03736		mg/Kg	☼	40	10 - 143
Fluorene	0.00387	U	0.0757	0.03653		mg/Kg	☼	48	20 - 120
Indeno[1,2,3-cd]pyrene	0.00177	U	0.0757	0.02268		mg/Kg	☼	30	22 - 121
Naphthalene	0.00243	U	0.0757	0.03393		mg/Kg	☼	45	10 - 120
Phenanthrene	0.00273	J	0.0757	0.04226		mg/Kg	☼	52	21 - 122
Pyrene	0.00833		0.0757	0.05733		mg/Kg	☼	65	20 - 123
2-Methylnaphthalene	0.00232	U	0.0757	0.04092		mg/Kg	☼	54	13 - 120
1-Methylnaphthalene	0.00199	U	0.0757	0.03695		mg/Kg	☼	49	10 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*57*		*29 - 120*
Nitrobenzene-d5	*65*		*27 - 120*
Terphenyl-d14	*54*		*13 - 120*

Lab Sample ID: 490-137586-2 MSD
Matrix: Solid
Analysis Batch: 463781

Client Sample ID: Backfill
Prep Type: Total/NA
Prep Batch: 463779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	0.00243	U	0.0737	0.03775		mg/Kg	☼	51	19 - 120	11	50
Acenaphthylene	0.00199	U	0.0737	0.03930		mg/Kg	☼	53	25 - 120	33	50
Anthracene	0.00144	U	0.0737	0.03849		mg/Kg	☼	52	28 - 125	5	49
Benzo[a]anthracene	0.00327	J	0.0737	0.04360		mg/Kg	☼	55	23 - 120	3	50
Benzo[a]pyrene	0.00397		0.0737	0.04220		mg/Kg	☼	52	15 - 128	5	50
Benzo[b]fluoranthene	0.00689		0.0737	0.04893		mg/Kg	☼	57	12 - 133	4	50
Benzo[g,h,i]perylene	0.00218	J	0.0737	0.02193		mg/Kg	☼	27	22 - 120	3	50
Benzo[k]fluoranthene	0.00267	J	0.0737	0.05061		mg/Kg	☼	65	28 - 120	3	45
Chrysene	0.00555		0.0737	0.04455		mg/Kg	☼	53	20 - 120	1	49
Dibenz(a,h)anthracene	0.00166	U	0.0737	0.02521		mg/Kg	☼	34	12 - 128	17	50

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

Lab Sample ID: 490-137586-2 MSD
Matrix: Solid
Analysis Batch: 463781

Client Sample ID: Backfill
Prep Type: Total/NA
Prep Batch: 463779

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoranthene	0.00692		0.0737	0.03914		mg/Kg	☼	44	10 - 143	5	50
Fluorene	0.00387	U	0.0737	0.04187		mg/Kg	☼	57	20 - 120	14	50
Indeno[1,2,3-cd]pyrene	0.00177	U	0.0737	0.02517		mg/Kg	☼	34	22 - 121	10	50
Naphthalene	0.00243	U	0.0737	0.04068		mg/Kg	☼	55	10 - 120	18	50
Phenanthrene	0.00273	J	0.0737	0.04239		mg/Kg	☼	54	21 - 122	0	50
Pyrene	0.00833		0.0737	0.05154		mg/Kg	☼	59	20 - 123	11	50
2-Methylnaphthalene	0.00232	U	0.0737	0.04918		mg/Kg	☼	67	13 - 120	18	50
1-Methylnaphthalene	0.00199	U	0.0737	0.04383		mg/Kg	☼	59	10 - 120	17	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl (Surr)	*68*		*29 - 120*
Nitrobenzene-d5	*85*		*27 - 120*
Terphenyl-d14	*62*		*13 - 120*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 490-463964/1-A
Matrix: Solid
Analysis Batch: 464272

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 463964

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7.286		4.76	1.90	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Antimony	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Arsenic	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Barium	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Beryllium	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Cadmium	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Calcium	23.8	U	47.6	23.8	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Chromium	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Cobalt	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Copper	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Iron	1.90	U	4.76	1.90	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Lead	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Magnesium	23.8	U	47.6	23.8	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Manganese	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Nickel	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Potassium	23.8	U	47.6	23.8	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Selenium	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Silver	0.0952	U	0.476	0.0952	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Sodium	23.8	U	47.6	23.8	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Thallium	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Vanadium	0.190	U	0.476	0.190	mg/Kg		09/29/17 00:06	09/29/17 16:41	1
Zinc	1.90	U	4.76	1.90	mg/Kg		09/29/17 00:06	09/29/17 16:41	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 490-463964/19-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 464277 — **Prep Batch: 463964**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	9.52	10.01		mg/Kg		105	80 - 120

Lab Sample ID: LCS 490-463964/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 464272 — **Prep Batch: 463964**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	19.4	19.70		mg/Kg		102	80 - 120
Arsenic	19.4	19.45		mg/Kg		100	80 - 120
Barium	19.4	20.05		mg/Kg		103	80 - 120
Beryllium	19.4	19.61		mg/Kg		101	80 - 120
Cadmium	19.4	19.67		mg/Kg		101	80 - 120
Calcium	1940	1910		mg/Kg		99	80 - 120
Chromium	19.4	19.60		mg/Kg		101	80 - 120
Cobalt	19.4	19.39		mg/Kg		100	80 - 120
Copper	19.4	19.17		mg/Kg		99	80 - 120
Iron	194	193.6		mg/Kg		100	80 - 120
Lead	19.4	19.67		mg/Kg		101	80 - 120
Magnesium	1940	1910		mg/Kg		99	80 - 120
Manganese	19.4	20.21		mg/Kg		104	80 - 120
Nickel	19.4	19.32		mg/Kg		100	80 - 120
Potassium	1940	1909		mg/Kg		98	80 - 120
Selenium	19.4	19.73		mg/Kg		102	80 - 120
Sodium	1940	1933		mg/Kg		100	80 - 120
Thallium	19.4	20.05		mg/Kg		103	80 - 120
Vanadium	19.4	19.86		mg/Kg		102	80 - 120
Zinc	19.4	19.92		mg/Kg		103	80 - 120

Lab Sample ID: LCS 490-463964/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 464277 — **Prep Batch: 463964**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	194	200.9		mg/Kg		104	80 - 120

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 490-463886/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 464225 — **Prep Batch: 463886**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0290	U	0.0966	0.0290	mg/Kg		09/28/17 15:36	09/29/17 12:04	1

QC Sample Results

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 490-463886/2-A
Matrix: Solid
Analysis Batch: 464225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 463886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.164	0.1652		mg/Kg		101	80 - 120

Method: Moisture - Percent Moisture

Lab Sample ID: 490-137586-1 DU
Matrix: Solid
Analysis Batch: 463826

Client Sample ID: Top Soil
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	18.1		20.0		%		10	20
Percent Solids	81.9		80.0		%		2	20

QC Association Summary

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

GC/MS Semi VOA

Prep Batch: 463779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-137586-1	Top Soil	Total/NA	Solid	3550C	
490-137586-2	Backfill	Total/NA	Solid	3550C	
MB 490-463779/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 490-463779/2-A	Lab Control Sample	Total/NA	Solid	3550C	
490-137586-2 MS	Backfill	Total/NA	Solid	3550C	
490-137586-2 MSD	Backfill	Total/NA	Solid	3550C	

Analysis Batch: 463781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-137586-1	Top Soil	Total/NA	Solid	8270D SIM	463779
490-137586-2	Backfill	Total/NA	Solid	8270D SIM	463779
MB 490-463779/1-A	Method Blank	Total/NA	Solid	8270D SIM	463779
LCS 490-463779/2-A	Lab Control Sample	Total/NA	Solid	8270D SIM	463779
490-137586-2 MS	Backfill	Total/NA	Solid	8270D SIM	463779
490-137586-2 MSD	Backfill	Total/NA	Solid	8270D SIM	463779

Metals

Prep Batch: 463886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-137586-1	Top Soil	Total/NA	Solid	7471B	
490-137586-2	Backfill	Total/NA	Solid	7471B	
MB 490-463886/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 490-463886/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 463964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-137586-1	Top Soil	Total/NA	Solid	3051A	
490-137586-2	Backfill	Total/NA	Solid	3051A	
MB 490-463964/1-A	Method Blank	Total/NA	Solid	3051A	
LCS 490-463964/19-A	Lab Control Sample	Total/NA	Solid	3051A	
LCS 490-463964/2-A	Lab Control Sample	Total/NA	Solid	3051A	

Analysis Batch: 464225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-137586-1	Top Soil	Total/NA	Solid	7471B	463886
490-137586-2	Backfill	Total/NA	Solid	7471B	463886
MB 490-463886/1-A	Method Blank	Total/NA	Solid	7471B	463886
LCS 490-463886/2-A	Lab Control Sample	Total/NA	Solid	7471B	463886

Analysis Batch: 464272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-137586-1	Top Soil	Total/NA	Solid	6020A	463964
490-137586-2	Backfill	Total/NA	Solid	6020A	463964
MB 490-463964/1-A	Method Blank	Total/NA	Solid	6020A	463964
LCS 490-463964/2-A	Lab Control Sample	Total/NA	Solid	6020A	463964

Analysis Batch: 464277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 490-463964/19-A	Lab Control Sample	Total/NA	Solid	6020A	463964

Metals (Continued)

Analysis Batch: 464277 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 490-463964/2-A	Lab Control Sample	Total/NA	Solid	6020A	463964

General Chemistry

Analysis Batch: 463826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-137586-1	Top Soil	Total/NA	Solid	Moisture	
490-137586-2	Backfill	Total/NA	Solid	Moisture	
490-137586-1 DU	Top Soil	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

Client Sample ID: Top Soil — Lab Sample ID: 490-137586-1

Date Collected: 09/27/17 16:30
Date Received: 09/28/17 09:25
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			463826	09/28/17 12:49	BAA	TAL NSH

Client Sample ID: Top Soil — Lab Sample ID: 490-137586-1

Date Collected: 09/27/17 16:30
Date Received: 09/28/17 09:25
Matrix: Solid
Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.55 g	1.00 mL	463779	09/28/17 11:27	MNM	TAL NSH
Total/NA	Analysis	8270D SIM		1			463781	09/28/17 21:04	WDS	TAL NSH
Total/NA	Prep	3051A			0.525 g	100 mL	463964	09/29/17 00:06	BVH	TAL NSH
Total/NA	Analysis	6020A		1			464272	09/29/17 17:02	BLG	TAL NSH
Total/NA	Prep	7471B			0.605 g	100 mL	463886	09/28/17 15:36	RDF	TAL NSH
Total/NA	Analysis	7471B		1			464225	09/29/17 12:23	RDF	TAL NSH

Client Sample ID: Backfill — Lab Sample ID: 490-137586-2

Date Collected: 09/27/17 16:35
Date Received: 09/28/17 09:25
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			463826	09/28/17 12:49	BAA	TAL NSH

Client Sample ID: Backfill — Lab Sample ID: 490-137586-2

Date Collected: 09/27/17 16:35
Date Received: 09/28/17 09:25
Matrix: Solid
Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			30.83 g	1.00 mL	463779	09/28/17 11:27	MNM	TAL NSH
Total/NA	Analysis	8270D SIM		1			463781	09/28/17 21:25	WDS	TAL NSH
Total/NA	Prep	3051A			0.506 g	100 mL	463964	09/29/17 00:06	BVH	TAL NSH
Total/NA	Analysis	6020A		1			464272	09/29/17 17:05	BLG	TAL NSH
Total/NA	Prep	7471B			0.603 g	100 mL	463886	09/28/17 15:36	RDF	TAL NSH
Total/NA	Analysis	7471B		1			464225	09/29/17 12:26	RDF	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

Method	Method Description	Protocol	Laboratory
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL NSH
6020A	Metals (ICP/MS)	SW846	TAL NSH
7471B	Mercury (CVAA)	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Wilcox Oil Refinery Removal Asessment

TestAmerica Job ID: 490-137586-1

Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Oklahoma	State Program	6	9412	08-31-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-137586 Chain of Custody

Cooler Received/Opened On__09-28-2017 @ 0925_____

Time Samples Removed From Cooler 1048 Time Samples Placed In Storage 1100 (2 Hour Window)

1. Tracking # 5149 (last 4 digits, FedEx) Courier: _FedEx_

   IR Gun ID__31470368_____ pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 1.9 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

   If yes, how many and where: 1 (front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) KD

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

   Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

   b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) AOH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

   b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) AOH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) AOH

I certify that I attached a label with the unique LIMS number to each container (intial) AOH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment

TestAmerica Nashville
2960 Foster Creighton Drive

Nashville, TN 37204-3719
phone 615.726.0177 fax 615.726.3404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jeff Wright	Site Contact:	Date:	COC No:
WESTON Solutions, Inc.	Tel/Fax:	Lab Contact:	Carrier:	____ of ____ COCs
5599 San Felipe, Suite 700	Analysis Turnaround Time			Sampler:
Houston, Texas 77056	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
713-985-6600 Phone	TAT if different from Below ____			Walk-in Client:
713-985-6703 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Wilcox Oil Refinery Removal Assessment	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.:
P O #	☒ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	SVOC SIMs (PAHs)-Benzo[a]pyre	TPH Metals	Hg	Sample Specific Notes:
Top Soil	9/27/17	1630	GS	S	2			X	X	X	
Backfill	9/27/17	1635	G	S	2			X	X	X	

Loc: 490
137586

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐Return to Client ☒Disposal by Lab ☐Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 1.9 Corr'd: ____ | Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Weston Solutions	9/27/17 2100	Fed Ex		
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: TAN	Date/Time: 9/28/17 0925
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.14, dated 9/22/2017

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

COOLER RECEIPT FORM

490-137586 Chain of Custody

Cooler Received/Opened On__09-28-2017 @ 0925_____

Time Samples Removed From Cooler 1048 Time Samples Placed In Storage 1100 (2 Hour Window)

1. Tracking # 5149 (last 4 digits, FedEx) Courier: _FedEx_

   IR Gun ID__31470368_____ pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 1.9 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

   If yes, how many and where: 1 (front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) KD

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

   Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

   b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) AOH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

   b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) AOH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) AOH

I certify that I attached a label with the unique LIMS number to each container (intial) AOH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment

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Nashville, TN 37204-3719
phone 615.726.0177 fax 615.726.3404

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Jeff Wright	Site Contact:	Date:	COC No:
WESTON Solutions, Inc.	Tel/Fax:	Lab Contact:	Carrier:	____ of ____ COCs
5599 San Felipe, Suite 700	Analysis Turnaround Time			Sampler:
Houston, Texas 77056	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
713-985-6600 Phone	TAT if different from Below ____			Walk-in Client:
713-985-6703 FAX	☐ 2 weeks			Lab Sampling:
Project Name: Wilcox Oil Refinery Removal Assessment	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.:
P O #	☒ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	SVOC SIMs (PAHs)-Benzo[a]pyre	TPH Metals	Hg	Sample Specific Notes:
Top Soil	9/27/17	1630	GS	S	2			X	X	X	
Backfill	9/27/17	1635	G	S	2			X	X	X	

Loc: 490
137586

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐Return to Client ☒Disposal by Lab ☐Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 1.9 Corr'd: ____ | Therm ID No.: ____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	Weston Solutions	9/27/17 2100	Fed Ex		
Relinquished by:	Company:	Date/Time:	Received by: [signature]	Company: FAL	Date/Time: 9/28/17 0925
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

1.9

Form No. CA-C-WI-002, Rev. 4.14, dated 9/22/2017

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 490-137586-1

Login Number: 137586
List Number: 1
Creator: Huskey, Adam

List Source: TestAmerica Nashville

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	