Gulf Coast ACCUTEST LABORATORIES

09/03/14

Technical Report for

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Accutest Job Number: TC52863

Sampling Date: 08/07/14

Report to:

Weston Solutions

k.warr@westonsolutions.com

ATTN: Kristie Kettler

Total number of pages in report: **339**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

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9855899

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Certifications: TX (T104704220-14-15, 1M104704220-14-1) AR (14-016-0) AZ (AZ0769) FL (E87628) KS (E-10366) LA (85695/04004) NJ (TX010) OK (2014-139) VA (2085)

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Accutest LabLink@67887 10:49 03-Sep-2014

Sample Summary

Weston Solutions

CES- Chemical Spill/4904 Griggs, Houston, TX

Job No: TC52863

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
TC52863-1	08/07/14	11:20		08/07/14	AQ	Water	CES-CS-TANK 408
TC52863-2	08/07/14	12:15		08/07/14	AQ	Water	CES-CS-TANK 407

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Weston Solutions	**Job No**	TC52863
Site:	CES- Chemical Spill/4904 Griggs, Houston, TX	**Report Date**	8/29/2014 3:13:28 PM

2 Samples were collected on 08/07/2014 and received intact at Accutest on 08/07/2014 and properly preserved in 4 coolers at 3.43, 3.1, 2.2 and 1.2 Deg C. These Samples received an Accutest job number of TC52863. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix AQ **Batch ID:** VE1560

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52893-1MS, TC52893-1MSD were used as the QC samples indicated.
- TC52863-1: Dilution required due to matrix interference.
- TC52863-2: Dilution required due to matrix interference.

Extractables by GCMS By Method SW846 8270D

Matrix AQ **Batch ID:** OP33496

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52763-2MS, TC52763-2MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for 4-Chloroaniline are outside control limits. Probable cause due to matrix interference.
- RPD(s) for MSD for 4-Chloroaniline are outside control limits for sample OP33496-MSD. Probable cause due to sample non-homogeneity.
- Sample(s) TC52863-1, TC52863-2 have surrogates outside control limits. Outside control limits due to dilution.
- TC52863-1: Elevated reporting limits due to matrix interference; final volume 2 ml. Dilution required due to high concentration of non-target compounds.
- TC52863-2: Elevated reporting limits due to matrix interference; final volume 1.4 ml. Dilution required due to high concentration of non-target compounds.

Extractables by GC By Method SW846 8081A

Matrix AQ **Batch ID:** OP33544

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52863-2 have surrogates outside control limits. Outside control limits biased high due to matrix interference. Confirmed by re-extraction and reanalysis.
- OP33544-BSD: Insufficient sample volume for MS/MSD
- TC52863-2: Confirmation run for surrogate recoveries.
- TC52863-2 for gamma-BHC (Lindane): More than 40% RPD for detected concentrations between two GC columns.

Extractables by GC By Method SW846 8082

Matrix AQ	**Batch ID:** OP33546

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- TC52863-2: Acid clean-up performed by method 3665A. TBA clean-up performed by method 3660.
- OP33546-BSD: Insufficient sample volume for MS/MSD
- OP33546-MB: Acid clean-up performed by method 3665A. TBA clean-up performed by method 3660.
- TC52863-1: Acid clean-up performed by method 3665A. TBA clean-up performed by method 3660.
- OP33546-BS: Acid clean-up performed by method 3665A. TBA clean-up performed by method 3660.

Extractables by GC By Method SW846 8151

Matrix AQ	**Batch ID:** OP33547

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52863-1MS, TC52863-1MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 2,4,5-TP (Silvex), 2,4,5-T are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 2,4,5-T, 2,4,5-TP (Silvex), 2,4-D are outside control limits. Probable cause due to matrix interference.
- RPD(s) for MSD for 2,4,5-T, 2,4,5-TP (Silvex), 2,4-D are outside control limits for sample OP33547-MSD. Probable cause due to sample non-homogeneity.
- Sample(s) OP33547-MS, OP33547-MSD, TC52863-1, TC52863-2 have surrogates outside control limits. Outside control limits biased high due to matrix interference. Confirmed by MS/MSD.
- TC52863-2: Confirmation run for surrogate recoveries.
- TC52863-2 for 2,4-DCAA: Outside control limits due to dilution.
- OP33547-MS for 2,4,5-T: Outside control limits due to dilution.
- TC52863-2 for 2,4-DCAA: Outside control limits biased high. Results confirmed by reanalysis at dilution.
- TC52863-1 for 2,4-D: More than 40% RPD for detected concentrations between two GC columns.

Extractables by GC By Method TNRCC 1005

Matrix AQ	**Batch ID:** OP33505

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52957-1MS, TC52957-1MSD were used as the QC samples indicated.
- Sample(s) TC52863-1, TC52863-2 have surrogates outside control limits. Outside control limits due to dilution.

Metals By Method EPA 200.7

Matrix AQ	**Batch ID:** MP23977

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52835-1MS, TC52835-1MSD, TC52835-1SDL were used as the QC samples for metals.

Metals By Method SW846 6010B

Matrix AQ	Batch ID: MP23977

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52835-1MS, TC52835-1MSD, TC52835-1SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.
- RPD(s) for Serial Dilution for Aluminum, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Vanadium, Zinc are outside control limits for sample MP23977-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- TC52863-2 for Manganese: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Cadmium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Calcium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Potassium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Nickel: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Magnesium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Iron: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Copper: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Selenium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Chromium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Cobalt: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Sodium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Arsenic: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Selenium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Potassium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Nickel: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Manganese: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Magnesium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Iron: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Copper: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Cobalt: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Chromium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Calcium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Cadmium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Antimony: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Barium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Beryllium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Antimony: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Aluminum: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Zinc: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Vanadium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Sodium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Vanadium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Zinc: Elevated reporting limit due to dilution required for matrix interference.

Metals By Method SW846 6010B

Matrix	AQ	Batch ID:	MP23977

- TC52863-2 for Aluminum: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Arsenic: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-2 for Barium: Elevated reporting limit due to dilution required for matrix interference.
- TC52863-1 for Beryllium: Elevated reporting limit due to dilution required for matrix interference.

Metals By Method SW846 7470A

Matrix	AQ	Batch ID:	MP24017

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC53134-1MS, TC53134-1MSD were used as the QC samples for metals.
- TC52863-1 for Mercury: Elevated reporting limit due to dilution required for matrix interference.

Wet Chemistry By Method ASTM 2710F

Matrix	AQ	Batch ID:	GN60299

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52863-1DUP were used as the QC samples for Specific Gravity.

Wet Chemistry By Method ASTM D240-92

Matrix	SO	Batch ID:	N:GP82199

- TC52863-2 for Heat Content, BTU: Analysis performed at Accutest Laboratories, Dayton, NJ.
- TC52863-1 for Heat Content, BTU: Analysis performed at Accutest Laboratories, Dayton, NJ.

Wet Chemistry By Method ASTM D4377

Matrix	SO	Batch ID:	GN60391

- Sample(s) TC52863-1DUP were used as the QC samples for Moisture, Karl Fischer.

Wet Chemistry By Method ASTM D445/6

Matrix	AQ	Batch ID:	N:GN9904

- TC52863-1 for Viscosity At 40 Deg. C: Analysis performed at Accutest Laboratories, Dayton, NJ.
- TC52863-2 for Viscosity At 40 Deg. C: Analysis performed at Accutest Laboratories, Dayton, NJ.

Wet Chemistry By Method EPA 120.1

Matrix	AQ	Batch ID:	GN60318

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52711-2DUP were used as the QC samples for Specific Conductivity.

Wet Chemistry By Method EPA 300/SW846 9056

Matrix AQ	**Batch ID:** GP29040

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52823-1DUP, TC52823-1MS, TC52823-1MS were used as the QC samples for Bromide, Fluoride, Nitrogen, Nitrate, Nitrogen, Nitrite, Nitrogen, Nitrite.
- Matrix Spike Recovery(s) for Bromide, Fluoride, Nitrogen, Nitrate, Nitrogen, Nitrite are outside control limits. Probable cause due to matrix interference.

Matrix AQ	**Batch ID:** GP29094

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52816-1DUP, TC52816-1MS, TC52816-1MS were used as the QC samples for Chloride, Sulfate, Sulfate.

Wet Chemistry By Method EPA 335.4/SW 9012

Matrix AQ	**Batch ID:** GP29066

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52907-1DUP, TC52907-1MS were used as the QC samples for Cyanide.
- TC52863-1 for Cyanide: Elevated reporting limit due to matrix interference.
- TC52863-2 for Cyanide: Elevated reporting limit due to matrix interference.

Wet Chemistry By Method EPA 350.1

Matrix AQ	**Batch ID:** GP29030

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52857-2AMS, TC52857-2ADUP were used as the QC samples for Nitrogen, Ammonia.
- RPD(s) for Duplicate for Nitrogen, Ammonia are outside control limits for sample GP29030-D1. RPD acceptable due to low duplicate and sample concentrations.

Wet Chemistry By Method SM 2540D

Matrix AQ	**Batch ID:** GN60300

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52973-1DUP were used as the QC samples for Solids, Total Suspended.

Wet Chemistry By Method SM 4500H+B/9040

Matrix AQ	**Batch ID:** GN60272

- Sample(s) TC52940-2DUP were used as the QC samples for pH.
- TC52863-1 for pH: Field analysis required. Received out of hold time and analyzed by request.TEMP 22.4
- TC52863-2 for pH: Field analysis required. Received out of hold time and analyzed by request.TEMP 21.5 C

Wet Chemistry By Method SM 4500PE

Matrix	AQ	Batch ID:	GP29086

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52816-1DUP, TC52816-1MS were used as the QC samples for Phosphorus, Total.

Wet Chemistry By Method SM 4500S+F

Matrix	AQ	Batch ID:	GN60376

- All method blanks for this batch meet method specific criteria.
- The following samples were run outside of holding time for method SM 4500S+F: TC52863-1, TC52863-2
- TC52863-2 for Sulfide: Elevated reporting limit due to matrix interference.
- TC52863-1 for Sulfide: Elevated reporting limit due to matrix interference.

Wet Chemistry By Method SM5310B/9060A

Matrix	AQ	Batch ID:	GP29058

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) TC52960-3DUP, TC52960-3MS were used as the QC samples for Total Organic Carbon.

Wet Chemistry By Method SW846 1010

Matrix	AQ	Batch ID:	GN60435

- Sample(s) TC52863-1DUP were used as the QC samples for Ignitability (Flashpoint).

Wet Chemistry By Method SW846 9020B M

Matrix	AQ	Batch ID:	N:GP82177

- TC52863-2 for Total Organic Halides: Second column analysis indicates possible matrix interference and possible high bias. Analysis performed at Accutest Laboratories, Dayton, NJ.
- TC52863-1 for Total Organic Halides: Second column analysis indicates possible matrix interference and possible high bias. Analysis performed at Accutest Laboratories, Dayton, NJ.

Wet Chemistry By Method SW846 CHAP7

Matrix	SO	Batch ID:	GN60273

- Sample(s) TC52863-1DUP were used as the QC samples for Corrosivity as pH.
- TC52863-1 for Corrosivity as pH: TEMP 22.4 C
- TC52863-2 for Corrosivity as pH: TEMP 21.5 C

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Accutest Laboratories Gulf Coast, Inc.	**Job No**	TC52863
Site:	RFWTXHO: CES- Chemical Spill/4904 Griggs, Houston, TX	**Report Date**	8/14/2014 9:42:01 AM

On 08/09/2014, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of 3 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of TC52863 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Wet Chemistry By Method ASTM D240-92

Matrix: SO **Batch ID:** GP82199

- The data for ASTM D240-92 meets quality control requirements.

Wet Chemistry By Method ASTM D445/6

Matrix: AQ **Batch ID:** GN9904

- Sample(s) TC52863-2DUP were used as the QC samples for Viscosity At 40 Deg. C.

Wet Chemistry By Method SW846 9020B M

Matrix: AQ **Batch ID:** GP82177

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB73589-1DUP, JB73589-1MS were used as the QC samples for Total Organic Halides.
- TC52863-2 for Total Organic Halides: Second column analysis indicates possible matrix interference and possible high bias.
- TC52863-1 for Total Organic Halides: Second column analysis indicates possible matrix interference and possible high bias.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: TC52863
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 08/07/14

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Lab Sample ID Analyte	Client Sample ID	Result/ Qual	MQL	SDL	Units	Method
TC52863-1	**CES-CS-TANK 408**					
Acetone [a]		30900	2500	500	ug/l	SW846 8260C
Ethylbenzene [a]		127	50	16	ug/l	SW846 8260C
Methyl ethyl ketone [a]		2480	500	140	ug/l	SW846 8260C
Toluene [a]		1970	50	16	ug/l	SW846 8260C
Xylene (total) [a]		688	150	43	ug/l	SW846 8260C
Benzoic Acid		11100	4000	2000	ug/l	SW846 8270D
4-Chloro-3-methyl phenol [b]		1080	100	23	ug/l	SW846 8270D
2,4-Dimethylphenol [b]		175	100	21	ug/l	SW846 8270D
2-Methylphenol [b]		326	100	19	ug/l	SW846 8270D
3&4-Methylphenol [b]		1890	100	22	ug/l	SW846 8270D
Phenol		2860	1000	290	ug/l	SW846 8270D
Benzyl Alcohol [b]		163	100	18	ug/l	SW846 8270D
Fluorene [b]		41.4 J	100	25	ug/l	SW846 8270D
2-Methylnaphthalene [b]		209	100	25	ug/l	SW846 8270D
Naphthalene [b]		132	100	21	ug/l	SW846 8270D
Phenanthrene [b]		109	100	30	ug/l	SW846 8270D
Pyrene [b]		34.5 J	100	29	ug/l	SW846 8270D
2,4-D [c]		4.6 J	5.0	1.0	ug/l	SW846 8151
TPH (C6-C12)		313	250	59	mg/l	TNRCC 1005
TPH (> C12-C28)		15600	250	86	mg/l	TNRCC 1005
TPH (> C28-C35)		4780	250	86	mg/l	TNRCC 1005
TPH (C6-C35)		20700	250	59	mg/l	TNRCC 1005
Aluminum [d]		300	17	1.5	mg/l	SW846 6010B
Antimony [d]		0.765	0.42	0.088	mg/l	SW846 6010B
Arsenic [d]		0.547	0.42	0.39	mg/l	SW846 6010B
Barium [d]		136	17	0.033	mg/l	SW846 6010B
Beryllium [d]		0.0345 J	0.33	0.015	mg/l	SW846 6010B
Cadmium [d]		0.0507 J	0.33	0.019	mg/l	SW846 6010B
Calcium [d]		601	420	2.8	mg/l	SW846 6010B
Chromium [d]		33.6	0.83	0.052	mg/l	SW846 6010B
Cobalt [d]		0.184 J	4.2	0.019	mg/l	SW846 6010B
Copper [d]		35.2	1.7	0.24	mg/l	SW846 6010B
Iron [d]		3070	8.3	2.5	mg/l	SW846 6010B
Lead		9.33	0.25	0.082	mg/l	EPA 200.7
Magnesium [d]		52.4 J	420	1.6	mg/l	SW846 6010B
Manganese [d]		8.89	1.3	0.021	mg/l	SW846 6010B
Mercury [d]		0.0022	0.00040	0.00010	mg/l	SW846 7470A
Nickel [d]		3.53	3.3	0.033	mg/l	SW846 6010B
Potassium [d]		53.8 J	420	4.3	mg/l	SW846 6010B
Selenium [d]		0.256 J	0.42	0.20	mg/l	SW846 6010B
Sodium [d]		196 J	420	1.9	mg/l	SW846 6010B
Vanadium [d]		1.78 J	4.2	0.043	mg/l	SW846 6010B
Zinc [d]		78.0	1.7	0.12	mg/l	SW846 6010B

Summary of Hits

Job Number: TC52863
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 08/07/14

Lab Sample ID Client Sample ID Analyte	Result/ Qual	MQL	SDL	Units	Method
Bromide	5.1	0.50	0.28	mg/l	EPA 300/SW846 9056
Chloride	289	25	13	mg/l	EPA 300/SW846 9056
Corrosivity as pH [e]	4.7				SW846 CHAP7
Heat Content, BTU [f]	4480	100		BTU/lb	ASTM D240-92
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010
Moisture, Karl Fischer	94.70	0.10		wt%	ASTM D4377
Nitrogen, Ammonia	43.6	2.0	0.20	mg/l	EPA 350.1
Nitrogen, Nitrate	1.2	0.50	0.26	mg/l	EPA 300/SW846 9056
Phosphorus, Total	14.8	1.0	0.50	mg/l	SM 4500PE
Solids, Total Suspended	593	8.0	4.0	mg/l	SM 2540D
Specific Conductivity	4040	1.0		umhos/cm	EPA 120.1
Specific Gravity	0.98				ASTM 2710F
Sulfate	5650	250	130	mg/l	EPA 300/SW846 9056
Total Organic Carbon	10400	200	63	mg/l	SM5310B/9060A
Total Organic Halides [g]	26.8	0.20	0.12	mg/l	SW846 9020B M
Viscosity At 40 Deg. C [f]	0.77	0.50		cS	ASTM D445/6
pH [h]	4.67			su	SM 4500H+ B/9040
TC52863-2 CES-CS-TANK 407					
Acetone [a]	17100	2500	500	ug/l	SW846 8260C
Benzene [a]	31.9 J	50	17	ug/l	SW846 8260C
Ethylbenzene [a]	154	50	16	ug/l	SW846 8260C
Methyl ethyl ketone [a]	8130	500	140	ug/l	SW846 8260C
Styrene [a]	129	50	15	ug/l	SW846 8260C
Toluene [a]	375	50	16	ug/l	SW846 8260C
Xylene (total) [a]	862	150	43	ug/l	SW846 8260C
Benzoic Acid	9850	2800	1400	ug/l	SW846 8270D
4-Chloro-3-methyl phenol [i]	302	71	16	ug/l	SW846 8270D
2-Methylphenol [i]	39.0 J	71	14	ug/l	SW846 8270D
3&4-Methylphenol [i]	117	71	15	ug/l	SW846 8270D
Phenol [i]	643	71	21	ug/l	SW846 8270D
Benzyl Alcohol [i]	100	71	12	ug/l	SW846 8270D
2-Methylnaphthalene [i]	75.8	71	17	ug/l	SW846 8270D
Naphthalene [i]	44.1 J	71	15	ug/l	SW846 8270D
Phenanthrene [i]	24.7 J	71	21	ug/l	SW846 8270D
gamma-BHC (Lindane) [c]	0.064 J	0.15	0.052	ug/l	SW846 8081A
alpha-Chlordane	0.12 J	0.15	0.033	ug/l	SW846 8081A
2,4-D	15.4	5.0	1.0	ug/l	SW846 8151
TPH (C6-C12)	748	63	15	mg/l	TNRCC 1005
TPH (> C12-C28)	9720	63	21	mg/l	TNRCC 1005
TPH (> C28-C35)	3620	63	21	mg/l	TNRCC 1005
TPH (C6-C35)	14100	63	15	mg/l	TNRCC 1005
Aluminum [d]	20.1	1.0	0.088	mg/l	SW846 6010B
Antimony [d]	0.323	0.025	0.0053	mg/l	SW846 6010B

Summary of Hits

Job Number: TC52863
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 08/07/14

Lab Sample ID Client Sample ID Analyte	Result/ Qual	MQL	SDL	Units	Method
Arsenic [d]	0.0721	0.025	0.023	mg/l	SW846 6010B
Barium [d]	2.60	1.0	0.0020	mg/l	SW846 6010B
Beryllium [d]	0.0026 J	0.020	0.00090	mg/l	SW846 6010B
Cadmium [d]	0.0101 J	0.020	0.0012	mg/l	SW846 6010B
Calcium [d]	603	25	0.17	mg/l	SW846 6010B
Chromium [d]	1.18	0.050	0.0031	mg/l	SW846 6010B
Cobalt [d]	0.115 J	0.25	0.0012	mg/l	SW846 6010B
Copper [d]	1.59	0.10	0.014	mg/l	SW846 6010B
Iron [d]	575	0.50	0.15	mg/l	SW846 6010B
Lead	0.208	0.015	0.0049	mg/l	EPA 200.7
Magnesium [d]	82.4	25	0.094	mg/l	SW846 6010B
Manganese [d]	12.8	0.075	0.0013	mg/l	SW846 6010B
Mercury	0.00065	0.00020	0.000050	mg/l	SW846 7470A
Nickel [d]	1.42	0.20	0.0020	mg/l	SW846 6010B
Potassium [d]	136	25	0.26	mg/l	SW846 6010B
Selenium [d]	0.0614	0.025	0.012	mg/l	SW846 6010B
Sodium [d]	844	25	0.11	mg/l	SW846 6010B
Vanadium [d]	0.249 J	0.25	0.0026	mg/l	SW846 6010B
Zinc [d]	42.8	0.10	0.0074	mg/l	SW846 6010B
Bromide	6.8	0.50	0.28	mg/l	EPA 300/SW846 9056
Chloride	365	25	13	mg/l	EPA 300/SW846 9056
Corrosivity as pH [j]	4.5				SW846 CHAP7
Fluoride	0.54	0.50	0.25	mg/l	EPA 300/SW846 9056
Heat Content, BTU [f]	3800	100		BTU/lb	ASTM D240-92
Ignitability (Flashpoint)	> 200			Deg. F	SW846 1010
Moisture, Karl Fischer	94.40	0.10		wt%	ASTM D4377
Nitrogen, Ammonia	42.8	2.0	0.20	mg/l	EPA 350.1
Nitrogen, Nitrate	0.76	0.50	0.26	mg/l	EPA 300/SW846 9056
Phosphorus, Total	6.7	1.0	0.50	mg/l	SM 4500PE
Solids, Total Suspended	5840	60	30	mg/l	SM 2540D
Specific Conductivity	3940	1.0		umhos/cm	EPA 120.1
Specific Gravity	0.99				ASTM 2710F
Sulfate	6920	250	130	mg/l	EPA 300/SW846 9056
Total Organic Carbon	8890	200	63	mg/l	SM5310B/9060A
Total Organic Halides [g]	6.5	0.20	0.12	mg/l	SW846 9020B M
Viscosity At 40 Deg. C [f]	0.60	0.50		cS	ASTM D445/6
pH [k]	4.52			su	SM 4500H+ B/9040

(a) Dilution required due to matrix interference.
(b) Elevated reporting limits due to matrix interference; final volume 2 ml. Dilution required due to high concentration of non-target compounds.
(c) More than 40% RPD for detected concentrations between two GC columns.
(d) Elevated reporting limit due to dilution required for matrix interference.
(e) TEMP 22.4 C
(f) Analysis performed at Accutest Laboratories, Dayton, NJ.

Summary of Hits

Job Number: TC52863
Account: Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Collected: 08/07/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	MQL	SDL	Units	Method

(g) Second column analysis indicates possible matrix interference and possible high bias. Analysis performed at Accutest Laboratories, Dayton, NJ.
(h) Field analysis required. Received out of hold time and analyzed by request.TEMP 22.4
(i) Elevated reporting limits due to matrix interference; final volume 1.4 ml. Dilution required due to high concentration of non-target compounds.
(j) TEMP 21.5 C
(k) Field analysis required. Received out of hold time and analyzed by request.TEMP 21.5 C

Gulf Coast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	CES-CS-TANK 408		
Lab Sample ID:	TC52863-1	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	E0034489.D	50	08/11/14	CF	n/a	n/a	VE1560
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	30900	2500	500	ug/l	
71-43-2	Benzene	17 U	50	17	ug/l	
75-27-4	Bromodichloromethane	17 U	50	17	ug/l	
75-25-2	Bromoform	22 U	50	22	ug/l	
108-90-7	Chlorobenzene	13 U	50	13	ug/l	
75-00-3	Chloroethane	36 U	50	36	ug/l	
67-66-3	Chloroform	17 U	50	17	ug/l	
75-15-0	Carbon disulfide	18 U	50	18	ug/l	
56-23-5	Carbon tetrachloride	22 U	50	22	ug/l	
75-34-3	1,1-Dichloroethane	17 U	50	17	ug/l	
75-35-4	1,1-Dichloroethylene	23 U	50	23	ug/l	
107-06-2	1,2-Dichloroethane	18 U	50	18	ug/l	
78-87-5	1,2-Dichloropropane	17 U	50	17	ug/l	
124-48-1	Dibromochloromethane	18 U	50	18	ug/l	
156-59-2	cis-1,2-Dichloroethylene	20 U	50	20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	14 U	50	14	ug/l	
156-60-5	trans-1,2-Dichloroethylene	24 U	50	24	ug/l	
10061-02-6	trans-1,3-Dichloropropene	16 U	50	16	ug/l	
100-41-4	Ethylbenzene	127	50	16	ug/l	
591-78-6	2-Hexanone	130 U	500	130	ug/l	
108-10-1	4-Methyl-2-pentanone	110 U	500	110	ug/l	
74-83-9	Methyl bromide	25 U	50	25	ug/l	
74-87-3	Methyl chloride	32 U	50	32	ug/l	
75-09-2	Methylene chloride	81 U	250	81	ug/l	
78-93-3	Methyl ethyl ketone	2480	500	140	ug/l	
100-42-5	Styrene	15 U	50	15	ug/l	
71-55-6	1,1,1-Trichloroethane	21 U	50	21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	20 U	50	20	ug/l	
79-00-5	1,1,2-Trichloroethane	17 U	50	17	ug/l	
127-18-4	Tetrachloroethylene	23 U	50	23	ug/l	
108-88-3	Toluene	1970	50	16	ug/l	
79-01-6	Trichloroethylene	24 U	50	24	ug/l	

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 408		
Lab Sample ID:	TC52863-1	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
75-01-4	Vinyl chloride	40 U	50	40	ug/l	
1330-20-7	Xylene (total)	688	150	43	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		72-122%
17060-07-0	1,2-Dichloroethane-D4	92%		68-124%
2037-26-5	Toluene-D8	94%		80-119%
460-00-4	4-Bromofluorobenzene	93%		72-126%

(a) Dilution required due to matrix interference.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 408		
Lab Sample ID:	TC52863-1	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	O11774.D	10	08/13/14	GJ	08/09/14	OP33496	EO652
Run #2	O11775.D	100	08/13/14	GJ	08/09/14	OP33496	EO652

	Initial Volume	Final Volume
Run #1	990 ml	2.0 ml
Run #2	990 ml	2.0 ml

ABN TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
65-85-0	Benzoic Acid	11100 [b]	4000	2000	ug/l	
95-57-8	2-Chlorophenol	19 U	100	19	ug/l	
59-50-7	4-Chloro-3-methyl phenol	1080	100	23	ug/l	
120-83-2	2,4-Dichlorophenol	22 U	100	22	ug/l	
105-67-9	2,4-Dimethylphenol	175	100	21	ug/l	
51-28-5	2,4-Dinitrophenol	200 U	510	200	ug/l	
534-52-1	4,6-Dinitro-o-cresol	110 U	200	110	ug/l	
95-48-7	2-Methylphenol	326	100	19	ug/l	
	3&4-Methylphenol	1890	100	22	ug/l	
88-75-5	2-Nitrophenol	23 U	100	23	ug/l	
100-02-7	4-Nitrophenol	140 U	510	140	ug/l	
87-86-5	Pentachlorophenol	200 U	510	200	ug/l	
108-95-2	Phenol	2860 [b]	1000	290	ug/l	
95-95-4	2,4,5-Trichlorophenol	20 U	100	20	ug/l	
88-06-2	2,4,6-Trichlorophenol	23 U	100	23	ug/l	
83-32-9	Acenaphthene	24 U	100	24	ug/l	
208-96-8	Acenaphthylene	24 U	100	24	ug/l	
120-12-7	Anthracene	28 U	100	28	ug/l	
56-55-3	Benzo(a)anthracene	30 U	100	30	ug/l	
50-32-8	Benzo(a)pyrene	27 U	100	27	ug/l	
205-99-2	Benzo(b)fluoranthene	24 U	100	24	ug/l	
191-24-2	Benzo(g,h,i)perylene	30 U	100	30	ug/l	
207-08-9	Benzo(k)fluoranthene	31 U	100	31	ug/l	
101-55-3	4-Bromophenyl phenyl ether	24 U	100	24	ug/l	
85-68-7	Butyl benzyl phthalate	25 U	100	25	ug/l	
100-51-6	Benzyl Alcohol	163	100	18	ug/l	
91-58-7	2-Chloronaphthalene	26 U	100	26	ug/l	
106-47-8	4-Chloroaniline	22 U	100	22	ug/l	
86-74-8	Carbazole	28 U	100	28	ug/l	
218-01-9	Chrysene	32 U	100	32	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	23 U	100	23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	19 U	100	19	ug/l	

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 408		
Lab Sample ID:	TC52863-1	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	18 U	100	18	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	26 U	100	26	ug/l	
95-50-1	1,2-Dichlorobenzene	22 U	100	22	ug/l	
541-73-1	1,3-Dichlorobenzene	22 U	100	22	ug/l	
106-46-7	1,4-Dichlorobenzene	22 U	100	22	ug/l	
121-14-2	2,4-Dinitrotoluene	25 U	100	25	ug/l	
606-20-2	2,6-Dinitrotoluene	21 U	100	21	ug/l	
91-94-1	3,3'-Dichlorobenzidine	26 U	200	26	ug/l	
53-70-3	Dibenzo(a,h)anthracene	27 U	100	27	ug/l	
132-64-9	Dibenzofuran	25 U	100	25	ug/l	
84-74-2	Di-n-butyl phthalate	27 U	100	27	ug/l	
117-84-0	Di-n-octyl phthalate	24 U	100	24	ug/l	
84-66-2	Diethyl phthalate	28 U	100	28	ug/l	
131-11-3	Dimethyl phthalate	28 U	100	28	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	30 U	100	30	ug/l	
206-44-0	Fluoranthene	28 U	100	28	ug/l	
86-73-7	Fluorene	41.4	100	25	ug/l	J
118-74-1	Hexachlorobenzene	31 U	100	31	ug/l	
87-68-3	Hexachlorobutadiene	24 U	100	24	ug/l	
77-47-4	Hexachlorocyclopentadiene	25 U	200	25	ug/l	
67-72-1	Hexachloroethane	25 U	100	25	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	21 U	100	21	ug/l	
78-59-1	Isophorone	24 U	100	24	ug/l	
91-57-6	2-Methylnaphthalene	209	100	25	ug/l	
88-74-4	2-Nitroaniline	26 U	100	26	ug/l	
99-09-2	3-Nitroaniline	25 U	100	25	ug/l	
100-01-6	4-Nitroaniline	27 U	100	27	ug/l	
91-20-3	Naphthalene	132	100	21	ug/l	
98-95-3	Nitrobenzene	23 U	100	23	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	22 U	100	22	ug/l	
86-30-6	N-Nitrosodiphenylamine	29 U	100	29	ug/l	
85-01-8	Phenanthrene	109	100	30	ug/l	
129-00-0	Pyrene	34.5	100	29	ug/l	J
120-82-1	1,2,4-Trichlorobenzene	21 U	100	21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%	0% c	10-66%
4165-62-2	Phenol-d5	54%	0% c	10-63%
118-79-6	2,4,6-Tribromophenol	0% c	0% c	32-128%

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 408		
Lab Sample ID:	TC52863-1	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	81%	0% c	29-115%
321-60-8	2-Fluorobiphenyl	57%	0% c	34-113%
1718-51-0	Terphenyl-d14	78%	0% c	23-138%

(a) Elevated reporting limits due to matrix interference; final volume 2 ml. Dilution required due to high concentration of non-target compounds.
(b) Result is from Run# 2
(c) Outside control limits due to dilution.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 408		
Lab Sample ID:	TC52863-1	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8151 SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DD772889.D	5	08/19/14	AR	08/14/14	OP33547	GDD2386
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2		

Herbicide List

CAS No.	Compound	Result	MQL	SDL	Units	Q
94-75-7	2,4-D [a]	4.6	5.0	1.0	ug/l	J
93-72-1	2,4,5-TP (Silvex)	0.20 U	1.0	0.20	ug/l	
93-76-5	2,4,5-T	0.17 U	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	2894% [b]		40-168%

(a) More than 40% RPD for detected concentrations between two GC columns.
(b) Outside control limits biased high due to matrix interference. Confirmed by MS/MSD.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 408		
Lab Sample ID:	TC52863-1	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8081A SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	NN175720.D	10	08/16/14	AR	08/13/14	OP33544	GNN1463
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	10.0 ml
Run #2		

Pesticide TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
309-00-2	Aldrin	0.10 U	0.51	0.10	ug/l	
319-84-6	alpha-BHC	0.22 U	0.51	0.22	ug/l	
319-85-7	beta-BHC	0.12 U	0.51	0.12	ug/l	
319-86-8	delta-BHC	0.10 U	0.51	0.10	ug/l	
58-89-9	gamma-BHC (Lindane)	0.17 U	0.51	0.17	ug/l	
5103-71-9	alpha-Chlordane	0.11 U	0.51	0.11	ug/l	
5103-74-2	gamma-Chlordane	0.11 U	0.51	0.11	ug/l	
60-57-1	Dieldrin	0.20 U	1.0	0.20	ug/l	
72-54-8	4,4'-DDD	0.33 U	1.0	0.33	ug/l	
72-55-9	4,4'-DDE	0.25 U	1.0	0.25	ug/l	
50-29-3	4,4'-DDT	0.38 U	1.0	0.38	ug/l	
72-20-8	Endrin	0.20 U	1.0	0.20	ug/l	
1031-07-8	Endosulfan sulfate	0.21 U	1.0	0.21	ug/l	
7421-93-4	Endrin aldehyde	0.36 U	1.0	0.36	ug/l	
53494-70-5	Endrin ketone	0.31 U	1.0	0.31	ug/l	
959-98-8	Endosulfan-I	0.18 U	1.0	0.18	ug/l	
33213-65-9	Endosulfan-II	0.21 U	1.0	0.21	ug/l	
76-44-8	Heptachlor	0.10 U	0.51	0.10	ug/l	
1024-57-3	Heptachlor epoxide	0.11 U	0.51	0.11	ug/l	
72-43-5	Methoxychlor	1.3 U	5.1	1.3	ug/l	
8001-35-2	Toxaphene	1.2 U	5.1	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		39-122%
2051-24-3	Decachlorobiphenyl	103%		28-123%

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 408		
Lab Sample ID:	TC52863-1	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	MM070932.D	1	08/15/14	AR	08/13/14	OP33546	GMM464
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	MQL	SDL	Units	Q
12674-11-2	Aroclor 1016	0.21 U	0.51	0.21	ug/l	
11104-28-2	Aroclor 1221	0.20 U	0.51	0.20	ug/l	
11141-16-5	Aroclor 1232	0.17 U	0.51	0.17	ug/l	
53469-21-9	Aroclor 1242	0.12 U	0.51	0.12	ug/l	
12672-29-6	Aroclor 1248	0.10 U	0.51	0.10	ug/l	
11097-69-1	Aroclor 1254	0.10 U	0.51	0.10	ug/l	
11096-82-5	Aroclor 1260	0.12 U	0.51	0.12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	54%		30-112%
2051-24-3	Decachlorobiphenyl	36%		27-119%

(a) Acid clean-up performed by method 3665A. TBA clean-up performed by method 3660.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 408		
Lab Sample ID:	TC52863-1	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	TNRCC 1005 TX1005	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LF103498.D	100	08/13/14	ZL	08/12/14	OP33505	GLF1529
Run #2							

	Initial Volume	Final Volume
Run #1	29.7 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	313	250	59	mg/l	
	TPH (> C12-C28)	15600	250	86	mg/l	
	TPH (> C28-C35)	4780	250	86	mg/l	
	TPH (C6-C35)	20700	250	59	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	132% [a]		70-130%
98-08-8	aaa-Trifluorotoluene	89%		70-130%

(a) Outside control limits due to dilution.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 408		
Lab Sample ID:	TC52863-1	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	300	17	1.5	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Antimony [a]	0.765	0.42	0.088	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Arsenic [a]	0.547	0.42	0.39	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Barium [a]	136	17	0.033	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Beryllium [a]	0.0345 J	0.33	0.015	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Cadmium [a]	0.0507 J	0.33	0.019	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Calcium [a]	601	420	2.8	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Chromium [a]	33.6	0.83	0.052	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Cobalt [a]	0.184 J	4.2	0.019	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Copper [a]	35.2	1.7	0.24	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Iron [a]	3070	8.3	2.5	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Lead	9.33	0.25	0.082	mg/l	5	08/08/14	08/11/14	NS	EPA 200.7 [2]	SW846 3010A [4]
Magnesium [a]	52.4 J	420	1.6	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Manganese [a]	8.89	1.3	0.021	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Mercury [a]	0.0022	0.00040	0.00010	mg/l	2	08/15/14	08/15/14	CC	SW846 7470A [3]	SW846 7470A [5]
Nickel [a]	3.53	3.3	0.033	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Potassium [a]	53.8 J	420	4.3	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Selenium [a]	0.256 J	0.42	0.20	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Silver	0.040 U	0.83	0.040	mg/l	5	08/08/14	08/11/14	NS	EPA 200.7 [2]	SW846 3010A [4]
Sodium [a]	196 J	420	1.9	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Thallium	0.13 U	0.83	0.13	mg/l	5	08/08/14	08/11/14	NS	EPA 200.7 [2]	SW846 3010A [4]
Vanadium [a]	1.78 J	4.2	0.043	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Zinc [a]	78.0	1.7	0.12	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]

(1) Instrument QC Batch: MA10019
(2) Instrument QC Batch: MA10020
(3) Instrument QC Batch: MA10037
(4) Prep QC Batch: MP23977
(5) Prep QC Batch: MP24017

(a) Elevated reporting limit due to dilution required for matrix interference.

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

U = Indicates a result < SDL
J = Indicates a result > = SDL but < MQL

Report of Analysis

Client Sample ID:	CES-CS-TANK 408		
Lab Sample ID:	TC52863-1	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Bromide	5.1	0.50	0.28	mg/l	1	08/07/14 18:36	ES	EPA 300/SW846 9056
Chloride	289	25	13	mg/l	50	08/12/14 20:31	ES	EPA 300/SW846 9056
Corrosivity as pH [a]	4.7				1	08/08/14	JG	SW846 CHAP7
Cyanide [b]	0.25 U	0.25	0.25	mg/l	50	08/11/14 16:11	CV	EPA 335.4/SW 9012
Fluoride	0.25 U	0.50	0.25	mg/l	1	08/07/14 18:36	ES	EPA 300/SW846 9056
Heat Content, BTU [c]	4480	100		BTU/lb	1	08/13/14	ANJ	ASTM D240-92
Hydrogen Sulfide	0.0 J	2.0		mg/l	1	08/14/14	CV	SM18 4500/EPA 376.1
Ignitability (Flashpoint)	> 200			Deg. F	1	08/18/14	DP	SW846 1010
Moisture, Karl Fischer	94.70	0.10		wt%	1	08/13/14 15:00	CV	ASTM D4377
Nitrogen, Ammonia	43.6	2.0	0.20	mg/l	20	08/08/14	DP	EPA 350.1
Nitrogen, Nitrate	1.2	0.50	0.26	mg/l	1	08/07/14 18:36	ES	EPA 300/SW846 9056
Nitrogen, Nitrite	0.26 U	0.50	0.26	mg/l	1	08/07/14 18:36	ES	EPA 300/SW846 9056
Phosphorus, Total	14.8	1.0	0.50	mg/l	50	08/12/14	BG	SM 4500PE
Solids, Total Suspended	593	8.0	4.0	mg/l	1	08/11/14	MS	SM 2540D
Specific Conductivity	4040	1.0		umhos/cm	1	08/11/14 13:20	BG	EPA 120.1
Specific Gravity	0.98				1	08/11/14 15:00	PA	ASTM 2710F
Sulfate	5650	250	130	mg/l	500	08/12/14 19:40	ES	EPA 300/SW846 9056
Sulfide [b]	0.025 U	0.40	0.025	mg/l	20	08/14/14 13:25	DP	SM 4500S+ F
Total Organic Carbon	10400	200	63	mg/l	200	08/11/14 13:32	ES	SM5310B/9060A
Total Organic Halides [d]	26.8	0.20	0.12	mg/l	4	08/12/14	ANJ	SW846 9020B M
Viscosity At 40 Deg. C [c]	0.77	0.50		cS	1	08/13/14	ANJ	ASTM D445/6
pH [e]	4.67			su	1	08/08/14	JG	SM 4500H+ B/9040

(a) TEMP 22.4 C
(b) Elevated reporting limit due to matrix interference.
(c) Analysis performed at Accutest Laboratories, Dayton, NJ.
(d) Second column analysis indicates possible matrix interference and possible high bias. Analysis performed at Accutest Laboratories, Dayton, NJ.
(e) Field analysis required. Received out of hold time and analyzed by request.TEMP 22.4

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

U = Indicates a result < SDL
J = Indicates a result > = SDL but < MQL

Report of Analysis

Client Sample ID:	CES-CS-TANK 407		
Lab Sample ID:	TC52863-2	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	E0034490.D	50	08/11/14	CF	n/a	n/a	VE1560
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	17100	2500	500	ug/l	
71-43-2	Benzene	31.9	50	17	ug/l	J
75-27-4	Bromodichloromethane	17 U	50	17	ug/l	
75-25-2	Bromoform	22 U	50	22	ug/l	
108-90-7	Chlorobenzene	13 U	50	13	ug/l	
75-00-3	Chloroethane	36 U	50	36	ug/l	
67-66-3	Chloroform	17 U	50	17	ug/l	
75-15-0	Carbon disulfide	18 U	50	18	ug/l	
56-23-5	Carbon tetrachloride	22 U	50	22	ug/l	
75-34-3	1,1-Dichloroethane	17 U	50	17	ug/l	
75-35-4	1,1-Dichloroethylene	23 U	50	23	ug/l	
107-06-2	1,2-Dichloroethane	18 U	50	18	ug/l	
78-87-5	1,2-Dichloropropane	17 U	50	17	ug/l	
124-48-1	Dibromochloromethane	18 U	50	18	ug/l	
156-59-2	cis-1,2-Dichloroethylene	20 U	50	20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	14 U	50	14	ug/l	
156-60-5	trans-1,2-Dichloroethylene	24 U	50	24	ug/l	
10061-02-6	trans-1,3-Dichloropropene	16 U	50	16	ug/l	
100-41-4	Ethylbenzene	154	50	16	ug/l	
591-78-6	2-Hexanone	130 U	500	130	ug/l	
108-10-1	4-Methyl-2-pentanone	110 U	500	110	ug/l	
74-83-9	Methyl bromide	25 U	50	25	ug/l	
74-87-3	Methyl chloride	32 U	50	32	ug/l	
75-09-2	Methylene chloride	81 U	250	81	ug/l	
78-93-3	Methyl ethyl ketone	8130	500	140	ug/l	
100-42-5	Styrene	129	50	15	ug/l	
71-55-6	1,1,1-Trichloroethane	21 U	50	21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	20 U	50	20	ug/l	
79-00-5	1,1,2-Trichloroethane	17 U	50	17	ug/l	
127-18-4	Tetrachloroethylene	23 U	50	23	ug/l	
108-88-3	Toluene	375	50	16	ug/l	
79-01-6	Trichloroethylene	24 U	50	24	ug/l	

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 407		
Lab Sample ID:	TC52863-2	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

VOA TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
75-01-4	Vinyl chloride	40 U	50	40	ug/l	
1330-20-7	Xylene (total)	862	150	43	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		72-122%
17060-07-0	1,2-Dichloroethane-D4	91%		68-124%
2037-26-5	Toluene-D8	95%		80-119%
460-00-4	4-Bromofluorobenzene	93%		72-126%

(a) Dilution required due to matrix interference.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 407		
Lab Sample ID:	TC52863-2	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	O11772.D	10	08/13/14	GJ	08/09/14	OP33496	EO652
Run #2	O11773.D	100	08/13/14	GJ	08/09/14	OP33496	EO652

	Initial Volume	Final Volume
Run #1	990 ml	1.4 ml
Run #2	990 ml	1.4 ml

ABN TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
65-85-0	Benzoic Acid	9850 [b]	2800	1400	ug/l	
95-57-8	2-Chlorophenol	14 U	71	14	ug/l	
59-50-7	4-Chloro-3-methyl phenol	302	71	16	ug/l	
120-83-2	2,4-Dichlorophenol	16 U	71	16	ug/l	
105-67-9	2,4-Dimethylphenol	15 U	71	15	ug/l	
51-28-5	2,4-Dinitrophenol	140 U	350	140	ug/l	
534-52-1	4,6-Dinitro-o-cresol	78 U	140	78	ug/l	
95-48-7	2-Methylphenol	39.0	71	14	ug/l	J
	3&4-Methylphenol	117	71	15	ug/l	
88-75-5	2-Nitrophenol	16 U	71	16	ug/l	
100-02-7	4-Nitrophenol	100 U	350	100	ug/l	
87-86-5	Pentachlorophenol	140 U	350	140	ug/l	
108-95-2	Phenol	643	71	21	ug/l	
95-95-4	2,4,5-Trichlorophenol	14 U	71	14	ug/l	
88-06-2	2,4,6-Trichlorophenol	16 U	71	16	ug/l	
83-32-9	Acenaphthene	17 U	71	17	ug/l	
208-96-8	Acenaphthylene	17 U	71	17	ug/l	
120-12-7	Anthracene	20 U	71	20	ug/l	
56-55-3	Benzo(a)anthracene	21 U	71	21	ug/l	
50-32-8	Benzo(a)pyrene	19 U	71	19	ug/l	
205-99-2	Benzo(b)fluoranthene	17 U	71	17	ug/l	
191-24-2	Benzo(g,h,i)perylene	21 U	71	21	ug/l	
207-08-9	Benzo(k)fluoranthene	21 U	71	21	ug/l	
101-55-3	4-Bromophenyl phenyl ether	17 U	71	17	ug/l	
85-68-7	Butyl benzyl phthalate	18 U	71	18	ug/l	
100-51-6	Benzyl Alcohol	100	71	12	ug/l	
91-58-7	2-Chloronaphthalene	18 U	71	18	ug/l	
106-47-8	4-Chloroaniline	15 U	71	15	ug/l	
86-74-8	Carbazole	20 U	71	20	ug/l	
218-01-9	Chrysene	22 U	71	22	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	16 U	71	16	ug/l	
111-44-4	bis(2-Chloroethyl)ether	13 U	71	13	ug/l	

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 407		
Lab Sample ID:	TC52863-2	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	13 U	71	13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	18 U	71	18	ug/l	
95-50-1	1,2-Dichlorobenzene	15 U	71	15	ug/l	
541-73-1	1,3-Dichlorobenzene	16 U	71	16	ug/l	
106-46-7	1,4-Dichlorobenzene	15 U	71	15	ug/l	
121-14-2	2,4-Dinitrotoluene	18 U	71	18	ug/l	
606-20-2	2,6-Dinitrotoluene	14 U	71	14	ug/l	
91-94-1	3,3'-Dichlorobenzidine	18 U	140	18	ug/l	
53-70-3	Dibenzo(a,h)anthracene	19 U	71	19	ug/l	
132-64-9	Dibenzofuran	18 U	71	18	ug/l	
84-74-2	Di-n-butyl phthalate	19 U	71	19	ug/l	
117-84-0	Di-n-octyl phthalate	17 U	71	17	ug/l	
84-66-2	Diethyl phthalate	20 U	71	20	ug/l	
131-11-3	Dimethyl phthalate	20 U	71	20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	21 U	71	21	ug/l	
206-44-0	Fluoranthene	20 U	71	20	ug/l	
86-73-7	Fluorene	17 U	71	17	ug/l	
118-74-1	Hexachlorobenzene	22 U	71	22	ug/l	
87-68-3	Hexachlorobutadiene	17 U	71	17	ug/l	
77-47-4	Hexachlorocyclopentadiene	17 U	140	17	ug/l	
67-72-1	Hexachloroethane	18 U	71	18	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	15 U	71	15	ug/l	
78-59-1	Isophorone	17 U	71	17	ug/l	
91-57-6	2-Methylnaphthalene	75.8	71	17	ug/l	
88-74-4	2-Nitroaniline	19 U	71	19	ug/l	
99-09-2	3-Nitroaniline	18 U	71	18	ug/l	
100-01-6	4-Nitroaniline	19 U	71	19	ug/l	
91-20-3	Naphthalene	44.1	71	15	ug/l	J
98-95-3	Nitrobenzene	16 U	71	16	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	15 U	71	15	ug/l	
86-30-6	N-Nitrosodiphenylamine	20 U	71	20	ug/l	
85-01-8	Phenanthrene	24.7	71	21	ug/l	J
129-00-0	Pyrene	20 U	71	20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	15 U	71	15	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	46%	0% c	10-66%
4165-62-2	Phenol-d5	49%	0% c	10-63%
118-79-6	2,4,6-Tribromophenol	85%	0% c	32-128%

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 407		
Lab Sample ID:	TC52863-2	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	47%	0% c	29-115%
321-60-8	2-Fluorobiphenyl	62%	0% c	34-113%
1718-51-0	Terphenyl-d14	84%	0% c	23-138%

(a) Elevated reporting limits due to matrix interference; final volume 1.4 ml. Dilution required due to high concentration of non-target compounds.
(b) Result is from Run# 2
(c) Outside control limits due to dilution.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 407		
Lab Sample ID:	TC52863-2	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8151 SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DD772892.D	5	08/20/14	AR	08/14/14	OP33547	GDD2386
Run #2 [a]	DD772902.D	10	08/20/14	AR	08/14/14	OP33547	GDD2387

	Initial Volume	Final Volume
Run #1	1000 ml	10.0 ml
Run #2	1000 ml	10.0 ml

Herbicide List

CAS No.	Compound	Result	MQL	SDL	Units	Q
94-75-7	2,4-D	15.4	5.0	1.0	ug/l	
93-72-1	2,4,5-TP (Silvex)	0.20 U	1.0	0.20	ug/l	
93-76-5	2,4,5-T	0.17 U	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	4400% [c]	6321% [b]	40-168%

(a) Confirmation run for surrogate recoveries.
(b) Outside control limits due to dilution.
(c) Outside control limits biased high. Results confirmed by reanalysis at dilution.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 407		
Lab Sample ID:	TC52863-2	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8081A SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	NN175722.D	3	08/16/14	AR	08/13/14	OP33544	GNN1463
Run #2 [a]	NN175806.D	5	08/20/14	AR	08/13/14	OP33544	GNN1465

	Initial Volume	Final Volume
Run #1	990 ml	10.0 ml
Run #2	990 ml	10.0 ml

Pesticide TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
309-00-2	Aldrin	0.030 U	0.15	0.030	ug/l	
319-84-6	alpha-BHC	0.065 U	0.15	0.065	ug/l	
319-85-7	beta-BHC	0.035 U	0.15	0.035	ug/l	
319-86-8	delta-BHC	0.030 U	0.15	0.030	ug/l	
58-89-9	gamma-BHC (Lindane) [b]	0.064	0.15	0.052	ug/l	J
5103-71-9	alpha-Chlordane	0.12	0.15	0.033	ug/l	J
5103-74-2	gamma-Chlordane	0.032 U	0.15	0.032	ug/l	
60-57-1	Dieldrin	0.061 U	0.30	0.061	ug/l	
72-54-8	4,4'-DDD	0.099 U	0.30	0.099	ug/l	
72-55-9	4,4'-DDE	0.075 U	0.30	0.075	ug/l	
50-29-3	4,4'-DDT	0.11 U	0.30	0.11	ug/l	
72-20-8	Endrin	0.061 U	0.30	0.061	ug/l	
1031-07-8	Endosulfan sulfate	0.063 U	0.30	0.063	ug/l	
7421-93-4	Endrin aldehyde	0.11 U	0.30	0.11	ug/l	
53494-70-5	Endrin ketone	0.092 U	0.30	0.092	ug/l	
959-98-8	Endosulfan-I	0.055 U	0.30	0.055	ug/l	
33213-65-9	Endosulfan-II	0.063 U	0.30	0.063	ug/l	
76-44-8	Heptachlor	0.030 U	0.15	0.030	ug/l	
1024-57-3	Heptachlor epoxide	0.034 U	0.15	0.034	ug/l	
72-43-5	Methoxychlor	0.38 U	1.5	0.38	ug/l	
8001-35-2	Toxaphene	0.37 U	1.5	0.37	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	1459% [c]	1092% [c]	39-122%
2051-24-3	Decachlorobiphenyl	48%	21%	28-123%

(a) Confirmation run for surrogate recoveries.
(b) More than 40% RPD for detected concentrations between two GC columns.
(c) Outside control limits biased high due to matrix interference. Confirmed by re-extraction and reanalysis.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 407		
Lab Sample ID:	TC52863-2	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	SW846 8082 SW846 3510C	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	MM070934.D	1	08/15/14	AR	08/13/14	OP33546	GMM464
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	MQL	SDL	Units	Q
12674-11-2	Aroclor 1016	0.21 U	0.51	0.21	ug/l	
11104-28-2	Aroclor 1221	0.20 U	0.51	0.20	ug/l	
11141-16-5	Aroclor 1232	0.17 U	0.51	0.17	ug/l	
53469-21-9	Aroclor 1242	0.12 U	0.51	0.12	ug/l	
12672-29-6	Aroclor 1248	0.10 U	0.51	0.10	ug/l	
11097-69-1	Aroclor 1254	0.10 U	0.51	0.10	ug/l	
11096-82-5	Aroclor 1260	0.12 U	0.51	0.12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	96%		30-112%
2051-24-3	Decachlorobiphenyl	61%		27-119%

(a) Acid clean-up performed by method 3665A. TBA clean-up performed by method 3660.

U = Not detected SDL = Sample Detection Limit J = Indicates an estimated value
MQL = Method Quantitation Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 407		
Lab Sample ID:	TC52863-2	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
Method:	TNRCC 1005 TX1005	**Percent Solids:**	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LF103500.D	25	08/13/14	ZL	08/12/14	OP33505	GLF1529
Run #2							

	Initial Volume	Final Volume
Run #1	29.9 ml	3.0 ml
Run #2		

CAS No.	Compound	Result	MQL	SDL	Units	Q
	TPH (C6-C12)	748	63	15	mg/l	
	TPH (> C12-C28)	9720	63	21	mg/l	
	TPH (> C28-C35)	3620	63	21	mg/l	
	TPH (C6-C35)	14100	63	15	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	883% [a]		70-130%
98-08-8	aaa-Trifluorotoluene	85%		70-130%

(a) Outside control limits due to dilution.

U = Not detected SDL = Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CES-CS-TANK 407		
Lab Sample ID:	TC52863-2	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum [a]	20.1	1.0	0.088	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Antimony [a]	0.323	0.025	0.0053	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Arsenic [a]	0.0721	0.025	0.023	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Barium [a]	2.60	1.0	0.0020	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Beryllium [a]	0.0026 J	0.020	0.00090	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Cadmium [a]	0.0101 J	0.020	0.0012	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Calcium [a]	603	25	0.17	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Chromium [a]	1.18	0.050	0.0031	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Cobalt [a]	0.115 J	0.25	0.0012	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Copper [a]	1.59	0.10	0.014	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Iron [a]	575	0.50	0.15	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Lead	0.208	0.015	0.0049	mg/l	5	08/08/14	08/11/14	NS	EPA 200.7 [2]	SW846 3010A [4]
Magnesium [a]	82.4	25	0.094	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Manganese [a]	12.8	0.075	0.0013	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Mercury	0.00065	0.00020	0.000050	mg/l	1	08/15/14	08/15/14	CC	SW846 7470A [3]	SW846 7470A [5]
Nickel [a]	1.42	0.20	0.0020	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Potassium [a]	136	25	0.26	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Selenium [a]	0.0614	0.025	0.012	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Silver	0.0024 U	0.050	0.0024	mg/l	5	08/08/14	08/11/14	NS	EPA 200.7 [2]	SW846 3010A [4]
Sodium [a]	844	25	0.11	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Thallium	0.0078 U	0.050	0.0078	mg/l	5	08/08/14	08/11/14	NS	EPA 200.7 [2]	SW846 3010A [4]
Vanadium [a]	0.249 J	0.25	0.0026	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]
Zinc [a]	42.8	0.10	0.0074	mg/l	5	08/08/14	08/08/14	SM	SW846 6010B [1]	SW846 3010A [4]

(1) Instrument QC Batch: MA10019
(2) Instrument QC Batch: MA10020
(3) Instrument QC Batch: MA10037
(4) Prep QC Batch: MP23977
(5) Prep QC Batch: MP24017

(a) Elevated reporting limit due to dilution required for matrix interference.

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

U = Indicates a result < SDL
J = Indicates a result > = SDL but < MQL

Report of Analysis

Client Sample ID:	CES-CS-TANK 407		
Lab Sample ID:	TC52863-2	**Date Sampled:**	08/07/14
Matrix:	AQ - Water	**Date Received:**	08/07/14
		Percent Solids:	n/a
Project:	CES- Chemical Spill/4904 Griggs, Houston, TX		

General Chemistry

Analyte	Result	MQL	SDL	Units	DF	Analyzed	By	Method
Bromide	6.8	0.50	0.28	mg/l	1	08/07/14 18:53	ES	EPA 300/SW846 9056
Chloride	365	25	13	mg/l	50	08/12/14 21:05	ES	EPA 300/SW846 9056
Corrosivity as pH [a]	4.5				1	08/08/14	JG	SW846 CHAP7
Cyanide [b]	0.25 U	0.25	0.25	mg/l	50	08/11/14 16:15	CV	EPA 335.4/SW 9012
Fluoride	0.54	0.50	0.25	mg/l	1	08/07/14 18:53	ES	EPA 300/SW846 9056
Heat Content, BTU [c]	3800	100		BTU/lb	1	08/13/14	ANJ	ASTM D240-92
Hydrogen Sulfide	0.0 J	2.0		mg/l	1	08/14/14	CV	SM18 4500/EPA 376.1
Ignitability (Flashpoint)	> 200			Deg. F	1	08/18/14	DP	SW846 1010
Moisture, Karl Fischer	94.40	0.10		wt%	1	08/13/14 15:00	CV	ASTM D4377
Nitrogen, Ammonia	42.8	2.0	0.20	mg/l	20	08/08/14	DP	EPA 350.1
Nitrogen, Nitrate	0.76	0.50	0.26	mg/l	1	08/07/14 18:53	ES	EPA 300/SW846 9056
Nitrogen, Nitrite	0.26 U	0.50	0.26	mg/l	1	08/07/14 18:53	ES	EPA 300/SW846 9056
Phosphorus, Total	6.7	1.0	0.50	mg/l	50	08/12/14	BG	SM 4500PE
Solids, Total Suspended	5840	60	30	mg/l	1	08/11/14	MS	SM 2540D
Specific Conductivity	3940	1.0		umhos/cm	1	08/11/14 13:20	BG	EPA 120.1
Specific Gravity	0.99				1	08/11/14 15:00	PA	ASTM 2710F
Sulfate	6920	250	130	mg/l	500	08/12/14 20:48	ES	EPA 300/SW846 9056
Sulfide [b]	0.025 U	0.40	0.025	mg/l	20	08/14/14 13:25	DP	SM 4500S+ F
Total Organic Carbon	8890	200	63	mg/l	200	08/11/14 14:02	ES	SM5310B/9060A
Total Organic Halides [d]	6.5	0.20	0.12	mg/l	4	08/12/14	ANJ	SW846 9020B M
Viscosity At 40 Deg. C [c]	0.60	0.50		cS	1	08/13/14	ANJ	ASTM D445/6
pH [e]	4.52			su	1	08/08/14	JG	SM 4500H+ B/9040

(a) TEMP 21.5 C
(b) Elevated reporting limit due to matrix interference.
(c) Analysis performed at Accutest Laboratories, Dayton, NJ.
(d) Second column analysis indicates possible matrix interference and possible high bias. Analysis performed at Accutest Laboratories, Dayton, NJ.
(e) Field analysis required. Received out of hold time and analyzed by request.TEMP 21.5 C

MQL = Method Quantitation Limit
SDL = Sample Detection Limit

U = Indicates a result < SDL
J = Indicates a result > = SDL but < MQL

Gulf Coast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST Laboratories

CHAIN OF CUSTODY

10165 Harwin Dr. Ste 150 Houston, TX 77036
TEL 713-271-4700 FAX 713-271-4770
www.accutest.com

PAGE ___ OF ___

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: TC52863

Client / Reporting Information

Company Name: Weston Solutions, Inc.
Street Address: 5599 San Felipe, Suite 700
City / State / Zip: Houston, TX 77056
Project Contact / E-mail: Tom Walzer/Kristi Warr
Phone # / Fax #:
Sampler(s) Name(s) / Phone #: Ben Latham

Project Information

Project Name: CES Chemical Spill
Street: 4904 Griggs
City / State: Houston TX
Project #:
Client Purchase Order #:
Project Manager: Derrick Cobb

Billing Information (if different from Report to)

Company Name: Weston Solutions
Street Address: 5599 San Felipe Suite 700
City / State / Zip: Houston, TX 77056
Attention: Kristi Warr

Requested Analyses

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	# of bottles	HCl	NaOH	ZnAcNaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	VOA, TCL	SVOA, TCL	Metals/PCB	TPH TX1005	CN/Sulfide/TOC/AMW/Furans	Physical Properties	H2S	Halogens	Dioxin Furans	Herbicid/Pesticides TCL	LAB USE ONLY
1	CES-CS-TANK 408	08/07/2014	1120		W	22	3												✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1, 2, 3, 4
2	CES-CS-TANK 407	08/07/2014	1215		W	22	3												✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1, 2, 3, 4

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; Ol - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank

Turnaround Time (Business days): ☐ Standard; ☐ 5 Day RUSH; ☐ 4 Day RUSH; ☐ 3 Day RUSH; ☐ 2 Day RUSH; ☐ 1 Day EMERGENCY; Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information: ☐ Commercial "A" (Level 1); ☐ Commercial "B" (Level 2); ☐ FULT1 (Level 3+4); ☐ REDT1 (Level 3+4); ☐ Commercial "C"; ☐ TRRP; ☐ EDD Format; ☐ Other _____

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Tom A. Walzer	08/07/2014 1605	1	2		2
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☐ Cooler Temp.

5.1 5

TC52863: Chain of Custody
Page 1 of 5

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: TC52863 **Client:** WESTON SOLUTIONS **Project:** CES CHEMICAL SPILL

Date / Time Received: 8/7/2014 **Delivery Method:** **Airbill #'s:**

No. Coolers: 4 **Therm ID:** IR6; **Temp Adjustment Factor:** 0;

Cooler Temps (Initial/Adjusted): #1: (3.43/3.43); #2: (3.1/3.1); #3: (2.2/2.2); #4: (1.2/1.2);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:		
3. Cooler media:	Ice (Bag)	

Quality Control Preservation	Y	N	N/A	WTB	STB
1. Trip Blank present / cooler:	☐	☐	☑	☐	☐
2. Trip Blank listed on COC:	☐	☐	☑		
3. Samples preserved properly:	☑	☐			
4. VOCs headspace free:	☐	☑	☐		

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments Received all 6 vials with headspace on sample "ces-cs-tank-407"
Sample "ces-cs-tank-408" is water with a small layer of oil.

Accutest Laboratories
V:713.271.4700
10165 Harwin Drive
F: 713.271.4770
Houston, TX 77036
www/accutest.com

Problem Resolution

Accutest Job Number: TC52863

CSR: _____ **Response Date:** _____

Response:

Sample Receipt Log

Job #: TC52863 **Date / Time Received:** 8/7/2014 **Initials:** BG

Client: WESTON SOLUTIONS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
4	TC52863-1	LAG	1	4HH	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	2	4HH	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	3	4HH	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	4	4HH	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	5	4HH	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	6	4HH	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	7	4HH	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	8	4HH	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	9	4HH	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	10	4HH	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	11	4HH	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	12	3J	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	13	3J	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	14	SUB	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	15	SUB	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	LAG	16	SUB	N/P	Note #2 - Preservative check not applicable.	IR6	1.2	0	1.2
4	TC52863-1	40ml	17	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	1.2	0	1.2
4	TC52863-1	40ml	18	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	1.2	0	1.2
4	TC52863-1	40ml	19	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	1.2	0	1.2
4	TC52863-1	40ml	20	4HH	HCL	pH < 2	IR6	1.2	0	1.2
4	TC52863-1	40ml	21	4HH	HCL	pH < 2	IR6	1.2	0	1.2
4	TC52863-1	40ml	22	4HH	HCL	pH < 2	IR6	1.2	0	1.2
2	TC52863-2	LAG	1	4JJ	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1

Sample Receipt Log

Job #: TC52863 **Date / Time Received:** 8/7/2014 **Initials:** BG

Client: WESTON SOLUTIONS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
2	TC52863-2	LAG	2	4JJ	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	3	4JJ	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	4	4JJ	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	5	4JJ	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	6	4JJ	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	7	4JJ	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	8	4JJ	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	9	4JJ	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	10	4JJ	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	11	4JJ	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	12	3J	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	13	3J	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	14	SUB	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	15	SUB	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	LAG	16	SUB	N/P	Note #2 - Preservative check not applicable.	IR6	3.1	0	3.1
2	TC52863-2	40ml	17	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	3.1	0	3.1
2	TC52863-2	40ml	18	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	3.1	0	3.1
2	TC52863-2	40ml	19	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IR6	3.1	0	3.1
2	TC52863-2	40ml	20	4JJ	HCL	pH < 2	IR6	3.1	0	3.1
2	TC52863-2	40ml	21	4JJ	HCL	pH < 2	IR6	3.1	0	3.1
2	TC52863-2	40ml	22	4JJ	HCL	pH < 2	IR6	3.1	0	3.1

Gulf Coast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE1560-MB	E0034473.D	1	08/11/14	CF	n/a	n/a	VE1560

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC52863-1, TC52863-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.34	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.34	ug/l	
75-25-2	Bromoform	ND	1.0	0.44	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.27	ug/l	
75-00-3	Chloroethane	ND	1.0	0.72	ug/l	
67-66-3	Chloroform	ND	1.0	0.35	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.43	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.45	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.37	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.40	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.47	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.32	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.32	ug/l	
591-78-6	2-Hexanone	ND	10	2.6	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	2.2	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.51	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.63	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.6	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.7	ug/l	
100-42-5	Styrene	ND	1.0	0.29	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.43	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.40	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.35	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.46	ug/l	
108-88-3	Toluene	ND	1.0	0.33	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.49	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.79	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.87	ug/l	

Method Blank Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE1560-MB	E0034473.D	1	08/11/14	CF	n/a	n/a	VE1560

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC52863-1, TC52863-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	72-122%
17060-07-0	1,2-Dichloroethane-D4	91%	68-124%
2037-26-5	Toluene-D8	94%	80-119%
460-00-4	4-Bromofluorobenzene	92%	72-126%

Blank Spike Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE1560-BS	E0034471.D	1	08/11/14	CF	n/a	n/a	VE1560

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC52863-1, TC52863-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	101	81	46-129
71-43-2	Benzene	25	26.2	105	68-119
75-27-4	Bromodichloromethane	25	24.9	100	72-118
75-25-2	Bromoform	25	26.2	105	54-123
108-90-7	Chlorobenzene	25	25.2	101	74-120
75-00-3	Chloroethane	25	27.2	109	61-132
67-66-3	Chloroform	25	24.4	98	73-122
75-15-0	Carbon disulfide	25	26.8	107	55-140
56-23-5	Carbon tetrachloride	25	29.1	116	68-133
75-34-3	1,1-Dichloroethane	25	25.6	102	72-121
75-35-4	1,1-Dichloroethylene	25	27.4	110	67-140
107-06-2	1,2-Dichloroethane	25	24.7	99	68-121
78-87-5	1,2-Dichloropropane	25	25.2	101	72-116
124-48-1	Dibromochloromethane	25	25.6	102	68-119
156-59-2	cis-1,2-Dichloroethylene	25	25.1	100	72-117
10061-01-5	cis-1,3-Dichloropropene	25	24.5	98	71-118
156-60-5	trans-1,2-Dichloroethylene	25	26.6	106	68-124
10061-02-6	trans-1,3-Dichloropropene	25	27.1	108	72-127
100-41-4	Ethylbenzene	25	27.7	111	71-117
591-78-6	2-Hexanone	125	113	90	49-124
108-10-1	4-Methyl-2-pentanone	125	111	89	54-122
74-83-9	Methyl bromide	25	21.2	85	53-138
74-87-3	Methyl chloride	25	20.0	80	50-145
75-09-2	Methylene chloride	25	22.7	91	60-125
78-93-3	Methyl ethyl ketone	125	112	90	51-129
100-42-5	Styrene	25	27.6	110	74-119
71-55-6	1,1,1-Trichloroethane	25	27.7	111	72-129
79-34-5	1,1,2,2-Tetrachloroethane	25	23.9	96	62-121
79-00-5	1,1,2-Trichloroethane	25	25.0	100	70-119
127-18-4	Tetrachloroethylene	25	30.7	123	72-132
108-88-3	Toluene	25	27.4	110	73-119
79-01-6	Trichloroethylene	25	26.0	104	73-121
75-01-4	Vinyl chloride	25	23.4	94	54-126
1330-20-7	Xylene (total)	75	80.0	107	74-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VE1560-BS	E0034471.D	1	08/11/14	CF	n/a	n/a	VE1560

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC52863-1, TC52863-2

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	89%	72-122%
17060-07-0	1,2-Dichloroethane-D4	90%	68-124%
2037-26-5	Toluene-D8	97%	80-119%
460-00-4	4-Bromofluorobenzene	92%	72-126%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC52893-1MS	E0034476.D	10	08/11/14	CF	n/a	n/a	VE1560
TC52893-1MSD	E0034477.D	10	08/11/14	CF	n/a	n/a	VE1560
TC52893-1	E0034474.D	1	08/11/14	CF	n/a	n/a	VE1560
TC52893-1 [a]	E0034475.D	10	08/11/14	CF	n/a	n/a	VE1560

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC52863-1, TC52863-2

CAS No.	Compound	TC52893-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	46.4	J	1250	1070	82	1250	1070	82	0	46-129/25
71-43-2	Benzene	53.0		250	299	98	250	300	99	0	68-119/12
75-27-4	Bromodichloromethane	ND		250	239	96	250	245	98	2	72-118/16
75-25-2	Bromoform	ND		250	214	86	250	215	86	0	54-123/17
108-90-7	Chlorobenzene	ND		250	248	99	250	251	100	1	74-120/12
75-00-3	Chloroethane	ND		250	270	108	250	278	111	3	61-132/16
67-66-3	Chloroform	ND		250	242	97	250	249	100	3	73-122/13
75-15-0	Carbon disulfide	0.47	J	250	241	96	250	248	99	3	55-140/24
56-23-5	Carbon tetrachloride	ND		250	281	112	250	290	116	3	68-133/20
75-34-3	1,1-Dichloroethane	ND		250	253	101	250	259	104	2	72-121/14
75-35-4	1,1-Dichloroethylene	ND		250	276	110	250	271	108	2	67-140/18
107-06-2	1,2-Dichloroethane	ND		250	248	99	250	251	100	1	68-121/12
78-87-5	1,2-Dichloropropane	ND		250	248	99	250	251	100	1	72-116/12
124-48-1	Dibromochloromethane	ND		250	234	94	250	238	95	2	68-119/15
156-59-2	cis-1,2-Dichloroethylene	ND		250	250	100	250	260	104	4	72-117/13
10061-01-5	cis-1,3-Dichloropropene	ND		250	236	94	250	239	96	1	71-118/18
156-60-5	trans-1,2-Dichloroethylene	ND		250	261	104	250	268	107	3	68-124/15
10061-02-6	trans-1,3-Dichloropropene	ND		250	254	102	250	252	101	1	72-127/17
100-41-4	Ethylbenzene	2.3		250	275	109	250	277	110	1	71-117/12
591-78-6	2-Hexanone	ND		1250	1130	90	1250	1140	91	1	49-124/21
108-10-1	4-Methyl-2-pentanone	ND		1250	1130	90	1250	1130	90	0	54-122/20
74-83-9	Methyl bromide	ND		250	209	84	250	217	87	4	53-138/16
74-87-3	Methyl chloride	ND		250	204	82	250	203	81	0	50-145/17
75-09-2	Methylene chloride	ND		250	228	91	250	231	92	1	60-125/16
78-93-3	Methyl ethyl ketone	4.8	J	1250	1090	87	1250	1170	93	7	51-129/22
100-42-5	Styrene	ND		250	269	108	250	275	110	2	74-119/19
71-55-6	1,1,1-Trichloroethane	ND		250	272	109	250	282	113	4	72-129/14
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	236	94	250	242	97	3	62-121/17
79-00-5	1,1,2-Trichloroethane	ND		250	247	99	250	248	99	0	70-119/13
127-18-4	Tetrachloroethylene	ND		250	300	120	250	308	123	3	72-132/14
108-88-3	Toluene	8.5		250	275	107	250	278	108	1	73-119/13
79-01-6	Trichloroethylene	ND		250	261	104	250	263	105	1	73-121/13
75-01-4	Vinyl chloride	ND		250	229	92	250	236	94	3	54-126/17
1330-20-7	Xylene (total)	4.6		750	798	106	750	805	107	1	74-119/13

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
TC52893-1MS	E0034476.D	10	08/11/14	CF	n/a	n/a	VE1560
TC52893-1MSD	E0034477.D	10	08/11/14	CF	n/a	n/a	VE1560
TC52893-1	E0034474.D	1	08/11/14	CF	n/a	n/a	VE1560
TC52893-1 [a]	E0034475.D	10	08/11/14	CF	n/a	n/a	VE1560

The QC reported here applies to the following samples: **Method:** SW846 8260C

TC52863-1, TC52863-2

CAS No.	Surrogate Recoveries	MS	MSD	TC52893-1	TC52893-1	Limits
1868-53-7	Dibromofluoromethane	89%	90%	93%		72-122%
17060-07-0	1,2-Dichloroethane-D4	91%	90%	88%		68-124%
2037-26-5	Toluene-D8	96%	96%	94%		80-119%
460-00-4	4-Bromofluorobenzene	92%	93%	93%		72-126%

(a) Sample used for QC purposes only.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: VE1541-BFB
Lab File ID: E0033981.D
Instrument ID: GCMSE
Injection Date: 07/28/14
Injection Time: 08:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	3206	18.3		Pass
75	30.0 - 60.0% of mass 95	8189	46.7		Pass
95	Base peak, 100% relative abundance	17530	100.0		Pass
96	5.0 - 9.0% of mass 95	1149	6.55		Pass
173	Less than 2.0% of mass 174	204	1.16	(1.26) [a]	Pass
174	50.0 - 100.0% of mass 95	16130	92.0		Pass
175	5.0 - 9.0% of mass 174	1267	7.23	(7.85) [a]	Pass
176	95.0 - 101.0% of mass 174	15838	90.3	(98.2) [a]	Pass
177	5.0 - 9.0% of mass 176	953	5.44	(6.02) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VE1541-IC1541	E0033982.D	07/28/14	09:11	00:33	Initial cal 1
VE1541-IC1541	E0033983.D	07/28/14	09:35	00:57	Initial cal 2
VE1541-IC1541	E0033984.D	07/28/14	09:59	01:21	Initial cal 5
VE1541-IC1541	E0033985.D	07/28/14	10:25	01:47	Initial cal 20
VE1541-ICC1541	E0033986.D	07/28/14	10:49	02:11	Initial cal 40
VE1541-IC1541	E0033987.D	07/28/14	11:13	02:35	Initial cal 70
VE1541-IC1541	E0033988.D	07/28/14	11:37	02:59	Initial cal 100
VE1541-IC1541	E0033989.D	07/28/14	12:01	03:23	Initial cal 200
VE1541-ICV1541	E0033992.D	07/28/14	13:13	04:35	Initial cal verification 40

Instrument Performance Check (BFB)

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: VE1560-BFB
Lab File ID: E0034469.D
Instrument ID: GCMSE
Injection Date: 08/11/14
Injection Time: 09:16

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	15549	17.4		Pass
75	30.0 - 60.0% of mass 95	40491	45.4		Pass
95	Base peak, 100% relative abundance	89283	100.0		Pass
96	5.0 - 9.0% of mass 95	6143	6.88		Pass
173	Less than 2.0% of mass 174	881	0.99	(1.04) [a]	Pass
174	50.0 - 100.0% of mass 95	84523	94.7		Pass
175	5.0 - 9.0% of mass 174	6444	7.22	(7.62) [a]	Pass
176	95.0 - 101.0% of mass 174	81987	91.8	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	5160	5.78	(6.29) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VE1560-CC1541	E0034470.D	08/11/14	09:42	00:26	Continuing cal 20
VE1560-BS	E0034471.D	08/11/14	10:06	00:50	Blank Spike
VE1560-MB	E0034473.D	08/11/14	10:55	01:39	Method Blank
TC52893-1	E0034474.D	08/11/14	11:19	02:03	(used for QC only; not part of job TC52863)
TC52893-1	E0034475.D	08/11/14	11:43	02:27	(used for QC only; not part of job TC52863)
TC52893-1MS	E0034476.D	08/11/14	12:08	02:52	Matrix Spike
TC52893-1MSD	E0034477.D	08/11/14	12:32	03:16	Matrix Spike Duplicate
ZZZZZZ	E0034479.D	08/11/14	13:20	04:04	(unrelated sample)
ZZZZZZ	E0034480.D	08/11/14	13:45	04:29	(unrelated sample)
ZZZZZZ	E0034481.D	08/11/14	14:11	04:55	(unrelated sample)
ZZZZZZ	E0034482.D	08/11/14	14:36	05:20	(unrelated sample)
ZZZZZZ	E0034483.D	08/11/14	15:00	05:44	(unrelated sample)
ZZZZZZ	E0034484.D	08/11/14	15:24	06:08	(unrelated sample)
ZZZZZZ	E0034485.D	08/11/14	15:47	06:31	(unrelated sample)
ZZZZZZ	E0034486.D	08/11/14	16:12	06:56	(unrelated sample)
ZZZZZZ	E0034487.D	08/11/14	16:36	07:20	(unrelated sample)
TC52863-1	E0034489.D	08/11/14	17:23	08:07	CES-CS-TANK 408
TC52863-2	E0034490.D	08/11/14	17:47	08:31	CES-CS-TANK 407
ZZZZZZ	E0034491.D	08/11/14	18:11	08:55	(unrelated sample)
VE1560-ECC1541	E0034495.D	08/11/14	19:47	10:31	Ending cal 40

Volatile Internal Standard Area Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	VE1560-CC1541	**Injection Date:**	08/11/14
Lab File ID:	E0034470.D	**Injection Time:**	09:42
Instrument ID:	GCMSE	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	105758	3.51	336544	4.21	312442	7.48	180413	9.83
Upper Limit [a]	211516	4.01	673088	4.71	624884	7.98	360826	10.33
Lower Limit [b]	52879	3.01	168272	3.71	156221	6.98	90207	9.33

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VE1560-BS	109688	3.51	343532	4.21	312823	7.48	183358	9.83
VE1560-MB	98296	3.51	321394	4.21	295130	7.47	163971	9.83
TC52893-1	99949	3.51	323935	4.21	301010	7.48	170394	9.83
TC52893-1	98134	3.51	324423	4.21	297707	7.47	167106	9.83
TC52893-1MS	107186	3.51	333891	4.21	309335	7.48	180233	9.83
TC52893-1MSD	107112	3.51	338041	4.21	314225	7.48	182302	9.83
ZZZZZZ	97058	3.51	320262	4.21	293667	7.47	163767	9.83
ZZZZZZ	95264	3.51	314092	4.21	286146	7.48	160219	9.84
ZZZZZZ	93566	3.51	308816	4.21	284035	7.48	158019	9.84
ZZZZZZ	92062	3.51	303125	4.21	278960	7.48	155405	9.84
ZZZZZZ	91887	3.51	302748	4.22	276432	7.48	155068	9.84
ZZZZZZ	93714	3.51	300027	4.22	271426	7.48	150436	9.84
ZZZZZZ	89330	3.51	291220	4.21	268586	7.48	148024	9.84
ZZZZZZ	89979	3.51	289958	4.21	268742	7.48	146008	9.84
ZZZZZZ	89235	3.51	287603	4.22	263700	7.48	145140	9.84
TC52863-1 [c]	89366	3.51	291842	4.21	266905	7.48	148983	9.84
TC52863-2 [c]	91514	3.51	299703	4.22	280437	7.48	163103	9.84
ZZZZZZ	94590	3.51	309112	4.21	286929	7.48	159797	9.84
VE1560-ECC1541	102414	3.51	322711	4.21	297136	7.48	174890	9.84

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Dilution required due to matrix interference.

Volatile Surrogate Recovery Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
TC52863-1	E0034489.D	97	92	94	93
TC52863-2	E0034490.D	96	91	95	93
TC52893-1MS	E0034476.D	89	91	96	92
TC52893-1MSD	E0034477.D	90	90	96	93
VE1560-BS	E0034471.D	89	90	97	92
VE1560-MB	E0034473.D	97	91	94	92

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	72-122%
S2 = 1,2-Dichloroethane-D4	68-124%
S3 = Toluene-D8	80-119%
S4 = 4-Bromofluorobenzene	72-126%

Initial Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: VE1541-ICC1541
Lab FileID: E0033986.D

Response Factor Report MS E

Method : C:\msdchem\1\METHODS\ve1541c.m (RTE Integrator)
Title : SW846 8260B and EPA624
Last Update : Thu Jul 31 07:27:17 2014
Response via : Initial Calibration

Calibration Files
2 =E0033983.D 5 =E0033984.D 40 =E0033986.D 20 =E0033985.D
1 =E0033982.D 100 =E0033988.D 200 =E0033989.D 70 =E0033987.D

Compound	2	5	40	20	1	100	200	70	Avg	%RSD
1) I Pentafluorobenzene	----------ISTD----------									
2) Dichlorodifl	1.141	1.157	1.120	1.197	1.295	0.866	0.954	1.183	1.114	12.42
3) Chloromethan	1.467	1.532	1.474	1.526	1.800	1.361	1.282	1.429	1.484	10.29
4) Vinyl Chlori	1.342	1.412	1.388	1.396	1.479	1.320	1.255	1.360	1.369	4.87
5) 1,3-Butadien	0.788	0.811	0.797	0.873	0.709	0.731	0.722	0.804	0.779	7.08
6) Ethylene Oxi	0.544	0.607	0.560	0.550	0.549	0.640	0.537	0.617	0.575	6.86
7) Bromomethane	1.093	1.126	1.190	1.135	1.251	1.304	1.215	1.250	1.195	6.10
8) Chloroethane	0.727	0.710	0.784	0.757	0.801	0.868	0.793	0.838	0.785	6.78
9) Vinyl bromid	0.792	0.843	0.897	0.870	0.889	0.941	0.979	0.913	0.891	6.50
10) Trichloroflu	1.719	1.713	1.755	1.761	1.797	1.665	1.884	1.874	1.771	4.35
11) Ethyl Alcoho	0.100	0.109	0.092	0.089	0.104	0.091	0.093	0.090	0.096	7.51
12) Ethyl Ether	0.931	1.021	0.922	0.962	0.964	0.948	0.976	0.925	0.956	3.44
13) Acrolein	0.279	0.316	0.272	0.279	0.313	0.279	0.280	0.273	0.286	6.21
14) 1,1-Dichloro	1.347	1.465	1.479	1.550	1.393	1.492	1.495	1.494	1.465	4.39
15) Freon 113	0.814	0.930	0.949	1.047	0.877	0.766	0.893	0.980	0.907	9.94
16) Acetone	0.796	0.823	0.631	0.660		0.617	0.604	0.615	0.678	13.54
17) Iodomethane	1.911	2.019	1.881	1.930	1.979	1.903	1.855	1.860	1.917	2.99
18) Isopropyl Al	0.202	0.215	0.152	0.162		0.152	0.131	0.149	0.166	18.45
19) Methyl Aceta	1.832	2.148	1.750	1.894	2.016	1.655	1.657	1.642	1.824	10.19
20) Carbon Disul	3.019	3.204	3.094	3.223	3.450	3.166	3.109	3.105	3.171	4.11
21) Methylene Ch	1.497	1.593	1.280	1.438	1.709	1.259	1.229	1.246	1.406	12.91
22) Tert Butyl A	0.262	0.305	0.264	0.272	0.289	0.282	0.277	0.266	0.277	5.22
23) Allyl Chlori	0.564	0.667	0.591	0.641	0.568	0.592	0.589	0.570	0.598	6.19
24) Acetonitrile	0.632	0.728	0.596	0.634	0.743	0.569	0.549	0.564	0.627	11.78
25) trans-1,2-Di	1.262	1.384	1.344	1.388	1.332	1.353	1.305	1.325	1.337	3.09
26) Acrylonitril	0.679	0.799	0.694	0.722	0.749	0.688	0.674	0.687	0.711	6.08
27) Methyl Tert	2.665	3.022	2.754	2.814	2.852	2.844	2.762	2.786	2.812	3.67
28) Hexane	0.872	1.056	1.071	1.232	0.936	0.818	0.992	1.142	1.015	13.64
29) 1,1-Dichloro	1.728	1.866	1.710	1.768	1.798	1.698	1.636	1.686	1.736	4.16
30) Vinyl Acetat	1.611	1.836	1.701	1.720	1.647	1.752	1.736	1.718	1.715	3.95
31) Di-isopropyl	2.790	3.127	3.019	3.078	2.926	2.994	2.894	2.948	2.972	3.59
32) Chloroprene	1.014	1.252	1.191	1.260	1.045	1.236	1.191	1.218	1.176	8.01
33) Ethyl tert-b	2.493	2.864	2.678	2.711	2.616	2.765	2.729	2.677	2.692	4.03
34) 2,2-Dichloro	1.105	1.299	1.248	1.297	1.234	1.273	1.226	1.250	1.242	4.96
35) cis-1,2-Dich	1.056	1.176	1.109	1.145	1.171	1.108	1.070	1.101	1.117	3.94
36) Ethyl Acetat	1.627	2.067	1.786	1.822	1.957	1.761	1.728	1.803	1.819	7.51
37) 2-Butanone	0.793	0.971	0.875	0.893	0.885	0.877	0.845	0.870	0.876	5.68
38) Propionitril	0.262	0.354	0.306	0.318	0.290	0.304	0.294	0.301	0.304	8.55
39) Methacryloni	0.970	1.193	1.053	1.069	1.068	1.054	1.028	1.055	1.061	5.88
40) Bromochlorom	0.626	0.685	0.625	0.646	0.594	0.634	0.610	0.623	0.630	4.30
41) Chloroform	1.899	1.963	1.827	1.886	2.078	1.808	1.717	1.781	1.870	6.07
42) Tetrahydrofu	0.710	0.929	0.760	0.835	0.711	0.779	0.778	0.773	0.784	9.05
43) 1,1,1-Trichl	1.353	1.436	1.392	1.449	1.224	1.397	1.347	1.378	1.372	5.07
44) Dibromofluor	1.134	1.149	1.095	1.110	1.570	1.096	1.056	1.105	1.164	14.27
45) Cyclohexane	1.980	1.640	1.397	1.579		1.199	1.292	1.458	1.507	17.18
46) 1,1-Dichloro	1.175	1.313	1.290	1.348	1.321	1.283	1.236	1.287	1.282	4.23

Initial Calibration Summary

Job Number: TC52863 **Sample:** VE1541-ICC1541
Account: RFWTXHO Weston Solutions **Lab FileID:** E0033986.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

47)	I 1,4-Difluorobenzene	----------ISTD----------									
48)	Carbon Tetra	0.346	0.366	0.394	0.398	0.416	0.395	0.396	0.395	0.388	5.58
49)	1,2-Dichloro	0.397	0.390	0.371	0.371	0.541	0.362	0.358	0.361	0.394	15.50
50)	Benzene	1.196	1.249	1.220	1.246	1.235	1.217	1.200	1.208	1.221	1.64
51)	Isobutyl Alc	0.024	0.028	0.030	0.027		0.031	0.033	0.031	0.029	10.64
52)	1,2-Dichloro	0.446	0.473	0.441	0.451	0.447	0.438	0.430	0.432	0.445	3.03
53)	2,2,4-Trimet	0.747	0.925	0.982	1.104	0.810	0.738	0.918	1.050	0.909	14.93
54)	tert-amyl me	0.723	0.849	0.852	0.854	0.768	0.879	0.894	0.852	0.834	6.95
55)	Crotonaldehy	0.050	0.063	0.064	0.067	0.039	0.068	0.070	0.067	0.061	17.47
56)	n-Butyl Alco	0.012	0.016	0.018	0.017		0.020	0.020	0.019	0.017	17.02
57)	Trichloroeth	0.309	0.335	0.329	0.337	0.336	0.334	0.330	0.324	0.329	2.78
58)	Methylcycloh	0.328	0.391	0.445	0.495	0.338	0.369	0.443	0.473	0.410	15.29
59)	Methyl Metha	0.320	0.378	0.372	0.351	0.340	0.384	0.388	0.371	0.363	6.57
60)	1,2-Dichloro	0.312	0.351	0.331	0.339	0.316	0.333	0.331	0.328	0.330	3.68
61)	Dibromometha	0.235	0.270	0.246	0.261	0.248	0.250	0.251	0.245	0.251	4.23
62)	1,4-Dioxane	0.004	0.006	0.007	0.007		0.008	0.008	0.007	0.007	18.83
63)	Bromodichlor	0.425	0.461	0.440	0.451	0.450	0.449	0.453	0.437	0.446	2.53
64)	2-Nitropropa	0.133	0.159	0.153	0.153	0.145	0.158	0.161	0.154	0.152	6.00
65)	2-Chloroethy	0.237	0.300	0.304	0.305	0.237	0.314	0.322	0.307	0.291	11.61
66)	1-Bromo-2-Ch	0.524	0.581	0.531	0.544	0.529	0.543	0.545	0.529	0.541	3.35
67)	Epichlorohyd	0.108	0.132	0.131	0.132	0.108	0.136	0.138	0.133	0.127	9.52
68)	4-Methyl-2-p	0.484	0.622	0.588	0.593	0.505	0.595	0.592	0.587	0.571	8.56
69)	cis-1,3-Dich	0.484	0.542	0.551	0.551	0.466	0.576	0.582	0.559	0.539	7.76
70)	I Chlorobenzene-d5	----------ISTD----------									
71)	Toluene-d8	1.165	1.199	1.259	1.235	1.532	1.267	1.238	1.268	1.270	8.80
72)	Toluene	1.275	1.407	1.425	1.439	1.269	1.440	1.398	1.413	1.383	5.08
73)	Ethyl Methac	0.387	0.482	0.553	0.529	0.379	0.591	0.603	0.577	0.512	17.29
74)	trans-1,3-Di	0.421	0.482	0.509	0.494	0.418	0.533	0.535	0.517	0.489	9.45
75)	1,1,2-Trichl	0.298	0.354	0.321	0.329	0.286	0.323	0.320	0.318	0.318	6.35
76)	Tetrachloroe	0.364	0.394	0.395	0.405	0.354	0.393	0.389	0.390	0.385	4.48
77)	2-hexanone	0.381	0.500	0.504	0.505	0.386	0.507	0.501	0.506	0.474	11.76
78)	1,3-Dichloro	0.559	0.636	0.599	0.609	0.562	0.596	0.587	0.592	0.592	4.17
79)	Dibromochlor	0.367	0.416	0.417	0.416	0.402	0.434	0.435	0.424	0.414	5.28
80)	n-Butyl Acet	0.651	0.798	0.855	0.826	0.648	0.866	0.857	0.859	0.795	11.63
81)	1,2-Dibromoe	0.404	0.443	0.420	0.429	0.416	0.429	0.426	0.426	0.424	2.67
82)	1-Chlorohexa	0.359	0.413	0.479	0.479	0.366	0.481	0.481	0.483	0.443	12.35
83)	Chlorobenzen	1.003	1.050	1.027	1.045	1.055	1.031	1.021	1.013	1.031	1.78
84)	1,1,1,2-Tetr	0.312	0.362	0.359	0.357	0.338	0.367	0.364	0.359	0.352	5.31
85)	Ethylbenzene	1.328	1.479	1.622	1.617	1.364	1.626	1.589	1.606	1.529	8.04
86)	m,p-Xylene	0.993	1.149	1.258	1.262	1.037	1.292	1.280	1.273	1.193	9.96
87)	o-Xylene	0.988	1.167	1.326	1.288	1.057	1.348	1.344	1.329	1.231	11.58
88)	Styrene	0.774	0.938	1.069	1.057	0.788	1.099	1.097	1.071	0.987	13.86
89)	Bromoform	0.290	0.350	0.346	0.341	0.329	0.366	0.384	0.352	0.345	7.97
90)	I 1,4-Dichlorobenzene-d	----------ISTD----------									
91)	Isopropylben	1.968	2.364	2.743	2.744	2.140	2.841	2.848	2.799	2.556	13.65
92)	Cyclohexanon	0.026	0.041	0.043	0.043		0.047	0.046	0.045	0.042	16.92
93)	4-Bromofluor	0.758	0.790	0.861	0.849	1.132	0.876	0.889	0.872	0.878	12.77
94)	Bromobenzene	0.673	0.819	0.788	0.796	0.704	0.804	0.802	0.779	0.771	6.82
95)	1,1,2,2-Tetr	1.200	1.354	1.207	1.229	1.306	1.210	1.206	1.203	1.239	4.67
96)	Trans-1,4-Di	0.260	0.348	0.354	0.353	0.305	0.360	0.360	0.354	0.337	10.63
97)	1,2,3-Trichl	0.311	0.366	0.327	0.334	0.284	0.329	0.329	0.323	0.325	6.97
98)	n-Propylbenz	2.656	3.147	3.564	3.596	2.697	3.594	3.491	3.570	3.289	12.34
99)	2-Chlorotolu	1.848	2.006	2.079	2.114	1.778	2.046	2.007	1.978	1.982	5.78
100)	4-Chlorotolu	1.941	2.243	2.333	2.339	1.933	2.378	2.350	2.325	2.230	8.29
101)	1,3,5-Trimet	1.671	2.155	2.385	2.406	1.694	2.403	2.398	2.364	2.185	14.68
102)	alpha-Methyl	0.914	1.115	1.354	1.347	0.953	1.415	1.424	1.373	1.237	17.02
103)	Pentachloroe	0.449	0.484	0.496	0.485	0.458	0.516	0.530	0.501	0.490	5.57

Initial Calibration Summary

Job Number: TC52863 **Sample:** VE1541-ICC1541
Account: RFWTXHO Weston Solutions **Lab FileID:** E0033986.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
104) sec-Butylben 2.226 2.776 3.184 3.220 2.261 3.181 3.173 3.175 2.900  14.81
105) 1,3-Dichloro 1.414 1.612 1.554 1.599 1.542 1.551 1.531 1.545 1.543   3.87
106) 4-Isopropylt 2.144 2.468 2.672 2.747 2.258 2.731 2.801 2.668 2.561   9.56
107) 1,4-Dichloro 1.540 1.663 1.592 1.621 1.608 1.587 1.623 1.573 1.601   2.30
108) tert-Butylbe 0.996 1.202 1.343 1.362 0.985 1.372 1.391 1.336 1.248  13.55
109) Dicyclopenta 3.225 3.355 3.340 3.422 2.723 3.385 3.437 3.344 3.279   7.13
110) Benzyl Chlor 3.043 3.684 4.201 4.092 3.345 4.394 4.465 4.320 3.943  13.36
111) p-Diethylben 1.153 1.520 1.700 1.707 1.148 1.703 1.718 1.684 1.542  16.19
112) n-Butylbenze 2.307 2.954 3.142 3.211 2.404 3.085 3.061 3.069 2.904  11.95
113) 1,2-Dichloro 1.431 1.587 1.555 1.585 1.527 1.538 1.541 1.533 1.537   3.16
114) 1,2,4-Trimet 1.741 2.165 2.372 2.414 1.734 2.379 2.379 2.361 2.193  13.28
115) Hexachloroet 0.430 0.477 0.511 0.509 0.464 0.527 0.543 0.518 0.497   7.51
116) 1,2-Dibromo- 0.182 0.213 0.216 0.211 0.179 0.226 0.229 0.219 0.209   8.99
117) 1,2,4-Trichl 0.741 0.852 0.927 0.914 0.803 0.974 0.995 0.939 0.893   9.80
118) 1,3-Diethylb 1.119 1.411 1.628 1.605 1.234 1.651 1.658 1.628 1.492  14.23
119) Hexachlorobu 0.382 0.431 0.462 0.470 0.406 0.458 0.472 0.456 0.442   7.44
120) Naphthalene  1.525 1.938 2.400 2.230 1.710 2.554 2.527 2.469 2.169  18.30
121) 1,2,3-Trichl 0.647 0.757 0.809 0.770 0.681 0.823 0.823 0.800 0.764   8.73
122) 2-Methylnaph       0.136 0.243 0.168       0.318 0.220 0.273 0.226  29.60

123) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
124) TPH-GRO (C6- 1.021 0.707 0.480 0.537       0.452       0.446 0.607 E1  37.01
             ---- Linear regression ----  Coefficient =  0.9993
               Response Ratio = 22.38829 + 4.32493 *A

 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           ve1541c.m         Thu Jul 31 14:47:49 2014
```

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: VE1541-ICV1541
Lab FileID: E0033992.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E1541\E0033992.D Vial: 12
Acq On : 28 Jul 2014 1:13 pm Operator: stephc
Sample : icv1541-40 Inst : MS E
Misc : ms15881,VE1541,5,,,5,,Water Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\ve1541c.m (RTE Integrator)
Title : SW846 8260B and EPA624
Last Update : Mon Jul 28 12:20:24 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Pentafluorobenzene	1.000	1.000	0.0	109	0.00	3.51
2	p	Dichlorodifluoromethane	1.114	0.934	16.2	91	0.00	0.83
3	P	Chloromethane	1.484	1.316	11.3	98	0.00	0.87
4	p	Vinyl Chloride	1.369	1.234	9.9	97	0.00	0.93
5		1,3-Butadiene	0.779	0.967	-24.1	133	0.00	0.93
6		Ethylene Oxide	0.575	0.649	-12.9	127	0.00	1.09
7	p	Bromomethane	1.195	1.211	-1.3	111	0.00	1.09
8	p	Chloroethane	0.785	0.953	-21.4	133	0.00	1.13
9		Vinyl bromide	0.891	1.052	-18.1	128	0.00	1.24
10	p	Trichlorofluoromethane	1.771	1.666	5.9	104	0.00	1.31
11		Ethyl Alcohol	0.096	0.092	4.2	109	0.00	1.43
12		Ethyl Ether	0.956	0.975	-2.0	116	0.00	1.43
13		Acrolein	0.286	0.353	-23.4	142	0.00	1.51
14	p	1,1-Dichloroethene	1.465	1.533	-4.6	113	0.00	1.57
15	p	Freon 113	0.907	1.027	-13.2	118	0.00	1.60
16	p	Acetone	0.678	0.632	6.8	110	0.00	1.61
17		Iodomethane	1.917	1.983	-3.4	115	0.00	1.66
18		Isopropyl Alcohol	0.166	0.139	16.3	100	0.00	1.74
19	p	Methyl Acetate	1.824	1.368	25.0	86	0.00	1.84
20	p	Carbon Disulfide	3.171	3.134	1.2	111	0.00	1.70
21	p	Methylene Chloride	1.406	1.307	7.0	112	0.00	1.90
22		Tert Butyl Alcohol	0.277	0.263	5.1	109	0.00	2.06
23		Allyl Chloride	0.598	0.573	4.2	106	0.00	1.80
24		Acetonitrile	0.627	0.531	15.3	97	0.00	1.80
25	p	trans-1,2-Dichloroethene	1.337	1.391	-4.0	113	0.00	2.10
26		Acrylonitrile	0.711	0.639	10.1	101	0.00	2.09
27	p	Methyl Tert Butyl Ether	2.812	2.892	-2.8	115	0.00	2.15
28		Hexane	1.015	1.192	-17.4	122	0.00	2.34
29	P	1,1-Dichloroethane	1.736	1.772	-2.1	113	0.00	2.44
30		Vinyl Acetate	1.715	3.093	-80.3#	199	0.00	2.53
31		Di-isopropyl ether	2.972	3.021	-1.6	110	0.00	2.56
32		Chloroprene	1.176	1.357	-15.4	125	0.00	2.52
33		Ethyl tert-butyl ether	2.692	2.742	-1.9	112	0.00	2.89
34		2,2-Dichloropropane	1.242	1.374	-10.6	121	0.00	2.97
35	p	cis-1,2-Dichloroethene	1.117	1.147	-2.7	113	0.00	2.96
36		Ethyl Acetate	1.819	1.813	0.3	111	0.00	3.09
37	p	2-Butanone	0.876	0.894	-2.1	112	0.00	3.01
38		Propionitrile	0.304	0.305	-0.3	109	0.00	3.05
39		Methacrylonitrile	1.061	1.023	3.6	106	0.00	3.18
40		Bromochloromethane	0.630	0.622	1.3	109	0.00	3.18
41	p	Chloroform	1.870	1.876	-0.3	112	0.00	3.28
42		Tetrahydrofuran	0.784	0.746	4.8	107	0.00	3.23

Initial Calibration Verification

Job Number: TC52863 **Sample:** VE1541-ICV1541
Account: RFWTXHO Weston Solutions **Lab FileID:** E0033992.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

43	p	1,1,1-Trichloroethane	1.372	1.459	-6.3	115	0.00	3.43
44	S	Dibromofluoromethane	1.164	1.374	-18.0	137	0.00	3.43
45	p	Cyclohexane	1.507	1.528	-1.4	120	0.00	3.48
46		1,1-Dichloropropene	1.282	1.374	-7.2	117	0.00	3.58
47	I	1,4-Difluorobenzene	1.000	1.000	0.0	110	0.00	4.22
48	p	Carbon Tetrachloride	0.388	0.415	-7.0	116	0.00	3.58
49	S	1,2-Dichloroethane-d4	0.394	0.451	-14.5	133	0.00	3.73
50	p	Benzene	1.221	1.267	-3.8	114	0.00	3.78
51		Isobutyl Alcohol	0.029	0.028	3.4	105	0.00	3.84
52	p	1,2-Dichloroethane	0.445	0.460	-3.4	114	0.00	3.80
53		2,2,4-Trimethylpentane	0.909	1.062	-16.8	119	0.00	3.91
54		tert-amyl methyl ether	0.834	0.835	-0.1	108	0.00	3.96
55		Crotonaldehyde	0.061	0.060	1.6	103	0.00	4.11
56		n-Butyl Alcohol	0.017	0.018	-5.9	112	0.00	4.54
57	p	Trichloroethene	0.329	0.338	-2.7	113	0.00	4.46
58	p	Methylcyclohexane	0.410	0.502	-22.4	124	0.00	4.65
59		Methyl Methacrylate	0.363	0.364	-0.3	107	0.00	4.90
60	p	1,2-Dichloropropane	0.330	0.334	-1.2	111	0.00	4.68
61		Dibromomethane	0.251	0.258	-2.8	115	0.00	4.80
62		1,4-Dioxane	0.007	0.007	0.0	116	0.00	4.87
63	p	Bromodichloromethane	0.446	0.450	-0.9	112	0.00	5.02
64		2-Nitropropane	0.152	0.148	2.6	106	0.00	5.27
65		2-Chloroethyl vinyl ether	0.291	0.304	-4.5	110	0.00	5.41
66		1-Bromo-2-Chloroethane	0.541	0.508	6.1	105	0.00	5.32
67		Epichlorohydrin	0.127	0.131	-3.1	109	0.00	5.43
68	p	4-Methyl-2-pentanone	0.571	0.574	-0.5	107	0.00	5.76
69	p	cis-1,3-Dichloropropene	0.539	0.556	-3.2	111	0.00	5.53
70	I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.00	7.48
71	S	Toluene-d8	1.270	1.596	-25.7	140	0.00	5.82
72	p	Toluene	1.383	1.493	-8.0	116	0.00	5.90
73		Ethyl Methacrylate	0.512	0.554	-8.2	111	0.00	6.40
74	p	trans-1,3-Dichloropropene	0.489	0.553	-13.1	120	0.00	6.20
75	p	1,1,2-Trichloroethane	0.318	0.325	-2.2	112	0.00	6.40
76	p	Tetrachloroethene	0.385	0.448	-16.4	126	0.00	6.54
77	p	2-hexanone	0.474	0.483	-1.9	106	0.00	6.77
78		1,3-Dichloropropane	0.592	0.612	-3.4	113	0.00	6.59
79	p	Dibromochloromethane	0.414	0.433	-4.6	115	0.00	6.85
80		n-Butyl Acetate	0.795	0.812	-2.1	105	0.00	6.97
81	p	1,2-Dibromoethane	0.424	0.439	-3.5	116	0.00	6.93
82		1-Chlorohexane	0.443	0.485	-9.5	112	0.00	7.56
83	P	Chlorobenzene	1.031	1.041	-1.0	112	0.00	7.51
84		1,1,1,2-Tetrachloroethane	0.352	0.376	-6.8	116	0.00	7.63
85	p	Ethylbenzene	1.529	1.692	-10.7	116	0.00	7.67
86	p	m,p-Xylene	1.193	1.300	-9.0	115	0.00	7.80
87	p	o-Xylene	1.231	1.336	-8.5	112	0.00	8.21
88	p	Styrene	0.987	1.128	-14.3	117	0.00	8.22
89	P	Bromoform	0.345	0.362	-4.9	116	0.00	8.37
90	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	112	0.00	9.84
91	p	Isopropylbenzene	2.556	2.839	-11.1	116	0.00	8.60
92		Cyclohexanone	0.042	0.081	-92.9#	213#	0.00	8.65
93	S	4-Bromofluorobenzene	0.878	1.065	-21.3	139	0.00	8.72
94		Bromobenzene	0.771	0.824	-6.9	117	0.00	8.84
95	P	1,1,2,2-Tetrachloroethane	1.239	1.240	-0.1	115	0.00	8.92
96		Trans-1,4-Dichloro-2-bute	0.337	0.320	5.0	102	0.00	8.97
97		1,2,3-Trichloropropane	0.325	0.342	-5.2	118	0.00	8.93
98		n-Propylbenzene	3.289	3.591	-9.2	113	0.00	9.01
99		2-Chlorotoluene	1.982	2.012	-1.5	109	0.00	9.05

Initial Calibration Verification

Job Number: TC52863 **Sample:** VE1541-ICV1541
Account: RFWTXHO Weston Solutions **Lab FileID:** E0033992.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		4-Chlorotoluene	2.230	2.401	-7.7	116	0.00	9.17
101		1,3,5-Trimethylbenzene	2.185	2.425	-11.0	114	0.00	9.20
102		alpha-Methylstyrene	1.237	1.316	-6.4	109	0.00	9.41
103		Pentachloroethane	0.490	0.475	3.1	108	0.00	9.49
104		sec-Butylbenzene	2.900	3.269	-12.7	115	0.00	9.71
105	p	1,3-Dichlorobenzene	1.543	1.609	-4.3	116	0.00	9.77
106		4-Isopropyltoluene	2.561	2.820	-10.1	119	0.00	9.86
107	p	1,4-Dichlorobenzene	1.601	1.689	-5.5	119	0.00	9.86
108		tert-Butylbenzene	1.248	1.335	-7.0	112	0.00	9.50
109		Dicyclopentadiene	3.279	3.283	-0.1	110	0.00	9.86
110		Benzyl Chloride	3.943	3.999	-1.4	107	0.00	10.00
111		p-Diethylbenzene	1.542	1.582	-2.6	105	0.00	10.22
112		n-Butylbenzene	2.904	3.174	-9.3	113	0.00	10.24
113	p	1,2-Dichlorobenzene	1.537	1.567	-2.0	113	0.00	10.19
114		1,2,4-Trimethylbenzene	2.193	2.467	-12.5	117	0.00	9.55
115		Hexachloroethane	0.497	0.407	18.1	89	0.00	10.43
116	p	1,2-Dibromo-3-Chloropropa	0.209	0.220	-5.3	114	0.00	10.92
117	p	1,2,4-Trichlorobenzene	0.893	1.005	-12.5	122	0.00	11.67
118		1,3-Diethylbenzene	1.492	1.654	-10.9	114	0.00	10.15
119		Hexachlorobutadiene	0.442	0.502	-13.6	122	0.00	11.85
120		Naphthalene	2.169	2.496	-15.1	117	0.00	11.88
121		1,2,3-Trichlorobenzene	0.764	0.832	-8.9	115	0.00	12.10
122		2-Methylnaphthalene	0.226	0.175	22.6	81	0.00	12.89
123	I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	112	0.00	9.84
124	H	TPH-GRO (C6-C10)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
E0033986.D ve1541c.m Tue Jul 29 11:51:51 2014

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: VE1560-CC1541
Lab FileID: E0034470.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\E1560\E0034470.D          Vial: 2
Acq On    : 11 Aug 2014   9:42 am                   Operator: caitlinf
Sample    : cc1541-20                               Inst    : MS E
Misc      : ms15967,VE1560,5,,,5,,Water             Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\ve1541c.m (RTE Integrator)
Title        : SW846 8260B and EPA624
Last Update  : Thu Jul 31 07:27:17 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Pentafluorobenzene	1.000	1.000	0.0	119	0.00	3.51
2	p	Dichlorodifluoromethane	1.114	0.912	18.1	91	0.00	0.82
3	P	Chloromethane	1.484	1.325	10.7	104	0.00	0.86
4	p	Vinyl Chloride	1.369	1.303	4.8	111	0.01	0.94
5		1,3-Butadiene	0.779	0.785	-0.8	107	0.00	0.93
6		Ethylene Oxide	0.575	0.609	-5.9	132	0.00	1.09
7	p	Bromomethane	1.195	1.067	10.7	112	0.00	1.09
8	p	Chloroethane	0.785	0.715	8.9	113	0.00	1.13
9		Vinyl bromide	0.891	0.860	3.5	118	0.00	1.24
10	p	Trichlorofluoromethane	1.771	1.479	16.5	100	0.00	1.31
11		Ethyl Alcohol	0.096	0.098	-2.1	130	0.00	1.43
12		Ethyl Ether	0.956	0.975	-2.0	121	0.00	1.43
13		Acrolein	0.286	0.254	11.2	108	0.00	1.50
14	p	1,1-Dichloroethene	1.465	1.466	-0.1	113	0.00	1.57
15	p	Freon 113	0.907	0.828	8.7	94	0.00	1.60
16	p	Acetone	0.678	0.671	1.0	121	0.00	1.60
17		Iodomethane	1.917	1.933	-0.8	119	0.00	1.66
18		Isopropyl Alcohol	0.166	0.173	-4.2	127	-0.01	1.73
19	p	Methyl Acetate	1.824	1.749	4.1	110	0.00	1.84
20	p	Carbon Disulfide	3.171	3.300	-4.1	122	0.00	1.70
21	p	Methylene Chloride	1.406	1.301	7.5	108	0.00	1.90
22		Tert Butyl Alcohol	0.277	0.286	-3.2	125	0.00	2.05
23		Allyl Chloride	0.598	0.639	-6.9	119	0.00	1.80
24		Acetonitrile	0.627	0.629	-0.3	118	0.00	1.80
25	p	trans-1,2-Dichloroethene	1.337	1.383	-3.4	119	0.00	2.10
26		Acrylonitrile	0.711	0.718	-1.0	119	0.00	2.09
27	p	Methyl Tert Butyl Ether	2.812	2.798	0.5	119	0.00	2.14
28		Hexane	1.015	0.900	11.3	87	0.00	2.34
29	P	1,1-Dichloroethane	1.736	1.743	-0.4	118	0.00	2.44
30		Vinyl Acetate	1.715	2.003	-16.8	139	0.00	2.52
31		Di-isopropyl ether	2.972	2.972	0.0	115	0.00	2.55
32		Chloroprene	1.176	1.322	-12.4	125	0.00	2.52
33		Ethyl tert-butyl ether	2.692	2.680	0.4	118	0.00	2.88
34		2,2-Dichloropropane	1.242	1.285	-3.5	118	0.00	2.97
35	p	cis-1,2-Dichloroethene	1.117	1.144	-2.4	119	0.00	2.96
36		Ethyl Acetate	1.819	1.753	3.6	115	0.00	3.09
37	p	2-Butanone	0.876	0.943	-7.6	126	0.00	3.00
38		Propionitrile	0.304	0.311	-2.3	116	0.00	3.04
39		Methacrylonitrile	1.061	1.031	2.8	115	0.00	3.18
40		Bromochloromethane	0.630	0.652	-3.5	120	0.00	3.17
41	p	Chloroform	1.870	1.865	0.3	118	0.00	3.27
42		Tetrahydrofuran	0.784	0.764	2.6	109	0.00	3.23

Continuing Calibration Summary

Job Number: TC52863 **Sample:** VE1560-CC1541
Account: RFWTXHO Weston Solutions **Lab FileID:** E0034470.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

43	p	1,1,1-Trichloroethane	1.372	1.403	-2.3	115	0.00	3.42
44	S	Dibromofluoromethane	1.164	1.061	8.8	114	0.00	3.42
45	p	Cyclohexane	1.507	1.222	18.9	92	0.00	3.47
46		1,1-Dichloropropene	1.282	1.291	-0.7	114	0.00	3.58
47	I	1,4-Difluorobenzene	1.000	1.000	0.0	119	0.00	4.21
48	p	Carbon Tetrachloride	0.388	0.394	-1.5	117	0.00	3.58
49	S	1,2-Dichloroethane-d4	0.394	0.345	12.4	110	0.00	3.73
50	p	Benzene	1.221	1.233	-1.0	117	0.00	3.77
51		Isobutyl Alcohol	0.029	0.030	-3.4	132	0.00	3.84
52	p	1,2-Dichloroethane	0.445	0.450	-1.1	118	0.00	3.80
53		2,2,4-Trimethylpentane	0.909	0.778	14.4	84	0.00	3.90
54		tert-amyl methyl ether	0.834	0.836	-0.2	116	0.00	3.95
55		Crotonaldehyde	0.061	0.034	44.3#	61	0.00	4.12
56		n-Butyl Alcohol	0.017	0.017	0.0	119	0.00	4.54
57	p	Trichloroethene	0.329	0.335	-1.8	118	0.00	4.46
58	p	Methylcyclohexane	0.410	0.369	10.0	88	0.00	4.65
59		Methyl Methacrylate	0.363	0.337	7.2	114	0.00	4.90
60	p	1,2-Dichloropropane	0.330	0.327	0.9	114	0.00	4.68
61		Dibromomethane	0.251	0.257	-2.4	117	0.00	4.80
62		1,4-Dioxane	0.007	0.008	-14.3	130	0.00	4.87
63	p	Bromodichloromethane	0.446	0.448	-0.4	118	0.00	5.01
64		2-Nitropropane	0.152	0.153	-0.7	119	0.00	5.27
65		2-Chloroethyl vinyl ether	0.291	0.284	2.4	111	0.00	5.41
66		1-Bromo-2-Chloroethane	0.541	0.519	4.1	113	0.00	5.32
67		Epichlorohydrin	0.127	0.126	0.8	113	0.00	5.43
68	p	4-Methyl-2-pentanone	0.571	0.598	-4.7	119	0.00	5.76
69	p	cis-1,3-Dichloropropene	0.539	0.548	-1.7	118	0.00	5.52
70	I	Chlorobenzene-d5	1.000	1.000	0.0	118	0.00	7.48
71	S	Toluene-d8	1.270	1.150	9.4	110	0.00	5.82
72	p	Toluene	1.383	1.423	-2.9	117	0.00	5.89
73		Ethyl Methacrylate	0.512	0.503	1.8	113	0.00	6.39
74	p	trans-1,3-Dichloropropene	0.489	0.498	-1.8	119	0.00	6.20
75	p	1,1,2-Trichloroethane	0.318	0.324	-1.9	116	0.00	6.40
76	p	Tetrachloroethene	0.385	0.402	-4.4	118	0.00	6.53
77	p	2-hexanone	0.474	0.508	-7.2	119	0.00	6.77
78		1,3-Dichloropropane	0.592	0.594	-0.3	116	0.00	6.58
79	p	Dibromochloromethane	0.414	0.436	-5.3	124	0.00	6.84
80		n-Butyl Acetate	0.795	0.779	2.0	112	0.00	6.97
81	p	1,2-Dibromoethane	0.424	0.423	0.2	117	0.00	6.93
82		1-Chlorohexane	0.443	0.433	2.3	107	0.00	7.56
83	P	Chlorobenzene	1.031	1.039	-0.8	118	0.00	7.50
84		1,1,1,2-Tetrachloroethane	0.352	0.365	-3.7	121	0.00	7.62
85	p	Ethylbenzene	1.529	1.566	-2.4	115	0.00	7.66
86	p	m,p-Xylene	1.193	1.222	-2.4	115	0.00	7.80
87	p	o-Xylene	1.231	1.255	-1.9	115	0.00	8.20
88	p	Styrene	0.987	1.027	-4.1	115	0.00	8.22
89	P	Bromoform	0.345	0.366	-6.1	127	0.00	8.37
90	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	119	0.00	9.83
91	p	Isopropylbenzene	2.556	2.645	-3.5	115	0.00	8.60
92		Cyclohexanone	0.042	0.047	-11.9	130	0.00	8.65
93	S	4-Bromofluorobenzene	0.878	0.814	7.3	114	0.00	8.72
94		Bromobenzene	0.771	0.790	-2.5	118	0.00	8.84
95	P	1,1,2,2-Tetrachloroethane	1.239	1.204	2.8	117	0.00	8.92
96		Trans-1,4-Dichloro-2-bute	0.337	0.332	1.5	112	0.00	8.97
97		1,2,3-Trichloropropane	0.325	0.331	-1.8	118	0.00	8.93
98		n-Propylbenzene	3.289	3.410	-3.7	113	0.00	9.00
99		2-Chlorotoluene	1.982	2.044	-3.1	115	0.00	9.05

Continuing Calibration Summary

Job Number: TC52863 **Sample:** VE1560-CC1541
Account: RFWTXHO Weston Solutions **Lab FileID:** E0034470.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		4-Chlorotoluene	2.230	2.266	-1.6	115	0.00	9.16
101		1,3,5-Trimethylbenzene	2.185	2.315	-5.9	115	0.00	9.19
102		alpha-Methylstyrene	1.237	1.250	-1.1	110	0.00	9.41
103		Pentachloroethane	0.490	0.480	2.0	118	0.00	9.49
104		sec-Butylbenzene	2.900	3.007	-3.7	111	0.00	9.71
105	p	1,3-Dichlorobenzene	1.543	1.549	-0.4	115	0.00	9.77
106		4-Isopropyltoluene	2.561	2.585	-0.9	112	0.00	9.86
107	p	1,4-Dichlorobenzene	1.601	1.602	-0.1	118	0.00	9.86
108		tert-Butylbenzene	1.248	1.277	-2.3	112	0.00	9.49
109		Dicyclopentadiene	3.279	3.071	6.3	107	0.00	9.86
110		Benzyl Chloride	3.943	3.974	-0.8	116	0.00	10.00
111		p-Diethylbenzene	1.542	1.591	-3.2	111	0.00	10.22
112		n-Butylbenzene	2.904	2.947	-1.5	109	0.00	10.24
113	p	1,2-Dichlorobenzene	1.537	1.560	-1.5	117	0.00	10.19
114		1,2,4-Trimethylbenzene	2.193	2.297	-4.7	113	0.00	9.54
115		Hexachloroethane	0.497	0.501	-0.8	117	0.00	10.43
116	p	1,2-Dibromo-3-Chloropropa	0.209	0.217	-3.8	122	0.00	10.92
117	p	1,2,4-Trichlorobenzene	0.893	0.868	2.8	113	0.00	11.67
118		1,3-Diethylbenzene	1.492	1.458	2.3	108	0.00	10.14
119		Hexachlorobutadiene	0.442	0.429	2.9	109	0.00	11.85
120		Naphthalene	2.169	2.135	1.6	114	0.00	11.88
121		1,2,3-Trichlorobenzene	0.764	0.731	4.3	113	0.00	12.10
122		2-Methylnaphthalene	0.226	0.201	11.1	142	0.00	12.89
123	I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	131	0.00	9.83
			Amount	Calc.	%Drift			
124	H	TPH-GRO (C6-C10)	1000.000	1157.041	-15.7	149	0.00	5.77

(#) = Out of Range SPCC's out = 0 CCC's out = 0
E0033985.D ve1541c.m Mon Aug 11 13:02:56 2014

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: VE1560-ECC1541
Lab FileID: E0034495.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\E1560\E0034495.D Vial: 27
Acq On : 11 Aug 2014 7:47 pm Operator: caitlinf
Sample : ecc1541-40 Inst : MS E
Misc : ms15977,VE1560,5,,,5,,Water Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\ve1541c.m (RTE Integrator)
Title : SW846 8260B and EPA624
Last Update : Thu Jul 31 07:27:17 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Pentafluorobenzene	1.000	1.000	0.0	110	0.00	3.51
2	p	Dichlorodifluoromethane	1.114	0.928	16.7	91	0.00	0.82
3	P	Chloromethane	1.484	1.413	4.8	105	0.00	0.87
4	p	Vinyl Chloride	1.369	1.468	-7.2	116	0.02	0.95
5		1,3-Butadiene	0.779	0.966	-24.0#	133	0.00	0.93
6		Ethylene Oxide	0.575	0.640	-11.3	125	0.00	1.09
7	p	Bromomethane	1.195	1.128	5.6	104	0.00	1.09
8	p	Chloroethane	0.785	0.769	2.0	108	0.00	1.13
9		Vinyl bromide	0.891	0.935	-4.9	115	0.00	1.24
10	p	Trichlorofluoromethane	1.771	1.608	9.2	101	0.00	1.32
11		Ethyl Alcohol	0.096	0.101	-5.2	120	0.00	1.43
12		Ethyl Ether	0.956	0.995	-4.1	119	0.00	1.43
13		Acrolein	0.286	0.255	10.8	103	0.00	1.50
14	p	1,1-Dichloroethene	1.465	1.644	-12.2	122	0.00	1.57
15	p	Freon 113	0.907	0.924	-1.9	107	0.00	1.60
16	p	Acetone	0.678	0.736	-8.6	128	0.00	1.60
17		Iodomethane	1.917	1.992	-3.9	116	0.00	1.66
18		Isopropyl Alcohol	0.166	0.161	3.0	116	0.00	1.74
19	p	Methyl Acetate	1.824	1.580	13.4	99	0.00	1.84
20	p	Carbon Disulfide	3.171	3.428	-8.1	122	0.00	1.70
21	p	Methylene Chloride	1.406	1.332	5.3	114	0.00	1.90
22		Tert Butyl Alcohol	0.277	0.288	-4.0	120	0.00	2.05
23		Allyl Chloride	0.598	0.615	-2.8	114	0.00	1.80
24		Acetonitrile	0.627	0.594	5.3	110	0.00	1.80
25	p	trans-1,2-Dichloroethene	1.337	1.446	-8.2	118	0.00	2.10
26		Acrylonitrile	0.711	0.737	-3.7	117	0.00	2.09
27	p	Methyl Tert Butyl Ether	2.812	2.855	-1.5	114	0.00	2.14
28		Hexane	1.015	0.941	7.3	97	0.00	2.34
29	P	1,1-Dichloroethane	1.736	1.822	-5.0	117	0.00	2.44
30		Vinyl Acetate	1.715	2.112	-23.1#	137	0.00	2.53
31		Di-isopropyl ether	2.972	3.089	-3.9	112	0.00	2.55
32		Chloroprene	1.176	1.419	-20.7#	131	0.00	2.52
33		Ethyl tert-butyl ether	2.692	2.763	-2.6	113	0.00	2.88
34		2,2-Dichloropropane	1.242	1.296	-4.3	114	0.00	2.97
35	p	cis-1,2-Dichloroethene	1.117	1.185	-6.1	117	0.00	2.96
36		Ethyl Acetate	1.819	1.827	-0.4	112	0.00	3.09
37	p	2-Butanone	0.876	0.979	-11.8	123	0.00	3.00
38		Propionitrile	0.304	0.320	-5.3	115	0.00	3.05
39		Methacrylonitrile	1.061	1.067	-0.6	111	0.00	3.18
40		Bromochloromethane	0.630	0.658	-4.4	116	0.00	3.18
41	p	Chloroform	1.870	1.917	-2.5	115	0.00	3.27
42		Tetrahydrofuran	0.784	0.819	-4.5	119	0.00	3.23

Continuing Calibration Summary

Job Number: TC52863 **Sample:** VE1560-ECC1541
Account: RFWTXHO Weston Solutions **Lab FileID:** E0034495.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

43	p	1,1,1-Trichloroethane	1.372	1.473	-7.4	116	0.00	3.42
44	S	Dibromofluoromethane	1.164	1.039	10.7	104	0.00	3.43
45	p	Cyclohexane	1.507	1.334	11.5	105	0.00	3.47
46		1,1-Dichloropropene	1.282	1.381	-7.7	118	0.00	3.58
47	I	1,4-Difluorobenzene	1.000	1.000	0.0	109	0.00	4.21
48	p	Carbon Tetrachloride	0.388	0.426	-9.8	118	0.00	3.58
49	S	1,2-Dichloroethane-d4	0.394	0.341	13.5	100	0.00	3.73
50	p	Benzene	1.221	1.301	-6.6	116	0.00	3.78
51		Isobutyl Alcohol	0.029	0.030	-3.4	111	0.00	3.84
52	p	1,2-Dichloroethane	0.445	0.462	-3.8	114	0.00	3.80
53		2,2,4-Trimethylpentane	0.909	0.843	7.3	93	0.00	3.91
54		tert-amyl methyl ether	0.834	0.862	-3.4	110	0.00	3.96
55		Crotonaldehyde	0.061	0.101	-65.6#	171	0.00	4.12
56		n-Butyl Alcohol	0.017	0.019	-11.8	117	0.00	4.54
57	p	Trichloroethene	0.329	0.353	-7.3	117	0.00	4.46
58	p	Methylcyclohexane	0.410	0.410	0.0	100	0.00	4.65
59		Methyl Methacrylate	0.363	0.368	-1.4	108	0.00	4.90
60	p	1,2-Dichloropropane	0.330	0.344	-4.2	113	0.00	4.68
61		Dibromomethane	0.251	0.262	-4.4	116	0.00	4.80
62		1,4-Dioxane	0.007	0.009	-28.6#	145	0.00	4.87
63	p	Bromodichloromethane	0.446	0.463	-3.8	115	0.00	5.01
64		2-Nitropropane	0.152	0.156	-2.6	111	0.00	5.27
65		2-Chloroethyl vinyl ether	0.291	0.304	-4.5	109	0.00	5.41
66		1-Bromo-2-Chloroethane	0.541	0.538	0.6	110	0.00	5.32
67		Epichlorohydrin	0.127	0.132	-3.9	109	0.00	5.43
68	p	4-Methyl-2-pentanone	0.571	0.628	-10.0	116	0.00	5.76
69	p	cis-1,3-Dichloropropene	0.539	0.570	-5.8	113	0.00	5.53
70	I	Chlorobenzene-d5	1.000	1.000	0.0	108	0.00	7.48
71	S	Toluene-d8	1.270	1.197	5.7	103	0.00	5.82
72	p	Toluene	1.383	1.520	-9.9	116	0.00	5.90
73		Ethyl Methacrylate	0.512	0.546	-6.6	107	0.00	6.40
74	p	trans-1,3-Dichloropropene	0.489	0.524	-7.2	112	0.00	6.21
75	p	1,1,2-Trichloroethane	0.318	0.338	-6.3	114	0.00	6.40
76	p	Tetrachloroethene	0.385	0.422	-9.6	116	0.00	6.54
77	p	2-hexanone	0.474	0.546	-15.2	117	0.00	6.77
78		1,3-Dichloropropane	0.592	0.618	-4.4	112	0.00	6.59
79	p	Dibromochloromethane	0.414	0.447	-8.0	116	0.00	6.85
80		n-Butyl Acetate	0.795	0.839	-5.5	106	0.00	6.97
81	p	1,2-Dibromoethane	0.424	0.443	-4.5	114	0.00	6.93
82		1-Chlorohexane	0.443	0.488	-10.2	110	0.00	7.56
83	P	Chlorobenzene	1.031	1.086	-5.3	115	0.00	7.51
84		1,1,1,2-Tetrachloroethane	0.352	0.384	-9.1	116	0.00	7.62
85	p	Ethylbenzene	1.529	1.691	-10.6	113	0.00	7.67
86	p	m,p-Xylene	1.193	1.329	-11.4	115	0.00	7.80
87	p	o-Xylene	1.231	1.372	-11.5	112	0.00	8.21
88	p	Styrene	0.987	1.116	-13.1	113	0.00	8.22
89	P	Bromoform	0.345	0.363	-5.2	114	0.00	8.37
90	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	110	0.00	9.84
91	p	Isopropylbenzene	2.556	2.891	-13.1	116	0.00	8.60
92		Cyclohexanone	0.042	0.054	-28.6#	139	0.00	8.65
93	S	4-Bromofluorobenzene	0.878	0.840	4.3	107	0.00	8.72
94		Bromobenzene	0.771	0.813	-5.4	113	0.00	8.84
95	P	1,1,2,2-Tetrachloroethane	1.239	1.240	-0.1	113	0.00	8.92
96		Trans-1,4-Dichloro-2-bute	0.337	0.313	7.1	97	0.00	8.97
97		1,2,3-Trichloropropane	0.325	0.336	-3.4	113	0.00	8.93
98		n-Propylbenzene	3.289	3.680	-11.9	113	0.00	9.01
99		2-Chlorotoluene	1.982	2.132	-7.6	112	0.00	9.05

Continuing Calibration Summary

Job Number: TC52863 **Sample:** VE1560-ECC1541
Account: RFWTXHO Weston Solutions **Lab FileID:** E0034495.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		4-Chlorotoluene	2.230	2.409	-8.0	113	0.00	9.17
101		1,3,5-Trimethylbenzene	2.185	2.462	-12.7	113	0.00	9.19
102		alpha-Methylstyrene	1.237	1.361	-10.0	110	0.00	9.41
103		Pentachloroethane	0.490	0.497	-1.4	110	0.00	9.49
104		sec-Butylbenzene	2.900	3.267	-12.7	112	0.00	9.71
105	p	1,3-Dichlorobenzene	1.543	1.608	-4.2	113	0.00	9.77
106		4-Isopropyltoluene	2.561	2.771	-8.2	114	0.00	9.86
107	p	1,4-Dichlorobenzene	1.601	1.618	-1.1	111	0.00	9.86
108		tert-Butylbenzene	1.248	1.380	-10.6	113	0.00	9.50
109		Dicyclopentadiene	3.279	3.332	-1.6	109	0.00	9.86
110		Benzyl Chloride	3.943	3.877	1.7	101	0.00	10.00
111		p-Diethylbenzene	1.542	1.688	-9.5	109	0.00	10.22
112		n-Butylbenzene	2.904	3.114	-7.2	109	0.00	10.24
113	p	1,2-Dichlorobenzene	1.537	1.604	-4.4	113	0.00	10.19
114		1,2,4-Trimethylbenzene	2.193	2.450	-11.7	113	0.00	9.55
115		Hexachloroethane	0.497	0.527	-6.0	113	0.00	10.43
116	p	1,2-Dibromo-3-Chloropropa	0.209	0.215	-2.9	109	0.00	10.92
117	p	1,2,4-Trichlorobenzene	0.893	0.894	-0.1	106	0.00	11.67
118		1,3-Diethylbenzene	1.492	1.597	-7.0	108	0.00	10.15
119		Hexachlorobutadiene	0.442	0.432	2.3	102	0.00	11.85
120		Naphthalene	2.169	2.192	-1.1	100	0.00	11.88
121		1,2,3-Trichlorobenzene	0.764	0.722	5.5	98	0.00	12.10
122		2-Methylnaphthalene	0.226	0.194	14.2	88	0.00	12.89
123	I	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	118	0.00	9.84
		----------	Amount	Calc.	%Drift		----------	
124	H	TPH-GRO (C6-C10)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
E0033986.D ve1541c.m Tue Aug 12 07:32:50 2014

6.7.4

6

Gulf Coast ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33496-MB	O11729.D	1	08/11/14	GJ	08/09/14	OP33496	EO650

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC52863-1, TC52863-2

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	20	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.96	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	10	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.5	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.96	ug/l	
	3&4-Methylphenol	ND	5.0	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	1.1	ug/l	
100-02-7	4-Nitrophenol	ND	25	7.2	ug/l	
87-86-5	Pentachlorophenol	ND	25	10	ug/l	
108-95-2	Phenol	ND	5.0	1.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	0.98	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.1	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.2	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.5	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.3	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.5	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.2	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	1.3	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	0.88	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.3	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	1.1	ug/l	
86-74-8	Carbazole	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.95	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.90	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.3	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.1	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.1	ug/l	

Method Blank Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33496-MB	O11729.D	1	08/11/14	GJ	08/09/14	OP33496	EO650

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC52863-1, TC52863-2

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	1.3	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	1.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.4	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.3	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	1.3	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.2	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.4	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	1.4	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.5	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.4	ug/l	
86-73-7	Fluorene	ND	5.0	1.2	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	1.6	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.2	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.2	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.3	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.0	ug/l	
78-59-1	Isophorone	ND	5.0	1.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.2	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.3	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	1.2	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	1.4	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.2	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.4	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.5	ug/l	
129-00-0	Pyrene	ND	5.0	1.4	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.1	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	34%	10-66%
4165-62-2	Phenol-d5	25%	10-63%

Method Blank Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33496-MB	O11729.D	1	08/11/14	GJ	08/09/14	OP33496	EO650

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC52863-1, TC52863-2

CAS No.	Surrogate Recoveries		Limits
118-79-6	2,4,6-Tribromophenol	65%	32-128%
4165-60-0	Nitrobenzene-d5	56%	29-115%
321-60-8	2-Fluorobiphenyl	57%	34-113%
1718-51-0	Terphenyl-d14	117%	23-138%

Blank Spike Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33496-BS	O11721.D	1	08/11/14	GJ	08/09/14	OP33496	EO650

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC52863-1, TC52863-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	21.5	43	10-91
95-57-8	2-Chlorophenol	50	26.5	53	38-102
59-50-7	4-Chloro-3-methyl phenol	50	36.2	72	30-110
120-83-2	2,4-Dichlorophenol	50	29.6	59	41-107
105-67-9	2,4-Dimethylphenol	50	30.2	60	39-107
51-28-5	2,4-Dinitrophenol	50	43.5	87	24-119
534-52-1	4,6-Dinitro-o-cresol	50	44.2	88	40-121
95-48-7	2-Methylphenol	50	24.8	50	33-93
	3&4-Methylphenol	50	24.0	48	28-99
88-75-5	2-Nitrophenol	50	29.9	60	38-107
100-02-7	4-Nitrophenol	50	27.5	55	10-78
87-86-5	Pentachlorophenol	50	40.3	81	28-116
108-95-2	Phenol	50	15.9	32	15-70
95-95-4	2,4,5-Trichlorophenol	50	40.8	82	47-116
88-06-2	2,4,6-Trichlorophenol	50	37.2	74	44-112
83-32-9	Acenaphthene	50	36.7	73	44-106
208-96-8	Acenaphthylene	50	38.2	76	46-111
120-12-7	Anthracene	50	46.6	93	53-114
56-55-3	Benzo(a)anthracene	50	50.1	100	57-113
50-32-8	Benzo(a)pyrene	50	51.3	103	50-109
205-99-2	Benzo(b)fluoranthene	50	54.4	109	50-117
191-24-2	Benzo(g,h,i)perylene	50	52.8	106	43-127
207-08-9	Benzo(k)fluoranthene	50	51.9	104	52-123
101-55-3	4-Bromophenyl phenyl ether	50	43.1	86	48-113
85-68-7	Butyl benzyl phthalate	50	46.2	92	42-120
100-51-6	Benzyl Alcohol	50	24.2	48	31-97
91-58-7	2-Chloronaphthalene	50	36.4	73	35-123
106-47-8	4-Chloroaniline	50	26.0	52	36-104
86-74-8	Carbazole	50	47.6	95	50-113
218-01-9	Chrysene	50	50.6	101	59-116
111-91-1	bis(2-Chloroethoxy)methane	50	29.0	58	34-103
111-44-4	bis(2-Chloroethyl)ether	50	26.8	54	36-100
108-60-1	bis(2-Chloroisopropyl)ether	50	26.6	53	30-110
7005-72-3	4-Chlorophenyl phenyl ether	50	38.7	77	45-112
95-50-1	1,2-Dichlorobenzene	50	29.1	58	37-100
541-73-1	1,3-Dichlorobenzene	50	28.4	57	34-99

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33496-BS	O11721.D	1	08/11/14	GJ	08/09/14	OP33496	EO650

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC52863-1, TC52863-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
106-46-7	1,4-Dichlorobenzene	50	28.8	58	36-99
121-14-2	2,4-Dinitrotoluene	50	46.5	93	52-115
606-20-2	2,6-Dinitrotoluene	50	43.6	87	52-111
91-94-1	3,3'-Dichlorobenzidine	50	48.3	97	37-125
53-70-3	Dibenzo(a,h)anthracene	50	53.9	108	47-125
132-64-9	Dibenzofuran	50	37.5	75	45-108
84-74-2	Di-n-butyl phthalate	50	45.8	92	47-118
117-84-0	Di-n-octyl phthalate	50	48.3	97	41-124
84-66-2	Diethyl phthalate	50	43.8	88	38-121
131-11-3	Dimethyl phthalate	50	41.4	83	41-116
117-81-7	bis(2-Ethylhexyl)phthalate	50	46.9	94	50-123
206-44-0	Fluoranthene	50	47.1	94	50-118
86-73-7	Fluorene	50	40.6	81	47-113
118-74-1	Hexachlorobenzene	50	44.8	90	49-114
87-68-3	Hexachlorobutadiene	50	30.1	60	30-104
77-47-4	Hexachlorocyclopentadiene	50	23.9	48	10-97
67-72-1	Hexachloroethane	50	29.3	59	30-100
193-39-5	Indeno(1,2,3-cd)pyrene	50	51.5	103	45-127
78-59-1	Isophorone	50	32.4	65	40-103
91-57-6	2-Methylnaphthalene	50	31.7	63	36-104
88-74-4	2-Nitroaniline	50	42.5	85	41-117
99-09-2	3-Nitroaniline	50	38.7	77	37-117
100-01-6	4-Nitroaniline	50	42.4	85	47-121
91-20-3	Naphthalene	50	31.8	64	40-104
98-95-3	Nitrobenzene	50	31.4	63	40-103
621-64-7	N-Nitroso-di-n-propylamine	50	28.6	57	36-112
86-30-6	N-Nitrosodiphenylamine	100	83.0	83	39-109
85-01-8	Phenanthrene	50	47.5	95	53-114
129-00-0	Pyrene	50	48.3	97	51-117
120-82-1	1,2,4-Trichlorobenzene	50	30.1	60	32-103

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	31%	10-66%
4165-62-2	Phenol-d5	24%	10-63%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33496-BS	O11721.D	1	08/11/14	GJ	08/09/14	OP33496	EO650

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC52863-1, TC52863-2

CAS No.	Surrogate Recoveries	BSP	Limits
118-79-6	2,4,6-Tribromophenol	85%	32-128%
4165-60-0	Nitrobenzene-d5	52%	29-115%
321-60-8	2-Fluorobiphenyl	55%	34-113%
1718-51-0	Terphenyl-d14	96%	23-138%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33496-MS	O11731.D	1	08/11/14	GJ	08/09/14	OP33496	EO650
OP33496-MSD	O11732.D	1	08/11/14	GJ	08/09/14	OP33496	EO650
TC52763-2	O11730.D	1	08/11/14	GJ	08/09/14	OP33496	EO650

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC52863-1, TC52863-2

7.3.1

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CAS No.	Compound	TC52763-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	20	U	50.5	24.1	48	50.5	28.8	57	18	10-91/38
95-57-8	2-Chlorophenol	5.1	U	50.5	23.4	46	50.5	26.7	53	13	38-102/33
59-50-7	4-Chloro-3-methyl phenol	5.1	U	50.5	32.8	65	50.5	36.6	72	11	30-110/30
120-83-2	2,4-Dichlorophenol	5.1	U	50.5	27.8	55	50.5	31.1	62	11	41-107/31
105-67-9	2,4-Dimethylphenol	5.1	U	50.5	27.6	55	50.5	31.1	62	12	39-107/32
51-28-5	2,4-Dinitrophenol	25	U	50.5	38.1	75	50.5	42.0	83	10	24-119/34
534-52-1	4,6-Dinitro-o-cresol	10	U	50.5	40.8	81	50.5	42.7	85	5	40-121/26
95-48-7	2-Methylphenol	5.1	U	50.5	22.4	44	50.5	25.9	51	14	33-93/35
	3&4-Methylphenol	5.1	U	50.5	21.4	42	50.5	24.3	48	13	28-99/36
88-75-5	2-Nitrophenol	5.1	U	50.5	26.5	52	50.5	29.3	58	10	38-107/32
100-02-7	4-Nitrophenol	25	U	50.5	25.0	50	50.5	28.7	57	14	10-78/38
87-86-5	Pentachlorophenol	25	U	50.5	49.1	97	50.5	50.8	101	3	28-116/29
108-95-2	Phenol	5.1	U	50.5	12.4	25	50.5	15.1	30	20	15-70/36
95-95-4	2,4,5-Trichlorophenol	5.1	U	50.5	35.7	71	50.5	40.1	79	12	47-116/27
88-06-2	2,4,6-Trichlorophenol	5.1	U	50.5	32.4	64	50.5	37.0	73	13	44-112/26
83-32-9	Acenaphthene	5.1	U	50.5	32.6	65	50.5	37.3	74	13	44-106/25
208-96-8	Acenaphthylene	5.1	U	50.5	33.8	67	50.5	38.3	76	12	46-111/26
120-12-7	Anthracene	5.1	U	50.5	43.4	86	50.5	45.6	90	5	53-114/23
56-55-3	Benzo(a)anthracene	5.1	U	50.5	48.8	97	50.5	51.4	102	5	57-113/25
50-32-8	Benzo(a)pyrene	5.1	U	50.5	49.2	97	50.5	51.1	101	4	50-109/27
205-99-2	Benzo(b)fluoranthene	5.1	U	50.5	51.5	102	50.5	53.7	106	4	50-117/29
191-24-2	Benzo(g,h,i)perylene	5.1	U	50.5	52.1	103	50.5	54.5	108	5	43-127/38
207-08-9	Benzo(k)fluoranthene	5.1	U	50.5	50.7	100	50.5	53.0	105	4	52-123/29
101-55-3	4-Bromophenyl phenyl ether	5.1	U	50.5	37.2	74	50.5	40.5	80	8	48-113/23
85-68-7	Butyl benzyl phthalate	5.1	U	50.5	46.0	91	50.5	48.8	97	6	42-120/29
100-51-6	Benzyl Alcohol	5.1	U	50.5	19.6	39	50.5	22.7	45	15	31-97/34
91-58-7	2-Chloronaphthalene	5.1	U	50.5	32.0	63	50.5	36.1	71	12	35-123/30
106-47-8	4-Chloroaniline	5.1	U	50.5	8.8	17*	50.5	5.6	11*	44*	36-104/32
86-74-8	Carbazole	5.1	U	50.5	45.7	90	50.5	47.8	95	4	50-113/25
218-01-9	Chrysene	5.1	U	50.5	48.7	96	50.5	52.1	103	7	59-116/26
111-91-1	bis(2-Chloroethoxy)methane	5.1	U	50.5	26.2	52	50.5	29.1	58	10	34-103/31
111-44-4	bis(2-Chloroethyl)ether	5.1	U	50.5	25.5	50	50.5	30.7	61	19	36-100/35
108-60-1	bis(2-Chloroisopropyl)ether	5.1	U	50.5	24.1	48	50.5	26.2	52	8	30-110/37
7005-72-3	4-Chlorophenyl phenyl ether	5.1	U	50.5	34.0	67	50.5	38.4	76	12	45-112/27
95-50-1	1,2-Dichlorobenzene	5.1	U	50.5	24.5	49	50.5	27.9	55	13	37-100/31
541-73-1	1,3-Dichlorobenzene	5.1	U	50.5	25.3	50	50.5	27.8	55	9	34-99/31

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33496-MS	O11731.D	1	08/11/14	GJ	08/09/14	OP33496	EO650
OP33496-MSD	O11732.D	1	08/11/14	GJ	08/09/14	OP33496	EO650
TC52763-2	O11730.D	1	08/11/14	GJ	08/09/14	OP33496	EO650

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC52863-1, TC52863-2

7.3.1

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CAS No.	Compound	TC52763-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
106-46-7	1,4-Dichlorobenzene	5.1	U	50.5	25.9	51	50.5	29.7	59	14	36-99/31
121-14-2	2,4-Dinitrotoluene	5.1	U	50.5	40.0	79	50.5	43.8	87	9	52-115/30
606-20-2	2,6-Dinitrotoluene	5.1	U	50.5	36.1	71	50.5	40.8	81	12	52-111/25
91-94-1	3,3'-Dichlorobenzidine	10	U	50.5	29.6	59	50.5	28.7	57	3	37-125/30
53-70-3	Dibenzo(a,h)anthracene	5.1	U	50.5	52.4	104	50.5	54.7	108	4	47-125/35
132-64-9	Dibenzofuran	5.1	U	50.5	32.6	65	50.5	36.8	73	12	45-108/29
84-74-2	Di-n-butyl phthalate	5.1	U	50.5	44.4	88	50.5	45.9	91	3	47-118/25
117-84-0	Di-n-octyl phthalate	5.1	U	50.5	50.8	101	50.5	53.9	107	6	41-124/32
84-66-2	Diethyl phthalate	5.1	U	50.5	39.2	78	50.5	42.8	85	9	38-121/27
131-11-3	Dimethyl phthalate	5.1	U	50.5	34.6	69	50.5	38.3	76	10	41-116/27
117-81-7	bis(2-Ethylhexyl)phthalate	5.1	U	50.5	47.5	94	50.5	50.8	101	7	50-123/29
206-44-0	Fluoranthene	5.1	U	50.5	46.9	93	50.5	48.8	97	4	50-118/27
86-73-7	Fluorene	5.1	U	50.5	35.2	70	50.5	40.1	79	13	47-113/26
118-74-1	Hexachlorobenzene	5.1	U	50.5	39.3	78	50.5	42.2	84	7	49-114/25
87-68-3	Hexachlorobutadiene	5.1	U	50.5	28.1	56	50.5	30.3	60	8	30-104/31
77-47-4	Hexachlorocyclopentadiene	10	U	50.5	21.0	42	50.5	22.4	44	6	10-97/35
67-72-1	Hexachloroethane	5.1	U	50.5	23.1	46	50.5	28.3	56	20	30-100/34
193-39-5	Indeno(1,2,3-cd)pyrene	5.1	U	50.5	50.6	100	50.5	51.6	102	2	45-127/36
78-59-1	Isophorone	5.1	U	50.5	30.6	61	50.5	33.1	66	8	40-103/31
91-57-6	2-Methylnaphthalene	5.1	U	50.5	29.2	58	50.5	32.5	64	11	36-104/30
88-74-4	2-Nitroaniline	5.1	U	50.5	36.5	72	50.5	41.8	83	14	41-117/26
99-09-2	3-Nitroaniline	5.1	U	50.5	27.1	54	50.5	27.5	54	1	37-117/27
100-01-6	4-Nitroaniline	5.1	U	50.5	41.4	82	50.5	42.5	84	3	47-121/30
91-20-3	Naphthalene	5.1	U	50.5	29.3	58	50.5	32.0	63	9	40-104/30
98-95-3	Nitrobenzene	5.1	U	50.5	27.8	55	50.5	30.5	60	9	40-103/31
621-64-7	N-Nitroso-di-n-propylamine	5.1	U	50.5	26.4	52	50.5	28.9	57	9	36-112/33
86-30-6	N-Nitrosodiphenylamine	5.1	U	101	73.5	73	101	78.8	78	7	39-109/22
85-01-8	Phenanthrene	5.1	U	50.5	43.8	87	50.5	46.4	92	6	53-114/23
129-00-0	Pyrene	5.1	U	50.5	47.4	94	50.5	50.1	99	6	51-117/26
120-82-1	1,2,4-Trichlorobenzene	5.1	U	50.5	27.5	54	50.5	30.0	59	9	32-103/31

CAS No.	Surrogate Recoveries	MS	MSD	TC52763-2	Limits
367-12-4	2-Fluorophenol	32%	38%	31%	10-66%
4165-62-2	Phenol-d5	26%	31%	26%	10-63%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33496-MS	O11731.D	1	08/11/14	GJ	08/09/14	OP33496	EO650
OP33496-MSD	O11732.D	1	08/11/14	GJ	08/09/14	OP33496	EO650
TC52763-2	O11730.D	1	08/11/14	GJ	08/09/14	OP33496	EO650

The QC reported here applies to the following samples: **Method:** SW846 8270D

TC52863-1, TC52863-2

CAS No.	Surrogate Recoveries	MS	MSD	TC52763-2	Limits
118-79-6	2,4,6-Tribromophenol	90%	96%	82%	32-128%
4165-60-0	Nitrobenzene-d5	54%	60%	52%	29-115%
321-60-8	2-Fluorobiphenyl	57%	66%	58%	34-113%
1718-51-0	Terphenyl-d14	104%	112%	102%	23-138%

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-DFTPP
Lab File ID: O11697.D
Instrument ID: GCMSO
Injection Date: 08/08/14
Injection Time: 09:48

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	63882	39.7		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	62002	38.6		Pass
70	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
127	40.0 - 60.0% of mass 198	85728	53.3		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	160786	100.0		Pass
199	5.0 - 9.0% of mass 198	10827	6.73		Pass
275	10.0 - 30.0% of mass 198	42709	26.6		Pass
365	1.0 - 100.0% of mass 198	4697	2.92		Pass
441	Present, but less than mass 443	15204	9.46	(73.1) [b]	Pass
442	40.0 - 100.0% of mass 198	116333	72.4		Pass
443	17.0 - 23.0% of mass 442	20791	12.9	(17.9) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EO649-IC649	O11698.D	08/08/14	10:38	00:50	Initial cal 40
EO649-IC649	O11699.D	08/08/14	11:12	01:24	Initial cal 10
EO649-IC649	O11700.D	08/08/14	11:46	01:58	Initial cal 5
EO649-IC649	O11701.D	08/08/14	12:21	02:33	Initial cal 25
EO649-ICC649	O11702.D	08/08/14	12:55	03:07	Initial cal 50
EO649-IC649	O11703.D	08/08/14	13:29	03:41	Initial cal 75
EO649-IC649	O11704.D	08/08/14	14:04	04:16	Initial cal 100
EO649-ICV649	O11705.D	08/08/14	14:38	04:50	Initial cal verification 50
EO649-ICV649	O11707.D	08/08/14	15:49	06:01	Initial cal verification 50
EO649-ICV649	O11708.D	08/08/14	16:52	07:04	Initial cal verification 50
EO649-ICV649	O11709.D	08/08/14	17:23	07:35	Initial cal verification 50
EO649-ICV649	O11710.D	08/08/14	18:06	08:18	Initial cal verification 50
EO649-ICV649	O11711.D	08/08/14	18:40	08:52	Initial cal verification 50
EO649-ICV649	O11712.D	08/08/14	19:14	09:26	Initial cal verification 50
EO649-ICV649	O11713.D	08/08/14	19:48	10:00	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO650-DFTPP
Lab File ID: O11714.D
Instrument ID: GCMSO
Injection Date: 08/11/14
Injection Time: 09:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	65434	35.7		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	65722	35.9		Pass
70	Less than 2.0% of mass 69	385	0.21	(0.59) [a]	Pass
127	40.0 - 60.0% of mass 198	94362	51.5		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	183272	100.0		Pass
199	5.0 - 9.0% of mass 198	12098	6.60		Pass
275	10.0 - 30.0% of mass 198	49826	27.2		Pass
365	1.0 - 100.0% of mass 198	5977	3.26		Pass
441	Present, but less than mass 443	21623	11.8	(74.2) [b]	Pass
442	40.0 - 100.0% of mass 198	150773	82.3		Pass
443	17.0 - 23.0% of mass 442	29130	15.9	(19.3) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EO650-CC649	O11715.D	08/11/14	09:25	00:19	Continuing cal 50
OP33493-MB	O11716.D	08/11/14	10:40	01:34	Method Blank
OP33494-MB	O11716A.D	08/11/14	10:40	01:34	Method Blank
OP33494-BS	O11718A.D	08/11/14	12:19	03:13	Blank Spike
OP33493-BS	O11718.D	08/11/14	12:19	03:13	Blank Spike
OP33494-BSD	O11719.D	08/11/14	12:58	03:52	Blank Spike Duplicate
OP33496-BS	O11721.D	08/11/14	14:27	05:21	Blank Spike
OP33436-MB	O11722.D	08/11/14	15:00	05:54	Method Blank
OP33436-BS	O11723.D	08/11/14	15:34	06:28	Blank Spike
ZZZZZZ	O11724.D	08/11/14	16:08	07:02	(unrelated sample)
ZZZZZZ	O11725.D	08/11/14	16:41	07:35	(unrelated sample)
TC52224-1	O11726.D	08/11/14	17:15	08:09	(used for QC only; not part of job TC52863)
OP33436-MS	O11727.D	08/11/14	17:49	08:43	Matrix Spike
OP33436-MSD	O11728.D	08/11/14	18:22	09:16	Matrix Spike Duplicate
OP33496-MB	O11729.D	08/11/14	18:55	09:49	Method Blank
TC52763-2	O11730.D	08/11/14	19:29	10:23	(used for QC only; not part of job TC52863)
OP33496-MS	O11731.D	08/11/14	20:02	10:56	Matrix Spike
OP33496-MSD	O11732.D	08/11/14	20:35	11:29	Matrix Spike Duplicate
ZZZZZZ	O11733.D	08/11/14	21:08	12:02	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO650-DFTPP
Lab File ID: O11714.D
Instrument ID: GCMSO
Injection Date: 08/11/14
Injection Time: 09:06

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	O11734.D	08/11/14	21:42	12:36	(unrelated sample)
ZZZZZZ	O11735.D	08/11/14	22:15	13:09	(unrelated sample)
ZZZZZZ	O11736.D	08/11/14	22:49	13:43	(unrelated sample)
ZZZZZZ	O11737.D	08/11/14	23:23	14:17	(unrelated sample)
ZZZZZZ	O11738.D	08/11/14	23:56	14:50	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO652-DFTPP
Lab File ID: O11764.D
Instrument ID: GCMSO
Injection Date: 08/13/14
Injection Time: 08:35

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	86045	34.5		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	86984	34.9		Pass
70	Less than 2.0% of mass 69	282	0.11	(0.32) [a]	Pass
127	40.0 - 60.0% of mass 198	126949	50.9		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	249578	100.0		Pass
199	5.0 - 9.0% of mass 198	16926	6.78		Pass
275	10.0 - 30.0% of mass 198	69728	27.9		Pass
365	1.0 - 100.0% of mass 198	7823	3.13		Pass
441	Present, but less than mass 443	29162	11.7	(76.7) [b]	Pass
442	40.0 - 100.0% of mass 198	206930	82.9		Pass
443	17.0 - 23.0% of mass 442	38002	15.2	(18.4) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EO652-CC649	O11765.D	08/13/14	08:54	00:19	Continuing cal 50
ZZZZZZ	O11767.D	08/13/14	10:02	01:27	(unrelated sample)
ZZZZZZ	O11768.D	08/13/14	10:35	02:00	(unrelated sample)
ZZZZZZ	O11769.D	08/13/14	11:09	02:34	(unrelated sample)
ZZZZZZ	O11770.D	08/13/14	11:43	03:08	(unrelated sample)
ZZZZZZ	O11771.D	08/13/14	12:16	03:41	(unrelated sample)
TC52863-2	O11772.D	08/13/14	12:50	04:15	CES-CS-TANK 407
TC52863-2	O11773.D	08/13/14	13:25	04:50	CES-CS-TANK 407
TC52863-1	O11774.D	08/13/14	13:59	05:24	CES-CS-TANK 408
TC52863-1	O11775.D	08/13/14	14:33	05:58	CES-CS-TANK 408
ZZZZZZ	O11776.D	08/13/14	15:07	06:32	(unrelated sample)
ZZZZZZ	O11777.D	08/13/14	15:41	07:06	(unrelated sample)
ZZZZZZ	O11779.D	08/13/14	16:49	08:14	(unrelated sample)
ZZZZZZ	O11780.D	08/13/14	17:23	08:48	(unrelated sample)
ZZZZZZ	O11781.D	08/13/14	17:57	09:22	(unrelated sample)
ZZZZZZ	O11782.D	08/13/14	18:32	09:57	(unrelated sample)

Semivolatile Internal Standard Area Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	EO650-CC649	**Injection Date:**	08/11/14
Lab File ID:	O11715.D	**Injection Time:**	09:25
Instrument ID:	GCMSO	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	166537	5.54	702158	6.83	464958	9.42	877858	12.15	1075418	17.32	1041494	19.93
Upper Limit [a]	333074	6.04	1404316	7.33	929916	9.92	1755716	12.65	2150836	17.82	2082988	20.43
Lower Limit [b]	83269	5.04	351079	6.33	232479	8.92	438929	11.65	537709	16.82	520747	19.43

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP33494-MB	165031	5.54	688152	6.83	453782	9.41	854925	12.14	1021867	17.31	956480	19.91
OP33493-MB	165031	5.54	688152	6.83	453782	9.41	854925	12.14	1021867	17.31	956480	19.91
OP33494-BS	205871	5.55	864873	6.83	559054	9.41	1016156	12.13	1220253	17.31	1166794	19.92
OP33493-BS	205871	5.55	864873	6.83	559054	9.41	1016156	12.13	1220253	17.31	1166794	19.92
OP33494-BSD [c]	204239	5.55	852148	6.83	556029	9.41	1007963	12.14	1177672	17.32	1133232	19.92
OP33496-BS	192577	5.54	795228	6.83	518876	9.40	964266	12.12	1187868	17.30	1130871	19.92
OP33436-MB	152066	5.53	635252	6.81	424580	9.40	815218	12.12	988060	17.30	842969	19.91
OP33436-BS	177216	5.54	734848	6.83	474368	9.41	859417	12.14	993050	17.31	982312	19.91
ZZZZZZ	176668	5.54	744201	6.83	489424	9.42	917116	12.14	1068182	17.31	1009881	19.91
ZZZZZZ	157999	5.55	653191	6.83	437573	9.41	846037	12.13	1044444	17.30	973435	19.91
TC52224-1	155004	5.55	640511	6.83	415867	9.41	806610	12.13	1030348	17.30	961025	19.91
OP33436-MS	154537	5.55	639893	6.83	428390	9.41	821848	12.13	1041175	17.30	964328	19.90
OP33436-MSD	153234	5.55	631191	6.83	418648	9.41	802989	12.14	1033629	17.30	930582	19.91
OP33496-MB	172703	5.54	729873	6.83	487208	9.42	929957	12.14	1169799	17.30	1084193	19.91
TC52763-2	150291	5.54	628457	6.82	416061	9.40	813905	12.12	1030845	17.30	930707	19.90
OP33496-MS	164796	5.54	695419	6.82	479813	9.40	895847	12.13	1114270	17.31	1003001	19.91
OP33496-MSD	161376	5.53	697285	6.82	470825	9.40	912335	12.13	1116973	17.31	1011881	19.91
ZZZZZZ	165578	5.54	702553	6.81	474475	9.39	913866	12.12	1082283	17.31	967258	19.91
ZZZZZZ	173311	5.53	731124	6.81	501270	9.39	958568	12.12	1110694	17.31	981007	19.91
ZZZZZZ	159142	5.55	684167	6.82	461056	9.40	882967	12.13	1064580	17.30	958824	19.91
ZZZZZZ	162401	5.54	679035	6.81	457230	9.40	879125	12.13	1091901	17.31	990779	19.91
ZZZZZZ	147234	5.54	604595	6.82	408271	9.40	799906	12.13	1021751	17.31	928757	19.91
ZZZZZZ	160195	5.54	675772	6.81	446535	9.40	890952	12.13	1068597	17.30	949829	19.91

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Insufficient sample for MS/MSD.

Semivolatile Internal Standard Area Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	EO652-CC649	**Injection Date:**	08/13/14
Lab File ID:	O11765.D	**Injection Time:**	08:54
Instrument ID:	GCMSO	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	129318	5.55	549260	6.84	369063	9.42	713726	12.14	931560	17.31	866596	19.90
Upper Limit [a]	258636	6.05	1098520	7.34	738126	9.92	1427452	12.64	1863120	17.81	1733192	20.40
Lower Limit [b]	64659	5.05	274630	6.34	184532	8.92	356863	11.64	465780	16.81	433298	19.40

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	140621	5.54	590680	6.83	405428	9.41	798582	12.13	969859	17.29	899001	19.90
ZZZZZZ	130946	5.54	536653	6.83	364463	9.41	695183	12.14	871851	17.30	813310	19.89
ZZZZZZ	132445	5.52	553070	6.79	379353	9.35	740186	12.07	917640	17.22	861873	19.82
ZZZZZZ	131644	5.52	545279	6.79	377235	9.37	728006	12.08	914964	17.23	855213	19.82
ZZZZZZ	129582	5.52	550758	6.79	376636	9.37	727631	12.09	886781	17.24	813539	19.83
TC52863-2 [c]	159221	5.52	685096	6.80	468621	9.38	887226	12.10	1010411	17.26	869013	19.85
TC52863-2	154991	5.52	667729	6.80	447982	9.37	829530	12.08	909651	17.24	798360	19.83
TC52863-1 [d]	160047	5.52	691857	6.80	474296	9.38	878533	12.10	961918	17.26	807060	19.85
TC52863-1	142496	5.52	623934	6.80	425196	9.37	811025	12.10	861279	17.26	755631	19.85
ZZZZZZ	177640	5.53	767080	6.80	574759	9.38	1034701	12.11	1071198	17.28	794690	19.87
ZZZZZZ	166260	5.53	767525	6.81	907134*	9.41	1130370	12.18	1130961	17.32	650118	19.91
ZZZZZZ	168753	5.53	744693	6.81	606540	9.39	1024705	12.11	1046139	17.26	751165	19.86
ZZZZZZ	155001	5.53	680790	6.80	477862	9.38	900519	12.09	902816	17.25	635526	19.85
ZZZZZZ	149401	5.53	657648	6.81	459391	9.38	890305	12.09	924184	17.25	698934	19.84
ZZZZZZ	146872	5.54	649503	6.82	453666	9.38	864192	12.08	899130	17.24	667072	19.84

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Elevated reporting limits due to matrix interference; final volume 1.4 ml. Dilution required due to high concentration of non-target compounds.
(d) Elevated reporting limits due to matrix interference; final volume 2 ml. Dilution required due to high concentration of non-target compounds.

Semivolatile Surrogate Recovery Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Method: SW846 8270D **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
TC52863-1	O11775.D	0* [a]	0* [a]	0* [a]	0* [a]	0* [a]	0* [a]
TC52863-1	O11774.D	47	54	0* [a]	81	57	78
TC52863-2	O11773.D	0* [a]	0* [a]	0* [a]	0* [a]	0* [a]	0* [a]
TC52863-2	O11772.D	46	49	85	47	62	84
OP33496-BS	O11721.D	31	24	85	52	55	96
OP33496-MB	O11729.D	34	25	65	56	57	117
OP33496-MS	O11731.D	32	26	90	54	57	104
OP33496-MSD	O11732.D	38	31	96	60	66	112

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	10-66%
S2 = Phenol-d5	10-63%
S3 = 2,4,6-Tribromophenol	32-128%
S4 = Nitrobenzene-d5	29-115%
S5 = 2-Fluorobiphenyl	34-113%
S6 = Terphenyl-d14	23-138%

(a) Outside control limits due to dilution.

Initial Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICC649
Lab FileID: O11702.D

Response Factor Report MSO

Method : C:\msdchem\1\METHODS\EO649.M (RTE Integrator)
Title : SW846 8270D and EPA625
Last Update : Fri Aug 08 14:32:55 2014
Response via : Initial Calibration

Calibration Files
5 =O11700.D 10 =O11699.D 25 =O11701.D 40 =O11698.D
50 =O11702.D 75 =O11703.D 100 =O11704.D

Compound	5	10	25	40	50	75	100	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	----------ISTD----------								
2) bis(Chloromethyl)	1.405	1.359	1.345	1.337	1.354	1.278	1.238	1.331	4.17
3) 1,4-Dioxane	0.475	0.454	0.455	0.455	0.454	0.445	0.436	0.453	2.63
4) N-nitrosodimethyl	0.626	0.651	0.671	0.684	0.665	0.674	0.681	0.664	3.06
5) Pyridine	1.198	1.216	1.241	1.300	1.268	1.253	1.266	1.249	2.75
6) 2-Picoline	1.465	1.493	1.504	1.535	1.503	1.491	1.524	1.502	1.53
7) N-Nitrosomethylet	0.504	0.543	0.554	0.558	0.551	0.555	0.552	0.545	3.42
8) Methyl methanesul	0.848	0.853	0.845	0.866	0.834	0.821	0.834	0.843	1.75
9) N-Nitrosodiethyla	0.730	0.742	0.730	0.765	0.726	0.731	0.743	0.738	1.84
10) 2-Butoxyethanol	1.600	1.657	1.649	1.711	1.612	1.585	1.582	1.628	2.87
11) Ethyl methanesulf	0.921	0.981	0.980	0.998	0.967	0.960	0.975	0.969	2.51
12)P Benzaldehyde	1.059	1.003	0.857	0.730	0.617	0.420		0.781	30.95
---- Quadratic regression ---- Coefficient = 0.9987									
Response Ratio = 0.01045 + 1.04404 *A + -0.33689 *A^2									
13) Pentachloroethane	0.522	0.536	0.527	0.541	0.541	0.531	0.537	0.534	1.39
14) Aniline	2.177	2.201	2.150	2.228	2.146	2.138	2.169	2.172	1.49
15)S 2-Fluorophenol	1.243	1.237	1.249	1.268	1.222	1.239	1.249	1.244	1.13
16)P bis(2-Chloroethyl	1.317	1.293	1.299	1.316	1.272	1.270	1.282	1.293	1.48
17)S Phenol-d5	1.610	1.609	1.623	1.661	1.603	1.596	1.606	1.615	1.33
18)P Phenol	1.724	1.754	1.778	1.796	1.755	1.733	1.779	1.760	1.49
19)P 2-Chlorophenol	1.408	1.469	1.485	1.519	1.481	1.484	1.506	1.479	2.39
20) n-Decane	1.592	1.538	1.543	1.514	1.465	1.433	1.353	1.491	5.40
21) 1,3-Dichlorobenze	1.610	1.599	1.586	1.635	1.587	1.600	1.610	1.604	1.05
22) 1,4-Dichlorobenze	1.647	1.688	1.652	1.679	1.647	1.647	1.661	1.660	1.04
23) 1,2-Dichlorobenze	1.573	1.590	1.548	1.587	1.568	1.580	1.602	1.578	1.10
24) Benzyl alcohol	0.949	0.972	1.026	1.043	1.019	1.012	1.054	1.011	3.76
25)P bis(2-chloroisopr	1.704	1.735	1.702	1.734	1.628	1.569	1.526	1.657	5.06
26)P 2-Methylphenol	1.343	1.386	1.408	1.423	1.389	1.377	1.408	1.391	1.88
27) N-nitrosopyrrolid	0.822	0.829	0.839	0.870	0.841	0.830	0.844	0.839	1.86
28) N-Nitrosomorpholi	1.158	1.158	1.128	1.126	1.086	1.079	1.045	1.111	3.84
29) o-Toluidine	2.487	2.557	2.545	2.619	2.501	2.502	2.509	2.531	1.82
30)P Acetophenone	2.021	2.060	2.061	2.086	2.047	2.042	2.043	2.051	0.98
31)P Hexachloroethane	0.593	0.583	0.587	0.603	0.591	0.593	0.594	0.592	1.04
32)P N-Nitroso-di-n-pr	1.072	1.139	1.082	1.104	1.058	1.050	1.059	1.081	2.91
33)P 3&4-Methylphenol	1.427	1.467	1.480	1.494	1.451	1.446	1.473	1.463	1.56
34) I Naphthalene-d8	----------ISTD----------								
35)S Nitrobenzene-d5	0.360	0.363	0.364	0.370	0.366	0.366	0.363	0.365	0.88
36)P Nitrobenzene	0.379	0.376	0.384	0.382	0.378	0.377	0.374	0.379	0.90
37) 2,6-Dimethylpheno	0.331	0.347	0.350	0.349	0.347	0.342	0.344	0.344	1.84
38) N-Nitrosopiperidi	0.266	0.266	0.265	0.267	0.262	0.256	0.254	0.262	2.06
39) A,A-Dimethylphene	1.034	1.130	1.188	1.096	1.029	1.171	1.185	1.119	6.06
40)P Isophorone	0.674	0.672	0.668	0.684	0.673	0.665	0.674	0.673	0.87
41)P 2-Nitrophenol	0.196	0.199	0.200	0.210	0.205	0.206	0.206	0.203	2.42
42)P 2,4-Dimethylpheno	0.400	0.405	0.399	0.406	0.409	0.402	0.403	0.403	0.90

Initial Calibration Summary

Job Number: TC52863 **Sample:** EO649-ICC649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11702.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
43)P bis(2-Chloroethox 0.394 0.392 0.382 0.387 0.382 0.383 0.381 0.386   1.39
44)  Benzoic Acid      0.159 0.198 0.231 0.266 0.279 0.285 0.295 0.245  20.78
            ---- Quadratic regression ----  Coefficient =  0.9992
              Response Ratio = -0.01471 + 0.26059 *A + 0.01681 *A^2

45)P 2,4-Dichloropheno 0.314 0.319 0.324 0.324 0.323 0.325 0.326 0.322   1.36
46)  1,2,4-Trichlorobe 0.326 0.332 0.321 0.327 0.329 0.332 0.330 0.328   1.21
47)P Naphthalene       1.132 1.132 1.122 1.126 1.122 1.127 1.142 1.129   0.63
48)P 4-Chloroaniline   0.496 0.496 0.487 0.497 0.489 0.484 0.485 0.491   1.13
49)  2,6-Dichloropheno 0.257 0.270 0.266 0.268 0.264 0.265 0.269 0.266   1.70
50)  Hexachloropropene 0.200 0.202 0.208 0.213 0.217 0.222 0.225 0.212   4.55
51)P Hexachlorobutadie 0.193 0.184 0.190 0.190 0.191 0.193 0.196 0.191   1.97
52)  p-Phenylenediamin 0.486 0.497 0.481 0.458 0.438 0.377 0.327 0.438  14.46
            ---- Quadratic regression ----  Coefficient =  0.9999
              Response Ratio = -0.00729 + 0.55197 *A + -0.08918 *A^2

53)P Caprolactam       0.134 0.134 0.138 0.141 0.140 0.137 0.136 0.137   2.21
54)  N-Nitrosodi-n-but 0.358 0.355 0.316 0.300 0.284 0.273 0.275 0.309  11.65
            ---- Quadratic regression ----  Coefficient =  0.9988
              Response Ratio = 0.01006 + 0.29985 *A + -0.01348 *A^2

55)  Hydroquinone      0.401 0.389 0.369 0.366 0.368 0.347 0.315 0.365   7.65
56)P 4-Chloro-3-methyl 0.369 0.378 0.376 0.385 0.378 0.379 0.377 0.378   1.29
57)  Isosafrole        0.292 0.301 0.298 0.308 0.306 0.303 0.305 0.302   1.80
58)P 2-Methylnaphthale 0.802 0.807 0.801 0.816 0.808 0.807 0.813 0.808   0.66
59)  1-Methylnaphthale 0.753 0.743 0.739 0.754 0.749 0.747 0.758 0.749   0.91
60)P 1,2,4,5-Tetrachlo 0.336 0.336 0.328 0.337 0.332 0.335 0.340 0.335   1.19

61) I   Acenaphthene-d10      ----------------ISTD---------------------
62)P Hexachlorocyclope 0.195 0.227 0.264 0.284 0.289 0.299 0.306 0.266  15.41
            ---- Linear regression ----  Coefficient =  0.9991
              Response Ratio = -0.01728 + 0.30668 *A

63)P 2,4,6-Trichloroph 0.346 0.349 0.359 0.358 0.365 0.364 0.365 0.358   2.15
64)P 2,4,5-Trichloroph 0.378 0.376 0.384 0.393 0.393 0.391 0.399 0.388   2.24
65)S 2-Fluorobiphenyl  1.355 1.303 1.311 1.300 1.318 1.317 1.331 1.319   1.42
66)  Safrole           0.444 0.441 0.451 0.452 0.457 0.454 0.454 0.450   1.30
67)P 1,1'-Biphenyl     1.509 1.471 1.483 1.467 1.478 1.457 1.459 1.475   1.20
68)P 2-Chloronaphthale 1.200 1.147 1.174 1.189 1.184 1.171 1.184 1.178   1.42
69)  1-Chloronaphthale 1.009 1.018 1.004 1.002 1.017 1.030 1.028 1.015   1.09
70)  Diphenyl ether    0.799 0.777 0.792 0.781 0.792 0.780 0.785 0.786   1.01
71)P 2-Nitroaniline    0.401 0.373 0.367 0.377 0.377 0.366 0.359 0.374   3.57
72)  1,4-Naphthoquinon 0.419 0.420 0.406 0.385 0.381 0.349 0.319 0.383   9.76
73)P Acenaphthylene    1.896 1.880 1.906 1.928 1.933 1.927 1.933 1.915   1.09
74)P Dimethylphthalate 1.463 1.425 1.436 1.428 1.458 1.431 1.446 1.441   1.04
75)  m-Dinitrobenzene  0.226 0.240 0.251 0.262 0.259 0.262 0.267 0.252   5.93
76)P 2,6-Dinitrotoluen 0.320 0.321 0.327 0.334 0.338 0.334 0.338 0.330   2.32
77)P Acenaphthene      1.284 1.221 1.239 1.229 1.249 1.242 1.248 1.245   1.63
78)P 3-Nitroaniline    0.379 0.379 0.381 0.395 0.397 0.386 0.378 0.385   2.05
79)P 2,4-Dinitrophenol 0.075 0.099 0.145 0.180 0.181 0.198 0.211 0.156  33.20
            ---- Quadratic regression ----  Coefficient =  0.9988
              Response Ratio = -0.01347 + 0.16306 *A + 0.02201 *A^2

80)P Dibenzofuran      1.803 1.749 1.738 1.743 1.772 1.757 1.764 1.761   1.25
81)  Pentachlorobenzen 0.477 0.464 0.467 0.466 0.468 0.473 0.473 0.470   1.03
82)P 2,4-Dinitrotoluen 0.424 0.440 0.462 0.474 0.483 0.482 0.487 0.464   5.17
83)P 4-Nitrophenol     0.243 0.259 0.277 0.277 0.291 0.279 0.273 0.271   5.77
84)  1-Naphthylamine   1.370 1.389 1.427 1.421 1.441 1.388 1.373 1.401   2.00
85)  2-Naphthylamine   1.516 1.522 1.549 1.549 1.551 1.500 1.447 1.519   2.47
86)P 2,3,4,6-Tetrachlo 0.329 0.327 0.338 0.351 0.357 0.353 0.356 0.344   3.74
```

Initial Calibration Summary

Job Number: TC52863 **Sample:** EO649-ICC649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11702.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
 87)P Fluorene          1.507 1.476 1.481 1.494 1.511 1.500 1.507 1.497   0.91
 88)P 4-Chlorophenyl-ph 0.695 0.688 0.670 0.680 0.686 0.685 0.687 0.684   1.12
 89)P Diethylphthalate  1.464 1.486 1.474 1.488 1.512 1.505 1.516 1.492   1.31
 90)  5-Nitro-o-toluidi 0.464 0.460 0.476 0.485 0.489 0.481 0.476 0.476   2.24
 91)P 4-Nitroaniline    0.408 0.409 0.410 0.413 0.415 0.403 0.391 0.407   1.99

 92) I   Phenanthrene-d10      ----------------ISTD--------------------
 93)  Dinoseb           0.087 0.121 0.165 0.180 0.190 0.196 0.204 0.163  26.59
             ---- Linear regression ----  Coefficient =  0.9982
               Response Ratio = -0.01798 + 0.20521 *A

 94)P 4,6-Dinitro-2-met 0.086 0.105 0.129 0.143 0.146 0.150 0.156 0.131  19.93
             ---- Linear regression ----  Coefficient =  0.9986
               Response Ratio = -0.01089 + 0.15603 *A

 95)P n-Nitrosodiphenyl 0.700 0.699 0.694 0.696 0.694 0.687 0.700 0.696   0.69
 96)  1,2-Diphenylhydra 0.712 0.709 0.724 0.705 0.706 0.692 0.690 0.705   1.67
 97)  Diphenylamine     0.700 0.699 0.694 0.696 0.694 0.687 0.700 0.696   0.69
 98)S 2,4,6-Tribromophe 0.093 0.095 0.099 0.099 0.100 0.101 0.105 0.099   4.05
 99)  sym-Trinitrobenze 0.053 0.074 0.090 0.101 0.100 0.103 0.105 0.090  21.55
             ---- Linear regression ----  Coefficient =  0.9994
               Response Ratio = -0.00757 + 0.10716 *A

100)  Diallate          0.269 0.264 0.262 0.266 0.256 0.241 0.232 0.256   5.41
101)P 4-Bromophenyl-phe 0.214 0.216 0.216 0.214 0.217 0.215 0.221 0.216   1.12
102)  Phenacetin        0.426 0.437 0.457 0.448 0.446 0.439 0.429 0.440   2.48
103)P Hexachlorobenzene 0.221 0.227 0.227 0.229 0.226 0.229 0.234 0.228   1.70
104)P Atrazine          0.228 0.227 0.228 0.215 0.210 0.182 0.149 0.206  14.51
             ---- Quadratic regression ----  Coefficient =  0.9994
               Response Ratio = -0.00847 + 0.27675 *A + -0.04941 *A^2

105)  4-aminobiphenyl   0.966 0.959 0.998 0.980 0.974 0.940 0.877 0.956   4.10
106)P Pentachlorophenol 0.073 0.092 0.125 0.133 0.141 0.141 0.147 0.122  23.24
             ---- Linear regression ----  Coefficient =  0.9988
               Response Ratio = -0.01146 + 0.14865 *A

107)  Pentachloronitrob 0.088 0.094 0.102 0.102 0.103 0.105 0.106 0.100   6.50
108)  Pronamide         0.332 0.349 0.373 0.378 0.381 0.379 0.382 0.368   5.33
109)  n-Octadecane      0.479 0.479 0.488 0.477 0.466 0.450 0.435 0.468   4.08
110)P Phenanthrene      1.217 1.195 1.218 1.209 1.206 1.206 1.220 1.210   0.72
111)P Anthracene        1.247 1.227 1.255 1.263 1.265 1.260 1.277 1.256   1.27
112)P Carbazole         1.210 1.227 1.245 1.228 1.225 1.228 1.211 1.225   0.98
113)P Di-n-butylphthala 1.342 1.371 1.439 1.466 1.465 1.463 1.463 1.430   3.62
114)  4-Nitroquinoline  0.036 0.050 0.076 0.086 0.091 0.095 0.096 0.076  31.11
             ---- Linear regression ----  Coefficient =  0.9978
               Response Ratio = -0.00970 + 0.09843 *A

115)  Methapyrilene     0.643 0.674 0.701 0.692 0.684 0.656 0.617 0.667   4.50
116)  Octachlorostyrene 0.088 0.086 0.089 0.090 0.092 0.092 0.091 0.090   2.29
117)  Isodrin           0.134 0.125 0.129 0.132 0.132 0.133 0.131 0.131   2.16
118)  Fluoranthene      1.393 1.383 1.439 1.431 1.458 1.458 1.439 1.429   2.09
119)S Fluoranthene-D10  0.128 0.133 0.135 0.138 0.141 0.139 0.139 0.136   3.23
120)  4,4'-Methylenedia 0.560 0.564 0.605 0.564 0.559 0.524 0.466 0.549   7.88

121) I   Chrysene-d12         ----------------ISTD--------------------
122)  Benzidine         0.750 0.793 0.826 0.825 0.790 0.738 0.674 0.771   7.06
123)  Pyrene            1.136 1.166 1.152 1.223 1.194 1.208 1.225 1.186   2.99
124)S Terphenyl-d14     0.785 0.783 0.763 0.794 0.782 0.777 0.790 0.782   1.29
125)  Aramite           0.067 0.074 0.076 0.081 0.079 0.076 0.072 0.075   6.39
126)  p-(Dimethylamine) 0.350 0.369 0.371 0.386 0.379 0.372 0.370 0.371   3.00
```

Initial Calibration Summary

Job Number: TC52863 **Sample:** EO649-ICC649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11702.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
127)  Chlorobenzilate   0.363 0.374 0.374 0.397 0.394 0.387 0.389 0.383   3.20
128)  Kepone            0.022 0.034 0.048 0.058 0.060 0.064 0.065 0.050  32.98
             ---- Quadratic regression ----  Coefficient =  0.9984
               Response Ratio = -0.00530 + 0.05836 *A + 0.00380 *A^2

129)  3,3'-Dimethylbenz 0.713 0.776 0.848 0.836 0.809 0.754 0.712 0.778   7.12
130)  Butylbenzylphthal 0.551 0.579 0.571 0.597 0.586 0.579 0.576 0.577   2.45
131)  2-Acetylaminofluo 0.572 0.600 0.604 0.620 0.612 0.627 0.617 0.607   3.00
132)P 3,3'-Dichlorobenz 0.432 0.450 0.450 0.454 0.442 0.436 0.430 0.442   2.15
133)P Benzo[a]anthracen 1.184 1.183 1.172 1.207 1.191 1.193 1.203 1.191   1.02
134)P Chrysene          1.132 1.131 1.126 1.146 1.122 1.122 1.139 1.131   0.80
135)P bis(2-Ethylhexyl) 0.743 0.784 0.789 0.821 0.808 0.801 0.792 0.791   3.13

136) I   Perylene-d12          ----------------ISTD---------------------
137)P Di-n-octylphthala 1.405 1.480 1.486 1.514 1.471 1.523 1.589 1.496   3.76
138)P Benzo[b]fluoranth 1.265 1.299 1.310 1.282 1.293 1.333 1.371 1.308   2.69
139)P Benzo[k]fluoranth 1.304 1.294 1.272 1.304 1.238 1.324 1.326 1.295   2.37
140)  7,12-Dimethylbenz 0.490 0.528 0.551 0.550 0.548 0.568 0.587 0.546   5.66
141)P Benzo[a]pyrene    1.230 1.255 1.254 1.270 1.246 1.280 1.273 1.258   1.37
142)S Benzo[a]pyrene-D1 1.151 1.149 1.161 1.157 1.139 1.162 1.166 1.155   0.82
143)  3-Methylcholanthr 0.419 0.418 0.433 0.424 0.420 0.422 0.420 0.422   1.23
144)  Dibenz(a,j)acridi 0.948 0.955 0.977 0.938 0.916 0.933 0.946 0.945   2.00
145)P Indeno[1,2,3-cd]p 1.082 1.100 1.140 1.107 1.071 1.125 1.123 1.107   2.23
146)P Dibenz[a,h]anthra 1.130 1.154 1.189 1.150 1.114 1.144 1.158 1.149   2.06
147)P Benzo[g,h,i]peryl 1.159 1.171 1.204 1.137 1.101 1.125 1.123 1.146   3.05
 ---------------------------------------------------------------------------
 (#) = Out of Range

           EO649.M          Fri Aug 08 15:36:26 2014
```

7.7.1

7

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11705.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EO649\O11705.D            Vial: 9
Acq On    :  8 Aug 2014   2:38 pm                   Operator: garyj
Sample    : icv649-50, lcs m1                       Inst    : MSO
Misc      : op29500,EO649,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\EO649.M (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Fri Aug 08 14:32:55 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	118	0.00	5.55
2		bis(Chloromethyl)ether		----------NA----------				
3		1,4-Dioxane		----------NA----------				
4		N-nitrosodimethylamine	0.664	0.628	5.4	111	0.00	3.49
5		Pyridine	1.249	1.133	9.3	105	0.00	3.52
6		2-Picoline		----------NA----------				
7		N-Nitrosomethylethylamine		----------NA----------				
8		Methyl methanesulfonate		----------NA----------				
9		N-Nitrosodiethylamine		----------NA----------				
10		2-Butoxyethanol		----------NA----------				
11		Ethyl methanesulfonate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
12	P	Benzaldehyde		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
13		Pentachloroethane		----------NA----------				
14		Aniline		----------NA----------				
15	S	2-Fluorophenol		----------NA----------				
16	P	bis(2-Chloroethyl)ether	1.293	1.195	7.6	111	0.00	5.32
17	S	Phenol-d5		----------NA----------				
18	P	Phenol	1.760	1.645	6.5	110	-0.01	5.25
19	P	2-Chlorophenol	1.479	1.433	3.1	114	0.00	5.38
20		n-Decane		----------NA----------				
21		1,3-Dichlorobenzene	1.604	1.520	5.2	113	0.00	5.50
22		1,4-Dichlorobenzene	1.660	1.570	5.4	112	0.00	5.57
23		1,2-Dichlorobenzene	1.578	1.475	6.5	111	0.00	5.70
24		Benzyl alcohol	1.011	0.885	12.5	102	0.00	5.66
25	P	bis(2-chloroisopropyl)eth	1.657	1.508	9.0	109	0.00	5.77
26	P	2-Methylphenol	1.391	1.278	8.1	108	-0.01	5.75
27		N-nitrosopyrrolidine		----------NA----------				
28		N-Nitrosomorpholine		----------NA----------				
29		o-Toluidine		----------NA----------				
30	P	Acetophenone		----------NA----------				
31	P	Hexachloroethane	0.592	0.560	5.4	112	0.00	6.02
32	P	N-Nitroso-di-n-propylamin	1.081	0.963	10.9	107	-0.02	5.90
33	P	3&4-Methylphenol	1.359	1.373	-1.0	112	-0.01	5.89
34	I	Naphthalene-d8	1.000	1.000	0.0	115	0.00	6.84
35	S	Nitrobenzene-d5		----------NA----------				
36	P	Nitrobenzene	0.379	0.350	7.7	107	0.00	6.08
37		2,6-Dimethylphenol		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11705.D

38		N-Nitrosopiperidine		----------NA----------				
39		A,A-Dimethylphenethylamin		----------NA----------				
40	P	Isophorone	0.673	0.648	3.7	111	0.00	6.32
41	P	2-Nitrophenol	0.203	0.196	3.4	110	0.00	6.40
42	P	2,4-Dimethylphenol	0.403	0.356	11.7	101	0.00	6.43
43	P	bis(2-Chloroethoxy)methan	0.386	0.361	6.5	109	0.00	6.53
		----------	Amount	Calc.	%Drift		----------	
44		Benzoic Acid	50.000	56.045	-12.1	127	-0.04	6.52
		----------	AvgRF	CCRF	%Dev		----------	
45	P	2,4-Dichlorophenol	0.322	0.307	4.7	110	0.00	6.66
46		1,2,4-Trichlorobenzene	0.328	0.307	6.4	108	0.00	6.76
47	P	Naphthalene	1.129	1.046	7.4	108	0.00	6.87
48	P	4-Chloroaniline		----------NA----------				
49		2,6-Dichlorophenol		----------NA----------				
50		Hexachloropropene		----------NA----------				
51	P	Hexachlorobutadiene	0.191	0.179	6.3	108	0.00	7.01
		----------	Amount	Calc.	%Drift		----------	
52		p-Phenylenediamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
53	P	Caprolactam		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
54		N-Nitrosodi-n-butylamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
55		Hydroquinone		----------NA----------				
56	P	4-Chloro-3-methylphenol	0.378	0.351	7.1	107	-0.02	7.54
57		Isosafrole		----------NA----------				
58	P	2-Methylnaphthalene	0.808	0.725	10.3	104	0.00	7.77
59		1-Methylnaphthalene	0.749	0.685	8.5	106	0.00	7.91
60	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
61	I	Acenaphthene-d10	1.000	1.000	0.0	112	0.00	9.42
		----------	Amount	Calc.	%Drift		----------	
62	P	Hexachlorocyclopentadiene	50.000	52.529	-5.1	119	0.00	8.00
		----------	AvgRF	CCRF	%Dev		----------	
63	P	2,4,6-Trichlorophenol	0.358	0.357	0.3	109	0.00	8.19
64	P	2,4,5-Trichlorophenol	0.388	0.381	1.8	108	-0.01	8.24
65	S	2-Fluorobiphenyl		----------NA----------				
66		Safrole		----------NA----------				
67	P	1,1'-Biphenyl		----------NA----------				
68	P	2-Chloronaphthalene	1.178	1.078	8.5	102	0.00	8.51
69		1-Chloronaphthalene		----------NA----------				
70		Diphenyl ether		----------NA----------				
71	P	2-Nitroaniline		----------NA----------				
72		1,4-Naphthoquinone		----------NA----------				
73	P	Acenaphthylene	1.915	1.850	3.4	107	0.00	9.18
74	P	Dimethylphthalate	1.441	1.360	5.6	104	-0.02	8.99
75		m-Dinitrobenzene	0.252	0.232	7.9	100	-0.02	9.03
76	P	2,6-Dinitrotoluene	0.330	0.312	5.5	103	-0.01	9.08
77	P	Acenaphthene	1.245	1.144	8.1	102	0.00	9.48
78	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11705.D

79	P	2,4-Dinitrophenol	50.000	47.866	4.3	105	-0.02	9.54
		----------	AvgRF	CCRF	%Dev		----------	
80	P	Dibenzofuran	1.761	1.626	7.7	102	0.00	9.78
81		Pentachlorobenzene		----------NA----------				
82	P	2,4-Dinitrotoluene	0.464	0.437	5.8	101	-0.02	9.78
83	P	4-Nitrophenol	0.271	0.233	14.0	90	-0.03	9.69
84		1-Naphthylamine		----------NA----------				
85		2-Naphthylamine		----------NA----------				
86	P	2,3,4,6-Tetrachlorophenol	0.344	0.318	7.6	99	0.00	10.01
87	P	Fluorene	1.497	1.377	8.0	102	-0.01	10.39
88	P	4-Chlorophenyl-phenylethe	0.684	0.643	6.0	105	0.00	10.42
89	P	Diethylphthalate	1.492	1.417	5.0	105	-0.02	10.24
90		5-Nitro-o-toluidine		----------NA----------				
91	P	4-Nitroaniline		----------NA----------				
92	I	Phenanthrene-d10	1.000	1.000	0.0	103	-0.01	12.14
		----------	Amount	Calc.	%Drift		----------	
93		Dinoseb		----------NA----------				
94	P	4,6-Dinitro-2-methylpheno	50.000	47.400	5.2	99	-0.02	10.51
		----------	AvgRF	CCRF	%Dev		----------	
95	P	n-Nitrosodiphenylamine	0.696	0.589	15.4	88	-0.01	10.64
96		1,2-Diphenylhydrazine	0.705	0.709	-0.6	104	0.00	10.71
97		Diphenylamine	0.696	0.589	15.4	88	-0.01	10.64
98	S	2,4,6-Tribromophenol		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
99		sym-Trinitrobenzene		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
100		Diallate		----------NA----------				
101	P	4-Bromophenyl-phenylether	0.216	0.206	4.6	99	0.00	11.33
102		Phenacetin		----------NA----------				
103	P	Hexachlorobenzene	0.228	0.221	3.1	101	-0.01	11.41
		----------	Amount	Calc.	%Drift		----------	
104	P	Atrazine		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
105		4-aminobiphenyl		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
106	P	Pentachlorophenol	50.000	47.250	5.5	96	-0.02	11.80
		----------	AvgRF	CCRF	%Dev		----------	
107		Pentachloronitrobenzene		----------NA----------				
108		Pronamide		----------NA----------				
109		n-Octadecane		----------NA----------				
110	P	Phenanthrene	1.210	1.146	5.3	98	-0.01	12.19
111	P	Anthracene	1.256	1.146	8.8	94	-0.02	12.29
112	P	Carbazole	1.225	1.078	12.0	91	-0.01	12.63
113	P	Di-n-butylphthalate	1.430	1.346	5.9	95	0.00	13.41
		----------	Amount	Calc.	%Drift		----------	
114		4-Nitroquinoline 1-Oxide		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
115		Methapyrilene		----------NA----------				

Initial Calibration Verification

Job Number: TC52863 **Sample:** EO649-ICV649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11705.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

116		Octachlorostyrene		----------NA----------				
117		Isodrin		----------NA----------				
118		Fluoranthene	1.429	1.224	14.3	87	-0.01	14.51
119	S	Fluoranthene-D10		----------NA----------				
120		4,4'-Methylenedianiline		----------NA----------				
121	I	Chrysene-d12	1.000	1.000	0.0	84	-0.02	17.32
122		Benzidine		----------NA----------				
123		Pyrene	1.186	1.293	-9.0	91	-0.01	14.94
124	S	Terphenyl-d14		----------NA----------				
125		Aramite		----------NA----------				
126		p-(Dimethylamine)azobenze		----------NA----------				
127		Chlorobenzilate		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
128		Kepone		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
129		3,3'-Dimethylbenzidine		----------NA----------				
130		Butylbenzylphthalate	0.577	0.568	1.6	82	-0.01	16.34
131		2-Acetylaminofluorene		----------NA----------				
132	P	3,3'-Dichlorobenzidine		----------NA----------				
133	P	Benzo[a]anthracene	1.191	1.113	6.5	78	-0.02	17.30
134	P	Chrysene	1.131	1.102	2.6	83	-0.02	17.37
135	P	bis(2-Ethylhexyl)phthalat	0.791	0.811	-2.5	84	-0.01	17.52
136	I	Perylene-d12	1.000	1.000	0.0	83	-0.02	19.92
137	P	Di-n-octylphthalate	1.496	1.445	3.4	82	-0.01	18.74
138	P	Benzo[b]fluoranthene	1.308	1.125	14.0	72	-0.04	19.27
139	P	Benzo[k]fluoranthene	1.295	1.131	12.7	76	-0.03	19.32
140		7,12-Dimethylbenz(a)anthr		----------NA----------				
141	P	Benzo[a]pyrene	1.258	1.160	7.8	77	-0.04	19.83
142	S	Benzo[a]pyrene-D12		----------NA----------				
143		3-Methylcholanthrene		----------NA----------				
144		Dibenz(a,j)acridine		----------NA----------				
145	P	Indeno[1,2,3-cd]pyrene	1.107	1.213	-9.6	94	-0.04	22.05
146	P	Dibenz[a,h]anthracene	1.149	1.292	-12.4	96	-0.04	22.12
147	P	Benzo[g,h,i]perylene	1.146	1.262	-10.1	95	-0.05	22.67

(#) = Out of Range SPCC's out = 9 CCC's out = 0
O11702.D EO649.M Fri Aug 08 15:35:55 2014

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: EO649-ICV649
Lab FileID: O11707.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EO649\O11707.D            Vial: 11
Acq On    :  8 Aug 2014   3:49 pm                   Operator: garyj
Sample    : icv649-50, anilines                     Inst    : MSO
Misc      : op29500,EO649,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\EO649.M (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Fri Aug 08 14:32:55 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	84	-0.01	5.54
2		bis(Chloromethyl)ether		----------NA----------				
3		1,4-Dioxane		----------NA----------				
4		N-nitrosodimethylamine		----------NA----------				
5		Pyridine		----------NA----------				
6		2-Picoline		----------NA----------				
7		N-Nitrosomethylethylamine		----------NA----------				
8		Methyl methanesulfonate		----------NA----------				
9		N-Nitrosodiethylamine		----------NA----------				
10		2-Butoxyethanol		----------NA----------				
11		Ethyl methanesulfonate		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
12	P	Benzaldehyde		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
13		Pentachloroethane		----------NA----------				
14		Aniline	2.172	2.120	2.4	83	-0.01	5.27
15	S	2-Fluorophenol		----------NA----------				
16	P	bis(2-Chloroethyl)ether		----------NA----------				
17	S	Phenol-d5		----------NA----------				
18	P	Phenol		----------NA----------				
19	P	2-Chlorophenol		----------NA----------				
20		n-Decane		----------NA----------				
21		1,3-Dichlorobenzene		----------NA----------				
22		1,4-Dichlorobenzene		----------NA----------				
23		1,2-Dichlorobenzene		----------NA----------				
24		Benzyl alcohol		----------NA----------				
25	P	bis(2-chloroisopropyl)eth		----------NA----------				
26	P	2-Methylphenol		----------NA----------				
27		N-nitrosopyrrolidine		----------NA----------				
28		N-Nitrosomorpholine		----------NA----------				
29		o-Toluidine		----------NA----------				
30	P	Acetophenone		----------NA----------				
31	P	Hexachloroethane		----------NA----------				
32	P	N-Nitroso-di-n-propylamin		----------NA----------				
33	P	3&4-Methylphenol		----------NA----------				
34	I	Naphthalene-d8	1.000	1.000	0.0	82	-0.01	6.83
35	S	Nitrobenzene-d5		----------NA----------				
36	P	Nitrobenzene		----------NA----------				
37		2,6-Dimethylphenol		----------NA----------				

7.7.3

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Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11707.D

38		N-Nitrosopiperidine		----------NA----------				
39		A,A-Dimethylphenethylamin		----------NA----------				
40	P	Isophorone		----------NA----------				
41	P	2-Nitrophenol		----------NA----------				
42	P	2,4-Dimethylphenol		----------NA----------				
43	P	bis(2-Chloroethoxy)methan		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
44		Benzoic Acid		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
45	P	2,4-Dichlorophenol		----------NA----------				
46		1,2,4-Trichlorobenzene		----------NA----------				
47	P	Naphthalene		----------NA----------				
48	P	4-Chloroaniline	0.491	0.493	-0.4	82	-0.02	6.91
49		2,6-Dichlorophenol		----------NA----------				
50		Hexachloropropene		----------NA----------				
51	P	Hexachlorobutadiene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
52		p-Phenylenediamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
53	P	Caprolactam		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
54		N-Nitrosodi-n-butylamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
55		Hydroquinone		----------NA----------				
56	P	4-Chloro-3-methylphenol		----------NA----------				
57		Isosafrole		----------NA----------				
58	P	2-Methylnaphthalene		----------NA----------				
59		1-Methylnaphthalene		----------NA----------				
60	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
61	I	Acenaphthene-d10	1.000	1.000	0.0	83	-0.01	9.41
		----------	Amount	Calc.	%Drift	----------		
62	P	Hexachlorocyclopentadiene		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
63	P	2,4,6-Trichlorophenol		----------NA----------				
64	P	2,4,5-Trichlorophenol		----------NA----------				
65	S	2-Fluorobiphenyl		----------NA----------				
66		Safrole		----------NA----------				
67	P	1,1'-Biphenyl		----------NA----------				
68	P	2-Chloronaphthalene		----------NA----------				
69		1-Chloronaphthalene		----------NA----------				
70		Diphenyl ether		----------NA----------				
71	P	2-Nitroaniline	0.374	0.399	-6.7	88	-0.02	8.66
72		1,4-Naphthoquinone		----------NA----------				
73	P	Acenaphthylene		----------NA----------				
74	P	Dimethylphthalate		----------NA----------				
75		m-Dinitrobenzene		----------NA----------				
76	P	2,6-Dinitrotoluene		----------NA----------				
77	P	Acenaphthene		----------NA----------				
78	P	3-Nitroaniline	0.385	0.383	0.5	80	-0.03	9.35
		----------	Amount	Calc.	%Drift	----------		

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11707.D

79	P	2,4-Dinitrophenol		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
80	P	Dibenzofuran		----------NA----------				
81		Pentachlorobenzene		----------NA----------				
82	P	2,4-Dinitrotoluene		----------NA----------				
83	P	4-Nitrophenol		----------NA----------				
84		1-Naphthylamine		----------NA----------				
85		2-Naphthylamine		----------NA----------				
86	P	2,3,4,6-Tetrachlorophenol		----------NA----------				
87	P	Fluorene		----------NA----------				
88	P	4-Chlorophenyl-phenylethe		----------NA----------				
89	P	Diethylphthalate		----------NA----------				
90		5-Nitro-o-toluidine		----------NA----------				
91	P	4-Nitroaniline	0.407	0.412	-1.2	82	-0.04	10.44
92	I	Phenanthrene-d10	1.000	1.000	0.0	81	-0.02	12.14
		----------	Amount	Calc.	%Drift	----------		
93		Dinoseb		----------NA----------				
94	P	4,6-Dinitro-2-methylpheno		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
95	P	n-Nitrosodiphenylamine		----------NA----------				
96		1,2-Diphenylhydrazine		----------NA----------				
97		Diphenylamine		----------NA----------				
98	S	2,4,6-Tribromophenol		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
99		sym-Trinitrobenzene		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
100		Diallate		----------NA----------				
101	P	4-Bromophenyl-phenylether		----------NA----------				
102		Phenacetin		----------NA----------				
103	P	Hexachlorobenzene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
104	P	Atrazine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
105		4-aminobiphenyl		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
106	P	Pentachlorophenol		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
107		Pentachloronitrobenzene		----------NA----------				
108		Pronamide		----------NA----------				
109		n-Octadecane		----------NA----------				
110	P	Phenanthrene		----------NA----------				
111	P	Anthracene		----------NA----------				
112	P	Carbazole		----------NA----------				
113	P	Di-n-butylphthalate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
114		4-Nitroquinoline 1-Oxide		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
115		Methapyrilene		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11707.D

116		Octachlorostyrene		----------NA----------				
117		Isodrin		----------NA----------				
118		Fluoranthene		----------NA----------				
119	S	Fluoranthene-D10		----------NA----------				
120		4,4'-Methylenedianiline		----------NA----------				
121	I	Chrysene-d12	1.000	1.000	0.0	81	-0.03	17.31
122		Benzidine		----------NA----------				
123		Pyrene		----------NA----------				
124	S	Terphenyl-d14		----------NA----------				
125		Aramite		----------NA----------				
126		p-(Dimethylamine)azobenze		----------NA----------				
127		Chlorobenzilate		----------NA----------				
		----------	Amount	Calc.	%Drift			----------
128		Kepone		----------NA----------				
		----------	AvgRF	CCRF	%Dev			----------
129		3,3'-Dimethylbenzidine		----------NA----------				
130		Butylbenzylphthalate		----------NA----------				
131		2-Acetylaminofluorene		----------NA----------				
132	P	3,3'-Dichlorobenzidine		----------NA----------				
133	P	Benzo[a]anthracene		----------NA----------				
134	P	Chrysene		----------NA----------				
135	P	bis(2-Ethylhexyl)phthalat		----------NA----------				
136	I	Perylene-d12	1.000	1.000	0.0	82	-0.02	19.92
137	P	Di-n-octylphthalate		----------NA----------				
138	P	Benzo[b]fluoranthene		----------NA----------				
139	P	Benzo[k]fluoranthene		----------NA----------				
140		7,12-Dimethylbenz(a)anthr		----------NA----------				
141	P	Benzo[a]pyrene		----------NA----------				
142	S	Benzo[a]pyrene-D12		----------NA----------				
143		3-Methylcholanthrene		----------NA----------				
144		Dibenz(a,j)acridine		----------NA----------				
145	P	Indeno[1,2,3-cd]pyrene		----------NA----------				
146	P	Dibenz[a,h]anthracene		----------NA----------				
147	P	Benzo[g,h,i]perylene		----------NA----------				

(#) = Out of Range SPCC's out = 54 CCC's out = 0
O11702.D EO649.M Fri Aug 08 16:12:56 2014

7.7.3

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Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11708.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EO649\O11708.D            Vial: 12
Acq On    :  8 Aug 2014   4:52 pm                   Operator: garyj
Sample    : icv649-50, benzidine                    Inst    : MSO
Misc      : op29500,EO649,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\EO649.M (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Fri Aug 08 14:32:55 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	78	-0.01	5.55
2		bis(Chloromethyl)ether		NA				
3		1,4-Dioxane		NA				
4		N-nitrosodimethylamine		NA				
5		Pyridine		NA				
6		2-Picoline		NA				
7		N-Nitrosomethylethylamine		NA				
8		Methyl methanesulfonate		NA				
9		N-Nitrosodiethylamine		NA				
10		2-Butoxyethanol		NA				
11		Ethyl methanesulfonate		NA				
			Amount	Calc.	%Drift			
12	P	Benzaldehyde		NA				
			AvgRF	CCRF	%Dev			
13		Pentachloroethane		NA				
14		Aniline		NA				
15	S	2-Fluorophenol		NA				
16	P	bis(2-Chloroethyl)ether		NA				
17	S	Phenol-d5		NA				
18	P	Phenol		NA				
19	P	2-Chlorophenol		NA				
20		n-Decane		NA				
21		1,3-Dichlorobenzene		NA				
22		1,4-Dichlorobenzene		NA				
23		1,2-Dichlorobenzene		NA				
24		Benzyl alcohol		NA				
25	P	bis(2-chloroisopropyl)eth		NA				
26	P	2-Methylphenol		NA				
27		N-nitrosopyrrolidine		NA				
28		N-Nitrosomorpholine		NA				
29		o-Toluidine		NA				
30	P	Acetophenone		NA				
31	P	Hexachloroethane		NA				
32	P	N-Nitroso-di-n-propylamin		NA				
33	P	3&4-Methylphenol		NA				
34	I	Naphthalene-d8	1.000	1.000	0.0	78	-0.02	6.83
35	S	Nitrobenzene-d5		NA				
36	P	Nitrobenzene		NA				
37		2,6-Dimethylphenol		NA				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11708.D

38		N-Nitrosopiperidine		----------NA----------				
39		A,A-Dimethylphenethylamin		----------NA----------				
40	P	Isophorone		----------NA----------				
41	P	2-Nitrophenol		----------NA----------				
42	P	2,4-Dimethylphenol		----------NA----------				
43	P	bis(2-Chloroethoxy)methan		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
44		Benzoic Acid		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
45	P	2,4-Dichlorophenol		----------NA----------				
46		1,2,4-Trichlorobenzene		----------NA----------				
47	P	Naphthalene		----------NA----------				
48	P	4-Chloroaniline		----------NA----------				
49		2,6-Dichlorophenol		----------NA----------				
50		Hexachloropropene		----------NA----------				
51	P	Hexachlorobutadiene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
52		p-Phenylenediamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
53	P	Caprolactam		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
54		N-Nitrosodi-n-butylamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
55		Hydroquinone		----------NA----------				
56	P	4-Chloro-3-methylphenol		----------NA----------				
57		Isosafrole		----------NA----------				
58	P	2-Methylnaphthalene		----------NA----------				
59		1-Methylnaphthalene		----------NA----------				
60	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
61	I	Acenaphthene-d10	1.000	1.000	0.0	78	-0.01	9.41
		----------	Amount	Calc.	%Drift	----------		
62	P	Hexachlorocyclopentadiene		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
63	P	2,4,6-Trichlorophenol		----------NA----------				
64	P	2,4,5-Trichlorophenol		----------NA----------				
65	S	2-Fluorobiphenyl		----------NA----------				
66		Safrole		----------NA----------				
67	P	1,1'-Biphenyl		----------NA----------				
68	P	2-Chloronaphthalene		----------NA----------				
69		1-Chloronaphthalene		----------NA----------				
70		Diphenyl ether		----------NA----------				
71	P	2-Nitroaniline		----------NA----------				
72		1,4-Naphthoquinone		----------NA----------				
73	P	Acenaphthylene		----------NA----------				
74	P	Dimethylphthalate		----------NA----------				
75		m-Dinitrobenzene		----------NA----------				
76	P	2,6-Dinitrotoluene		----------NA----------				
77	P	Acenaphthene		----------NA----------				
78	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11708.D

```
 79 P   2,4-Dinitrophenol                    ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
 80 P   Dibenzofuran                         ----------NA----------
 81     Pentachlorobenzene                   ----------NA----------
 82 P   2,4-Dinitrotoluene                   ----------NA----------
 83 P   4-Nitrophenol                        ----------NA----------
 84     1-Naphthylamine                      ----------NA----------
 85     2-Naphthylamine                      ----------NA----------
 86 P   2,3,4,6-Tetrachlorophenol            ----------NA----------
 87 P   Fluorene                             ----------NA----------
 88 P   4-Chlorophenyl-phenylethe            ----------NA----------
 89 P   Diethylphthalate                     ----------NA----------
 90     5-Nitro-o-toluidine                  ----------NA----------
 91 P   4-Nitroaniline                       ----------NA----------

 92 I   Phenanthrene-d10            1.000   1.000      0.0   76  -0.02   12.14

            ------------------------ Amount  Calc.    %Drift   -------------
 93     Dinoseb                              ----------NA----------
 94 P   4,6-Dinitro-2-methylpheno            ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
 95 P   n-Nitrosodiphenylamine               ----------NA----------
 96     1,2-Diphenylhydrazine                ----------NA----------
 97     Diphenylamine                        ----------NA----------
 98 S   2,4,6-Tribromophenol                 ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
 99     sym-Trinitrobenzene                  ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
100     Diallate                             ----------NA----------
101 P   4-Bromophenyl-phenylether            ----------NA----------
102     Phenacetin                           ----------NA----------
103 P   Hexachlorobenzene                    ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
104 P   Atrazine                             ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
105     4-aminobiphenyl                      ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
106 P   Pentachlorophenol                    ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
107     Pentachloronitrobenzene              ----------NA----------
108     Pronamide                            ----------NA----------
109     n-Octadecane                         ----------NA----------
110 P   Phenanthrene                         ----------NA----------
111 P   Anthracene                           ----------NA----------
112 P   Carbazole                            ----------NA----------
113 P   Di-n-butylphthalate                  ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
114     4-Nitroquinoline 1-Oxide             ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
115     Methapyrilene                        ----------NA----------
```

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: EO649-ICV649
Lab FileID: O11708.D

116		Octachlorostyrene		----------NA----------				
117		Isodrin		----------NA----------				
118		Fluoranthene		----------NA----------				
119	S	Fluoranthene-D10		----------NA----------				
120		4,4'-Methylenedianiline		----------NA----------				
121	I	Chrysene-d12	1.000	1.000	0.0	79	-0.03	17.31
122		Benzidine	0.771	0.884	-14.7	88	-0.03	14.83
123		Pyrene		----------NA----------				
124	S	Terphenyl-d14		----------NA----------				
125		Aramite		----------NA----------				
126		p-(Dimethylamine)azobenze		----------NA----------				
127		Chlorobenzilate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
128		Kepone		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
129		3,3'-Dimethylbenzidine		----------NA----------				
130		Butylbenzylphthalate		----------NA----------				
131		2-Acetylaminofluorene		----------NA----------				
132	P	3,3'-Dichlorobenzidine		----------NA----------				
133	P	Benzo[a]anthracene		----------NA----------				
134	P	Chrysene		----------NA----------				
135	P	bis(2-Ethylhexyl)phthalat		----------NA----------				
136	I	Perylene-d12	1.000	1.000	0.0	79	-0.02	19.92
137	P	Di-n-octylphthalate		----------NA----------				
138	P	Benzo[b]fluoranthene		----------NA----------				
139	P	Benzo[k]fluoranthene		----------NA----------				
140		7,12-Dimethylbenz(a)anthr		----------NA----------				
141	P	Benzo[a]pyrene		----------NA----------				
142	S	Benzo[a]pyrene-D12		----------NA----------				
143		3-Methylcholanthrene		----------NA----------				
144		Dibenz(a,j)acridine		----------NA----------				
145	P	Indeno[1,2,3-cd]pyrene		----------NA----------				
146	P	Dibenz[a,h]anthracene		----------NA----------				
147	P	Benzo[g,h,i]perylene		----------NA----------				

(#) = Out of Range SPCC's out = 58 CCC's out = 0
O11702.D EO649.M Fri Aug 08 17:14:00 2014

7.7.4

7

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11709.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EO649\O11709.D            Vial: 13
Acq On    :  8 Aug 2014   5:23 pm                   Operator: garyj
Sample    : icv649-50, custom                       Inst    : MSO
Misc      : op29500,EO649,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\EO649.M (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Fri Aug 08 14:32:55 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	113	-0.01	5.54
2		bis(Chloromethyl)ether		----------NA----------				
3		1,4-Dioxane	0.453	0.430	5.1	107	0.00	3.20
4		N-nitrosodimethylamine		----------NA----------				
5		Pyridine		----------NA----------				
6		2-Picoline		----------NA----------				
7		N-Nitrosomethylethylamine		----------NA----------				
8		Methyl methanesulfonate		----------NA----------				
9		N-Nitrosodiethylamine		----------NA----------				
10		2-Butoxyethanol		----------NA----------				
11		Ethyl methanesulfonate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
12	P	Benzaldehyde	50.000	74.426	-48.9#	213	0.00	5.19
		----------	AvgRF	CCRF	%Dev	----------		
13		Pentachloroethane		----------NA----------				
14		Aniline		----------NA----------				
15	S	2-Fluorophenol		----------NA----------				
16	P	bis(2-Chloroethyl)ether		----------NA----------				
17	S	Phenol-d5		----------NA----------				
18	P	Phenol		----------NA----------				
19	P	2-Chlorophenol		----------NA----------				
20		n-Decane	1.491	1.552	-4.1	120	0.00	5.39
21		1,3-Dichlorobenzene		----------NA----------				
22		1,4-Dichlorobenzene		----------NA----------				
23		1,2-Dichlorobenzene		----------NA----------				
24		Benzyl alcohol		----------NA----------				
25	P	bis(2-chloroisopropyl)eth		----------NA----------				
26	P	2-Methylphenol		----------NA----------				
27		N-nitrosopyrrolidine		----------NA----------				
28		N-Nitrosomorpholine		----------NA----------				
29		o-Toluidine		----------NA----------				
30	P	Acetophenone		----------NA----------				
31	P	Hexachloroethane		----------NA----------				
32	P	N-Nitroso-di-n-propylamin		----------NA----------				
33	P	3&4-Methylphenol		----------NA----------				
34	I	Naphthalene-d8	1.000	1.000	0.0	120	-0.01	6.83
35	S	Nitrobenzene-d5		----------NA----------				
36	P	Nitrobenzene		----------NA----------				
37		2,6-Dimethylphenol		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11709.D

38		N-Nitrosopiperidine		----------NA----------				
39		A,A-Dimethylphenethylamin		----------NA----------				
40	P	Isophorone		----------NA----------				
41	P	2-Nitrophenol		----------NA----------				
42	P	2,4-Dimethylphenol		----------NA----------				
43	P	bis(2-Chloroethoxy)methan		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
44		Benzoic Acid		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
45	P	2,4-Dichlorophenol		----------NA----------				
46		1,2,4-Trichlorobenzene		----------NA----------				
47	P	Naphthalene		----------NA----------				
48	P	4-Chloroaniline		----------NA----------				
49		2,6-Dichlorophenol		----------NA----------				
50		Hexachloropropene		----------NA----------				
51	P	Hexachlorobutadiene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
52		p-Phenylenediamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
53	P	Caprolactam		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
54		N-Nitrosodi-n-butylamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
55		Hydroquinone		----------NA----------				
56	P	4-Chloro-3-methylphenol		----------NA----------				
57		Isosafrole		----------NA----------				
58	P	2-Methylnaphthalene		----------NA----------				
59		1-Methylnaphthalene		----------NA----------				
60	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
61	I	Acenaphthene-d10	1.000	1.000	0.0	118	-0.01	9.41
		----------	Amount	Calc.	%Drift	----------		
62	P	Hexachlorocyclopentadiene		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
63	P	2,4,6-Trichlorophenol		----------NA----------				
64	P	2,4,5-Trichlorophenol		----------NA----------				
65	S	2-Fluorobiphenyl		----------NA----------				
66		Safrole		----------NA----------				
67	P	1,1'-Biphenyl		----------NA----------				
68	P	2-Chloronaphthalene		----------NA----------				
69		1-Chloronaphthalene		----------NA----------				
70		Diphenyl ether		----------NA----------				
71	P	2-Nitroaniline		----------NA----------				
72		1,4-Naphthoquinone		----------NA----------				
73	P	Acenaphthylene		----------NA----------				
74	P	Dimethylphthalate		----------NA----------				
75		m-Dinitrobenzene		----------NA----------				
76	P	2,6-Dinitrotoluene		----------NA----------				
77	P	Acenaphthene		----------NA----------				
78	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11709.D

79	P	2,4-Dinitrophenol		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
80	P	Dibenzofuran		----------NA----------				
81		Pentachlorobenzene		----------NA----------				
82	P	2,4-Dinitrotoluene		----------NA----------				
83	P	4-Nitrophenol		----------NA----------				
84		1-Naphthylamine		----------NA----------				
85		2-Naphthylamine		----------NA----------				
86	P	2,3,4,6-Tetrachlorophenol		----------NA----------				
87	P	Fluorene		----------NA----------				
88	P	4-Chlorophenyl-phenylethe		----------NA----------				
89	P	Diethylphthalate		----------NA----------				
90		5-Nitro-o-toluidine		----------NA----------				
91	P	4-Nitroaniline		----------NA----------				
92	I	Phenanthrene-d10	1.000	1.000	0.0	118	-0.02	12.14
		----------	Amount	Calc.	%Drift	----------		
93		Dinoseb		----------NA----------				
94	P	4,6-Dinitro-2-methylpheno		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
95	P	n-Nitrosodiphenylamine		----------NA----------				
96		1,2-Diphenylhydrazine		----------NA----------				
97		Diphenylamine		----------NA----------				
98	S	2,4,6-Tribromophenol		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
99		sym-Trinitrobenzene		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
100		Diallate		----------NA----------				
101	P	4-Bromophenyl-phenylether		----------NA----------				
102		Phenacetin		----------NA----------				
103	P	Hexachlorobenzene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
104	P	Atrazine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
105		4-aminobiphenyl		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
106	P	Pentachlorophenol		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
107		Pentachloronitrobenzene		----------NA----------				
108		Pronamide		----------NA----------				
109		n-Octadecane	0.468	0.480	-2.6	121	-0.01	12.07
110	P	Phenanthrene		----------NA----------				
111	P	Anthracene		----------NA----------				
112	P	Carbazole		----------NA----------				
113	P	Di-n-butylphthalate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
114		4-Nitroquinoline 1-Oxide		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
115		Methapyrilene		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11709.D

116		Octachlorostyrene		----------NA----------				
117		Isodrin		----------NA----------				
118		Fluoranthene		----------NA----------				
119	S	Fluoranthene-D10		----------NA----------				
120		4,4'-Methylenedianiline		----------NA----------				
121	I	Chrysene-d12	1.000	1.000	0.0	98	-0.03	17.31
122		Benzidine		----------NA----------				
123		Pyrene		----------NA----------				
124	S	Terphenyl-d14		----------NA----------				
125		Aramite		----------NA----------				
126		p-(Dimethylamine)azobenze		----------NA----------				
127		Chlorobenzilate		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
128		Kepone	50.000	35.405	29.2	65	-0.04	16.27
		----------	AvgRF	CCRF	%Dev		----------	
129		3,3'-Dimethylbenzidine		----------NA----------				
130		Butylbenzylphthalate		----------NA----------				
131		2-Acetylaminofluorene		----------NA----------				
132	P	3,3'-Dichlorobenzidine		----------NA----------				
133	P	Benzo[a]anthracene		----------NA----------				
134	P	Chrysene		----------NA----------				
135	P	bis(2-Ethylhexyl)phthalat		----------NA----------				
136	I	Perylene-d12	1.000	1.000	0.0	93	-0.03	19.91
137	P	Di-n-octylphthalate		----------NA----------				
138	P	Benzo[b]fluoranthene		----------NA----------				
139	P	Benzo[k]fluoranthene		----------NA----------				
140		7,12-Dimethylbenz(a)anthr		----------NA----------				
141	P	Benzo[a]pyrene		----------NA----------				
142	S	Benzo[a]pyrene-D12	1.155	0.787	31.9#	65	0.11	19.91
143		3-Methylcholanthrene		----------NA----------				
144		Dibenz(a,j)acridine		----------NA----------				
145	P	Indeno[1,2,3-cd]pyrene		----------NA----------				
146	P	Dibenz[a,h]anthracene		----------NA----------				
147	P	Benzo[g,h,i]perylene		----------NA----------				

(#) = Out of Range SPCC's out = 58 CCC's out = 0
O11702.D EO649.M Fri Aug 08 17:45:56 2014

7.7.5

7

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11710.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EO649\O11710.D            Vial: 14
Acq On    :  8 Aug 2014   6:06 pm                   Operator: garyj
Sample    : icv649-50, crescent                     Inst    : MSO
Misc      : op29500,EO649,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\EO649.M (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Fri Aug 08 18:52:36 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	-0.01	5.54
2		bis(Chloromethyl)ether		----------NA----------				
3		1,4-Dioxane		----------NA----------				
4		N-nitrosodimethylamine		----------NA----------				
5		Pyridine		----------NA----------				
6		2-Picoline	1.502	1.104	26.5	68	-0.02	4.12
7		N-Nitrosomethylethylamine	0.545	0.607	-11.4	102	-0.01	4.20
8		Methyl methanesulfonate	0.843	0.243	71.2#	27#	-0.01	4.42
9		N-Nitrosodiethylamine	0.738	0.844	-14.4	108	-0.02	4.71
10		2-Butoxyethanol		----------NA----------				
11		Ethyl methanesulfonate	0.969	1.197	-23.5	115	-0.02	4.92
		----------	Amount	Calc.	%Drift	----------		
12	P	Benzaldehyde		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
13		Pentachloroethane	0.534	0.602	-12.7	103	0.00	5.32
14		Aniline		----------NA----------				
15	S	2-Fluorophenol		----------NA----------				
16	P	bis(2-Chloroethyl)ether		----------NA----------				
17	S	Phenol-d5		----------NA----------				
18	P	Phenol		----------NA----------				
19	P	2-Chlorophenol		----------NA----------				
20		n-Decane		----------NA----------				
21		1,3-Dichlorobenzene		----------NA----------				
22		1,4-Dichlorobenzene		----------NA----------				
23		1,2-Dichlorobenzene		----------NA----------				
24		Benzyl alcohol		----------NA----------				
25	P	bis(2-chloroisopropyl)eth		----------NA----------				
26	P	2-Methylphenol		----------NA----------				
27		N-nitrosopyrrolidine	0.839	0.983	-17.2	108	-0.03	5.89
28		N-Nitrosomorpholine	1.111	1.327	-19.4	113	-0.02	5.92
29		o-Toluidine	2.531	2.646	-4.5	98	-0.02	5.93
30	P	Acetophenone	2.051	2.697	-31.5#	122	-0.02	5.90
31	P	Hexachloroethane		----------NA----------				
32	P	N-Nitroso-di-n-propylamin		----------NA----------				
33	P	3&4-Methylphenol		----------NA----------				
34	I	Naphthalene-d8	1.000	1.000	0.0	108	0.00	6.84
35	S	Nitrobenzene-d5		----------NA----------				
36	P	Nitrobenzene		----------NA----------				
37		2,6-Dimethylphenol	0.344	0.383	-11.3	119	-0.01	6.17

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11710.D

38		N-Nitrosopiperidine	0.262	0.247	5.7	102	-0.02	6.22
39		A,A-Dimethylphenethylamin	1.119	1.064	4.9	112	0.26	7.15
40	P	Isophorone		----------NA----------				
41	P	2-Nitrophenol		----------NA----------				
42	P	2,4-Dimethylphenol		----------NA----------				
43	P	bis(2-Chloroethoxy)methan		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
44		Benzoic Acid		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
45	P	2,4-Dichlorophenol		----------NA----------				
46		1,2,4-Trichlorobenzene		----------NA----------				
47	P	Naphthalene		----------NA----------				
48	P	4-Chloroaniline		----------NA----------				
49		2,6-Dichlorophenol	0.266	0.343	-28.9	140	-0.01	6.93
50		Hexachloropropene	0.212	0.214	-0.9	107	0.00	6.97
51	P	Hexachlorobutadiene		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
52		p-Phenylenediamine	500.000	42.085	91.6#	9	0.00	7.40
		----------	AvgRF	CCRF	%Dev		----------	
53	P	Caprolactam	0.137	0.139	-1.5	107	-0.10	7.38
		----------	Amount	Calc.	%Drift		----------	
54		N-Nitrosodi-n-butylamine	50.000	50.863	-1.7	112	-0.02	7.34
		----------	AvgRF	CCRF	%Dev		----------	
55		Hydroquinone		----------NA----------				
56	P	4-Chloro-3-methylphenol		----------NA----------				
57		Isosafrole	0.280	0.221	21.1	79	0.00	7.64
58	P	2-Methylnaphthalene		----------NA----------				
59		1-Methylnaphthalene		----------NA----------				
60	P	1,2,4,5-Tetrachlorobenzen	0.335	0.370	-10.4	120	0.00	8.01
61	I	Acenaphthene-d10	1.000	1.000	0.0	106	0.00	9.42
		----------	Amount	Calc.	%Drift		----------	
62	P	Hexachlorocyclopentadiene		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
63	P	2,4,6-Trichlorophenol		----------NA----------				
64	P	2,4,5-Trichlorophenol		----------NA----------				
65	S	2-Fluorobiphenyl		----------NA----------				
66		Safrole	0.418	0.549	-31.3#	128	0.00	8.42
67	P	1,1'-Biphenyl	1.475	1.651	-11.9	118	0.00	8.48
68	P	2-Chloronaphthalene		----------NA----------				
69		1-Chloronaphthalene	1.015	1.142	-12.5	119	-0.01	8.54
70		Diphenyl ether	0.786	0.868	-10.4	116	0.00	8.65
71	P	2-Nitroaniline		----------NA----------				
72		1,4-Naphthoquinone	0.355	0.058	83.7#	16#	0.00	8.79
73	P	Acenaphthylene		----------NA----------				
74	P	Dimethylphthalate		----------NA----------				
75		m-Dinitrobenzene		----------NA----------				
76	P	2,6-Dinitrotoluene		----------NA----------				
77	P	Acenaphthene		----------NA----------				
78	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11710.D

79	P	2,4-Dinitrophenol		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
80	P	Dibenzofuran		----------NA----------				
81		Pentachlorobenzene	0.470	0.528	-12.3	119	0.00	9.71
82	P	2,4-Dinitrotoluene		----------NA----------				
83	P	4-Nitrophenol		----------NA----------				
84		1-Naphthylamine	1.401	0.707	49.5#	52	-0.02	9.93
85		2-Naphthylamine	1.519	0.772	49.2#	53	-0.01	10.07
86	P	2,3,4,6-Tetrachlorophenol		----------NA----------				
87	P	Fluorene		----------NA----------				
88	P	4-Chlorophenyl-phenylethe		----------NA----------				
89	P	Diethylphthalate		----------NA----------				
90		5-Nitro-o-toluidine	0.476	0.392	17.6	85	-0.02	10.44
91	P	4-Nitroaniline		----------NA----------				
92	I	Phenanthrene-d10	1.000	1.000	0.0	98	0.00	12.15
		----------	Amount	Calc.	%Drift	----------		
93		Dinoseb	50.000	54.710	-9.4	108	0.00	12.21
94	P	4,6-Dinitro-2-methylpheno		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
95	P	n-Nitrosodiphenylamine		----------NA----------				
96		1,2-Diphenylhydrazine		----------NA----------				
97		Diphenylamine		----------NA----------				
98	S	2,4,6-Tribromophenol		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
99		sym-Trinitrobenzene	50.000	26.895	46.2#	50	-0.03	11.19
		----------	AvgRF	CCRF	%Dev	----------		
100		Diallate	0.237	0.274	-15.6	105	0.00	11.21
101	P	4-Bromophenyl-phenylether		----------NA----------				
102		Phenacetin	0.440	0.455	-3.4	100	-0.03	11.27
103	P	Hexachlorobenzene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
104	P	Atrazine	50.000	18.502	63.0#	41	-0.02	11.70
		----------	AvgRF	CCRF	%Dev	----------		
105		4-aminobiphenyl	0.956	0.316	66.9#	32#	0.00	11.83
		----------	Amount	Calc.	%Drift	----------		
106	P	Pentachlorophenol		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
107		Pentachloronitrobenzene	0.100	0.113	-13.0	106	0.00	11.83
108		Pronamide	0.368	0.415	-12.8	106	-0.01	12.00
109		n-Octadecane		----------NA----------				
110	P	Phenanthrene		----------NA----------				
111	P	Anthracene		----------NA----------				
112	P	Carbazole		----------NA----------				
113	P	Di-n-butylphthalate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
114		4-Nitroquinoline 1-Oxide	50.000	24.688	50.6#	44	-0.02	13.72
		----------	AvgRF	CCRF	%Dev	----------		
115		Methapyrilene	0.667	0.509	23.7	73	-0.02	13.94

Initial Calibration Verification

Job Number: TC52863 **Sample:** EO649-ICV649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11710.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

116		Octachlorostyrene	0.090	0.100	-11.1	106	-0.01	14.17
117		Isodrin	0.131	0.147	-12.2	108	0.00	14.21
118		Fluoranthene		----------NA----------				
119	S	Fluoranthene-D10		----------NA----------				
120		4,4'-Methylenedianiline	0.549	0.151	72.5#	26#	-0.02	14.88
121	I	Chrysene-d12	1.000	1.000	0.0	84	-0.02	17.32
122		Benzidine		----------NA----------				
123		Pyrene		----------NA----------				
124	S	Terphenyl-d14		----------NA----------				
125		Aramite	0.075	0.085	-13.3	91	0.00	15.50
126		p-(Dimethylamine)azobenze	0.371	0.338	8.9	75	-0.01	15.61
127		Chlorobenzilate	0.383	0.471	-23.0	101	-0.01	15.72
		----------	Amount	Calc.	%Drift		----------	
128		Kepone		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
129		3,3'-Dimethylbenzidine	0.778	0.589	24.3	61	-0.02	16.27
130		Butylbenzylphthalate		----------NA----------				
131		2-Acetylaminofluorene	0.607	0.681	-12.2	94	-0.03	16.76
132	P	3,3'-Dichlorobenzidine	0.442	0.499	-12.9	95	-0.02	17.31
133	P	Benzo[a]anthracene		----------NA----------				
134	P	Chrysene		----------NA----------				
135	P	bis(2-Ethylhexyl)phthalat		----------NA----------				
136	I	Perylene-d12	1.000	1.000	0.0	92	-0.02	19.93
137	P	Di-n-octylphthalate		----------NA----------				
138	P	Benzo[b]fluoranthene		----------NA----------				
139	P	Benzo[k]fluoranthene		----------NA----------				
140		7,12-Dimethylbenz(a)anthr	0.546	0.599	-9.7	101	-0.03	19.28
141	P	Benzo[a]pyrene		----------NA----------				
142	S	Benzo[a]pyrene-D12		----------NA----------				
143		3-Methylcholanthrene	0.422	0.734	-73.9#	162	-0.02	20.48
144		Dibenz(a,j)acridine	0.945	1.135	-20.1	115	-0.03	21.67
145	P	Indeno[1,2,3-cd]pyrene		----------NA----------				
146	P	Dibenz[a,h]anthracene		----------NA----------				
147	P	Benzo[g,h,i]perylene		----------NA----------				

(#) = Out of Range SPCC's out = 53 CCC's out = 0
O11702.D EO649.M Mon Aug 11 09:07:22 2014

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11711.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EO649\O11711.D            Vial: 15
Acq On    :  8 Aug 2014   6:40 pm                   Operator: garyj
Sample    : icv649-50, 2butoxyethanol               Inst    : MSO
Misc      : op29500,EO649,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\EO649.M (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Fri Aug 08 14:32:55 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	91	-0.01	5.54
2		bis(Chloromethyl)ether		----------NA----------				
3		1,4-Dioxane		----------NA----------				
4		N-nitrosodimethylamine		----------NA----------				
5		Pyridine		----------NA----------				
6		2-Picoline		----------NA----------				
7		N-Nitrosomethylethylamine		----------NA----------				
8		Methyl methanesulfonate		----------NA----------				
9		N-Nitrosodiethylamine		----------NA----------				
10		2-Butoxyethanol	1.628	1.461	10.3	83	-0.02	4.75
11		Ethyl methanesulfonate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
12	P	Benzaldehyde		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
13		Pentachloroethane		----------NA----------				
14		Aniline		----------NA----------				
15	S	2-Fluorophenol		----------NA----------				
16	P	bis(2-Chloroethyl)ether		----------NA----------				
17	S	Phenol-d5		----------NA----------				
18	P	Phenol		----------NA----------				
19	P	2-Chlorophenol		----------NA----------				
20		n-Decane		----------NA----------				
21		1,3-Dichlorobenzene		----------NA----------				
22		1,4-Dichlorobenzene		----------NA----------				
23		1,2-Dichlorobenzene		----------NA----------				
24		Benzyl alcohol		----------NA----------				
25	P	bis(2-chloroisopropyl)eth		----------NA----------				
26	P	2-Methylphenol		----------NA----------				
27		N-nitrosopyrrolidine		----------NA----------				
28		N-Nitrosomorpholine		----------NA----------				
29		o-Toluidine		----------NA----------				
30	P	Acetophenone		----------NA----------				
31	P	Hexachloroethane		----------NA----------				
32	P	N-Nitroso-di-n-propylamin		----------NA----------				
33	P	3&4-Methylphenol		----------NA----------				
34	I	Naphthalene-d8	1.000	1.000	0.0	100	-0.02	6.83
35	S	Nitrobenzene-d5		----------NA----------				
36	P	Nitrobenzene		----------NA----------				
37		2,6-Dimethylphenol		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11711.D

38		N-Nitrosopiperidine		----------NA----------				
39		A,A-Dimethylphenethylamin		----------NA----------				
40	P	Isophorone		----------NA----------				
41	P	2-Nitrophenol		----------NA----------				
42	P	2,4-Dimethylphenol		----------NA----------				
43	P	bis(2-Chloroethoxy)methan		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
44		Benzoic Acid		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
45	P	2,4-Dichlorophenol		----------NA----------				
46		1,2,4-Trichlorobenzene		----------NA----------				
47	P	Naphthalene		----------NA----------				
48	P	4-Chloroaniline		----------NA----------				
49		2,6-Dichlorophenol		----------NA----------				
50		Hexachloropropene		----------NA----------				
51	P	Hexachlorobutadiene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
52		p-Phenylenediamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
53	P	Caprolactam		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
54		N-Nitrosodi-n-butylamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
55		Hydroquinone		----------NA----------				
56	P	4-Chloro-3-methylphenol		----------NA----------				
57		Isosafrole		----------NA----------				
58	P	2-Methylnaphthalene		----------NA----------				
59		1-Methylnaphthalene		----------NA----------				
60	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
61	I	Acenaphthene-d10	1.000	1.000	0.0	99	-0.02	9.41
		----------	Amount	Calc.	%Drift	----------		
62	P	Hexachlorocyclopentadiene		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
63	P	2,4,6-Trichlorophenol		----------NA----------				
64	P	2,4,5-Trichlorophenol		----------NA----------				
65	S	2-Fluorobiphenyl		----------NA----------				
66		Safrole		----------NA----------				
67	P	1,1'-Biphenyl		----------NA----------				
68	P	2-Chloronaphthalene		----------NA----------				
69		1-Chloronaphthalene		----------NA----------				
70		Diphenyl ether		----------NA----------				
71	P	2-Nitroaniline		----------NA----------				
72		1,4-Naphthoquinone		----------NA----------				
73	P	Acenaphthylene		----------NA----------				
74	P	Dimethylphthalate		----------NA----------				
75		m-Dinitrobenzene		----------NA----------				
76	P	2,6-Dinitrotoluene		----------NA----------				
77	P	Acenaphthene		----------NA----------				
78	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11711.D

```
 79 P   2,4-Dinitrophenol                   ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
 80 P   Dibenzofuran                        ----------NA----------
 81     Pentachlorobenzene                  ----------NA----------
 82 P   2,4-Dinitrotoluene                  ----------NA----------
 83 P   4-Nitrophenol                       ----------NA----------
 84     1-Naphthylamine                     ----------NA----------
 85     2-Naphthylamine                     ----------NA----------
 86 P   2,3,4,6-Tetrachlorophenol           ----------NA----------
 87 P   Fluorene                            ----------NA----------
 88 P   4-Chlorophenyl-phenylethe           ----------NA----------
 89 P   Diethylphthalate                    ----------NA----------
 90     5-Nitro-o-toluidine                 ----------NA----------
 91 P   4-Nitroaniline                      ----------NA----------

 92 I   Phenanthrene-d10            1.000   1.000      0.0   97  -0.03   12.13

            ------------------------ Amount  Calc.    %Drift   -------------
 93     Dinoseb                             ----------NA----------
 94 P   4,6-Dinitro-2-methylpheno           ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
 95 P   n-Nitrosodiphenylamine              ----------NA----------
 96     1,2-Diphenylhydrazine               ----------NA----------
 97     Diphenylamine                       ----------NA----------
 98 S   2,4,6-Tribromophenol                ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
 99     sym-Trinitrobenzene                 ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
100     Diallate                            ----------NA----------
101 P   4-Bromophenyl-phenylether           ----------NA----------
102     Phenacetin                          ----------NA----------
103 P   Hexachlorobenzene                   ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
104 P   Atrazine                            ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
105     4-aminobiphenyl                     ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
106 P   Pentachlorophenol                   ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
107     Pentachloronitrobenzene             ----------NA----------
108     Pronamide                           ----------NA----------
109     n-Octadecane                        ----------NA----------
110 P   Phenanthrene                        ----------NA----------
111 P   Anthracene                          ----------NA----------
112 P   Carbazole                           ----------NA----------
113 P   Di-n-butylphthalate                 ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
114     4-Nitroquinoline 1-Oxide            ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
115     Methapyrilene                       ----------NA----------
```

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11711.D

116		Octachlorostyrene		----------NA----------				
117		Isodrin		----------NA----------				
118		Fluoranthene		----------NA----------				
119	S	Fluoranthene-D10		----------NA----------				
120		4,4'-Methylenedianiline		----------NA----------				
121	I	Chrysene-d12	1.000	1.000	0.0	101	-0.04	17.30
122		Benzidine		----------NA----------				
123		Pyrene		----------NA----------				
124	S	Terphenyl-d14		----------NA----------				
125		Aramite		----------NA----------				
126		p-(Dimethylamine)azobenze		----------NA----------				
127		Chlorobenzilate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
128		Kepone		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
129		3,3'-Dimethylbenzidine		----------NA----------				
130		Butylbenzylphthalate		----------NA----------				
131		2-Acetylaminofluorene		----------NA----------				
132	P	3,3'-Dichlorobenzidine		----------NA----------				
133	P	Benzo[a]anthracene		----------NA----------				
134	P	Chrysene		----------NA----------				
135	P	bis(2-Ethylhexyl)phthalat		----------NA----------				
136	I	Perylene-d12	1.000	1.000	0.0	104	-0.03	19.91
137	P	Di-n-octylphthalate		----------NA----------				
138	P	Benzo[b]fluoranthene		----------NA----------				
139	P	Benzo[k]fluoranthene		----------NA----------				
140		7,12-Dimethylbenz(a)anthr		----------NA----------				
141	P	Benzo[a]pyrene		----------NA----------				
142	S	Benzo[a]pyrene-D12		----------NA----------				
143		3-Methylcholanthrene		----------NA----------				
144		Dibenz(a,j)acridine		----------NA----------				
145	P	Indeno[1,2,3-cd]pyrene		----------NA----------				
146	P	Dibenz[a,h]anthracene		----------NA----------				
147	P	Benzo[g,h,i]perylene		----------NA----------				

(#) = Out of Range SPCC's out = 58 CCC's out = 0
O11702.D EO649.M Mon Aug 11 09:10:12 2014

7.2.7

7

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11712.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EO649\O11712.D            Vial: 16
Acq On    :  8 Aug 2014   7:14 pm                   Operator: garyj
Sample    : icv649-50, bcme                         Inst    : MSO
Misc      : op29500,EO649,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\EO649.M (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Fri Aug 08 14:32:55 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	91	-0.01	5.55
2		bis(Chloromethyl)ether	1.331	1.465	-10.1	99	0.00	3.31
3		1,4-Dioxane		----------NA----------				
4		N-nitrosodimethylamine		----------NA----------				
5		Pyridine		----------NA----------				
6		2-Picoline		----------NA----------				
7		N-Nitrosomethylethylamine		----------NA----------				
8		Methyl methanesulfonate		----------NA----------				
9		N-Nitrosodiethylamine		----------NA----------				
10		2-Butoxyethanol		----------NA----------				
11		Ethyl methanesulfonate		----------NA----------				
		----------	Amount	Calc.	%Drift		----------	
12	P	Benzaldehyde		----------NA----------				
		----------	AvgRF	CCRF	%Dev		----------	
13		Pentachloroethane		----------NA----------				
14		Aniline		----------NA----------				
15	S	2-Fluorophenol		----------NA----------				
16	P	bis(2-Chloroethyl)ether		----------NA----------				
17	S	Phenol-d5		----------NA----------				
18	P	Phenol		----------NA----------				
19	P	2-Chlorophenol		----------NA----------				
20		n-Decane		----------NA----------				
21		1,3-Dichlorobenzene		----------NA----------				
22		1,4-Dichlorobenzene		----------NA----------				
23		1,2-Dichlorobenzene		----------NA----------				
24		Benzyl alcohol		----------NA----------				
25	P	bis(2-chloroisopropyl)eth		----------NA----------				
26	P	2-Methylphenol		----------NA----------				
27		N-nitrosopyrrolidine		----------NA----------				
28		N-Nitrosomorpholine		----------NA----------				
29		o-Toluidine		----------NA----------				
30	P	Acetophenone		----------NA----------				
31	P	Hexachloroethane		----------NA----------				
32	P	N-Nitroso-di-n-propylamin		----------NA----------				
33	P	3&4-Methylphenol		----------NA----------				
34	I	Naphthalene-d8	1.000	1.000	0.0	89	-0.02	6.83
35	S	Nitrobenzene-d5		----------NA----------				
36	P	Nitrobenzene		----------NA----------				
37		2,6-Dimethylphenol		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11712.D

38		N-Nitrosopiperidine		----------NA----------				
39		A,A-Dimethylphenethylamin		----------NA----------				
40	P	Isophorone		----------NA----------				
41	P	2-Nitrophenol		----------NA----------				
42	P	2,4-Dimethylphenol		----------NA----------				
43	P	bis(2-Chloroethoxy)methan		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
44		Benzoic Acid		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
45	P	2,4-Dichlorophenol		----------NA----------				
46		1,2,4-Trichlorobenzene		----------NA----------				
47	P	Naphthalene		----------NA----------				
48	P	4-Chloroaniline		----------NA----------				
49		2,6-Dichlorophenol		----------NA----------				
50		Hexachloropropene		----------NA----------				
51	P	Hexachlorobutadiene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
52		p-Phenylenediamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
53	P	Caprolactam		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
54		N-Nitrosodi-n-butylamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
55		Hydroquinone		----------NA----------				
56	P	4-Chloro-3-methylphenol		----------NA----------				
57		Isosafrole		----------NA----------				
58	P	2-Methylnaphthalene		----------NA----------				
59		1-Methylnaphthalene		----------NA----------				
60	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
61	I	Acenaphthene-d10	1.000	1.000	0.0	88	-0.01	9.41
		----------	Amount	Calc.	%Drift	----------		
62	P	Hexachlorocyclopentadiene		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
63	P	2,4,6-Trichlorophenol		----------NA----------				
64	P	2,4,5-Trichlorophenol		----------NA----------				
65	S	2-Fluorobiphenyl		----------NA----------				
66		Safrole		----------NA----------				
67	P	1,1'-Biphenyl		----------NA----------				
68	P	2-Chloronaphthalene		----------NA----------				
69		1-Chloronaphthalene		----------NA----------				
70		Diphenyl ether		----------NA----------				
71	P	2-Nitroaniline		----------NA----------				
72		1,4-Naphthoquinone		----------NA----------				
73	P	Acenaphthylene		----------NA----------				
74	P	Dimethylphthalate		----------NA----------				
75		m-Dinitrobenzene		----------NA----------				
76	P	2,6-Dinitrotoluene		----------NA----------				
77	P	Acenaphthene		----------NA----------				
78	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11712.D

```
 79 P   2,4-Dinitrophenol                    ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
 80 P   Dibenzofuran                         ----------NA----------
 81     Pentachlorobenzene                   ----------NA----------
 82 P   2,4-Dinitrotoluene                   ----------NA----------
 83 P   4-Nitrophenol                        ----------NA----------
 84     1-Naphthylamine                      ----------NA----------
 85     2-Naphthylamine                      ----------NA----------
 86 P   2,3,4,6-Tetrachlorophenol            ----------NA----------
 87 P   Fluorene                             ----------NA----------
 88 P   4-Chlorophenyl-phenylethe            ----------NA----------
 89 P   Diethylphthalate                     ----------NA----------
 90     5-Nitro-o-toluidine                  ----------NA----------
 91 P   4-Nitroaniline                       ----------NA----------

 92 I   Phenanthrene-d10            1.000   1.000      0.0   89  -0.02   12.14

            ------------------------ Amount  Calc.    %Drift   -------------
 93     Dinoseb                              ----------NA----------
 94 P   4,6-Dinitro-2-methylpheno            ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
 95 P   n-Nitrosodiphenylamine               ----------NA----------
 96     1,2-Diphenylhydrazine                ----------NA----------
 97     Diphenylamine                        ----------NA----------
 98 S   2,4,6-Tribromophenol                 ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
 99     sym-Trinitrobenzene                  ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
100     Diallate                             ----------NA----------
101 P   4-Bromophenyl-phenylether            ----------NA----------
102     Phenacetin                           ----------NA----------
103 P   Hexachlorobenzene                    ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
104 P   Atrazine                             ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
105     4-aminobiphenyl                      ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
106 P   Pentachlorophenol                    ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
107     Pentachloronitrobenzene              ----------NA----------
108     Pronamide                            ----------NA----------
109     n-Octadecane                         ----------NA----------
110 P   Phenanthrene                         ----------NA----------
111 P   Anthracene                           ----------NA----------
112 P   Carbazole                            ----------NA----------
113 P   Di-n-butylphthalate                  ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
114     4-Nitroquinoline 1-Oxide             ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
115     Methapyrilene                        ----------NA----------
```

7.7.8

7

Initial Calibration Verification

Job Number: TC52863 **Sample:** EO649-ICV649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11712.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

116		Octachlorostyrene		----------NA----------				
117		Isodrin		----------NA----------				
118		Fluoranthene		----------NA----------				
119	S	Fluoranthene-D10		----------NA----------				
120		4,4'-Methylenedianiline		----------NA----------				
121	I	Chrysene-d12	1.000	1.000	0.0	89	-0.03	17.31
122		Benzidine		----------NA----------				
123		Pyrene		----------NA----------				
124	S	Terphenyl-d14		----------NA----------				
125		Aramite		----------NA----------				
126		p-(Dimethylamine)azobenze		----------NA----------				
127		Chlorobenzilate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
128		Kepone		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
129		3,3'-Dimethylbenzidine		----------NA----------				
130		Butylbenzylphthalate		----------NA----------				
131		2-Acetylaminofluorene		----------NA----------				
132	P	3,3'-Dichlorobenzidine		----------NA----------				
133	P	Benzo[a]anthracene		----------NA----------				
134	P	Chrysene		----------NA----------				
135	P	bis(2-Ethylhexyl)phthalat		----------NA----------				
136	I	Perylene-d12	1.000	1.000	0.0	89	-0.03	19.92
137	P	Di-n-octylphthalate		----------NA----------				
138	P	Benzo[b]fluoranthene		----------NA----------				
139	P	Benzo[k]fluoranthene		----------NA----------				
140		7,12-Dimethylbenz(a)anthr		----------NA----------				
141	P	Benzo[a]pyrene		----------NA----------				
142	S	Benzo[a]pyrene-D12		----------NA----------				
143		3-Methylcholanthrene		----------NA----------				
144		Dibenz(a,j)acridine		----------NA----------				
145	P	Indeno[1,2,3-cd]pyrene		----------NA----------				
146	P	Dibenz[a,h]anthracene		----------NA----------				
147	P	Benzo[g,h,i]perylene		----------NA----------				

(#) = Out of Range SPCC's out = 58 CCC's out = 0
O11702.D EO649.M Mon Aug 11 09:10:14 2014

7.7.8

7

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: EO649-ICV649
Lab FileID: O11713.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EO649\O11713.D            Vial: 17
Acq On    :  8 Aug 2014   7:48 pm                   Operator: garyj
Sample    : icv649-50, hydroquinone                 Inst    : MSO
Misc      : op29500,EO649,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\EO649.M (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Fri Aug 08 14:32:55 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00	5.55
2		bis(Chloromethyl)ether		----------NA----------				
3		1,4-Dioxane		----------NA----------				
4		N-nitrosodimethylamine		----------NA----------				
5		Pyridine		----------NA----------				
6		2-Picoline		----------NA----------				
7		N-Nitrosomethylethylamine		----------NA----------				
8		Methyl methanesulfonate		----------NA----------				
9		N-Nitrosodiethylamine		----------NA----------				
10		2-Butoxyethanol		----------NA----------				
11		Ethyl methanesulfonate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
12	P	Benzaldehyde		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
13		Pentachloroethane		----------NA----------				
14		Aniline		----------NA----------				
15	S	2-Fluorophenol		----------NA----------				
16	P	bis(2-Chloroethyl)ether		----------NA----------				
17	S	Phenol-d5		----------NA----------				
18	P	Phenol		----------NA----------				
19	P	2-Chlorophenol		----------NA----------				
20		n-Decane		----------NA----------				
21		1,3-Dichlorobenzene		----------NA----------				
22		1,4-Dichlorobenzene		----------NA----------				
23		1,2-Dichlorobenzene		----------NA----------				
24		Benzyl alcohol		----------NA----------				
25	P	bis(2-chloroisopropyl)eth		----------NA----------				
26	P	2-Methylphenol		----------NA----------				
27		N-nitrosopyrrolidine		----------NA----------				
28		N-Nitrosomorpholine		----------NA----------				
29		o-Toluidine		----------NA----------				
30	P	Acetophenone		----------NA----------				
31	P	Hexachloroethane		----------NA----------				
32	P	N-Nitroso-di-n-propylamin		----------NA----------				
33	P	3&4-Methylphenol		----------NA----------				
34	I	Naphthalene-d8	1.000	1.000	0.0	89	-0.02	6.82
35	S	Nitrobenzene-d5		----------NA----------				
36	P	Nitrobenzene		----------NA----------				
37		2,6-Dimethylphenol		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11713.D

38		N-Nitrosopiperidine		----------NA----------				
39		A,A-Dimethylphenethylamin		----------NA----------				
40	P	Isophorone		----------NA----------				
41	P	2-Nitrophenol		----------NA----------				
42	P	2,4-Dimethylphenol		----------NA----------				
43	P	bis(2-Chloroethoxy)methan		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
44		Benzoic Acid		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
45	P	2,4-Dichlorophenol		----------NA----------				
46		1,2,4-Trichlorobenzene		----------NA----------				
47	P	Naphthalene		----------NA----------				
48	P	4-Chloroaniline		----------NA----------				
49		2,6-Dichlorophenol		----------NA----------				
50		Hexachloropropene		----------NA----------				
51	P	Hexachlorobutadiene		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
52		p-Phenylenediamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
53	P	Caprolactam		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
54		N-Nitrosodi-n-butylamine		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
55		Hydroquinone	0.365	0.390	-6.8	95	-0.10	7.32
56	P	4-Chloro-3-methylphenol		----------NA----------				
57		Isosafrole		----------NA----------				
58	P	2-Methylnaphthalene		----------NA----------				
59		1-Methylnaphthalene		----------NA----------				
60	P	1,2,4,5-Tetrachlorobenzen		----------NA----------				
61	I	Acenaphthene-d10	1.000	1.000	0.0	89	-0.01	9.41
		----------	Amount	Calc.	%Drift	----------		
62	P	Hexachlorocyclopentadiene		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
63	P	2,4,6-Trichlorophenol		----------NA----------				
64	P	2,4,5-Trichlorophenol		----------NA----------				
65	S	2-Fluorobiphenyl		----------NA----------				
66		Safrole		----------NA----------				
67	P	1,1'-Biphenyl		----------NA----------				
68	P	2-Chloronaphthalene		----------NA----------				
69		1-Chloronaphthalene		----------NA----------				
70		Diphenyl ether		----------NA----------				
71	P	2-Nitroaniline		----------NA----------				
72		1,4-Naphthoquinone		----------NA----------				
73	P	Acenaphthylene		----------NA----------				
74	P	Dimethylphthalate		----------NA----------				
75		m-Dinitrobenzene		----------NA----------				
76	P	2,6-Dinitrotoluene		----------NA----------				
77	P	Acenaphthene		----------NA----------				
78	P	3-Nitroaniline		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11713.D

```
 79 P   2,4-Dinitrophenol                    ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
 80 P   Dibenzofuran                         ----------NA----------
 81     Pentachlorobenzene                   ----------NA----------
 82 P   2,4-Dinitrotoluene                   ----------NA----------
 83 P   4-Nitrophenol                        ----------NA----------
 84     1-Naphthylamine                      ----------NA----------
 85     2-Naphthylamine                      ----------NA----------
 86 P   2,3,4,6-Tetrachlorophenol            ----------NA----------
 87 P   Fluorene                             ----------NA----------
 88 P   4-Chlorophenyl-phenylethe            ----------NA----------
 89 P   Diethylphthalate                     ----------NA----------
 90     5-Nitro-o-toluidine                  ----------NA----------
 91 P   4-Nitroaniline                       ----------NA----------

 92 I   Phenanthrene-d10            1.000   1.000      0.0   89  -0.02   12.14

            ------------------------ Amount  Calc.    %Drift   -------------
 93     Dinoseb                              ----------NA----------
 94 P   4,6-Dinitro-2-methylpheno            ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
 95 P   n-Nitrosodiphenylamine               ----------NA----------
 96     1,2-Diphenylhydrazine                ----------NA----------
 97     Diphenylamine                        ----------NA----------
 98 S   2,4,6-Tribromophenol                 ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
 99     sym-Trinitrobenzene                  ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
100     Diallate                             ----------NA----------
101 P   4-Bromophenyl-phenylether            ----------NA----------
102     Phenacetin                           ----------NA----------
103 P   Hexachlorobenzene                    ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
104 P   Atrazine                             ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
105     4-aminobiphenyl                      ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
106 P   Pentachlorophenol                    ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
107     Pentachloronitrobenzene              ----------NA----------
108     Pronamide                            ----------NA----------
109     n-Octadecane                         ----------NA----------
110 P   Phenanthrene                         ----------NA----------
111 P   Anthracene                           ----------NA----------
112 P   Carbazole                            ----------NA----------
113 P   Di-n-butylphthalate                  ----------NA----------

            ------------------------ Amount  Calc.    %Drift   -------------
114     4-Nitroquinoline 1-Oxide             ----------NA----------

            ------------------------ AvgRF   CCRF      %Dev   --------------
115     Methapyrilene                        ----------NA----------
```

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO649-ICV649
Lab FileID: O11713.D

116		Octachlorostyrene		----------NA----------				
117		Isodrin		----------NA----------				
118		Fluoranthene		----------NA----------				
119	S	Fluoranthene-D10		----------NA----------				
120		4,4'-Methylenedianiline		----------NA----------				
121	I	Chrysene-d12	1.000	1.000	0.0	90	-0.03	17.31
122		Benzidine		----------NA----------				
123		Pyrene		----------NA----------				
124	S	Terphenyl-d14		----------NA----------				
125		Aramite		----------NA----------				
126		p-(Dimethylamine)azobenze		----------NA----------				
127		Chlorobenzilate		----------NA----------				
		----------	Amount	Calc.	%Drift	----------		
128		Kepone		----------NA----------				
		----------	AvgRF	CCRF	%Dev	----------		
129		3,3'-Dimethylbenzidine		----------NA----------				
130		Butylbenzylphthalate		----------NA----------				
131		2-Acetylaminofluorene		----------NA----------				
132	P	3,3'-Dichlorobenzidine		----------NA----------				
133	P	Benzo[a]anthracene		----------NA----------				
134	P	Chrysene		----------NA----------				
135	P	bis(2-Ethylhexyl)phthalat		----------NA----------				
136	I	Perylene-d12	1.000	1.000	0.0	92	-0.02	19.92
137	P	Di-n-octylphthalate		----------NA----------				
138	P	Benzo[b]fluoranthene		----------NA----------				
139	P	Benzo[k]fluoranthene		----------NA----------				
140		7,12-Dimethylbenz(a)anthr		----------NA----------				
141	P	Benzo[a]pyrene		----------NA----------				
142	S	Benzo[a]pyrene-D12		----------NA----------				
143		3-Methylcholanthrene		----------NA----------				
144		Dibenz(a,j)acridine		----------NA----------				
145	P	Indeno[1,2,3-cd]pyrene		----------NA----------				
146	P	Dibenz[a,h]anthracene		----------NA----------				
147	P	Benzo[g,h,i]perylene		----------NA----------				

(#) = Out of Range SPCC's out = 58 CCC's out = 0
O11702.D EO649.M Mon Aug 11 09:10:16 2014

7.7.9

7

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO650-CC649
Lab FileID: O11715.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EO650\O11715.D            Vial: 2
Acq On    : 11 Aug 2014   9:25 am                   Operator: garyj
Sample    : cc649-50                                Inst    : MSO
Misc      : op29500,EO650,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\EO649.M (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Fri Aug 08 14:32:55 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	-0.01	5.54
2		bis(Chloromethyl)ether	1.331	1.321	0.8	101	0.00	3.31
3		1,4-Dioxane	0.453	0.455	-0.4	104	0.00	3.20
4		N-nitrosodimethylamine	0.664	0.687	-3.5	107	-0.01	3.48
5		Pyridine	1.249	1.282	-2.6	104	0.00	3.51
6		2-Picoline	1.502	1.530	-1.9	105	-0.02	4.12
7		N-Nitrosomethylethylamine	0.545	0.559	-2.6	105	-0.01	4.20
8		Methyl methanesulfonate	0.843	0.849	-0.7	105	-0.01	4.42
9		N-Nitrosodiethylamine	0.738	0.736	0.3	105	-0.01	4.71
10		2-Butoxyethanol	1.628	1.591	2.3	102	-0.01	4.76
11		Ethyl methanesulfonate	0.969	0.980	-1.1	105	-0.02	4.93
		----------	Amount	Calc.	%Drift		----------	
12	P	Benzaldehyde	50.000	36.333	27.3#	91	0.00	5.19
		----------	AvgRF	CCRF	%Dev		----------	
13		Pentachloroethane	0.534	0.537	-0.6	102	-0.01	5.32
14		Aniline	2.172	2.152	0.9	104	-0.01	5.27
15	S	2-Fluorophenol	1.244	1.251	-0.6	106	-0.01	4.56
16	P	bis(2-Chloroethyl)ether	1.293	1.281	0.9	104	-0.01	5.32
17	S	Phenol-d5	1.615	1.614	0.1	104	-0.02	5.24
18	P	Phenol	1.760	1.744	0.9	103	-0.02	5.25
19	P	2-Chlorophenol	1.479	1.478	0.1	103	-0.01	5.37
20		n-Decane	1.491	1.433	3.9	101	0.00	5.39
21		1,3-Dichlorobenzene	1.604	1.605	-0.1	104	0.00	5.50
22		1,4-Dichlorobenzene	1.660	1.638	1.3	103	-0.01	5.56
23		1,2-Dichlorobenzene	1.578	1.580	-0.1	104	-0.01	5.69
24		Benzyl alcohol	1.011	1.010	0.1	102	-0.02	5.66
25	P	bis(2-chloroisopropyl)eth	1.657	1.586	4.3	101	-0.01	5.77
26	P	2-Methylphenol	1.391	1.378	0.9	102	-0.01	5.75
27		N-nitrosopyrrolidine	0.839	0.833	0.7	102	-0.03	5.89
28		N-Nitrosomorpholine	1.111	1.060	4.6	101	-0.02	5.92
29		o-Toluidine	2.531	2.497	1.3	103	-0.02	5.93
30	P	Acetophenone	2.051	2.037	0.7	103	-0.02	5.90
31	P	Hexachloroethane	0.592	0.587	0.8	103	-0.01	6.01
32	P	N-Nitroso-di-n-propylamin	1.081	1.068	1.2	104	-0.02	5.90
33	P	3&4-Methylphenol	1.463	1.436	1.8	102	-0.02	5.89
34	I	Naphthalene-d8	1.000	1.000	0.0	103	-0.01	6.83
35	S	Nitrobenzene-d5	0.365	0.364	0.3	103	-0.02	6.05
36	P	Nitrobenzene	0.379	0.378	0.3	103	-0.02	6.07
37		2,6-Dimethylphenol	0.344	0.350	-1.7	104	-0.02	6.16

Continuing Calibration Summary

Job Number: TC52863 **Sample:** EO650-CC649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11715.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

38		N-Nitrosopiperidine	0.262	0.256	2.3	101	-0.02	6.22
39		A,A-Dimethylphenethylamin	1.119	1.148	-2.6	115	-0.08	6.81
40	P	Isophorone	0.673	0.668	0.7	102	-0.02	6.30
41	P	2-Nitrophenol	0.203	0.205	-1.0	103	-0.01	6.39
42	P	2,4-Dimethylphenol	0.403	0.404	-0.2	102	-0.02	6.42
43	P	bis(2-Chloroethoxy)methan	0.386	0.380	1.6	102	-0.01	6.52
		----------	Amount	Calc.	%Drift		----------	
44		Benzoic Acid	50.000	49.571	0.9	99	-0.05	6.51
		----------	AvgRF	CCRF	%Dev		----------	
45	P	2,4-Dichlorophenol	0.322	0.321	0.3	102	-0.02	6.66
46		1,2,4-Trichlorobenzene	0.328	0.329	-0.3	103	-0.01	6.76
47	P	Naphthalene	1.129	1.128	0.1	104	-0.01	6.86
48	P	4-Chloroaniline	0.491	0.485	1.2	102	-0.02	6.91
49		2,6-Dichlorophenol	0.266	0.264	0.8	103	-0.02	6.92
50		Hexachloropropene	0.212	0.217	-2.4	103	-0.01	6.96
51	P	Hexachlorobutadiene	0.191	0.197	-3.1	107	-0.01	7.00
		----------	Amount	Calc.	%Drift		----------	
52		p-Phenylenediamine	50.000	44.754	10.5	94	-0.03	7.38
		----------	AvgRF	CCRF	%Dev		----------	
53	P	Caprolactam	0.137	0.135	1.5	99	-0.10	7.38
		----------	Amount	Calc.	%Drift		----------	
54		N-Nitrosodi-n-butylamine	50.000	48.369	3.3	102	-0.02	7.34
		----------	AvgRF	CCRF	%Dev		----------	
55		Hydroquinone	0.365	0.362	0.8	102	-0.06	7.36
56	P	4-Chloro-3-methylphenol	0.378	0.378	0.0	103	-0.02	7.54
57		Isosafrole	0.302	0.303	-0.3	102	-0.01	7.64
58	P	2-Methylnaphthalene	0.808	0.797	1.4	102	-0.01	7.77
59		1-Methylnaphthalene	0.749	0.743	0.8	102	-0.01	7.91
60	P	1,2,4,5-Tetrachlorobenzen	0.335	0.339	-1.2	106	0.00	8.01
61	I	Acenaphthene-d10	1.000	1.000	0.0	103	0.00	9.42
		----------	Amount	Calc.	%Drift		----------	
62	P	Hexachlorocyclopentadiene	50.000	47.561	4.9	99	0.00	8.00
		----------	AvgRF	CCRF	%Dev		----------	
63	P	2,4,6-Trichlorophenol	0.358	0.363	-1.4	102	-0.01	8.18
64	P	2,4,5-Trichlorophenol	0.388	0.391	-0.8	102	-0.01	8.24
65	S	2-Fluorobiphenyl	1.319	1.331	-0.9	104	0.00	8.32
66		Safrole	0.450	0.453	-0.7	102	0.00	8.42
67	P	1,1'-Biphenyl	1.475	1.468	0.5	102	-0.01	8.48
68	P	2-Chloronaphthalene	1.178	1.210	-2.7	105	-0.01	8.50
69		1-Chloronaphthalene	1.015	0.977	3.7	99	-0.01	8.54
70		Diphenyl ether	0.786	0.785	0.1	102	0.00	8.65
71	P	2-Nitroaniline	0.374	0.389	-4.0	106	-0.01	8.67
72		1,4-Naphthoquinone	0.383	0.360	6.0	97	0.00	8.79
73	P	Acenaphthylene	1.915	1.924	-0.5	102	0.00	9.18
74	P	Dimethylphthalate	1.441	1.450	-0.6	102	-0.02	8.99
75		m-Dinitrobenzene	0.252	0.261	-3.6	103	-0.02	9.03
76	P	2,6-Dinitrotoluene	0.330	0.335	-1.5	102	-0.01	9.08
77	P	Acenaphthene	1.245	1.241	0.3	102	-0.01	9.48
78	P	3-Nitroaniline	0.385	0.386	-0.3	100	-0.02	9.36
		----------	Amount	Calc.	%Drift		----------	

Continuing Calibration Summary

Job Number: TC52863 **Sample:** EO650-CC649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11715.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

79	P	2,4-Dinitrophenol	50.000	47.519	5.0	96	-0.02	9.55
		----------	AvgRF	CCRF	%Dev		----------	
80	P	Dibenzofuran	1.761	1.748	0.7	101	0.00	9.78
81		Pentachlorobenzene	0.470	0.474	-0.9	104	0.00	9.71
82	P	2,4-Dinitrotoluene	0.464	0.472	-1.7	100	-0.02	9.79
83	P	4-Nitrophenol	0.271	0.279	-3.0	99	-0.02	9.70
84		1-Naphthylamine	1.401	1.412	-0.8	101	-0.02	9.93
85		2-Naphthylamine	1.519	1.506	0.9	100	-0.01	10.07
86	P	2,3,4,6-Tetrachlorophenol	0.344	0.354	-2.9	102	0.00	10.01
87	P	Fluorene	1.497	1.489	0.5	101	-0.01	10.40
88	P	4-Chlorophenyl-phenylethe	0.684	0.685	-0.1	103	0.00	10.42
89	P	Diethylphthalate	1.492	1.488	0.3	101	-0.01	10.25
90		5-Nitro-o-toluidine	0.476	0.480	-0.8	101	-0.02	10.44
91	P	4-Nitroaniline	0.407	0.403	1.0	100	-0.02	10.46
92	I	Phenanthrene-d10	1.000	1.000	0.0	102	0.00	12.15
		----------	Amount	Calc.	%Drift		----------	
93		Dinoseb	50.000	48.191	3.6	98	0.00	12.20
94	P	4,6-Dinitro-2-methylpheno	50.000	47.971	4.1	98	-0.02	10.52
		----------	AvgRF	CCRF	%Dev		----------	
95	P	n-Nitrosodiphenylamine	0.696	0.688	1.1	101	0.00	10.65
96		1,2-Diphenylhydrazine	0.705	0.699	0.9	101	0.00	10.71
97		Diphenylamine	0.696	0.688	1.1	101	0.00	10.65
98	S	2,4,6-Tribromophenol	0.099	0.104	-5.1	105	-0.02	10.84
		----------	Amount	Calc.	%Drift		----------	
99		sym-Trinitrobenzene	50.000	48.485	3.0	99	-0.03	11.19
		----------	AvgRF	CCRF	%Dev		----------	
100		Diallate	0.256	0.246	3.9	97	0.00	11.20
101	P	4-Bromophenyl-phenylether	0.216	0.217	-0.5	102	0.00	11.33
102		Phenacetin	0.440	0.437	0.7	99	-0.03	11.27
103	P	Hexachlorobenzene	0.228	0.229	-0.4	103	-0.01	11.41
		----------	Amount	Calc.	%Drift		----------	
104	P	Atrazine	50.000	48.105	3.8	98	-0.02	11.70
		----------	AvgRF	CCRF	%Dev		----------	
105		4-aminobiphenyl	0.956	0.953	0.3	99	0.00	11.83
		----------	Amount	Calc.	%Drift		----------	
106	P	Pentachlorophenol	50.000	50.045	-0.1	100	-0.01	11.81
		----------	AvgRF	CCRF	%Dev		----------	
107		Pentachloronitrobenzene	0.100	0.107	-7.0	105	0.00	11.83
108		Pronamide	0.368	0.379	-3.0	101	-0.02	11.99
109		n-Octadecane	0.468	0.455	2.8	99	0.00	12.08
110	P	Phenanthrene	1.210	1.197	1.1	101	-0.01	12.20
111	P	Anthracene	1.256	1.257	-0.1	101	-0.01	12.30
112	P	Carbazole	1.225	1.223	0.2	101	-0.01	12.63
113	P	Di-n-butylphthalate	1.430	1.439	-0.6	100	0.00	13.41
		----------	Amount	Calc.	%Drift		----------	
114		4-Nitroquinoline 1-Oxide	50.000	44.185	11.6	88	-0.02	13.72
		----------	AvgRF	CCRF	%Dev		----------	
115		Methapyrilene	0.667	0.638	4.3	95	-0.02	13.94

Continuing Calibration Summary

Job Number: TC52863 **Sample:** EO650-CC649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11715.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

116		Octachlorostyrene	0.090	0.094	-4.4	104	-0.01	14.17
117		Isodrin	0.131	0.131	0.0	100	-0.01	14.20
118		Fluoranthene	1.429	1.440	-0.8	100	-0.01	14.51
119	S	Fluoranthene-D10	0.136	0.137	-0.7	99	0.00	14.47
120		4,4'-Methylenedianiline	0.549	0.519	5.5	94	-0.02	14.89
121	I	Chrysene-d12	1.000	1.000	0.0	98	-0.02	17.32
122		Benzidine	0.771	0.768	0.4	95	-0.02	14.84
123		Pyrene	1.186	1.227	-3.5	101	-0.01	14.94
124	S	Terphenyl-d14	0.782	0.792	-1.3	99	-0.01	15.33
125		Aramite	0.075	0.079	-5.3	98	0.00	15.50
126		p-(Dimethylamine)azobenze	0.371	0.379	-2.2	98	-0.01	15.61
127		Chlorobenzilate	0.383	0.404	-5.5	101	0.00	15.73
		----------	Amount	Calc.	%Drift		----------	
128		Kepone	50.000	42.677	14.6	80	-0.02	16.29
		----------	AvgRF	CCRF	%Dev		----------	
129		3,3'-Dimethylbenzidine	0.778	0.790	-1.5	96	-0.02	16.27
130		Butylbenzylphthalate	0.577	0.583	-1.0	98	-0.01	16.35
131		2-Acetylaminofluorene	0.607	0.600	1.2	96	-0.03	16.76
132	P	3,3'-Dichlorobenzidine	0.442	0.438	0.9	97	-0.02	17.31
133	P	Benzo[a]anthracene	1.191	1.179	1.0	97	-0.02	17.30
134	P	Chrysene	1.131	1.114	1.5	97	-0.02	17.37
135	P	bis(2-Ethylhexyl)phthalat	0.791	0.804	-1.6	98	-0.01	17.52
136	I	Perylene-d12	1.000	1.000	0.0	96	-0.02	19.93
137	P	Di-n-octylphthalate	1.496	1.464	2.1	96	-0.01	18.74
138	P	Benzo[b]fluoranthene	1.308	1.309	-0.1	98	-0.03	19.28
139	P	Benzo[k]fluoranthene	1.295	1.254	3.2	98	-0.02	19.33
140		7,12-Dimethylbenz(a)anthr	0.546	0.552	-1.1	97	-0.03	19.28
141	P	Benzo[a]pyrene	1.258	1.258	0.0	97	-0.03	19.83
142	S	Benzo[a]pyrene-D12	1.155	1.143	1.0	97	-0.02	19.79
143		3-Methylcholanthrene	0.422	0.419	0.7	96	-0.02	20.47
144		Dibenz(a,j)acridine	0.945	0.902	4.6	95	-0.03	21.67
145	P	Indeno[1,2,3-cd]pyrene	1.107	1.071	3.3	96	-0.04	22.05
146	P	Dibenz[a,h]anthracene	1.149	1.123	2.3	97	-0.04	22.11
147	P	Benzo[g,h,i]perylene	1.146	1.089	5.0	95	-0.05	22.67

(#) = Out of Range SPCC's out = 0 CCC's out = 0
O11702.D EO649.M Mon Aug 11 09:59:25 2014

7.7.10

7

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: EO652-CC649
Lab FileID: O11765.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\EO652\O11765.D            Vial: 2
Acq On    : 13 Aug 2014   8:54 am                   Operator: garyj
Sample    : cc649-50                                Inst    : MSO
Misc      : op29500,EO652,1000,,,1,1,water          Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\msdchem\1\METHODS\EO649.M (RTE Integrator)
Title        : SW846 8270D and EPA625
Last Update  : Wed Aug 13 09:18:20 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	80	0.00	5.55
2		bis(Chloromethyl)ether	1.331	1.336	-0.4	79	0.00	3.32
3		1,4-Dioxane	0.453	0.433	4.4	76	0.00	3.20
4		N-nitrosodimethylamine	0.664	0.715	-7.7	86	0.00	3.49
5		Pyridine	1.249	1.215	2.7	77	0.00	3.51
6		2-Picoline	1.502	1.483	1.3	79	0.00	4.13
7		N-Nitrosomethylethylamine	0.545	0.559	-2.6	81	0.00	4.20
8		Methyl methanesulfonate	0.843	0.892	-5.8	86	0.00	4.43
9		N-Nitrosodiethylamine	0.738	0.727	1.5	80	0.00	4.72
10		2-Butoxyethanol	1.628	1.463	10.1	73	0.00	4.76
11		Ethyl methanesulfonate	0.969	0.962	0.7	80	0.00	4.93
		----------	Amount	Calc.	%Drift		----------	
12	P	Benzaldehyde	50.000	30.901	38.2#	64	0.00	5.20
		----------	AvgRF	CCRF	%Dev		----------	
13		Pentachloroethane	0.534	0.569	-6.6	84	0.00	5.32
14		Aniline	2.172	2.125	2.2	79	0.00	5.28
15	S	2-Fluorophenol	1.244	1.259	-1.2	83	0.00	4.56
16	P	bis(2-Chloroethyl)ether	1.293	1.256	2.9	79	0.00	5.32
17	S	Phenol-d5	1.615	1.625	-0.6	81	0.00	5.24
18	P	Phenol	1.760	1.755	0.3	80	0.00	5.25
19	P	2-Chlorophenol	1.479	1.502	-1.6	81	0.00	5.38
20		n-Decane	1.491	1.349	9.5	74	0.00	5.39
21		1,3-Dichlorobenzene	1.604	1.619	-0.9	82	0.00	5.50
22		1,4-Dichlorobenzene	1.660	1.682	-1.3	82	0.00	5.57
23		1,2-Dichlorobenzene	1.578	1.600	-1.4	82	0.00	5.70
24		Benzyl alcohol	1.011	1.005	0.6	79	-0.01	5.66
25	P	bis(2-chloroisopropyl)eth	1.657	1.432	13.6	71	0.00	5.77
26	P	2-Methylphenol	1.391	1.371	1.4	79	0.00	5.76
27		N-nitrosopyrrolidine	0.839	0.843	-0.5	80	-0.02	5.89
28		N-Nitrosomorpholine	1.111	1.136	-2.3	84	-0.02	5.92
29		o-Toluidine	2.531	2.544	-0.5	82	-0.01	5.93
30	P	Acetophenone	2.051	2.136	-4.1	84	-0.01	5.90
31	P	Hexachloroethane	0.592	0.615	-3.9	83	0.00	6.01
32	P	N-Nitroso-di-n-propylamin	1.081	1.107	-2.4	84	-0.02	5.90
33	P	3&4-Methylphenol	1.463	1.464	-0.1	81	-0.01	5.89
34	I	Naphthalene-d8	1.000	1.000	0.0	81	0.00	6.84
35	S	Nitrobenzene-d5	0.365	0.377	-3.3	83	-0.01	6.05
36	P	Nitrobenzene	0.379	0.385	-1.6	82	0.00	6.07
37		2,6-Dimethylphenol	0.344	0.361	-4.9	84	0.00	6.17

Continuing Calibration Summary

Job Number: TC52863 **Sample:** EO652-CC649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11765.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

38		N-Nitrosopiperidine	0.262	0.263	-0.4	81	-0.02	6.22
39		A,A-Dimethylphenethylamin	1.119	1.093	2.3	86	0.02	6.90
40	P	Isophorone	0.673	0.670	0.4	80	-0.01	6.31
41	P	2-Nitrophenol	0.203	0.209	-3.0	82	0.00	6.39
42	P	2,4-Dimethylphenol	0.403	0.424	-5.2	84	0.00	6.42
43	P	bis(2-Chloroethoxy)methan	0.386	0.384	0.5	81	0.00	6.53
		----------	Amount	Calc.	%Drift		----------	
44		Benzoic Acid	50.000	51.226	-2.5	80	-0.04	6.52
		----------	AvgRF	CCRF	%Dev		----------	
45	P	2,4-Dichlorophenol	0.322	0.327	-1.6	82	0.00	6.66
46		1,2,4-Trichlorobenzene	0.328	0.340	-3.7	83	0.00	6.76
47	P	Naphthalene	1.129	1.124	0.4	81	0.00	6.86
48	P	4-Chloroaniline	0.491	0.495	-0.8	82	0.00	6.92
49		2,6-Dichlorophenol	0.266	0.274	-3.0	84	0.00	6.93
50		Hexachloropropene	0.212	0.237	-11.8	88	0.00	6.97
51	P	Hexachlorobutadiene	0.191	0.209	-9.4	88	0.00	7.00
		----------	Amount	Calc.	%Drift		----------	
52		p-Phenylenediamine	50.000	47.105	5.8	76	0.00	7.39
		----------	AvgRF	CCRF	%Dev		----------	
53	P	Caprolactam	0.137	0.133	2.9	76	-0.07	7.40
		----------	Amount	Calc.	%Drift		----------	
54		N-Nitrosodi-n-butylamine	50.000	49.239	1.5	81	0.00	7.34
		----------	AvgRF	CCRF	%Dev		----------	
55		Hydroquinone	0.365	0.371	-1.6	81	-0.02	7.39
56	P	4-Chloro-3-methylphenol	0.378	0.390	-3.2	83	-0.01	7.55
57		Isosafrole	0.302	0.310	-2.6	82	0.00	7.64
58	P	2-Methylnaphthalene	0.808	0.822	-1.7	82	0.00	7.77
59		1-Methylnaphthalene	0.749	0.747	0.3	81	0.00	7.91
60	P	1,2,4,5-Tetrachlorobenzen	0.335	0.348	-3.9	85	0.00	8.01
61	I	Acenaphthene-d10	1.000	1.000	0.0	81	0.00	9.42
		----------	Amount	Calc.	%Drift		----------	
62	P	Hexachlorocyclopentadiene	50.000	50.998	-2.0	84	0.00	8.00
		----------	AvgRF	CCRF	%Dev		----------	
63	P	2,4,6-Trichlorophenol	0.358	0.366	-2.2	82	0.00	8.18
64	P	2,4,5-Trichlorophenol	0.388	0.406	-4.6	84	0.00	8.24
65	S	2-Fluorobiphenyl	1.319	1.347	-2.1	83	0.00	8.32
66		Safrole	0.450	0.457	-1.6	82	0.00	8.42
67	P	1,1'-Biphenyl	1.475	1.489	-0.9	82	0.00	8.48
68	P	2-Chloronaphthalene	1.178	1.170	0.7	80	0.00	8.50
69		1-Chloronaphthalene	1.015	1.043	-2.8	84	-0.01	8.54
70		Diphenyl ether	0.786	0.797	-1.4	82	0.00	8.64
71	P	2-Nitroaniline	0.374	0.393	-5.1	85	0.00	8.67
72		1,4-Naphthoquinone	0.383	0.357	6.8	76	0.00	8.79
73	P	Acenaphthylene	1.915	1.925	-0.5	81	0.00	9.18
74	P	Dimethylphthalate	1.441	1.483	-2.9	83	-0.02	8.99
75		m-Dinitrobenzene	0.252	0.263	-4.4	83	-0.01	9.03
76	P	2,6-Dinitrotoluene	0.330	0.340	-3.0	82	0.00	9.08
77	P	Acenaphthene	1.245	1.244	0.1	81	0.00	9.48
78	P	3-Nitroaniline	0.385	0.390	-1.3	80	-0.01	9.36
		----------	Amount	Calc.	%Drift		----------	

Continuing Calibration Summary

Job Number: TC52863 **Sample:** EO652-CC649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11765.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

79	P	2,4-Dinitrophenol	50.000	51.010	-2.0	83	0.00	9.56
		----------	AvgRF	CCRF	%Dev	----------		
80	P	Dibenzofuran	1.761	1.795	-1.9	82	0.00	9.78
81		Pentachlorobenzene	0.470	0.488	-3.8	85	0.00	9.71
82	P	2,4-Dinitrotoluene	0.464	0.495	-6.7	84	-0.01	9.79
83	P	4-Nitrophenol	0.271	0.313	-15.5	88	0.00	9.71
84		1-Naphthylamine	1.401	1.405	-0.3	79	-0.01	9.93
85		2-Naphthylamine	1.519	1.499	1.3	79	0.00	10.07
86	P	2,3,4,6-Tetrachlorophenol	0.344	0.364	-5.8	83	0.00	10.01
87	P	Fluorene	1.497	1.513	-1.1	82	-0.01	10.39
88	P	4-Chlorophenyl-phenylethe	0.684	0.701	-2.5	83	0.00	10.42
89	P	Diethylphthalate	1.492	1.531	-2.6	82	-0.01	10.25
90		5-Nitro-o-toluidine	0.476	0.493	-3.6	82	-0.02	10.44
91	P	4-Nitroaniline	0.407	0.413	-1.5	81	-0.01	10.47
92	I	Phenanthrene-d10	1.000	1.000	0.0	83	0.00	12.14
		----------	Amount	Calc.	%Drift	----------		
93		Dinoseb	50.000	50.375	-0.8	84	0.00	12.20
94	P	4,6-Dinitro-2-methylpheno	50.000	49.948	0.1	83	0.00	10.52
		----------	AvgRF	CCRF	%Dev	----------		
95	P	n-Nitrosodiphenylamine	0.696	0.684	1.7	81	0.00	10.64
96		1,2-Diphenylhydrazine	0.705	0.690	2.1	81	0.00	10.71
97		Diphenylamine	0.696	0.684	1.7	81	0.00	10.64
98	S	2,4,6-Tribromophenol	0.099	0.107	-8.1	88	0.00	10.84
		----------	Amount	Calc.	%Drift	----------		
99		sym-Trinitrobenzene	50.000	47.876	4.2	80	-0.01	11.19
		----------	AvgRF	CCRF	%Dev	----------		
100		Diallate	0.256	0.217	15.2	70	0.00	11.20
101	P	4-Bromophenyl-phenylether	0.216	0.217	-0.5	83	0.00	11.33
102		Phenacetin	0.440	0.457	-3.9	85	0.00	11.28
103	P	Hexachlorobenzene	0.228	0.235	-3.1	86	0.00	11.41
		----------	Amount	Calc.	%Drift	----------		
104	P	Atrazine	50.000	48.697	2.6	80	0.00	11.69
		----------	AvgRF	CCRF	%Dev	----------		
105		4-aminobiphenyl	0.956	0.966	-1.0	82	0.00	11.83
		----------	Amount	Calc.	%Drift	----------		
106	P	Pentachlorophenol	50.000	52.663	-5.3	86	0.00	11.80
		----------	AvgRF	CCRF	%Dev	----------		
107		Pentachloronitrobenzene	0.100	0.113	-13.0	90	0.00	11.82
108		Pronamide	0.368	0.382	-3.8	83	0.00	11.99
109		n-Octadecane	0.468	0.418	10.7	74	0.00	12.07
110	P	Phenanthrene	1.210	1.197	1.1	82	0.00	12.19
111	P	Anthracene	1.256	1.235	1.7	81	0.00	12.29
112	P	Carbazole	1.225	1.200	2.0	81	0.00	12.63
113	P	Di-n-butylphthalate	1.430	1.443	-0.9	81	0.00	13.40
		----------	Amount	Calc.	%Drift	----------		
114		4-Nitroquinoline 1-Oxide	50.000	46.103	7.8	75	0.00	13.71
		----------	AvgRF	CCRF	%Dev	----------		
115		Methapyrilene	0.667	0.592	11.2	71	0.00	13.93

Continuing Calibration Summary

Job Number: TC52863 **Sample:** EO652-CC649
Account: RFWTXHO Weston Solutions **Lab FileID:** O11765.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

116		Octachlorostyrene	0.090	0.098	-8.9	88	0.00	14.15
117		Isodrin	0.131	0.132	-0.8	82	0.00	14.19
118		Fluoranthene	1.429	1.432	-0.2	81	0.00	14.49
119	S	Fluoranthene-D10	0.136	0.135	0.7	79	0.00	14.45
120		4,4'-Methylenedianiline	0.549	0.543	1.1	80	-0.01	14.87
121	I	Chrysene-d12	1.000	1.000	0.0	85	0.00	17.31
122		Benzidine	0.771	0.759	1.6	82	0.00	14.83
123		Pyrene	1.186	1.141	3.8	81	0.00	14.93
124	S	Terphenyl-d14	0.782	0.769	1.7	84	0.00	15.31
125		Aramite	0.075	0.075	0.0	81	0.00	15.49
126		p-(Dimethylamine)azobenze	0.371	0.367	1.1	82	0.00	15.59
127		Chlorobenzilate	0.383	0.395	-3.1	85	0.00	15.71
		----------	Amount	Calc.	%Drift		----------	
128		Kepone	50.000	55.905	-11.8	95	0.00	16.27
		----------	AvgRF	CCRF	%Dev		----------	
129		3,3'-Dimethylbenzidine	0.778	0.785	-0.9	82	0.00	16.26
130		Butylbenzylphthalate	0.577	0.564	2.3	82	0.00	16.33
131		2-Acetylaminofluorene	0.607	0.594	2.1	82	-0.01	16.75
132	P	3,3'-Dichlorobenzidine	0.442	0.455	-2.9	88	0.00	17.29
133	P	Benzo[a]anthracene	1.191	1.179	1.0	84	0.00	17.29
134	P	Chrysene	1.131	1.110	1.9	84	0.00	17.36
135	P	bis(2-Ethylhexyl)phthalat	0.791	0.777	1.8	82	0.00	17.50
136	I	Perylene-d12	1.000	1.000	0.0	80	0.00	19.90
137	P	Di-n-octylphthalate	1.496	1.494	0.1	81	0.00	18.72
138	P	Benzo[b]fluoranthene	1.308	1.310	-0.2	81	-0.01	19.26
139	P	Benzo[k]fluoranthene	1.295	1.325	-2.3	86	0.00	19.31
140		7,12-Dimethylbenz(a)anthr	0.546	0.582	-6.6	85	0.00	19.26
141	P	Benzo[a]pyrene	1.258	1.254	0.3	81	-0.01	19.81
142	S	Benzo[a]pyrene-D12	1.155	1.160	-0.4	82	0.00	19.77
143		3-Methylcholanthrene	0.422	0.411	2.6	79	0.00	20.45
144		Dibenz(a,j)acridine	0.945	0.918	2.9	80	-0.01	21.65
145	P	Indeno[1,2,3-cd]pyrene	1.107	1.080	2.4	81	-0.03	22.03
146	P	Dibenz[a,h]anthracene	1.149	1.133	1.4	82	-0.03	22.08
147	P	Benzo[g,h,i]perylene	1.146	1.136	0.9	83	-0.04	22.63

(#) = Out of Range SPCC's out = 0 CCC's out = 0
O11702.D EO649.M Wed Aug 13 09:23:54 2014

Gulf Coast ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33505-MB	LB103455.D	1	08/12/14	ZL	08/12/14	OP33505	GLB1529

The QC reported here applies to the following samples: **Method:** TNRCC 1005

TC52863-1, TC52863-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C6-C12)	ND	2.5	0.59	mg/l	
	TPH (> C12-C28)	ND	2.5	0.85	mg/l	
	TPH (> C28-C35)	ND	2.5	0.85	mg/l	
	TPH (C6-C35)	ND	2.5	0.59	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	85%	70-130%
98-08-8	aaa-Trifluorotoluene	88%	70-130%

Method Blank Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33547-MB	DD772893.D	1	08/20/14	AR	08/14/14	OP33547	GDD2386

The QC reported here applies to the following samples: **Method:** SW846 8151

TC52863-1, TC52863-2

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	1.0	0.20	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.20	0.040	ug/l	
93-76-5	2,4,5-T	ND	0.20	0.033	ug/l	

CAS No.	Surrogate Recoveries		Limits
19719-28-9	2,4-DCAA	118%	40-168%

Method Blank Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33544-MB	NN175697.D	1	08/15/14	AR	08/13/14	OP33544	GNN1463

The QC reported here applies to the following samples: **Method:** SW846 8081A

TC52863-1, TC52863-2

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.050	0.010	ug/l	
319-84-6	alpha-BHC	ND	0.050	0.021	ug/l	
319-85-7	beta-BHC	ND	0.050	0.012	ug/l	
319-86-8	delta-BHC	ND	0.050	0.010	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.050	0.017	ug/l	
5103-71-9	alpha-Chlordane	ND	0.050	0.011	ug/l	
5103-74-2	gamma-Chlordane	ND	0.050	0.011	ug/l	
60-57-1	Dieldrin	ND	0.10	0.020	ug/l	
72-54-8	4,4'-DDD	ND	0.10	0.033	ug/l	
72-55-9	4,4'-DDE	ND	0.10	0.025	ug/l	
50-29-3	4,4'-DDT	ND	0.10	0.037	ug/l	
72-20-8	Endrin	ND	0.10	0.020	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.10	0.021	ug/l	
7421-93-4	Endrin aldehyde	ND	0.10	0.036	ug/l	
53494-70-5	Endrin ketone	ND	0.10	0.030	ug/l	
959-98-8	Endosulfan-I	ND	0.10	0.018	ug/l	
33213-65-9	Endosulfan-II	ND	0.10	0.021	ug/l	
76-44-8	Heptachlor	ND	0.050	0.010	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.050	0.011	ug/l	
72-43-5	Methoxychlor	ND	0.50	0.13	ug/l	
8001-35-2	Toxaphene	ND	0.50	0.12	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	80%	39-122%
2051-24-3	Decachlorobiphenyl	83%	28-123%

Method Blank Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33546-MB [a]	MM070936.D	1	08/16/14	AR	08/13/14	OP33546	GMM464

The QC reported here applies to the following samples: **Method:** SW846 8082

TC52863-1, TC52863-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.50	0.21	ug/l	
11104-28-2	Aroclor 1221	ND	0.50	0.20	ug/l	
11141-16-5	Aroclor 1232	ND	0.50	0.17	ug/l	
53469-21-9	Aroclor 1242	ND	0.50	0.12	ug/l	
12672-29-6	Aroclor 1248	ND	0.50	0.10	ug/l	
11097-69-1	Aroclor 1254	ND	0.50	0.10	ug/l	
11096-82-5	Aroclor 1260	ND	0.50	0.12	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	63%	30-112%
2051-24-3	Decachlorobiphenyl	64%	27-119%

(a) Acid clean-up performed by method 3665A. TBA clean-up performed by method 3660.

Blank Spike Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33547-BS	DD772894.D	1	08/20/14	AR	08/14/14	OP33547	GDD2386

The QC reported here applies to the following samples: **Method:** SW846 8151

TC52863-1, TC52863-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
94-75-7	2,4-D	2	1.8	90	64-130
93-72-1	2,4,5-TP (Silvex)	0.4	0.29	73	58-136
93-76-5	2,4,5-T	0.4	0.30	75	48-125

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	93%	40-168%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33505-BS	LB103451.D	1	08/12/14	ZL	08/12/14	OP33505	GLB1529
OP33505-BSD	LB103453.D	1	08/12/14	ZL	08/12/14	OP33505	GLB1529

The QC reported here applies to the following samples: **Method:** TNRCC 1005

TC52863-1, TC52863-2

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	50	44.9	90	41.3	83	8	75-125/20
	TPH (> C12-C28)	50	45.2	90	41.3	83	9	75-125/20
	TPH (C6-C35)	100	90.1	90	82.7	83	9	75-125/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	83%	76%	70-130%
98-08-8	aaa-Trifluorotoluene	87%	80%	70-130%

8.3.1

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* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33544-BS	NN175715.D	1	08/16/14	AR	08/13/14	OP33544	GNN1463
OP33544-BSD [a]	NN175716.D	1	08/16/14	AR	08/13/14	OP33544	GNN1463

The QC reported here applies to the following samples: **Method:** SW846 8081A

TC52863-1, TC52863-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	0.25	0.17	68	0.17	68	0	41-124/30
319-84-6	alpha-BHC	0.25	0.21	84	0.22	88	5	62-135/30
319-85-7	beta-BHC	0.25	0.23	92	0.24	96	4	63-128/30
319-86-8	delta-BHC	0.25	0.23	92	0.24	96	4	68-133/30
58-89-9	gamma-BHC (Lindane)	0.25	0.21	84	0.21	84	0	62-131/30
5103-71-9	alpha-Chlordane	0.25	0.24	96	0.24	96	0	62-133/30
5103-74-2	gamma-Chlordane	0.25	0.23	92	0.23	92	0	59-131/30
60-57-1	Dieldrin	0.5	0.44	88	0.44	88	0	67-138/30
72-54-8	4,4'-DDD	0.5	0.49	98	0.49	98	0	71-145/30
72-55-9	4,4'-DDE	0.5	0.49	98	0.48	96	2	65-138/30
50-29-3	4,4'-DDT	0.5	0.47	94	0.46	92	2	62-151/30
72-20-8	Endrin	0.5	0.49	98	0.48	96	2	74-154/30
1031-07-8	Endosulfan sulfate	0.5	0.46	92	0.46	92	0	64-139/30
7421-93-4	Endrin aldehyde	0.5	0.44	88	0.45	90	2	47-110/30
53494-70-5	Endrin ketone	0.5	0.46	92	0.46	92	0	66-133/30
959-98-8	Endosulfan-I	0.25	0.20	80	0.20	80	0	70-137/30
33213-65-9	Endosulfan-II	0.5	0.46	92	0.46	92	0	73-139/30
76-44-8	Heptachlor	0.25	0.22	88	0.22	88	0	51-131/30
1024-57-3	Heptachlor epoxide	0.25	0.21	84	0.20	80	5	66-129/30
72-43-5	Methoxychlor	2.5	2.4	96	2.4	96	0	64-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	86%	85%	39-122%
2051-24-3	Decachlorobiphenyl	87%	88%	28-123%

(a) Insufficient sample volume for MS/MSD

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33546-BS [a]	MM070938.D	1	08/16/14	AR	08/13/14	OP33546	GMM464
OP33546-BSD [b]	MM070940.D	1	08/16/14	AR	08/13/14	OP33546	GMM464

The QC reported here applies to the following samples: **Method:** SW846 8082

TC52863-1, TC52863-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	2	1.7	85	1.6	80	6	59-126/31
11096-82-5	Aroclor 1260	2	1.7	85	1.6	80	6	65-126/35

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
877-09-8	Tetrachloro-m-xylene	78%	70%	30-112%
2051-24-3	Decachlorobiphenyl	76%	72%	27-119%

(a) Acid clean-up performed by method 3665A. TBA clean-up performed by method 3660.
(b) Insufficient sample volume for MS/MSD

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33505-MS	LF103460.D	1	08/12/14	ZL	08/12/14	OP33505	GLF1529
OP33505-MSD	LF103458.D	1	08/12/14	ZL	08/12/14	OP33505	GLF1529
TC52957-1	LB103459.D	1	08/12/14	ZL	08/12/14	OP33505	GLB1529

The QC reported here applies to the following samples: **Method:** TNRCC 1005

TC52863-1, TC52863-2

CAS No.	Compound	TC52957-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C6-C12)	2.4	U	47.4	46.5	98	48.1	47.7	99	3	75-125/20
	TPH (> C12-C28)	2.4	U	47.4	55.5	117	48.1	55.1	114	1	75-125/20
	TPH (C6-C35)	2.4	U	94.9	102	108	96.2	103	107	1	75-125/20

CAS No.	Surrogate Recoveries	MS	MSD	TC52957-1	Limits
84-15-1	o-Terphenyl	103%	101%	93%	70-130%
98-08-8	aaa-Trifluorotoluene	91%	93%	84%	70-130%

8.4.1

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* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33547-MS	DD772890.D	5	08/20/14	AR	08/14/14	OP33547	GDD2386
OP33547-MSD	DD772891.D	5	08/20/14	AR	08/14/14	OP33547	GDD2386
TC52863-1	DD772889.D	5	08/19/14	AR	08/14/14	OP33547	GDD2386

The QC reported here applies to the following samples: **Method:** SW846 8151

TC52863-1, TC52863-2

CAS No.	Compound	TC52863-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
94-75-7	2,4-D	4.6	J	2.02	6.8	109	2.02	17.6	643* [a]	89*	64-130/20
93-72-1	2,4,5-TP (Silvex)	1.0 U		0.404	4.9	1213*	0.404	2.0	495*	84*	58-136/22
93-76-5	2,4,5-T	1.0 U		0.404	ND	0* [b]	0.404	1.9	470*	200*	48-125/27

CAS No.	Surrogate Recoveries	MS	MSD	TC52863-1	Limits
19719-28-9	2,4-DCAA	2473%*	2675%*	2894%* [c]	40-168%

(a) Outside control limits due to high level in sample relative to spike amount.
(b) Outside control limits due to dilution.
(c) Outside control limits biased high due to matrix interference. Confirmed by MS/MSD.

* = Outside of Control Limits.

DDT/Endrin Breakdown Check

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample:	GNN1461-DDT	**Injection Date:**	08/12/14
Lab File ID:	NN175585.D	**Injection Time:**	20:22
Instrument ID:	GCNN		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	972487	542826
4,4'-DDE	647344	766264
4,4'-DDT	177969440	133399804
DDT Breakdown [a]	0.9 %	1 %
Endrin aldehyde	773802	557348
Endrin ketone	2082017	1213228
Endrin	91872519	70606979
Endrin Breakdown [b]	3 %	2.4 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GNN1461-IC1461	NN175586.D	08/12/14	20:36	00:14	Initial cal 200
GNN1461-IC1461	NN175587.D	08/12/14	20:50	00:28	Initial cal 200
GNN1461-IC1461	NN175588.D	08/12/14	21:04	00:42	Initial cal 20
GNN1461-IC1461	NN175589.D	08/12/14	21:18	00:56	Initial cal 50
GNN1461-IC1461	NN175590.D	08/12/14	21:32	01:10	Initial cal 100
GNN1461-ICC1461	NN175591.D	08/12/14	21:46	01:24	Initial cal 200
GNN1461-IC1461	NN175592.D	08/12/14	22:00	01:37	Initial cal 300
GNN1461-IC1461	NN175593.D	08/12/14	22:15	01:52	Initial cal 400
GNN1461-IC1461	NN175594.D	08/12/14	22:29	02:06	Initial cal 500
GNN1461-IC1461	NN175595.D	08/12/14	22:43	02:20	Initial cal 600
GNN1461-ICV1461	NN175596.D	08/12/14	22:57	02:34	Initial cal verification 200
GNN1461-IC1461	NN175597.D	08/12/14	23:11	02:48	Initial cal 200
GNN1461-IC1461	NN175598.D	08/12/14	23:25	03:02	Initial cal 200
GNN1461-IC1461	NN175599.D	08/12/14	23:39	03:16	Initial cal 200
GNN1461-IC1461	NN175600.D	08/12/14	23:53	03:30	Initial cal 200
GNN1461-IC1461	NN175601.D	08/13/14	00:07	03:44	Initial cal 50
GNN1461-IC1461	NN175602.D	08/13/14	00:21	03:58	Initial cal 100
GNN1461-ICC1461	NN175603.D	08/13/14	00:35	04:12	Initial cal 200
GNN1461-IC1461	NN175604.D	08/13/14	00:49	04:26	Initial cal 300
GNN1461-IC1461	NN175605.D	08/13/14	01:04	04:41	Initial cal 400
GNN1461-IC1461	NN175606.D	08/13/14	01:17	04:55	Initial cal 500
GNN1461-IC1461	NN175607.D	08/13/14	01:32	05:10	Initial cal 1000
GNN1461-ICV1461	NN175608.D	08/13/14	01:46	05:24	Initial cal verification 200

DDT/Endrin Breakdown Check

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1463-DDT
Lab File ID: NN175671.D
Instrument ID: GCNN
Injection Date: 08/15/14
Injection Time: 16:06

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	2201179	33942883
4,4'-DDE	642181	821690
4,4'-DDT	146599641	227777659
DDT Breakdown [a]	1.9 %	13.2 %
Endrin aldehyde	646695	1238077
Endrin ketone	1541947	2922401
Endrin	78909213	121480794
Endrin Breakdown [b]	2.7 %	3.3 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GNN1463-CC1461	NN175672.D	08/15/14	16:20	00:14	Continuing cal 200
GNN1463-CC1461	NN175673.D	08/15/14	16:34	00:28	Continuing cal 200
GNN1463-CC1461	NN175674.D	08/15/14	16:47	00:41	Continuing cal 200
GNN1463-CC1461	NN175675.D	08/15/14	17:01	00:55	Continuing cal 20
GNN1463-CC1461	NN175676.D	08/15/14	17:15	01:09	Continuing cal 200
GNN1463-CC1461	NN175677.D	08/15/14	17:29	01:23	Continuing cal 200
GNN1463-CC1461	NN175678.D	08/15/14	17:43	01:37	Continuing cal 200
GNN1463-CC1461	NN175679.D	08/15/14	17:57	01:51	Continuing cal 200
GNN1463-CC1461	NN175680.D	08/15/14	18:11	02:05	Continuing cal 200
ZZZZZZ	NN175682.D	08/15/14	18:39	02:33	(unrelated sample)
ZZZZZZ	NN175683.D	08/15/14	18:54	02:47	(unrelated sample)
ZZZZZZ	NN175684.D	08/15/14	19:08	03:02	(unrelated sample)
OP33559-MB	NN175685.D	08/15/14	19:22	03:16	Method Blank
OP33559-BS	NN175686.D	08/15/14	19:36	03:30	Blank Spike
OP33559-BSD	NN175687.D	08/15/14	19:50	03:44	Blank Spike Duplicate
OP33545-MB	NN175688.D	08/15/14	20:04	03:58	Method Blank
OP33545-BS	NN175690.D	08/15/14	20:32	04:26	Blank Spike
OP33545-BSD	NN175691.D	08/15/14	20:46	04:40	Blank Spike Duplicate
GNN1463-CC1461	NN175692.D	08/15/14	21:00	04:54	Continuing cal 300
GNN1463-CC1461	NN175693.D	08/15/14	21:14	05:08	Continuing cal 300
OP33544-MB	NN175697.D	08/15/14	22:10	06:03	Method Blank
GNN1463-CC1461	NN175698.D	08/15/14	22:25	06:18	Continuing cal 200

DDT/Endrin Breakdown Check

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample:	GNN1463-DDT	**Injection Date:**	08/16/14
Lab File ID:	NN175707.D	**Injection Time:**	12:12
Instrument ID:	GCNN		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	3426583	5985275
4,4'-DDE	599975	940039
4,4'-DDT	158062742	209524007
DDT Breakdown [a]	2.5 %	3.2 %
Endrin aldehyde	640538	295412
Endrin ketone	1913064	2496250
Endrin	85714841	110914980
Endrin Breakdown [b]	2.9 %	2.5 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GNN1463-CC1461	NN175708.D	08/16/14	12:26	00:14	Continuing cal 200
GNN1463-CC1461	NN175709.D	08/16/14	12:39	00:27	Continuing cal 200
OP33545-BS1	NN175711.D	08/16/14	13:06	00:54	Laboratory Control Sample
OP33545-BS2	NN175713.D	08/16/14	13:33	01:22	Blank Spike
OP33545-BSD2	NN175714.D	08/16/14	13:46	01:35	Blank Spike Duplicate
OP33544-BS	NN175715.D	08/16/14	14:00	01:49	Blank Spike
OP33544-BSD	NN175716.D	08/16/14	14:15	02:03	Blank Spike Duplicate
GNN1463-CC1461	NN175717.D	08/16/14	14:28	02:16	Continuing cal 300
GNN1463-CC1461	NN175718.D	08/16/14	14:42	02:30	Continuing cal 300
TC52863-1	NN175720.D	08/16/14	15:08	02:57	CES-CS-TANK 408
TC52863-2	NN175722.D	08/16/14	15:36	03:24	CES-CS-TANK 407
GNN1463-ECC1461	NN175724.D	08/16/14	16:02	03:51	Ending cal 200

DDT/Endrin Breakdown Check

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1464-DDT
Lab File ID: NN175741.D
Instrument ID: GCNN
Injection Date: 08/19/14
Injection Time: 12:56

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	0	642613
4,4'-DDE	929899	619593
4,4'-DDT	247400224	185528102
DDT Breakdown [a]	0.4 %	0.7 %
Endrin aldehyde	216058	313468
Endrin ketone	1534737	1380153
Endrin	123848864	94834082
Endrin Breakdown [b]	1.4 %	1.8 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GNN1464-IC1464	NN175743.D	08/19/14	13:29	00:33	Initial cal 200
GNN1464-IC1464	NN175744.D	08/19/14	13:43	00:47	Initial cal 200
GNN1464-IC1464	NN175745.D	08/19/14	13:56	01:01	Initial cal 20
GNN1464-IC1464	NN175746.D	08/19/14	14:09	01:14	Initial cal 50
GNN1464-IC1464	NN175747.D	08/19/14	14:23	01:28	Initial cal 100
GNN1464-ICC1464	NN175748.D	08/19/14	14:38	01:42	Initial cal 200
GNN1464-IC1464	NN175752.D	08/19/14	15:33	02:37	Initial cal 600
GNN1464-ICV1464	NN175753.D	08/19/14	15:46	02:51	Initial cal verification 200
GNN1464-IC1464	NN175754.D	08/19/14	16:00	03:05	Initial cal 200
GNN1464-IC1464	NN175755.D	08/19/14	16:13	03:18	Initial cal 200
GNN1464-IC1464	NN175756.D	08/19/14	16:28	03:32	Initial cal 200
GNN1464-IC1464	NN175757.D	08/19/14	16:42	03:46	Initial cal 200
GNN1464-IC1464	NN175758.D	08/19/14	16:56	04:00	Initial cal 50
GNN1464-IC1464	NN175759.D	08/19/14	17:09	04:13	Initial cal 100
GNN1464-ICC1464	NN175760.D	08/19/14	17:23	04:27	Initial cal 200
GNN1464-IC1464	NN175749.D	08/19/14	17:37	04:41	Initial cal 300
GNN1464-IC1464	NN175750.D	08/19/14	17:51	04:55	Initial cal 400
GNN1464-IC1464	NN175751.D	08/19/14	18:05	05:09	Initial cal 500
GNN1464-IC1464	NN175761.D	08/19/14	18:18	05:23	Initial cal 300
GNN1464-IC1464	NN175762.D	08/19/14	18:32	05:37	Initial cal 400
GNN1464-IC1464	NN175763.D	08/19/14	18:46	05:51	Initial cal 500
GNN1464-IC1464	NN175764.D	08/19/14	19:00	06:05	Initial cal 1000
GNN1464-ICV1464	NN175765.D	08/19/14	19:14	06:19	Initial cal verification 200
ZZZZZZ	NN175767.D	08/19/14	19:43	06:47	(unrelated sample)

DDT/Endrin Breakdown Check

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1464-DDT
Lab File ID: NN175741.D
Instrument ID: GCNN
Injection Date: 08/19/14
Injection Time: 12:56

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
TC52949-2	NN175768.D	08/19/14	19:57	07:01	(used for QC only; not part of job TC52863)
OP33576-MS	NN175769.D	08/19/14	20:11	07:15	Matrix Spike
OP33576-MSD	NN175770.D	08/19/14	20:25	07:29	Matrix Spike Duplicate
ZZZZZZ	NN175772.D	08/19/14	20:53	07:58	(unrelated sample)
ZZZZZZ	NN175773.D	08/19/14	21:07	08:12	(unrelated sample)
ZZZZZZ	NN175774.D	08/19/14	21:21	08:26	(unrelated sample)
OP33576-MB	NN175775.D	08/19/14	21:35	08:40	Method Blank
OP33576-BS	NN175776.D	08/19/14	21:49	08:54	Blank Spike
GNN1464-CC1464	NN175777.D	08/19/14	22:03	09:07	Continuing cal 300
GNN1464-CC1464	NN175778.D	08/19/14	22:17	09:21	Continuing cal 300
ZZZZZZ	NN175782.D	08/19/14	23:14	10:18	(unrelated sample)
OP33586-MB	NN175783.D	08/19/14	23:28	10:32	Method Blank
OP33586-BS	NN175784.D	08/19/14	23:42	10:46	Blank Spike

DDT/Endrin Breakdown Check

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample:	GNN1465-DDT	**Injection Date:**	08/20/14
Lab File ID:	NN175801.D	**Injection Time:**	13:23
Instrument ID:	GCNN		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	444846	268435
4,4'-DDE	385562	245576
4,4'-DDT	86414288	64037048
DDT Breakdown [a]	1 %	0.8 %
Endrin aldehyde	368941	276670
Endrin ketone	937292	711685
Endrin	44415531	33513868
Endrin Breakdown [b]	2.9 %	2.9 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GNN1465-CC1464	NN175802.D	08/20/14	13:37	00:14	Continuing cal 200
GNN1465-CC1464	NN175803.D	08/20/14	13:50	00:27	Continuing cal 200
GNN1465-CC1464	NN175804.D	08/20/14	14:03	00:41	Continuing cal 200
TC52863-2	NN175806.D	08/20/14	14:31	01:08	CES-CS-TANK 407
ZZZZZZ	NN175807.D	08/20/14	14:45	01:22	(unrelated sample)
TC53346-1	NN175808.D	08/20/14	14:59	01:36	(used for QC only; not part of job TC52863)
ZZZZZZ	NN175809.D	08/20/14	15:12	01:49	(unrelated sample)
ZZZZZZ	NN175810.D	08/20/14	15:26	02:03	(unrelated sample)
ZZZZZZ	NN175811.D	08/20/14	15:40	02:17	(unrelated sample)
ZZZZZZ	NN175812.D	08/20/14	15:53	02:30	(unrelated sample)
ZZZZZZ	NN175813.D	08/20/14	16:06	02:43	(unrelated sample)
ZZZZZZ	NN175814.D	08/20/14	16:19	02:56	(unrelated sample)
ZZZZZZ	NN175815.D	08/20/14	16:33	03:10	(unrelated sample)
GNN1465-CC1464	NN175816.D	08/20/14	16:46	03:23	Continuing cal 300

GC Identification Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GDD2386-CC2382	**Injection Date:**	08/19/14
Lab File ID:	DD772887.D	**Injection Time:**	22:31
Instrument ID:	GCDD	**Method:**	SW846 8151

Sample ID:	TC52863-1	**Injection Date:**	08/19/14
Lab File ID:	DD772889.D	**Injection Time:**	23:54
Client ID:	CES-CS-TANK 408		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D [a]	1 [b]	21.09	21.07	4.6	J	ug/l	55.1
2,4-D [a]	2	17.94	17.95	8.1		ug/l	

(a) More than 40% RPD for detected concentrations between two GC columns.
(b) Final result reported from this column.

GC Identification Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GDD2386-CC2382	**Injection Date:**	08/19/14
Lab File ID:	DD772887.D	**Injection Time:**	22:31
Instrument ID:	GCDD	**Method:**	SW846 8151

Sample ID:	TC52863-2	**Injection Date:**	08/20/14
Lab File ID:	DD772892.D	**Injection Time:**	01:59
Client ID:	CES-CS-TANK 407		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4-D	1 [a]	21.06	21.07	15.4		ug/l	9.5
2,4-D	2	17.94	17.95	14.0		ug/l	

(a) Final result reported from this column.

GC Identification Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GNN1463-CC1461	**Injection Date:**	08/16/14
Lab File ID:	NN175717.D	**Injection Time:**	14:28
Instrument ID:	GCNN	**Method:**	SW846 8081A

Sample ID:	TC52863-2	**Injection Date:**	08/16/14
Lab File ID:	NN175722.D	**Injection Time:**	15:36
Client ID:	CES-CS-TANK 407		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
gamma-BHC (Lindane) [a]	1 [c]	2.99	2.98 [b]	0.064	J	ug/l	68.0
gamma-BHC (Lindane) [a]	2	2.62	2.61 [b]	0.13	J	ug/l	
alpha-Chlordane	1 [c]	4.36	4.37 [b]	0.12	J	ug/l	22.2
alpha-Chlordane	2	3.82	3.81 [b]	0.15		ug/l	

(a) More than 40% RPD for detected concentrations between two GC columns.
(b) StdRT taken from init cal: GNN1461-ICC1461 NN175591.D 08/12/14 21:46
(c) Final result reported from this column.

Semivolatile Surrogate Recovery Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Method: SW846 8151 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
TC52863-1	DD772889.D	2894* [b]
TC52863-2	DD772892.D	4400* [c]
TC52863-2	DD772902.D	6321* [d]
OP33547-BS	DD772894.D	93
OP33547-MB	DD772893.D	118
OP33547-MS	DD772890.D	2473*
OP33547-MSD	DD772891.D	2675*

Surrogate Compounds	Recovery Limits
S1 = 2,4-DCAA	40-168%

(a) Recovery from GC signal #1
(b) Outside control limits biased high due to matrix interference. Confirmed by MS/MSD.
(c) Outside control limits biased high. Results confirmed by reanalysis at dilution.
(d) Outside control limits due to dilution.

Semivolatile Surrogate Recovery Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Method: SW846 8081A **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]
TC52863-1	NN175720.D	78	103
TC52863-2	NN175722.D	1459* [b]	48
TC52863-2	NN175806.D	1092* [b]	21*
OP33544-BS	NN175715.D	86	87
OP33544-BSD	NN175716.D	85	88
OP33544-MB	NN175697.D	80	83

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	39-122%
S2 = Decachlorobiphenyl	28-123%

(a) Recovery from GC signal #1
(b) Outside control limits biased high due to matrix interference. Confirmed by re-extraction and reanalysis.

Semivolatile Surrogate Recovery Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Method: SW846 8082 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]
TC52863-1	MM070932.D	54	36
TC52863-2	MM070934.D	96	61
OP33546-BS	MM070938.D	78	76
OP33546-BSD	MM070940.D	70	72
OP33546-MB	MM070936.D	63	64

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	30-112%
S2 = Decachlorobiphenyl	27-119%

(a) Recovery from GC signal #1

Semivolatile Surrogate Recovery Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Method: TNRCC 1005 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]
TC52863-1	LF103498.D	132* [b]	89
TC52863-2	LF103500.D	883* [b]	85
OP33505-BS	LB103451.D	83	87
OP33505-BSD	LB103453.D	76	80
OP33505-MB	LB103455.D	85	88
OP33505-MS	LF103460.D	103	91
OP33505-MSD	LF103458.D	101	93

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	70-130%
S2 = aaa-Trifluorotoluene	70-130%

(a) Recovery from GC signal #1
(b) Outside control limits due to dilution.

GC Surrogate Retention Time Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GLB1529-CC1526	**Injection Date:**	08/12/14
Lab File ID:	LB103447.D	**Injection Time:**	13:04
Instrument ID:	GCLB	**Method:**	TNRCC 1005

	S1 [a] RT	S2 [a] RT
Check Std	10.25	2.66

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
OP33505-BS	LB103451.D	08/12/14	13:57	10.25	2.66
OP33505-BSD	LB103453.D	08/12/14	14:25	10.25	2.66
OP33505-MB	LB103455.D	08/12/14	14:51	10.26	2.66
ZZZZZZ	LB103457.D	08/12/14	15:19	10.25	2.66
TC52957-1	LB103459.D	08/12/14	15:46	10.25	2.66

Surrogate Compounds

S1 = o-Terphenyl
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GLF1529-CC1527	**Injection Date:**	08/12/14
Lab File ID:	LF103454.D	**Injection Time:**	14:25
Instrument ID:	GCLF	**Method:**	TNRCC 1005

	S1 [a] RT	S2 [a] RT
Check Std	10.21	2.58

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
OP33505-MSD	LF103458.D	08/12/14	15:19	10.20	2.58
OP33505-MS	LF103460.D	08/12/14	15:46	10.20	2.58

Surrogate Compounds

S1 = o-Terphenyl
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GLF1529-CC1527	**Injection Date:**	08/12/14
Lab File ID:	LF103462.D	**Injection Time:**	16:12
Instrument ID:	GCLF	**Method:**	TNRCC 1005

	S1 [a] RT	S2 [a] RT
Check Std	10.20	2.58

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
TC52796-15	LF103466.D	08/12/14	17:06	10.20	2.58
OP33512-MS	LF103468.D	08/12/14	17:33	10.20	2.58
OP33512-MSD	LF103470.D	08/12/14	18:00	10.20	2.58
ZZZZZZ	LF103472.D	08/12/14	18:27	10.20	2.58
ZZZZZZ	LF103474.D	08/12/14	18:54	10.20	2.58
ZZZZZZ	LF103476.D	08/12/14	19:21	10.20	2.58
ZZZZZZ	LF103478.D	08/12/14	19:48	10.20	2.58
ZZZZZZ	LF103480.D	08/12/14	20:15	10.21	2.58
ZZZZZZ	LF103482.D	08/12/14	20:42	10.20	2.58
ZZZZZZ	LF103484.D	08/12/14	21:09	10.20	2.58
GLF1529-RT	LF103486.D	08/12/14	21:36	10.20	2.56

Surrogate Compounds

S1 = o-Terphenyl
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GLF1529-CC1527	**Injection Date:**	08/12/14
Lab File ID:	LF103488.D	**Injection Time:**	22:03
Instrument ID:	GCLF	**Method:**	TNRCC 1005

	S1 [a] RT	S2 [a] RT
Check Std	10.21	2.58

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
ZZZZZZ	LF103492.D	08/12/14	22:57	10.20	2.58
ZZZZZZ	LF103496.D	08/12/14	23:51	10.20	2.58
TC52863-1	LF103498.D	08/13/14	00:18	10.20	2.58
TC52863-2	LF103500.D	08/13/14	00:45	10.20	2.58
ZZZZZZ	LF103504.D	08/13/14	01:39	10.20	2.58
ZZZZZZ	LF103506.D	08/13/14	02:06	10.20	2.58
ZZZZZZ	LF103508.D	08/13/14	02:33	10.20	2.58
ZZZZZZ	LF103510.D	08/13/14	03:00	10.20	2.58

Surrogate Compounds

S1 = o-Terphenyl
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GDD2386-CC2382	**Injection Date:**	08/19/14
Lab File ID:	DD772887.D	**Injection Time:**	22:31
Instrument ID:	GCDD	**Method:**	SW846 8151

	S1 [a] RT	S1 [b] RT
Check Std	14.42	16.87

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
TC52863-1	DD772889.D	08/19/14	23:54		16.88
OP33547-MS	DD772890.D	08/20/14	00:35		16.88
OP33547-MSD	DD772891.D	08/20/14	01:17		16.88
TC52863-2	DD772892.D	08/20/14	01:59		16.88
OP33547-MB	DD772893.D	08/20/14	02:40		16.87
OP33547-BS	DD772894.D	08/20/14	03:22		16.87
GDD2386-ECC2382	DD772895.D	08/20/14	04:03	14.42	16.87

Surrogate Compounds

S1 = 2,4-DCAA

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GDD2387-CC2382	**Injection Date:**	08/20/14
Lab File ID:	DD772899.D	**Injection Time:**	10:12
Instrument ID:	GCDD	**Method:**	SW846 8151

	S1 [a] RT	S1 [b] RT
Check Std	14.42	16.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
TC52863-2	DD772902.D	08/20/14	14:03		16.88
GDD2387-ECC2382	DD772903.D	08/20/14	14:45	14.42	16.87

Surrogate Compounds

S1 = 2,4-DCAA

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

8.8.6

8

GC Surrogate Retention Time Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GNN1463-CC1461	**Injection Date:**	08/15/14
Lab File ID:	NN175692.D	**Injection Time:**	21:00
Instrument ID:	GCNN	**Method:**	SW846 8081A

	S1 [a] RT	S2 [a] RT
Check Std	2.09	5.98

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
OP33544-MB	NN175697.D	08/15/14	22:10	2.09	5.98

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GNN1465-CC1464	**Injection Date:**	08/20/14
Lab File ID:	NN175802.D	**Injection Time:**	13:37
Instrument ID:	GCNN	**Method:**	SW846 8081A

	S1 [a] RT	S2 [a] RT
Check Std	2.30	6.65

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
TC52863-2	NN175806.D	08/20/14	14:31	2.30	6.63
ZZZZZZ	NN175807.D	08/20/14	14:45	2.30	6.64
TC53346-1	NN175808.D	08/20/14	14:59	2.30	6.64
ZZZZZZ	NN175809.D	08/20/14	15:12	2.29	6.63
ZZZZZZ	NN175810.D	08/20/14	15:26	2.30	6.63
ZZZZZZ	NN175811.D	08/20/14	15:40	2.29	6.63
ZZZZZZ	NN175812.D	08/20/14	15:53	0.00	0.00
ZZZZZZ	NN175813.D	08/20/14	16:06	0.00	0.00
ZZZZZZ	NN175814.D	08/20/14	16:19	2.29	6.63
ZZZZZZ	NN175815.D	08/20/14	16:33	0.00	0.00

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GNN1463-CC1461	**Injection Date:**	08/16/14
Lab File ID:	NN175708.D	**Injection Time:**	12:26
Instrument ID:	GCNN	**Method:**	SW846 8081A

	S1 [a] RT	S2 [a] RT
Check Std	2.09	5.97

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S2 [a] RT
OP33545-BS1	NN175711.D	08/16/14	13:06	2.09	5.97
OP33545-BS2	NN175713.D	08/16/14	13:33	2.08	5.97
OP33545-BSD2	NN175714.D	08/16/14	13:46	2.08	5.97
OP33544-BS	NN175715.D	08/16/14	14:00	2.09	5.97
OP33544-BSD	NN175716.D	08/16/14	14:15	2.09	5.97

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GNN1463-CC1461	**Injection Date:**	08/16/14
Lab File ID:	NN175717.D	**Injection Time:**	14:28
Instrument ID:	GCNN	**Method:**	SW846 8081A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.08	2.29	5.97	6.63

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
TC52863-1	NN175720.D	08/16/14	15:08	2.08		5.97	
TC52863-2	NN175722.D	08/16/14	15:36	2.30		6.64	
GNN1463-ECC1461	NN175724.D	08/16/14	16:02	2.08	2.29	5.97	6.64

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Check Std:	GMM464-CC461	**Injection Date:**	08/15/14
Lab File ID:	MM070930.D	**Injection Time:**	22:23
Instrument ID:	GCMM	**Method:**	SW846 8082

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.13	2.48	9.80	10.81

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
TC52863-1	MM070932.D	08/15/14	23:06	2.14		9.81	
TC52863-2	MM070934.D	08/15/14	23:48	2.13		9.80	
OP33546-MB	MM070936.D	08/16/14	00:30	2.12		9.80	
OP33546-BS	MM070938.D	08/16/14	01:12	2.12		9.80	
OP33546-BSD	MM070940.D	08/16/14	01:54	2.13		9.80	
GMM464-ECC461	MM070942.D	08/16/14	02:37	2.13	2.47	9.80	10.80

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GDD2382-ICC2382
Lab FileID: DD772785.D

Response Factor Report HP5890

Method : C:\MSDCHEM\1\METHODS\HRB2382.M (Chemstation Integrator)
Title : Herbicides by 8151
Last Update : Wed Aug 13 08:45:35 2014
Response via : Initial Calibration

Calibration Files
1 =DD772783.D 2 =DD772784.D 3 =DD772785.D 4 =DD772786.D
5 =DD772787.D 6 =DD772788.D 7 =DD772789.D

	Compound	1	2	3	4	5	6	7	Avg		%RSD
1)	Dalapon	1.420	1.385	1.319	1.304	1.254	1.229	1.164	1.296	E3	6.87
2)	4-Nitrophenol	9.624	9.126	8.643	8.295	8.011	7.577	6.959	8.319	E2	10.92
3)S	2,4-DCAA	7.908	7.475	6.963	6.788	6.554	6.202	5.729	6.803	E2	10.86
4)	MCPP	1.078	1.361	1.344	1.364	1.351	1.325	1.274	1.300		7.88
5)	Dicamba	3.291	3.007	2.817	2.749	2.700	2.573	2.598	2.819	E3	9.01
6)	MCPA	2.212	2.780	2.754	2.731	2.651	2.550	2.436	2.588		7.96
7)	Dichlorprop	9.469	9.181	8.642	8.419	8.125	7.823	7.246	8.415	E2	9.14
8)	2,4-D	1.215	1.171	1.079	1.051	1.009	0.962	0.892	1.054	E3	10.73
9)	Pentachlorophenol	1.037	1.092	1.092	1.125	1.130	1.117	1.176	1.110	E4	3.86
10)	2,4,5-TP (SILVEX)	4.214	4.348	4.371	4.512	4.521	4.441	4.577	4.426	E3	2.82
11)	2,4,5-T	4.594	4.687	4.661	4.810	4.751	4.650	4.664	4.688	E3	1.52
12)	Chloramben	2.834	3.090	3.186	3.338	3.348	3.302	3.329	3.204	E3	5.90
13)	Dinoseb	4.094	4.067	4.007	4.061	3.887	3.775	3.724	3.945	E3	3.81
14)	2,4-DB	6.042	5.890	5.628	5.531	5.371	5.156	4.803	5.489	E2	7.74
15)	Picloram	3.849	3.992	4.014	4.206	4.352	4.371	4.567	4.193	E3	6.06

Signal #2

17)	Dalapon #2	1.984	1.836	1.716	1.639	1.579	1.498	1.392	1.663	E3	12.11
18)	4-Nitrophenol #2	1.120	1.094	1.014	0.978	0.946	0.900	0.823	0.982	E3	10.66
19)S	2,4-DCAA #2	1.094	1.056	0.975	0.940	0.914	0.894	0.811	0.955	E3	10.14
20)	MCPP #2	2.045	2.433	2.344	2.409	2.412	2.326	2.287	2.322		5.73
21)	Dicamba #2	4.172	4.259	4.186	4.191	4.421	4.230	4.013	4.210	E3	2.89
22)	MCPA #2	3.990	4.585	4.411	4.367	4.264	4.069	3.847	4.219		6.18
23)	Dichlorprop #2	1.293	1.224	1.154	1.130	1.092	1.036	0.966	1.128	E3	9.80
24)	2,4-D #2	1.639	1.550	1.450	1.411	1.358	1.291	1.201	1.414	E3	10.56
25)	Pentachlorophenol	1.360	1.440	1.482	1.557	1.580	1.571	1.659	1.521	E4	6.59
26)	2,4,5-TP (SILVEX)	5.525	5.833	5.934	6.199	6.231	6.128	6.199	6.007	E3	4.33
27)	Chloramben #2	3.969	4.373	4.428	4.510	4.474	4.413	4.343	4.359	E3	4.15
28)	2,4,5-T #2	6.095	6.406	6.431	6.596	6.529	6.409	6.362	6.404	E3	2.47
29)	Dinoseb #2	5.213	5.269	5.194	5.244	5.121	4.995	4.866	5.129	E3	2.88
30)	2,4-DB #2	7.988	7.447	7.203	7.214	6.992	6.761	6.459	7.152	E2	6.88
31)	Picloram #2	4.584	5.214	5.409	5.752	6.051	6.095	6.577	5.669	E3	11.64

(#) = Out of Range

HRB2382.M Wed Aug 13 08:49:05 2014

8.9.1

8

Initial Calibration Verification

Job Number: TC52863 **Sample:** GDD2382-ICV2382
Account: RFWTXHO Weston Solutions **Lab FileID:** DD772790.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\GDD2382\DD772790.D\ECD1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\GDD2382\DD772790.D\ECD2B.CH
Acq On    : 12-Aug-2014, 19:58:24                    Operator: almar
Sample    : icv2382-300,herb                         Inst    : HP5890
Misc      : op33421,gdd2382                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\HRB2382.M (Chemstation Integrator)
Title        : Herbicides by 8151
Last Update  : Wed Aug 13 08:45:35 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Dalapon	300.000	303.540	-1.2	99	0.00	1.97- 2.03
2	4-Nitrophenol	300.000	315.747	-5.2	101	0.00	15.08-15.18
3 S	2,4-DCAA		----------NA----------				
4	MCPP	30000.000	31191.459	-4.0	101	0.00	17.49-17.55
5	Dicamba	60.000	58.509	2.5	98	0.00	17.58-17.64
6	MCPA	30000.000	28661.491	4.5	90	0.00	18.63-18.69
7	Dichlorprop	300.000	333.266	-11.1	108	0.00	19.54-19.60
8	2,4-D	300.000	316.164	-5.4	103	0.00	21.04-21.11
9	Pentachlorophenol	15.000	15.014	-0.1	102	0.00	22.04-22.10
10	2,4,5-TP (SILVEX)	60.000	68.767	-14.6	116	0.00	23.38-23.44
11	2,4,5-T	60.000	61.330	-2.2	103	0.00	25.30-25.36
12	Chloramben	300.000	291.999	2.7	98	0.00	26.63-26.69
13	Dinoseb	60.000	61.849	-3.1	101	0.00	25.72-25.78
14	2,4-DB	600.000	611.414	-1.9	99	0.00	26.95-27.01
15	Picloram	60.000	59.765	0.4	104	0.00	32.10-32.16

***** Signal #2 *****

17	Dalapon #2	300.000	310.028	-3.3	100	0.00	0.92- 0.98
18	4-Nitrophenol #2	300.000	314.936	-5.0	102	0.00	13.09-13.18
19 S	2,4-DCAA #2		----------NA----------				
20	MCPP #2	30000.000	29101.987	3.0	96	0.00	14.98-15.04
21	Dicamba #2	60.000	60.215	-0.4	101	0.00	14.74-14.80
22	MCPA #2	30000.000	28905.667	3.6	92	0.00	15.92-15.98
23	Dichlorprop #2	300.000	325.901	-8.6	106	0.00	16.67-16.73
24	2,4-D #2	300.000	317.876	-6.0	103	0.00	17.93-17.99
25	Pentachlorophenol #2	15.000	14.722	1.9	101	0.00	19.04-19.10
26	2,4,5-TP (SILVEX) #2	60.000	62.576	-4.3	106	0.00	20.13-20.19
27	Chloramben #2	300.000	297.720	0.8	98	0.00	22.27-22.33
28	2,4,5-T #2	60.000	61.162	-1.9	102	0.00	21.83-21.89
29	Dinoseb #2	60.000	61.500	-2.5	101	0.00	23.12-23.18
30	2,4-DB #2	600.000	613.477	-2.2	102	0.00	23.48-23.55
31	Picloram #2	60.000	59.507	0.8	104	0.00	28.54-28.60

```
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    DD772785.D HRB2382.M        Wed Aug 13 08:48:47 2014
```

8.9.2

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GDD2386-CC2382
Account: RFWTXHO Weston Solutions **Lab FileID:** DD772887.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\GDD2386\DD772887.D\ECD1A.CH Vial: 15
Signal #2 : C:\HPCHEM\1\DATA\GDD2386\DD772887.D\ECD2B.CH
Acq On    : 19-Aug-2014, 22:31:01                    Operator: almar
Sample    : cc2382-400,herb                          Inst    : HP5890
Misc      : op33547,gdd2386                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\HRB2382.M (Chemstation Integrator)
Title        : Herbicides by 8151
Last Update  : Wed Aug 13 08:45:35 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Dalapon	400.000	410.732	-2.7	102	0.00	1.97- 2.03
2	4-Nitrophenol	400.000	415.563	-3.9	104	0.00	15.08-15.18
3 S	2,4-DCAA	400.000	402.702	-0.7	101	0.00	16.84-16.90
4	MCPP	40000.000	42587.756	-6.5	101	0.00	17.49-17.55
5	Dicamba	80.000	78.334	2.1	100	0.00	17.58-17.64
6	MCPA	40000.000	40935.895	-2.3	97	0.00	18.63-18.69
7	Dichlorprop	400.000	416.898	-4.2	104	0.00	19.54-19.60
8	2,4-D	400.000	412.389	-3.1	103	0.00	21.04-21.11
9	Pentachlorophenol	20.000	20.720	-3.6	102	0.00	22.04-22.10
10	2,4,5-TP (SILVEX)	80.000	84.390	-5.5	103	0.00	23.38-23.44
11	2,4,5-T	80.000	85.749	-7.2	104	0.00	25.30-25.36
12	Chloramben	400.000	448.632	-12.2	108	0.00	26.63-26.69
13	Dinoseb	80.000	81.266	-1.6	99	0.00	25.72-25.78
14	2,4-DB	800.000	850.192	-6.3	105	0.00	26.95-27.01
15	Picloram	80.000	92.322	-15.4#	115	0.00	32.10-32.16

***** Signal #2 *****

17	Dalapon #2	400.000	394.122	1.5	100	0.00	0.92- 0.98
18	4-Nitrophenol #2	400.000	425.351	-6.3	107	0.00	13.09-13.18
19 S	2,4-DCAA #2	400.000	401.388	-0.3	102	0.00	14.40-14.46
20	MCPP #2	40000.000	40458.513	-1.1	98	0.00	14.98-15.04
21	Dicamba #2	80.000	80.319	-0.4	101	0.00	14.74-14.80
22	MCPA #2	40000.000	39353.587	1.6	95	0.00	15.92-15.98
23	Dichlorprop #2	400.000	408.216	-2.1	102	0.00	16.67-16.73
24	2,4-D #2	400.000	412.167	-3.0	103	0.00	17.93-17.99
25	Pentachlorophenol #2	20.000	20.771	-3.9	101	0.00	19.04-19.10
26	2,4,5-TP (SILVEX) #2	80.000	85.062	-6.3	103	0.00	20.13-20.19
27	Chloramben #2	400.000	437.066	-9.3	106	0.00	22.27-22.33
28	2,4,5-T #2	80.000	85.858	-7.3	104	0.00	21.83-21.89
29	Dinoseb #2	80.000	82.594	-3.2	101	0.00	23.12-23.18
30	2,4-DB #2	800.000	864.318	-8.0	107	0.00	23.48-23.55
31	Picloram #2	80.000	94.873	-18.6#	117	-0.01	28.54-28.60

(#) = Out of Range SPCC's out = 0 CCC's out = 0
DD772786.D HRB2382.M Wed Aug 20 16:27:22 2014

8.9.3

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GDD2386-ECC2382
Account: RFWTXHO Weston Solutions **Lab FileID:** DD772895.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\GDD2386\DD772895.D\ECD1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\GDD2386\DD772895.D\ECD2B.CH
Acq On    : 20-Aug-2014, 04:03:48                    Operator: almar
Sample    : ecc2382-300,herb                         Inst    : HP5890
Misc      : op33547,gdd2386                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\HRB2382.M (Chemstation Integrator)
Title        : Herbicides by 8151
Last Update  : Wed Aug 13 08:45:35 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Dalapon	300.000	320.182	-6.7	105	0.00	1.97- 2.03
2	4-Nitrophenol	300.000	341.628	-13.9	110	0.00	15.08-15.18
3 S	2,4-DCAA	300.000	317.689	-5.9	103	0.00	16.84-16.90
4	MCPP	30000.000	30286.233	-1.0	98	0.00	17.49-17.55
5	Dicamba	60.000	60.846	-1.4	101	0.00	17.58-17.64
6	MCPA	30000.000	32947.977	-9.8	103	0.00	18.63-18.69
7	Dichlorprop	300.000	327.674	-9.2	106	0.00	19.54-19.60
8	2,4-D	300.000	327.877	-9.3	107	0.00	21.04-21.11
9	Pentachlorophenol	15.000	15.517	-3.4	105	0.00	22.04-22.10
10	2,4,5-TP (SILVEX)	60.000	60.834	-1.4	103	0.00	23.38-23.44
11	2,4,5-T	60.000	65.105	-8.5	109	-0.01	25.30-25.36
12	Chloramben	300.000	340.427	-13.5	114	0.00	26.63-26.69
13	Dinoseb	60.000	61.406	-2.3	101	0.00	25.72-25.78
14	2,4-DB	600.000	673.641	-12.3	109	0.00	26.95-27.01
15	Picloram	60.000	70.156	-16.9#	122	0.00	32.10-32.16
*****	Signal #2 *****						
17	Dalapon #2	300.000	303.986	-1.3	98	0.00	0.92- 0.98
18	4-Nitrophenol #2	300.000	341.151	-13.7	110	0.00	13.09-13.18
19 S	2,4-DCAA #2	300.000	307.547	-2.5	100	0.00	14.40-14.46
20	MCPP #2	30000.000	28731.898	4.2	95	0.00	14.98-15.04
21	Dicamba #2	60.000	58.596	2.3	98	0.00	14.74-14.80
22	MCPA #2	30000.000	31971.906	-6.6	102	0.00	15.92-15.98
23	Dichlorprop #2	300.000	311.785	-3.9	102	0.00	16.67-16.73
24	2,4-D #2	300.000	317.296	-5.8	103	0.00	17.93-17.99
25	Pentachlorophenol #2	15.000	14.723	1.8	101	0.00	19.04-19.10
26	2,4,5-TP (SILVEX) #2	60.000	60.560	-0.9	102	0.00	20.13-20.19
27	Chloramben #2	300.000	327.725	-9.2	108	0.00	22.27-22.33
28	2,4,5-T #2	60.000	64.200	-7.0	107	-0.01	21.83-21.89
29	Dinoseb #2	60.000	59.446	0.9	98	0.00	23.12-23.18
30	2,4-DB #2	600.000	667.796	-11.3	111	0.00	23.48-23.55
31	Picloram #2	60.000	72.662	-21.1#	127	-0.01	28.54-28.60

(#) = Out of Range SPCC's out = 0 CCC's out = 0
DD772785.D HRB2382.M Wed Aug 20 16:27:01 2014

8.9.4

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GDD2387-CC2382
Account: RFWTXHO Weston Solutions **Lab FileID:** DD772899.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\GDD2387\DD772899.D\ECD1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\GDD2387\DD772899.D\ECD2B.CH
Acq On    : 20-Aug-2014, 10:12:52                    Operator: almar
Sample    : cc2382-300,herb                          Inst    : HP5890
Misc      : op33547,gdd2387                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\HRB2382.M (Chemstation Integrator)
Title        : Herbicides by 8151
Last Update  : Wed Aug 13 08:45:35 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Dalapon	300.000	323.060	-7.7	106	-0.04	1.97- 2.03
2	4-Nitrophenol	300.000	340.855	-13.6	109	0.00	15.08-15.18
3 S	2,4-DCAA	300.000	323.537	-7.8	105	0.00	16.84-16.90
4	MCPP	30000.000	32199.332	-7.3	104	0.00	17.49-17.55
5	Dicamba	60.000	60.610	-1.0	101	0.00	17.58-17.64
6	MCPA	30000.000	32815.711	-9.4	103	0.00	18.63-18.69
7	Dichlorprop	300.000	332.144	-10.7	108	0.00	19.54-19.60
8	2,4-D	300.000	332.293	-10.8	108	0.00	21.04-21.11
9	Pentachlorophenol	15.000	15.510	-3.4	105	0.00	22.04-22.10
10	2,4,5-TP (SILVEX)	60.000	61.517	-2.5	104	0.00	23.38-23.44
11	2,4,5-T	60.000	65.553	-9.3	110	-0.01	25.30-25.36
12	Chloramben	300.000	339.211	-13.1	114	-0.01	26.63-26.69
13	Dinoseb	60.000	61.205	-2.0	100	-0.01	25.72-25.78
14	2,4-DB	600.000	684.235	-14.0	111	-0.01	26.95-27.01
15	Picloram	60.000	69.332	-15.6#	121	0.00	32.10-32.16
*****	Signal #2 *****						
17	Dalapon #2	300.000	300.686	-0.2	97	-0.01	0.92- 0.98
18	4-Nitrophenol #2	300.000	336.966	-12.3	109	0.00	13.09-13.18
19 S	2,4-DCAA #2	300.000	310.464	-3.5	101	0.00	14.40-14.46
20	MCPP #2	30000.000	29845.541	0.5	99	0.00	14.98-15.04
21	Dicamba #2	60.000	58.917	1.8	99	0.00	14.74-14.80
22	MCPA #2	30000.000	31820.766	-6.1	101	0.00	15.92-15.98
23	Dichlorprop #2	300.000	314.065	-4.7	102	0.00	16.67-16.73
24	2,4-D #2	300.000	316.353	-5.5	103	0.00	17.93-17.99
25	Pentachlorophenol #2	15.000	14.602	2.7	100	0.00	19.04-19.10
26	2,4,5-TP (SILVEX) #2	60.000	59.941	0.1	101	-0.01	20.13-20.19
27	Chloramben #2	300.000	326.402	-8.8	107	0.00	22.27-22.33
28	2,4,5-T #2	60.000	63.324	-5.5	105	-0.01	21.83-21.89
29	Dinoseb #2	60.000	58.314	2.8	96	-0.01	23.12-23.18
30	2,4-DB #2	600.000	654.044	-9.0	108	-0.01	23.48-23.55
31	Picloram #2	60.000	67.091	-11.8	117	-0.01	28.54-28.60

(#) = Out of Range SPCC's out = 0 CCC's out = 0
DD772785.D HRB2382.M Wed Aug 20 16:47:33 2014

8.9.5

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GDD2387-ECC2382
Account: RFWTXHO Weston Solutions **Lab FileID:** DD772903.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\1\DATA\GDD2387\DD772903.D\ECD1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\GDD2387\DD772903.D\ECD2B.CH
Acq On    : 20-Aug-2014, 14:45:56                    Operator: almar
Sample    : ecc2382-400,herb                         Inst    : HP5890
Misc      : op33547,gdd2387                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\HRB2382.M (Chemstation Integrator)
Title        : Herbicides by 8151
Last Update  : Wed Aug 13 08:45:35 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Dalapon	400.000	413.515	-3.4	103	0.00	1.97- 2.03
2	4-Nitrophenol	400.000	429.922	-7.5	108	0.00	15.08-15.18
3 S	2,4-DCAA	400.000	404.539	-1.1	101	0.00	16.84-16.90
4	MCPP	40000.000	40428.226	-1.1	96	0.00	17.49-17.55
5	Dicamba	80.000	78.619	1.7	101	0.00	17.58-17.64
6	MCPA	40000.000	41683.405	-4.2	99	0.00	18.63-18.69
7	Dichlorprop	400.000	417.801	-4.5	104	0.00	19.54-19.60
8	2,4-D	400.000	417.332	-4.3	105	0.00	21.04-21.11
9	Pentachlorophenol	20.000	21.173	-5.9	104	0.00	22.04-22.10
10	2,4,5-TP (SILVEX)	80.000	82.216	-2.8	101	0.00	23.38-23.44
11	2,4,5-T	80.000	86.376	-8.0	105	0.00	25.30-25.36
12	Chloramben	400.000	459.177	-14.8	110	0.00	26.63-26.69
13	Dinoseb	80.000	80.194	-0.2	97	0.00	25.72-25.78
14	2,4-DB	800.000	931.576	-16.4#	116	0.00	26.95-27.01
15	Picloram	80.000	95.440	-19.3#	119	0.00	32.10-32.16
*****	Signal #2 *****						
17	Dalapon #2	400.000	381.087	4.7	97	0.00	0.92- 0.98
18	4-Nitrophenol #2	400.000	418.592	-4.6	105	0.00	13.09-13.18
19 S	2,4-DCAA #2	400.000	385.668	3.6	98	0.00	14.40-14.46
20	MCPP #2	40000.000	38625.345	3.4	93	0.00	14.98-15.04
21	Dicamba #2	80.000	76.273	4.7	96	0.00	14.74-14.80
22	MCPA #2	40000.000	40332.129	-0.8	97	0.00	15.92-15.98
23	Dichlorprop #2	400.000	396.171	1.0	99	0.00	16.67-16.73
24	2,4-D #2	400.000	400.575	-0.1	100	0.00	17.93-17.99
25	Pentachlorophenol #2	20.000	20.020	-0.1	98	0.00	19.04-19.10
26	2,4,5-TP (SILVEX) #2	80.000	80.331	-0.4	97	0.00	20.13-20.19
27	Chloramben #2	400.000	428.728	-7.2	104	0.00	22.27-22.33
28	2,4,5-T #2	80.000	84.134	-5.2	102	-0.01	21.83-21.89
29	Dinoseb #2	80.000	78.012	2.5	95	0.00	23.12-23.18
30	2,4-DB #2	800.000	832.556	-4.1	103	0.00	23.48-23.55
31	Picloram #2	80.000	94.689	-18.4#	117	-0.01	28.54-28.60

(#) = Out of Range SPCC's out = 0 CCC's out = 0
DD772786.D HRB2382.M Wed Aug 20 16:48:09 2014

8.9.6

8

Initial Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GLB1526-ICC1526
Lab FileID: LB103323.D

Response Factor Report GCLL

Method : C:\MSDCHEM\1\METHODS\GLB1526.M (Chemstation Integrator)
Title : TPH by TX1005
Last Update : Fri Aug 08 10:36:16 2014
Response via : Initial Calibration

Calibration Files
25 =LB103331.D 50 =LB103329.D 200 =LB103327.D 400 =LB103325.D
1000=LB103323.D 2000=LB103321.D 5000=LB103319.D

Compound	25	50	200	400	1000	2000	5000	Avg	%RSD
1)S aaa-Trifluorotolu	5.553	6.686	5.854	5.750	5.669	5.409	5.207	5.733 E4	8.25
2)H TPH (C6-C12)	7.959	8.409	8.919	8.164	7.569	7.216	6.992	7.890 E4	8.61
3)S o-Terphenyl	1.290	1.600	1.426	1.367	1.353	1.358	1.372	1.395 E5	7.08
4)H TPH (>C12-C28)	8.741	9.236	9.223	8.542	8.225	8.020	8.023	8.573 E4	6.06
5)H TPH (>C28-C35)	8.741	9.236	9.223	8.542	8.225	8.020	8.023	8.573 E4	6.06

(#) = Out of Range

GLB1526.M Fri Aug 08 10:38:09 2014

8.9.7

8

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GLB1526-ICV1526
Lab FileID: LB103333.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\GLL1526.SEC\LB103333.D     Vial: 23
Acq On    : 8-8-2014 06:31:11 AM                     Operator: ZHIYANGL
Sample    : icv1526-1000                             Inst    : GCLL
Misc      : op33415,glb1526,30.00,,,3,,water         Multiplr: 1.00
IntFile   : autoint1.e

Method       : C:\MSDCHEM\1\METHODS\GLB1526.M (Chemstation Integrator)
Title        : TPH by TX1005
Last Update  : Fri Aug 08 10:36:16 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	aaa-Trifluorotoluene		----------NA----------				
2	H	TPH (C6-C12)	78.896	64.949 E3	17.7	86	0.00	1.90- 7.23
3	S	o-Terphenyl		----------NA----------				
4	H	TPH (>C12-C28)	85.728	71.082 E3	17.1	86	0.00	7.23-13.09
5	H	TPH (>C28-C35)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LB103323.D GLB1526.M Fri Aug 08 10:37:55 2014

8.9.8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GLB1529-CC1526
Account: RFWTXHO Weston Solutions **Lab FileID:** LB103447.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\GLL1529.SEC\LB103447.D     Vial: 3
Acq On    : 8-12-2014 01:04:02 PM                    Operator: ZHIYANGL
Sample    : cc1526-400                               Inst    : GCLL
Misc      : op33214,glb1529,10.33,,,10,,soil         Multiplr: 1.00
IntFile   : autoint1.e

Method       : C:\MSDCHEM\1\METHODS\GLB1526.M (Chemstation Integrator)
Title        : TPH by TX1005
Last Update  : Fri Aug 08 10:36:16 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	aaa-Trifluorotoluene	57.325	60.002 E3	-4.7	104	0.00	2.61- 2.71
2	H	TPH (C6-C12)	78.896	84.888 E3	-7.6	104	0.00	1.90- 7.23
3	S	o-Terphenyl	139.524	139.108 E3	0.3	102	0.00	10.20-10.30
4	H	TPH (>C12-C28)	85.728	85.696 E3	0.0	100	0.00	7.23-13.09
5	H	TPH (>C28-C35)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LB103325.D GLB1526.M Tue Aug 12 16:33:35 2014

8.9.9

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GLB1529-CC1526
Account: RFWTXHO Weston Solutions **Lab FileID:** LB103461.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\GLL1529.SEC\LB103461.D     Vial: 17
Acq On    : 8-12-2014 04:12:58 PM                    Operator: ZHIYANGL
Sample    : cc1526-1000                              Inst    : GCLL
Misc      : op33505,glb1529,30.04,,,3,,water         Multiplr: 1.00
IntFile   : autoint1.e

Method       : C:\MSDCHEM\1\METHODS\GLB1526.M (Chemstation Integrator)
Title        : TPH by TX1005
Last Update  : Fri Aug 08 10:36:16 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	aaa-Trifluorotoluene	57.325	53.866 E3	6.0	95	0.00	2.61- 2.71
2	H	TPH (C6-C12)	78.896	75.226 E3	4.7	99	0.00	1.90- 7.23
3	S	o-Terphenyl	139.524	134.660 E3	3.5	100	0.00	10.20-10.30
4	H	TPH (>C12-C28)	85.728	82.660 E3	3.6	100	0.00	7.23-13.09
5	H	TPH (>C28-C35)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LB103323.D GLB1526.M Tue Aug 12 16:33:49 2014

8.9.10

8

Initial Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GLF1527-ICC1527
Lab FileID: LF103348.D

Response Factor Report GCLL

Method : C:\MSDCHEM\1\METHODS\GLF1527.M (Chemstation Integrator)
Title : TPH by TX1005
Last Update : Fri Aug 08 16:40:25 2014
Response via : Initial Calibration

Calibration Files
25 =LF103356.D 50 =LF103354.D 200 =LF103352.D 400 =LF103350.D
1000=LF103348.D 2000=LF103346.D 5000=LF103344.D

Compound	25	50	200	400	1000	2000	5000	Avg	%RSD
1)S aaa-Trifluorotolu	7.537	8.883	8.688	8.069	7.886	7.482	7.359	7.986 E4	7.52
2)H TPH (C6-C12)	1.102	1.104	1.214	1.099	1.057	1.006	0.963	1.078 E5	7.49
3)S o-Terphenyl	1.802	2.115	2.051	1.990	1.769	1.701	1.682	1.873 E5	9.40
4)H TPH (>C12-C28)	1.083	1.091	1.229	1.057	1.061	1.020	0.992	1.076 E5	7.03
5)H TPH (>C28-C35)	1.083	1.091	1.229	1.057	1.061	1.020	0.992	1.076 E5	7.03

(#) = Out of Range

GLF1527.M Fri Aug 08 16:42:38 2014

8.9.11

8

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GLF1527-ICV1527
Lab FileID: LF103358.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\GLL1527\LF103358.D        Vial: 20
Acq On    : 8-8-2014 04:05:41 PM                    Operator: ZHIYANGL
Sample    : icv1527-1000                            Inst    : GCLL
Misc      : op33214,glf1527,10.47,,,10,,soil        Multiplr: 1.00
IntFile   : events.e

Method       : C:\MSDCHEM\1\METHODS\GLF1527.M (Chemstation Integrator)
Title        : TPH by TX1005
Last Update  : Fri Aug 08 16:40:25 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	aaa-Trifluorotoluene		----------NA----------				
2	H	TPH (C6-C12)	107.810	104.850 E3	2.7	99	0.00	1.86- 7.17
3	S	o-Terphenyl		----------NA----------				
4	H	TPH (>C12-C28)	107.622	119.367 E3	-10.9	113	0.00	7.17-13.05
5	H	TPH (>C28-C35)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LF103348.D GLF1527.M Fri Aug 08 16:42:26 2014

8.9.12

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GLF1529-CC1527
Account: RFWTXHO Weston Solutions **Lab FileID:** LF103454.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\GLL1529\LF103454.D        Vial: 10
Acq On    : 8-12-2014 02:25:00 PM                   Operator: ZHIYANGL
Sample    : cc1527-1000                             Inst    : GCLL
Misc      : op33505,glf1529,30.94,,,3,,water        Multiplr: 1.00
IntFile   : events.e

Method       : C:\MSDCHEM\1\METHODS\GLF1527.M (Chemstation Integrator)
Title        : TPH by TX1005
Last Update  : Fri Aug 08 16:40:25 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	aaa-Trifluorotoluene	79.861	79.377 E3	0.6	101	0.00	2.53- 2.63
2	H	TPH (C6-C12)	107.810	117.061 E3	-8.6	111	0.00	1.86- 7.17
3	S	o-Terphenyl	187.285	211.596 E3	-13.0	120	0.00	10.15-10.25
4	H	TPH (>C12-C28)	107.622	129.142 E3	-20.0	122	0.00	7.17-13.05
5	H	TPH (>C28-C35)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LF103348.D GLF1527.M Tue Aug 12 14:44:46 2014

8.9.13

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GLF1529-CC1527
Account: RFWTXHO Weston Solutions **Lab FileID:** LF103462.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\GLL1529\LF103462.D        Vial: 18
Acq On    : 8-12-2014 04:12:58 PM                   Operator: ZHIYANGL
Sample    : cc1527-400                              Inst    : GCLL
Misc      : op33505,glf1529,30.81,,,3,,water        Multiplr: 1.00
IntFile   : events.e

Method       : C:\MSDCHEM\1\METHODS\GLF1527.M (Chemstation Integrator)
Title        : TPH by TX1005
Last Update  : Fri Aug 08 16:40:25 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	aaa-Trifluorotoluene	79.861	79.040 E3	1.0	98	0.00	2.53- 2.63
2	H	TPH (C6-C12)	107.810	118.554 E3	-10.0	108	0.00	1.86- 7.17
3	S	o-Terphenyl	187.285	209.255 E3	-11.7	105	0.00	10.15-10.25
4	H	TPH (>C12-C28)	107.622	126.762 E3	-17.8	120	0.00	7.17-13.05
5	H	TPH (>C28-C35)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LF103350.D GLF1527.M Tue Aug 12 16:32:51 2014

8.9.14

8

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GLF1529-CC1527
Lab FileID: LF103488.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\GLL1529\LF103488.D         Vial: 44
Acq On    : 12 Aug 2014  10:03 pm                    Operator: ZHIYANGL
Sample    : cc1527-1000                              Inst    : GCLL
Misc      : op33505,glf1529,31.32,,,3,,water         Multiplr: 1.00
IntFile   : events.e

Method       : C:\MSDCHEM\1\METHODS\GLF1527.M (Chemstation Integrator)
Title        : TPH by TX1005
Last Update  : Fri Aug 08 16:40:25 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	aaa-Trifluorotoluene	79.861	74.548 E3	6.7	95	0.00	2.53- 2.63
2	H	TPH (C6-C12)	107.810	103.740 E3	3.8	98	0.00	1.86- 7.17
3	S	o-Terphenyl	187.285	184.031 E3	1.7	104	0.00	10.15-10.25
4	H	TPH (>C12-C28)	107.622	111.818 E3	-3.9	105	0.00	7.17-13.05
5	H	TPH (>C28-C35)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LF103348.D GLF1527.M Wed Aug 13 10:07:15 2014

8.9.15

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GLF1529-CC1527
Account: RFWTXHO Weston Solutions **Lab FileID:** LF103512.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\GLL1529\LF103512.D        Vial: 68
Acq On    : 8-13-2014 03:27:19 AM                   Operator: ZHIYANGL
Sample    : cc1527-400                              Inst    : GCLL
Misc      : op33512,glf1529,10.00,,,10,,soil        Multiplr: 1.00
IntFile   : events.e

Method       : C:\MSDCHEM\1\METHODS\GLF1527.M (Chemstation Integrator)
Title        : TPH by TX1005
Last Update  : Fri Aug 08 16:40:25 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	aaa-Trifluorotoluene	79.861	76.509 E3	4.2	95	0.00	2.53- 2.63
2	H	TPH (C6-C12)	107.810	109.077 E3	-1.2	99	0.00	1.86- 7.17
3	S	o-Terphenyl	187.285	192.892 E3	-3.0	97	0.00	10.15-10.25
4	H	TPH (>C12-C28)	107.622	116.820 E3	-8.5	110	0.00	7.17-13.05
5	H	TPH (>C28-C35)		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
LF103350.D GLF1527.M Wed Aug 13 10:06:49 2014

8.9.16

8

Initial Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GMM461-ICC461
Lab FileID: MM070784.D

Response Factor Report HP5890

Method : C:\HPCHEM\2\METHODS\PCBQ461.M (Chemstation Integrator)
Title : PCB's by EPA-608 / SW846-8082
Last Update : Wed Aug 13 09:58:13 2014
Response via : Initial Calibration

Calibration Files
1 =MM070782.D 2 =MM070783.D 3 =MM070784.D 4 =MM070785.D
5 =MM070786.D 6 =MM070787.D 7 =MM070788.D

Compound	1	2	3	4	5	6	7	Avg		%RSD
1)S Tetrachloro-m-xyl	2.704	2.592	2.541	2.508	2.437	2.427	2.275	2.498	E4	5.46
2)L1AR1016-A	6.852	6.675	6.283	6.142	5.873	5.832	5.333	6.141	E2	8.49
3)L1AR1016-B	1.570	1.509	1.392	1.347	1.284	1.269	1.144	1.359	E3	10.75
4)L1AR1016-C	2.833	2.687	2.500	2.424	2.327	2.316	2.124	2.459	E3	9.75
5)L1AR1016-D	1.260	1.155	1.091	1.037	1.002	0.994	0.909	1.064	E3	10.92
6)L1AR1016-E	8.944	8.673	8.312	7.940	7.872	7.708	7.085	8.076	E2	7.74
7)L1AR1016-F	9.848	9.563	9.181	9.023	9.046	8.970	8.328	9.137	E2	5.27
8)L2AR1221-A			3.300					3.300	E2	0.00
9)L2AR1221-B			3.957					3.957	E2	0.00
10)L2AR1221-C			2.626					2.626	E2	0.00
11)L2AR1221-D			9.927					9.927	E2	0.00
12)L2AR1221-E								0.000		-1.00
13)L3AR1232-A			7.759					7.759	E2	0.00
14)L3AR1232-B			1.211					1.211	E3	0.00
15)L3AR1232-C			5.137					5.137	E2	0.00
16)L3AR1232-D			3.254					3.254	E2	0.00
17)L3AR1232-E			3.579					3.579	E2	0.00
18)L3AR1232-F			4.106					4.106	E2	0.00
19)L4AR1242-A			1.413					1.413	E3	0.00
20)L4AR1242-B			2.520					2.520	E3	0.00
21)L4AR1242-C			1.071					1.071	E3	0.00
22)L4AR1242-D			6.803					6.803	E2	0.00
23)L4AR1242-E			8.430					8.430	E2	0.00
24)L4AR1242-F			9.661					9.661	E2	0.00
25)L5AR1248-A			1.357					1.357	E3	0.00
26)L5AR1248-B			1.033					1.033	E3	0.00
27)L5AR1248-C			8.352					8.352	E2	0.00
28)L5AR1248-D			1.615					1.615	E3	0.00
29)L5AR1248-E			1.227					1.227	E3	0.00
30)L5AR1248-F			1.172					1.172	E3	0.00
31)L6AR1254-A			1.573					1.573	E3	0.00
32)L6AR1254-B			2.241					2.241	E3	0.00
33)L6AR1254-C			2.454					2.454	E3	0.00
34)L6AR1254-D			2.746					2.746	E3	0.00
35)L6AR1254-E			2.593					2.593	E3	0.00
36)L6AR1254-F			2.351					2.351	E3	0.00
37)L7AR1260-A	2.085	1.968	1.818	1.756	1.661	1.631	1.477	1.771	E3	11.70
38)L7AR1260-B	3.054	2.889	2.647	2.566	2.432	2.379	2.162	2.590	E3	11.80
39)L7AR1260-C	2.659	2.554	2.385	2.344	2.224	2.208	2.045	2.346	E3	8.99
40)L7AR1260-D	1.744	1.719	1.583	1.547	1.467	1.440	1.311	1.544	E3	9.99
41)L7AR1260-E	3.572	3.526	3.334	3.284	3.140	3.116	2.882	3.265	E3	7.42
42)L7AR1260-F	1.919	1.841	1.706	1.699	1.637	1.610	1.507	1.703	E3	8.21
43)L8AR1262-A			3.300					3.300	E1	0.00
44)L8AR1262-B			4.289					4.289	E1	0.00
45)L8AR1262-C			3.253					3.253	E1	0.00
46)L8AR1262-D			4.540					4.540	E1	0.00
47)L8AR1262-E			2.309					2.309	E1	0.00

Initial Calibration Summary

Job Number: TC52863 **Sample:** GMM461-ICC461
Account: RFWTXHO Weston Solutions **Lab FileID:** MM070784.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

48)L8AR1262-F			5.117					5.117	E1	0.00
49)L9AR1268-A			1.273					1.273	E3	0.00
50)L9AR1268-B			1.415					1.415	E3	0.00
51)L9AR1268-C			4.800					4.800	E3	0.00
52)L9AR1268-D			5.069					5.069	E3	0.00
53)L9AR1268-E			3.826					3.826	E3	0.00
54)L9AR1268-F			1.642					1.642	E3	0.00
55)S Decachlorobipheny	3.762	3.453	3.067	2.949	2.772	2.670	2.395	3.010	E4	15.58

Signal #2

1)S Tetrachloro-m-xyl	2.751	2.639	2.550	2.509	2.425	2.421	2.278	2.510	E4	6.19
2)L1AR1016-A	7.435	7.004	6.713	6.620	6.343	6.237	5.719	6.581	E2	8.42
3)L1AR1016-B	1.581	1.558	1.382	1.346	1.302	1.271	1.144	1.369	E3	11.38
4)L1AR1016-C	3.036	2.834	2.621	2.517	2.449	2.433	2.214	2.586	E3	10.59
5)L1AR1016-D	1.362	1.310	1.133	1.103	1.111	1.091	0.998	1.158	E3	11.18
6)L1AR1016-E	1.588	1.537	1.389	1.366	1.326	1.300	1.195	1.386	E3	9.84
7)L1AR1016-F	1.121	1.076	1.002	0.999	1.001	0.987	0.926	1.016	E3	6.27
8)L2AR1221-A			3.161					3.161	E2	0.00
9)L2AR1221-B			4.189					4.189	E2	0.00
10)L2AR1221-C			3.029					3.029	E2	0.00
11)L2AR1221-D			1.066					1.066	E3	0.00
12)L2AR1221-E								0.000		-1.00
13)L3AR1232-A			8.320					8.320	E2	0.00
14)L3AR1232-B			1.282					1.282	E3	0.00
15)L3AR1232-C			5.629					5.629	E2	0.00
16)L3AR1232-D			3.347					3.347	E2	0.00
17)L3AR1232-E			6.365					6.365	E2	0.00
18)L3AR1232-F			4.384					4.384	E2	0.00
19)L4AR1242-A			1.419					1.419	E3	0.00
20)L4AR1242-B			2.635					2.635	E3	0.00
21)L4AR1242-C			1.137					1.137	E3	0.00
22)L4AR1242-D			6.874					6.874	E2	0.00
23)L4AR1242-E			1.455					1.455	E3	0.00
24)L4AR1242-F			1.069					1.069	E3	0.00
25)L5AR1248-A			1.450					1.450	E3	0.00
26)L5AR1248-B			1.160					1.160	E3	0.00
27)L5AR1248-C			1.593					1.593	E3	0.00
28)L5AR1248-D			1.677					1.677	E3	0.00
29)L5AR1248-E			1.332					1.332	E3	0.00
30)L5AR1248-F			1.582					1.582	E3	0.00
31)L6AR1254-A			1.369					1.369	E3	0.00
32)L6AR1254-B			1.831					1.831	E3	0.00
33)L6AR1254-C			2.794					2.794	E3	0.00
34)L6AR1254-D			2.969					2.969	E3	0.00
35)L6AR1254-E			1.322					1.322	E3	0.00
36)L6AR1254-F			2.375					2.375	E3	0.00
37)L7AR1260-A	2.212	2.155	1.885	1.799	1.721	1.670	1.508	1.850	E3	13.84
38)L7AR1260-B	2.546	2.611	2.215	2.120	2.052	1.974	1.801	2.188	E3	13.54
39)L7AR1260-C	1.801	1.892	1.562	1.540	1.466	1.427	1.298	1.569	E3	13.35
40)L7AR1260-D	1.984	2.054	1.695	1.696	1.598	1.553	1.426	1.715	E3	13.28
41)L7AR1260-E	4.190	4.169	3.505	3.489	3.352	3.204	2.967	3.554	E3	13.09
42)L7AR1260-F	3.004	3.246	2.460	2.497	2.445	2.287	2.125	2.581	E3	15.46
43)L8AR1262-A			3.376					3.376	E1	0.00
44)L8AR1262-B			3.523					3.523	E1	0.00
45)L8AR1262-C			3.067					3.067	E1	0.00
46)L8AR1262-D			6.092					6.092	E1	0.00
47)L8AR1262-E			4.793					4.793	E1	0.00
48)L8AR1262-F			2.012					2.012	E1	0.00
49)L9AR1268-A			1.268					1.268	E3	0.00

Initial Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GMM461-ICC461
Lab FileID: MM070784.D

```
50)L9AR1268-B                      1.511                          1.511 E3   0.00
51)L9AR1268-C                      4.686                          4.686 E3   0.00
52)L9AR1268-D                      5.384                          5.384 E3   0.00
53)L9AR1268-E                      3.877                          3.877 E3   0.00
54)L9AR1268-F                      1.607                          1.607 E3   0.00
55)S Decachlorobipheny 3.633 3.363 2.983 2.925 2.799 2.602 2.323 2.947 E4  15.01
---------------------------------------------------------------------------
(#) = Out of Range

          PCBQ461.M         Wed Aug 13 10:01:21 2014
```

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GMM461-ICV461
Lab FileID: MM070789.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\2\DATA\GMM461\MM070789.D\ECD1A.CH  Vial: 18
Signal #2 : C:\HPCHEM\2\DATA\GMM461\MM070789.D\ECD2B.CH
Acq On    : 12-Aug-2014, 18:56:02                        Operator: almar
Sample    : icv461-200,16/60                             Inst    : HP5890
Misc      : op33499,gmm461                               Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E     IntFile Signal #2: AUTOINT2.E

Method       : C:\HPCHEM\2\METHODS\PCBQ461.M (Chemstation Integrator)
Title        : PCB's by EPA-608 / SW846-8082
Last Update  : Wed Aug 13 09:58:13 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2	L1	AR1016-A	200.000	194.846	2.6	95	0.02	2.46- 2.56
3	L1	AR1016-B	200.000	191.986	4.0	94	0.02	2.94- 3.04
4	L1	AR1016-C	200.000	187.652	6.2	92	0.02	3.49- 3.59
5	L1	AR1016-D	200.000	187.282	6.4	91	0.02	3.62- 3.72
6	L1	AR1016-E	200.000	198.844	0.6	97	0.02	4.21- 4.31
7	L1	AR1016-F	200.000	181.156	9.4	90	0.02	4.36- 4.46
8	L2	AR1221-A		----------NA----------				
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A	200.000	181.936	9.0	89	0.02	5.95- 6.01
38	L7	AR1260-B	200.000	182.908	8.5	89	0.02	6.27- 6.37
39	L7	AR1260-C	200.000	180.427	9.8	89	0.02	6.65- 6.75
40	L7	AR1260-D	200.000	188.806	5.6	92	0.02	6.88- 6.98
41	L7	AR1260-E	200.000	189.468	5.3	93	0.02	7.59- 7.69

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GMM461-ICV461
Lab FileID: MM070789.D

42	L7	AR1260-F	200.000	188.298	5.9	94	0.02	7.99- 8.09
43	L8	AR1262-A		----------NA----------				
44	L8	AR1262-B		----------NA----------				
45	L8	AR1262-C		----------NA----------				
46	L8	AR1262-D		----------NA----------				
47	L8	AR1262-E		----------NA----------				
48	L8	AR1262-F		----------NA----------				
49	L9	AR1268-A		----------NA----------				
50	L9	AR1268-B		----------NA----------				
51	L9	AR1268-C		----------NA----------				
52	L9	AR1268-D		----------NA----------				
53	L9	AR1268-E		----------NA----------				
54	L9	AR1268-F		----------NA----------				
55	S	Decachlorobiphenyl		----------NA----------				

***** Signal #2 *****

1	S	Tetrachloro-m-xylene		----------NA----------				
2	L1	AR1016-A	200.000	189.328	5.3	93	0.02	3.17- 3.27
3	L1	AR1016-B	200.000	193.225	3.4	96	0.02	3.74- 3.84
4	L1	AR1016-C	200.000	192.975	3.5	95	0.02	4.30- 4.40
5	L1	AR1016-D	200.000	189.341	5.3	97	0.02	4.50- 4.60
6	L1	AR1016-E	200.000	180.027	10.0	90	0.02	5.19- 5.29
7	L1	AR1016-F	200.000	178.060	11.0	90	0.02	5.37- 5.47
8	L2	AR1221-A		----------NA----------				
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A	200.000	178.400	10.8	88	0.02	6.93- 7.03
38	L7	AR1260-B	200.000	180.929	9.5	89	0.02	7.13- 7.23
39	L7	AR1260-C	200.000	184.245	7.9	93	0.02	7.82- 7.88
40	L7	AR1260-D	200.000	182.595	8.7	92	0.02	8.28- 8.34
41	L7	AR1260-E	200.000	187.236	6.4	95	0.02	8.55- 8.61
42	L7	AR1260-F	200.000	181.657	9.2	95	0.02	9.13- 9.23
43	L8	AR1262-A		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GMM461-ICV461
Lab FileID: MM070789.D

```
44 L8  AR1262-B                          ----------NA----------
45 L8  AR1262-C                          ----------NA----------
46 L8  AR1262-D                          ----------NA----------
47 L8  AR1262-E                          ----------NA----------
48 L8  AR1262-F                          ----------NA----------
49 L9  AR1268-A                          ----------NA----------
50 L9  AR1268-B                          ----------NA----------
51 L9  AR1268-C                          ----------NA----------
52 L9  AR1268-D                          ----------NA----------
53 L9  AR1268-E                          ----------NA----------
54 L9  AR1268-F                          ----------NA----------
55 S   Decachlorobiphenyl                ----------NA----------
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    MM070784.D PCBQ461.M        Wed Aug 13 10:00:58 2014
```

8.9.18

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GMM464-CC461
Account: RFWTXHO Weston Solutions **Lab FileID:** MM070930.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\2\DATA\GMM464\MM070930.D\ECD1A.CH  Vial: 40
Signal #2 : C:\HPCHEM\2\DATA\GMM464\MM070930.D\ECD2B.CH
Acq On    : 15-Aug-2014, 22:23:58                        Operator: almar
Sample    : cc461-300,16/60                              Inst    : HP5890
Misc      : op33546,gmm464                               Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E     IntFile Signal #2: AUTOINT2.E

Method       : C:\HPCHEM\2\METHODS\PCBQ461.M (Chemstation Integrator)
Title        : PCB's by EPA-608 / SW846-8082
Last Update  : Sat Aug 16 15:09:57 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	60.000	61.067	-1.8	101	-0.05	2.08- 2.28
2	L1	AR1016-A	300.000	308.726	-2.9	103	-0.06	2.53- 2.63
3	L1	AR1016-B	300.000	304.934	-1.6	103	-0.08	3.03- 3.13
4	L1	AR1016-C	300.000	300.539	-0.2	102	-0.11#	3.61- 3.71
5	L1	AR1016-D	300.000	297.650	0.8	102	-0.11#	3.74- 3.84
6	L1	AR1016-E	300.000	301.258	-0.4	102	-0.11#	4.33- 4.43
7	L1	AR1016-F	300.000	302.903	-1.0	102	-0.11#	4.49- 4.59
8	L2	AR1221-A		----------NA----------				
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A	300.000	301.921	-0.6	102	-0.06	6.02- 6.08
38	L7	AR1260-B	300.000	302.080	-0.7	102	-0.05	6.33- 6.43
39	L7	AR1260-C	300.000	304.310	-1.4	101	-0.04	6.69- 6.79
40	L7	AR1260-D	300.000	304.549	-1.5	101	-0.02	6.91- 7.01
41	L7	AR1260-E	300.000	308.292	-2.8	102	-0.02	7.61- 7.71

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GMM464-CC461
Account: RFWTXHO Weston Solutions **Lab FileID:** MM070930.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

42	L7	AR1260-F	300.000	302.770	-0.9	101	-0.02	8.01- 8.11
43	L8	AR1262-A		----------NA----------				
44	L8	AR1262-B		----------NA----------				
45	L8	AR1262-C		----------NA----------				
46	L8	AR1262-D		----------NA----------				
47	L8	AR1262-E		----------NA----------				
48	L8	AR1262-F		----------NA----------				
49	L9	AR1268-A		----------NA----------				
50	L9	AR1268-B		----------NA----------				
51	L9	AR1268-C		----------NA----------				
52	L9	AR1268-D		----------NA----------				
53	L9	AR1268-E		----------NA----------				
54	L9	AR1268-F		----------NA----------				
55	S	Decachlorobiphenyl	60.000	60.607	-1.0	103	0.00	9.66- 9.96
*****		Signal #2 *****						
1	S	Tetrachloro-m-xylene	60.000	61.616	-2.7	103	-0.06	2.43- 2.63
2	L1	AR1016-A	300.000	313.799	-4.6	104	-0.07	3.24- 3.34
3	L1	AR1016-B	300.000	303.275	-1.1	103	-0.07	3.82- 3.92
4	L1	AR1016-C	300.000	301.738	-0.6	103	-0.08	4.39- 4.49
5	L1	AR1016-D	300.000	294.092	2.0	103	-0.07	4.59- 4.69
6	L1	AR1016-E	300.000	302.049	-0.7	102	-0.06	5.26- 5.36
7	L1	AR1016-F	300.000	303.681	-1.2	103	-0.06	5.44- 5.54
8	L2	AR1221-A		----------NA----------				
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A	300.000	295.877	1.4	101	-0.05	6.98- 7.08
38	L7	AR1260-B	300.000	296.450	1.2	102	-0.02	7.15- 7.25
39	L7	AR1260-C	300.000	297.627	0.8	101	-0.02	7.83- 7.89
40	L7	AR1260-D	300.000	297.153	0.9	100	-0.02	8.30- 8.36
41	L7	AR1260-E	300.000	294.152	1.9	100	-0.01	8.56- 8.62
42	L7	AR1260-F	300.000	283.408	5.5	98	-0.01	9.14- 9.24
43	L8	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GMM464-CC461
Lab FileID: MM070930.D

```
44 L8  AR1262-B                          ----------NA----------
45 L8  AR1262-C                          ----------NA----------
46 L8  AR1262-D                          ----------NA----------
47 L8  AR1262-E                          ----------NA----------
48 L8  AR1262-F                          ----------NA----------
49 L9  AR1268-A                          ----------NA----------
50 L9  AR1268-B                          ----------NA----------
51 L9  AR1268-C                          ----------NA----------
52 L9  AR1268-D                          ----------NA----------
53 L9  AR1268-E                          ----------NA----------
54 L9  AR1268-F                          ----------NA----------
55 S   Decachlorobiphenyl      60.000  59.093      1.5   99   0.00   10.66-10.96
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    MM070785.D PCBQ461.M        Sat Aug 16 15:20:02 2014
```

8.9.19

8

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GMM464-ECC461
Lab FileID: MM070942.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\HPCHEM\2\DATA\GMM464\MM070942.D\ECD1A.CH  Vial: 52
Signal #2 : C:\HPCHEM\2\DATA\GMM464\MM070942.D\ECD2B.CH
Acq On    : 16-Aug-2014, 02:37:14                        Operator: almar
Sample    : ecc461-200,16/60                             Inst    : HP5890
Misc      : op33546,gmm464                               Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E     IntFile Signal #2: AUTOINT2.E

Method       : C:\HPCHEM\2\METHODS\PCBQ461.M (Chemstation Integrator)
Title        : PCB's by EPA-608 / SW846-8082
Last Update  : Sat Aug 16 15:09:57 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	41.740	-4.4	103	-0.05	2.08- 2.28
2	L1	AR1016-A	200.000	212.100	-6.0	104	-0.06	2.53- 2.63
3	L1	AR1016-B	200.000	212.198	-6.1	104	-0.08	3.03- 3.13
4	L1	AR1016-C	200.000	207.667	-3.8	102	-0.11#	3.61- 3.71
5	L1	AR1016-D	200.000	205.513	-2.8	100	-0.11#	3.74- 3.84
6	L1	AR1016-E	200.000	204.569	-2.3	99	-0.11#	4.33- 4.43
7	L1	AR1016-F	200.000	205.988	-3.0	102	-0.11#	4.49- 4.59
8	L2	AR1221-A		----------NA----------				
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A	200.000	209.181	-4.6	102	-0.06	6.02- 6.08
38	L7	AR1260-B	200.000	209.087	-4.5	102	-0.05	6.33- 6.43
39	L7	AR1260-C	200.000	209.130	-4.6	103	-0.04	6.69- 6.79
40	L7	AR1260-D	200.000	210.520	-5.3	103	-0.01	6.91- 7.01
41	L7	AR1260-E	200.000	210.648	-5.3	103	-0.02	7.61- 7.71

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GMM464-ECC461
Account: RFWTXHO Weston Solutions **Lab FileID:** MM070942.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

42	L7	AR1260-F	200.000	205.479	-2.7	103	-0.02	8.01- 8.11
43	L8	AR1262-A		----------NA----------				
44	L8	AR1262-B		----------NA----------				
45	L8	AR1262-C		----------NA----------				
46	L8	AR1262-D		----------NA----------				
47	L8	AR1262-E		----------NA----------				
48	L8	AR1262-F		----------NA----------				
49	L9	AR1268-A		----------NA----------				
50	L9	AR1268-B		----------NA----------				
51	L9	AR1268-C		----------NA----------				
52	L9	AR1268-D		----------NA----------				
53	L9	AR1268-E		----------NA----------				
54	L9	AR1268-F		----------NA----------				
55	S	Decachlorobiphenyl	40.000	43.080	-7.7	106	0.00	9.66- 9.96

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	40.000	41.714	-4.3	103	-0.06	2.43- 2.63
2	L1	AR1016-A	200.000	219.804	-9.9	108	-0.07	3.24- 3.34
3	L1	AR1016-B	200.000	213.596	-6.8	106	-0.07	3.82- 3.92
4	L1	AR1016-C	200.000	210.385	-5.2	104	-0.08	4.39- 4.49
5	L1	AR1016-D	200.000	203.666	-1.8	104	-0.08	4.59- 4.69
6	L1	AR1016-E	200.000	206.670	-3.3	103	-0.06	5.26- 5.36
7	L1	AR1016-F	200.000	204.548	-2.3	104	-0.06	5.44- 5.54
8	L2	AR1221-A		----------NA----------				
9	L2	AR1221-B		----------NA----------				
10	L2	AR1221-C		----------NA----------				
11	L2	AR1221-D		----------NA----------				
12	L2	AR1221-E		----------NA----------				
13	L3	AR1232-A		----------NA----------				
14	L3	AR1232-B		----------NA----------				
15	L3	AR1232-C		----------NA----------				
16	L3	AR1232-D		----------NA----------				
17	L3	AR1232-E		----------NA----------				
18	L3	AR1232-F		----------NA----------				
19	L4	AR1242-A		----------NA----------				
20	L4	AR1242-B		----------NA----------				
21	L4	AR1242-C		----------NA----------				
22	L4	AR1242-D		----------NA----------				
23	L4	AR1242-E		----------NA----------				
24	L4	AR1242-F		----------NA----------				
25	L5	AR1248-A		----------NA----------				
26	L5	AR1248-B		----------NA----------				
27	L5	AR1248-C		----------NA----------				
28	L5	AR1248-D		----------NA----------				
29	L5	AR1248-E		----------NA----------				
30	L5	AR1248-F		----------NA----------				
31	L6	AR1254-A		----------NA----------				
32	L6	AR1254-B		----------NA----------				
33	L6	AR1254-C		----------NA----------				
34	L6	AR1254-D		----------NA----------				
35	L6	AR1254-E		----------NA----------				
36	L6	AR1254-F		----------NA----------				
37	L7	AR1260-A	200.000	205.424	-2.7	101	-0.05	6.98- 7.08
38	L7	AR1260-B	200.000	205.954	-3.0	102	-0.02	7.15- 7.25
39	L7	AR1260-C	200.000	205.186	-2.6	103	-0.02	7.83- 7.89
40	L7	AR1260-D	200.000	204.075	-2.0	103	-0.02	8.30- 8.36
41	L7	AR1260-E	200.000	202.120	-1.1	102	-0.01	8.56- 8.62
42	L7	AR1260-F	200.000	193.787	3.1	102	-0.01	9.14- 9.24
43	L8	AR1262-A		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GMM464-ECC461
Lab FileID: MM070942.D

```
44 L8  AR1262-B                          ----------NA----------
45 L8  AR1262-C                          ----------NA----------
46 L8  AR1262-D                          ----------NA----------
47 L8  AR1262-E                          ----------NA----------
48 L8  AR1262-F                          ----------NA----------
49 L9  AR1268-A                          ----------NA----------
50 L9  AR1268-B                          ----------NA----------
51 L9  AR1268-C                          ----------NA----------
52 L9  AR1268-D                          ----------NA----------
53 L9  AR1268-E                          ----------NA----------
54 L9  AR1268-F                          ----------NA----------
55 S   Decachlorobiphenyl      40.000  41.558     -3.9  103   0.00   10.66-10.96
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------

   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    MM070784.D PCBQ461.M        Sat Aug 16 15:20:28 2014
```

8.9.20

8

Initial Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1461-ICC1461
Lab FileID: NN175591.D

Response Factor Report GCNN

Method : C:\MSDCHEM\1\METHODS\608Q1461.M (Chemstation Integrator)
Title : Pesticides by 608 or 8081
Last Update : Wed Aug 13 13:08:45 2014
Response via : Initial Calibration

Calibration Files
1 =NN175601.D 2 =NN175602.D 3 =NN175603.D 4 =NN175604.D
5 =NN175605.D 6 =NN175606.D 7 =NN175607.D

	Compound	1	2	3	4	5	6	7	Avg		%RSD
1)S	Tetrachloro-m-xyl	1.369	1.371	1.325	1.314	1.333	1.328	1.410	1.350	E6	2.54
2)	Hexachlorobenzene	1.619	1.606	1.588	1.500	1.524	1.540	1.577	1.565	E6	2.84
3)	alpha-BHC	1.617	1.708	1.789	1.745	1.816	1.875	1.948	1.785	E6	6.11
4)	gamma-BHC (Lindan	1.678	1.723	1.769	1.726	1.776	1.825	1.886	1.769	E6	3.94
5)	Heptachlor	1.903	1.956	1.929	1.851	1.884	1.936	1.980	1.920	E6	2.29
6)	Aldrin	1.595	1.683	1.681	1.628	1.651	1.708	1.755	1.672	E6	3.17
7)	Chlorothalonil	1.972	1.998	1.969	1.883	1.898	1.934	1.976	1.947	E6	2.22
8)	beta-BHC	8.995	8.964	9.000	8.468	8.507	8.577	8.714	8.746	E5	2.71
9)	Dacthal	1.540	1.508	1.486	1.445	1.427	1.462	1.464	1.476	E6	2.63
10)	Delta-BHC	1.621	1.668	1.673	1.637	1.691	1.753	1.814	1.694	E6	4.01
11)	Heptachlor Epoxid	1.733	1.726	1.706	1.649	1.652	1.697	1.722	1.698	E6	2.03
12)	Endosulfan I	1.545	1.542	1.536	1.484	1.481	1.518	1.537	1.520	E6	1.81
13)	gamma-Chlordane	1.671	1.734	1.682	1.619	1.611	1.665	1.685	1.667	E6	2.51
14)	alpha-Chlordane	1.673	1.690	1.669	1.615	1.609	1.652	1.669	1.654	E6	1.85
15)	4,4'-DDE	1.437	1.480	1.519	1.516	1.539	1.603	1.639	1.533	E6	4.52
16)	Dieldrin	1.583	1.620	1.647	1.624	1.647	1.715	1.749	1.655	E6	3.49
17)	Endrin	1.369	1.399	1.429	1.414	1.427	1.479	1.508	1.432	E6	3.31
18)	4,4'-DDD	1.196	1.234	1.252	1.255	1.264	1.305	1.340	1.264	E6	3.71
19)	Endosulfan II	1.497	1.506	1.496	1.476	1.480	1.524	1.542	1.503	E6	1.57
20)	4,4'-DDT	1.419	1.467	1.471	1.473	1.479	1.534	1.559	1.486	E6	3.14
21)	Endrin Aldehyde	1.235	1.223	1.196	1.175	1.168	1.199	1.211	1.201	E6	2.02
22)	Methoxychlor	8.899	8.916	8.581	8.462	8.280	8.407	8.378	8.561	E5	2.96
23)	Endosulfan Sulfat	1.496	1.514	1.471	1.467	1.439	1.500	1.511	1.486	E6	1.84
24)	Endrin Ketone	1.796	1.835	1.788	1.767	1.761	1.807	1.830	1.798	E6	1.58
25)L1	Chlordane-A			6.905					6.905	E4	0.00
26)L1	Chlordane-B			1.166					1.166	E5	0.00
27)L1	Chlordane-C			8.066					8.066	E4	0.00
28)L1	Chlordane-D			2.418					2.418	E5	0.00
29)L1	Chlordane-E			1.896					1.896	E5	0.00
30)L1	Chlordane-F			6.910					6.910	E4	0.00
31)H	Toxaphene			1.534					1.534	E6	0.00
32)	Mirex			1.654					1.654	E6	0.00
33)	Dicofol			1.601					1.601	E6	0.00
34)L1	AR1016-A	6.597	6.458	5.924	6.086	5.798	5.878	5.841	6.083	E4	5.25

---- Linear regression ---- Coefficient = 0.9996
Response Ratio = 475834.22402 + 57851.22395 *A

35)L1	AR1016-B	1.375	1.333	1.211	1.193	1.187	1.160	1.184	1.235	E5	6.78

---- Linear regression ---- Coefficient = 0.9996
Response Ratio = 1202000.49311 + 115946.14853 *A

36)L1	AR1016-C	6.056	5.959	5.210	5.285	5.173	5.114	5.101	5.414	E4	7.59

---- Linear regression ---- Coefficient = 0.9995
Response Ratio = 615885.29684 + 50283.79901 *A

37)L1	AR1016-D	5.648	4.078	4.071	3.890	3.838	3.811	3.872	4.172	E4	15.81

---- Linear regression ---- Coefficient = 0.9993

Initial Calibration Summary

Job Number: TC52863 **Sample:** GNN1461-ICC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175591.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

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                Response Ratio = 420217.77124 + 37997.23091 *A

38)L1AR1016-E          4.392 4.473 4.065 4.036 3.930 3.933 3.934 4.109 E4   5.57
             ---- Linear regression ----  Coefficient =  0.9996
                Response Ratio = 350902.33569 + 38891.39208 *A

39)L1AR1016-F          5.750 5.596 5.029 4.919 4.758 4.650 4.692 5.056 E4   8.77
             ---- Linear regression ----  Coefficient =  0.9994
                Response Ratio = 719049.25941 + 46058.94346 *A

40)L2AR1221-A                      1.307                         1.307 E4   0.00
41)L2AR1221-B                      1.746                         1.746 E4   0.00
42)L2AR1221-C                      1.149                         1.149 E4   0.00
43)L2AR1221-D                      4.930                         4.930 E4   0.00
44)L2AR1221-E                      8.105                         8.105 E3   0.00
45)L3AR1232-A                      2.859                         2.859 E4   0.00
46)L3AR1232-B                      5.277                         5.277 E4   0.00
47)L3AR1232-C                      2.443                         2.443 E4   0.00
48)L3AR1232-D                      1.683                         1.683 E4   0.00
49)L3AR1232-E                      1.653                         1.653 E4   0.00
50)L3AR1232-F                      2.335                         2.335 E4   0.00
51)L4AR1242-A                      6.166                         6.166 E4   0.00
52)L4AR1242-B                      1.178                         1.178 E5   0.00
53)L4AR1242-C                      5.491                         5.491 E4   0.00
54)L4AR1242-D                      3.989                         3.989 E4   0.00
55)L4AR1242-E                      4.007                         4.007 E4   0.00
56)L4AR1242-F                      5.237                         5.237 E4   0.00
57)L5AR1248-A                      2.425                         2.425 E4   0.00
58)L5AR1248-B                      5.917                         5.917 E4   0.00
59)L5AR1248-C                      4.132                         4.132 E4   0.00
60)L5AR1248-D                      5.137                         5.137 E4   0.00
61)L5AR1248-E                      6.376                         6.376 E4   0.00
62)L5AR1248-F                      3.659                         3.659 E4   0.00
63)L6AR1254-A                      7.500                         7.500 E4   0.00
64)L6AR1254-B                      7.969                         7.969 E4   0.00
65)L6AR1254-C                      1.226                         1.226 E5   0.00
66)L6AR1254-D                      8.179                         8.179 E4   0.00
67)L6AR1254-E                      9.022                         9.022 E4   0.00
68)L6AR1254-F                      1.094                         1.094 E5   0.00
69)L7AR1260-A          1.042 0.995 0.925 0.876 0.869 0.857 0.857 0.917 E5   8.09
70)L7AR1260-B          1.217 1.150 1.078 1.010 1.006 0.987 0.991 1.063 E5   8.44
71)L7AR1260-C          8.973 8.732 7.933 7.617 7.586 7.476 7.665 7.997 E4   7.56
72)L7AR1260-D          1.003 0.962 0.903 0.861 0.851 0.842 0.848 0.896 E5   7.14
73)L7AR1260-E          1.913 1.905 1.786 1.719 1.726 1.719 1.760 1.790 E5   4.76
74)L7AR1260-F          1.419 1.401 1.294 1.221 1.253 1.276 1.223 1.298 E5   6.22
75)L8AR1262-A                      3.545                         3.545 E3   0.00
76)L8AR1262-B                      3.953                         3.953 E3   0.00
77)L8AR1262-C                      3.779                         3.779 E3   0.00
78)L8AR1262-D                      5.600                         5.600 E3   0.00
79)L8AR1262-E                      2.603                         2.603 E3   0.00
80)L8AR1262-F                      6.510                         6.510 E3   0.00
81)L9AR1268-A                      5.392                         5.392 E4   0.00
82)L9AR1268-B                      6.614                         6.614 E4   0.00
83)L9AR1268-C                      2.304                         2.304 E5   0.00
84)L9AR1268-D                      2.399                         2.399 E5   0.00
85)L9AR1268-E                      1.684                         1.684 E5   0.00
86)L9AR1268-F                      7.388                         7.388 E4   0.00
87)S Decachlorobipheny 1.631 1.482 1.250 1.313 1.392 1.267 1.346 1.383 E6   9.75

Signal #2
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8.9.21

8

Initial Calibration Summary

Job Number: TC52863 **Sample:** GNN1461-ICC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175591.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

89)S	Tetrachloro-m-xyl	1.005	1.068	1.014	1.011	1.015	1.006	1.062	1.026	E6	2.64
90)	Hexachlorobenzene	1.398	1.384	1.355	1.287	1.301	1.315	1.334	1.339	E6	3.14
91)	alpha-BHC #2	1.211	1.300	1.344	1.326	1.374	1.419	1.443	1.345	E6	5.78
92)	gamma-BHC (Lindan	1.236	1.295	1.326	1.285	1.331	1.372	1.408	1.322	E6	4.32
93)	beta-BHC #2	6.505	6.361	6.371	5.989	6.157	6.254	6.274	6.273	E5	2.65
94)	Heptachlor #2	1.426	1.453	1.447	1.387	1.417	1.463	1.487	1.440	E6	2.28
95)	Chlorothalonil #2	1.371	1.405	1.378	1.334	1.337	1.363	1.391	1.368	E6	1.92
96)	delta-BHC #2	1.217	1.221	1.242	1.222	1.277	1.324	1.360	1.266	E6	4.48
97)	Aldrin #2	1.160	1.222	1.221	1.192	1.212	1.254	1.283	1.221	E6	3.28
98)	Dacthal #2	1.028	1.056	1.042	1.028	1.016	1.042	1.043	1.037	E6	1.28
99)	Heptachlor Epoxid	1.430	1.442	1.411	1.370	1.371	1.403	1.416	1.406	E6	1.95
100)	gamma-Chlordane #	1.230	1.245	1.226	1.215	1.216	1.253	1.262	1.235	E6	1.49
101)	alpha-Chlordane #	1.256	1.281	1.264	1.217	1.216	1.251	1.260	1.249	E6	1.94
102)	Endosulfan I #2	1.417	1.496	1.405	1.307	1.308	1.327	1.358	1.374	E6	5.06
103)	4,4'-DDE #2	0.939	0.986	1.025	1.049	1.050	1.108	1.132	1.041	E6	6.38
104)	Dieldrin #2	1.224	1.256	1.239	1.225	1.235	1.285	1.312	1.254	E6	2.67
105)	Endrin #2	1.079	1.103	1.101	1.088	1.090	1.130	1.150	1.106	E6	2.29
106)	4,4'-DDD #2	8.912	9.178	9.271	9.252	9.241	9.611	9.734	9.314	E5	2.96
107)	Endosulfan II #2	1.164	1.185	1.171	1.135	1.137	1.166	1.178	1.162	E6	1.66
108)	4,4'-DDT #2	1.060	1.126	1.142	1.120	1.121	1.165	1.178	1.130	E6	3.37
109)	Endrin Aldehyde #	9.806	9.614	9.520	9.157	9.059	9.274	9.352	9.397	E5	2.81
110)	Endosulfan Sulfat	1.139	1.195	1.157	1.128	1.121	1.151	1.162	1.151	E6	2.16
111)	Methoxychlor #2	6.521	6.784	6.515	6.448	6.280	6.382	6.333	6.466	E5	2.57
112)	Endrin Ketone #2	1.403	1.419	1.382	1.372	1.355	1.402	1.410	1.392	E6	1.63
113)L1	Chlordane-A #2			4.524					4.524	E4	0.00
114)L1	Chlordane-B #2			8.465					8.465	E4	0.00
115)L1	Chlordane-C #2			6.146					6.146	E4	0.00
116)L1	Chlordane-D #2			1.878					1.878	E5	0.00
117)L1	Chlordane-E #2			2.954					2.954	E5	0.00
118)L1	Chlordane-F #2			4.876					4.876	E4	0.00
119)H	Toxaphene #2			1.204					1.204	E6	0.00
120)	Mirex #2			1.310					1.310	E6	0.00
121)	Dicofol #2			1.024					1.024	E6	0.00
122)L1	AR1016-A #2	5.078	4.781	4.601	4.248	4.267	4.147	3.947	4.438	E4	8.94

---- Linear regression ---- Coefficient = 0.9984
Response Ratio = 740534.79264 + 39745.16965 *A

123)L1	AR1016-B #2	1.066	1.027	0.965	0.930	0.831	0.828	0.846	0.927	E5	10.46

---- Linear regression ---- Coefficient = 0.9970
Response Ratio = 1618231.85590 + 82611.63219 *A

124)L1	AR1016-C #2	4.282	4.056	3.800	3.743	3.743	3.740	3.785	3.879	E4	5.42

---- Linear regression ---- Coefficient = 0.9997
Response Ratio = 262288.44740 + 37142.78347 *A

125)L1	AR1016-D #2	2.982	2.742	2.606	2.611	2.536	2.538	2.545	2.652	E4	6.13

---- Linear regression ---- Coefficient = 0.9999
Response Ratio = 228381.37863 + 25085.34228 *A

126)L1	AR1016-E #2	5.240	5.164	4.182	4.017	3.918	3.968	4.017	4.358	E4	13.36

---- Linear regression ---- Coefficient = 0.9978
Response Ratio = 807750.43971 + 38522.84720 *A

127)L1	AR1016-F #2	2.268	2.264	1.795	1.883	1.816	1.831	1.878	1.962	E4	10.70

---- Linear regression ---- Coefficient = 0.9975
Response Ratio = 245143.13389 + 18087.09801 *A

128)L2	AR1221-A #2			9.241					9.241	E3	0.00
129)L2	AR1221-B #2			1.360					1.360	E4	0.00

8.9.21

8

Initial Calibration Summary

Job Number: TC52863 **Sample:** GNN1461-ICC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175591.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

130)L2AR1221-C #2			6.008					6.008	E3	0.00
131)L2AR1221-D #2			2.799					2.799	E4	0.00
132)L2AR1221-E #2			9.786					9.786	E3	0.00
133)L3AR1232-A #2			1.829					1.829	E3	0.00
134)L3AR1232-B #2			2.143					2.143	E4	0.00
135)L3AR1232-C #2			4.313					4.313	E4	0.00
136)L3AR1232-D #2			1.752					1.752	E4	0.00
137)L3AR1232-E #2			1.514					1.514	E4	0.00
138)L3AR1232-F #2			1.699					1.699	E4	0.00
139)L4AR1242-A #2			5.003					5.003	E4	0.00
140)L4AR1242-B #2			1.005					1.005	E5	0.00
141)L4AR1242-C #2			4.051					4.051	E4	0.00
142)L4AR1242-D #2			2.923					2.923	E4	0.00
143)L4AR1242-E #2			4.217					4.217	E4	0.00
144)L4AR1242-F #2			2.039					2.039	E4	0.00
145)L5AR1248-A #2			1.726					1.726	E4	0.00
146)L5AR1248-B #2			3.404					3.404	E4	0.00
147)L5AR1248-C #2			5.266					5.266	E4	0.00
148)L5AR1248-D #2			2.586					2.586	E4	0.00
149)L5AR1248-E #2			3.577					3.577	E4	0.00
150)L5AR1248-F #2			2.605					2.605	E4	0.00
151)L6AR1254-A #2			5.111					5.111	E4	0.00
152)L6AR1254-B #2			9.245					9.245	E4	0.00
153)L6AR1254-C #2			9.478					9.478	E4	0.00
154)L6AR1254-D #2			7.166					7.166	E4	0.00
155)L6AR1254-E #2			6.550					6.550	E4	0.00
156)L6AR1254-F #2			8.733					8.733	E4	0.00
157)L7AR1260-A #2	7.472	7.275	6.438	6.444	6.353	6.201	6.112	6.614	E4	8.10
158)L7AR1260-B #2	1.043	1.064	0.969	0.952	0.942	0.937	0.930	0.977	E5	5.56
159)L7AR1260-C #2	1.061	1.132	1.028	1.027	1.018	1.007	1.011	1.041	E5	4.23
160)L7AR1260-D #2	6.849	7.041	6.289	6.231	6.120	6.094	6.065	6.384	E4	6.19
161)L7AR1260-E #2	1.744	1.770	1.566	1.522	1.506	1.521	1.511	1.591	E5	7.23
162)L7AR1260-F #2	7.241	7.731	6.861	6.699	6.729	6.823	6.781	6.981	E4	5.40
163)L8AR1262-A #2			4.073					4.073	E3	0.00
164)L8AR1262-B #2			2.264					2.264	E3	0.00
165)L8AR1262-C #2			3.133					3.133	E3	0.00
166)L8AR1262-D #2			3.238					3.238	E3	0.00
167)L8AR1262-E #2			2.380					2.380	E3	0.00
168)L8AR1262-F #2			5.517					5.517	E3	0.00
169)L9AR1268-A #2			4.979					4.979	E4	0.00
170)L9AR1268-B #2			5.980					5.980	E4	0.00
171)L9AR1268-C #2			2.159					2.159	E5	0.00
172)L9AR1268-D #2			2.471					2.471	E5	0.00
173)L9AR1268-E #2			1.760					1.760	E5	0.00
174)L9AR1268-F #2			7.130					7.130	E4	0.00
175)S Decachlorobipheny	1.582	1.556	1.368	1.362	1.338	1.333	1.333	1.410	E6	7.78

(#) = Out of Range

608Q1461.M Wed Aug 13 13:20:07 2014

8.9.21

8

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GNN1461-ICV1461
Lab FileID: NN175596.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1461\NN175596.D\ECD1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\1\DATA\GNN1461\NN175596.D\ECD2B.CH
Acq On    : 12 Aug 2014  10:57 pm                    Operator: almar
Sample    : icv1461-200,pest                         Inst    : GCNN
Misc      : op33313,gnn1461                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1461.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 13 13:08:45 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2		Hexachlorobenzene	40.000	42.535	-6.3	105	0.00	2.59- 2.65
3		alpha-BHC	20.000	19.684	1.6	98	0.00	2.69- 2.75
4		gamma-BHC (Lindane)	20.000	18.682	6.6	93	0.00	2.95- 3.01
5		Heptachlor	20.000	20.010	-0.1	100	0.00	3.30- 3.36
6		Aldrin	20.000	19.527	2.4	97	0.00	3.57- 3.63
7		Chlorothalonil	40.000	42.722	-6.8	106	0.00	3.41- 3.47
8		beta-BHC	20.000	19.599	2.0	95	0.00	3.02- 3.08
9		Dacthal	40.000	42.782	-7.0	106	0.00	3.86- 3.92
10		Delta-BHC	20.000	19.363	3.2	98	0.00	3.25- 3.31
11		Heptachlor Epoxide	20.000	19.203	4.0	96	0.00	4.06- 4.12
12		Endosulfan I	20.000	20.598	-3.0	102	0.00	4.39- 4.45
13		gamma-Chlordane	20.000	20.527	-2.6	102	0.00	4.22- 4.28
14		alpha-Chlordane	20.000	21.079	-5.4	104	0.00	4.34- 4.40
15		4,4'-DDE	40.000	39.178	2.1	99	0.00	4.48- 4.54
16		Dieldrin	40.000	39.307	1.7	99	0.00	4.60- 4.66
17		Endrin	40.000	43.624	-9.1	109	0.00	4.83- 4.89
18		4,4'-DDD	40.000	40.578	-1.4	102	0.00	4.93- 4.99
19		Endosulfan II	40.000	41.061	-2.7	103	0.00	5.00- 5.06
20		4,4'-DDT	40.000	40.883	-2.2	103	0.00	5.15- 5.21
21		Endrin Aldehyde	40.000	42.351	-5.9	106	0.00	5.24- 5.30
22		Methoxychlor	200.000	212.788	-6.4	106	0.00	5.64- 5.70
23		Endosulfan Sulfate	40.000	40.627	-1.6	103	0.00	5.44- 5.50
24		Endrin Ketone	40.000	41.118	-2.8	103	0.00	5.81- 5.87
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A		----------NA----------				
35	L1	AR1016-B		----------NA----------				
36	L1	AR1016-C		----------NA----------				
37	L1	AR1016-D		----------NA----------				
38	L1	AR1016-E		----------NA----------				
39	L1	AR1016-F		----------NA----------				
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1461-ICV1461
Lab FileID: NN175596.D

42	L2	AR1221-C	----------NA----------					
43	L2	AR1221-D	----------NA----------					
44	L2	AR1221-E	----------NA----------					
45	L3	AR1232-A	----------NA----------					
46	L3	AR1232-B	----------NA----------					
47	L3	AR1232-C	----------NA----------					
48	L3	AR1232-D	----------NA----------					
49	L3	AR1232-E	----------NA----------					
50	L3	AR1232-F	----------NA----------					
51	L4	AR1242-A	----------NA----------					
52	L4	AR1242-B	----------NA----------					
53	L4	AR1242-C	----------NA----------					
54	L4	AR1242-D	----------NA----------					
55	L4	AR1242-E	----------NA----------					
56	L4	AR1242-F	----------NA----------					
57	L5	AR1248-A	----------NA----------					
58	L5	AR1248-B	----------NA----------					
59	L5	AR1248-C	----------NA----------					
60	L5	AR1248-D	----------NA----------					
61	L5	AR1248-E	----------NA----------					
62	L5	AR1248-F	----------NA----------					
63	L6	AR1254-A	----------NA----------					
64	L6	AR1254-B	----------NA----------					
65	L6	AR1254-C	----------NA----------					
66	L6	AR1254-D	----------NA----------					
67	L6	AR1254-E	----------NA----------					
68	L6	AR1254-F	----------NA----------					
69	L7	AR1260-A	----------NA----------					
70	L7	AR1260-B	----------NA----------					
71	L7	AR1260-C	----------NA----------					
72	L7	AR1260-D	----------NA----------					
73	L7	AR1260-E	----------NA----------					
74	L7	AR1260-F	----------NA----------					
75	L8	AR1262-A	----------NA----------					
76	L8	AR1262-B	----------NA----------					
77	L8	AR1262-C	----------NA----------					
78	L8	AR1262-D	----------NA----------					
79	L8	AR1262-E	----------NA----------					
80	L8	AR1262-F	----------NA----------					
81	L9	AR1268-A	----------NA----------					
82	L9	AR1268-B	----------NA----------					
83	L9	AR1268-C	----------NA----------					
84	L9	AR1268-D	----------NA----------					
85	L9	AR1268-E	----------NA----------					
86	L9	AR1268-F	----------NA----------					
87	S	Decachlorobiphenyl	----------NA----------					
*****		Signal #2 *****						
89	S	Tetrachloro-m-xylene #2	----------NA----------					
90		Hexachlorobenzene #2	40.000	42.452	-6.1	105	0.00	2.28- 2.34
91		alpha-BHC #2	20.000	19.884	0.6	100	0.00	2.38- 2.44
92		gamma-BHC (Lindane) #2	20.000	18.704	6.5	93	0.00	2.58- 2.64
93		beta-BHC #2	20.000	19.616	1.9	97	0.00	2.63- 2.69
94		Heptachlor #2	20.000	20.017	-0.1	100	0.00	2.88- 2.94
95		Chlorothalonil #2	40.000	43.749	-9.4	109	0.00	3.14- 3.20
96		delta-BHC #2	20.000	19.459	2.7	99	0.00	2.75- 2.81
97		Aldrin #2	20.000	19.756	1.2	99	0.00	3.11- 3.17
98		Dacthal #2	40.000	43.474	-8.7	108	0.00	3.54- 3.60
99		Heptachlor Epoxide #2	20.000	19.440	2.8	97	0.00	3.56- 3.62

Initial Calibration Verification

Job Number: TC52863 **Sample:** GNN1461-ICV1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175596.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2	20.000	20.937	-4.7	105	0.00	3.67- 3.73
101		alpha-Chlordane #2	20.000	21.256	-6.3	105	0.01	3.76- 3.82
102		Endosulfan I #2	20.000	20.129	-0.6	98	0.00	3.88- 3.94
103		4,4'-DDE #2	40.000	40.293	-0.7	102	0.00	3.86- 3.92
104		Dieldrin #2	40.000	38.749	3.1	98	0.00	4.08- 4.14
105		Endrin #2	40.000	43.465	-8.7	109	0.00	4.26- 4.32
106		4,4'-DDD #2	40.000	41.544	-3.9	104	0.00	4.34- 4.40
107		Endosulfan II #2	40.000	41.059	-2.6	102	0.00	4.43- 4.49
108		4,4'-DDT #2	40.000	40.524	-1.3	100	0.00	4.55- 4.61
109		Endrin Aldehyde #2	40.000	42.177	-5.4	104	0.02	4.73- 4.79
110		Endosulfan Sulfate #2	40.000	41.051	-2.6	102	0.00	5.06- 5.12
111		Methoxychlor #2	200.000	219.019	-9.5	109	0.00	4.93- 4.99
112		Endrin Ketone #2	40.000	40.996	-2.5	103	0.00	5.25- 5.31
113	L1	Chlordane-A #2		----------NA----------				
114	L1	Chlordane-B #2		----------NA----------				
115	L1	Chlordane-C #2		----------NA----------				
116	L1	Chlordane-D #2		----------NA----------				
117	L1	Chlordane-E #2		----------NA----------				
118	L1	Chlordane-F #2		----------NA----------				
119	H	Toxaphene #2		----------NA----------				
120		Mirex #2		----------NA----------				
121		Dicofol #2		----------NA----------				
122	L1	AR1016-A #2		----------NA----------				
123	L1	AR1016-B #2		----------NA----------				
124	L1	AR1016-C #2		----------NA----------				
125	L1	AR1016-D #2		----------NA----------				
126	L1	AR1016-E #2		----------NA----------				
127	L1	AR1016-F #2		----------NA----------				
128	L2	AR1221-A #2		----------NA----------				
129	L2	AR1221-B #2		----------NA----------				
130	L2	AR1221-C #2		----------NA----------				
131	L2	AR1221-D #2		----------NA----------				
132	L2	AR1221-E #2		----------NA----------				
133	L3	AR1232-A #2		----------NA----------				
134	L3	AR1232-B #2		----------NA----------				
135	L3	AR1232-C #2		----------NA----------				
136	L3	AR1232-D #2		----------NA----------				
137	L3	AR1232-E #2		----------NA----------				
138	L3	AR1232-F #2		----------NA----------				
139	L4	AR1242-A #2		----------NA----------				
140	L4	AR1242-B #2		----------NA----------				
141	L4	AR1242-C #2		----------NA----------				
142	L4	AR1242-D #2		----------NA----------				
143	L4	AR1242-E #2		----------NA----------				
144	L4	AR1242-F #2		----------NA----------				
145	L5	AR1248-A #2		----------NA----------				
146	L5	AR1248-B #2		----------NA----------				
147	L5	AR1248-C #2		----------NA----------				
148	L5	AR1248-D #2		----------NA----------				
149	L5	AR1248-E #2		----------NA----------				
150	L5	AR1248-F #2		----------NA----------				
151	L6	AR1254-A #2		----------NA----------				
152	L6	AR1254-B #2		----------NA----------				
153	L6	AR1254-C #2		----------NA----------				
154	L6	AR1254-D #2		----------NA----------				
155	L6	AR1254-E #2		----------NA----------				
156	L6	AR1254-F #2		----------NA----------				
157	L7	AR1260-A #2		----------NA----------				
158	L7	AR1260-B #2		----------NA----------				
159	L7	AR1260-C #2		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GNN1461-ICV1461
Lab FileID: NN175596.D

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2                ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range                SPCC's out = 0  CCC's out = 0
     NN175603.D 608Q1461.M       Wed Aug 13 13:19:20 2014
```

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GNN1461-ICV1461
Lab FileID: NN175608.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1461\NN175608.D\ECD1A.CH Vial: 39
Signal #2 : C:\MSDCHEM\1\DATA\GNN1461\NN175608.D\ECD2B.CH
Acq On    : 8-13-2014 01:46:06 AM                    Operator: almar
Sample    : icv1461-200,1016/1260                    Inst    : GCNN
Misc      : op33313,gnn1461                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1461.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 13 13:08:45 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2		Hexachlorobenzene		----------NA----------				
3		alpha-BHC		----------NA----------				
4		gamma-BHC (Lindane)		----------NA----------				
5		Heptachlor		----------NA----------				
6		Aldrin		----------NA----------				
7		Chlorothalonil		----------NA----------				
8		beta-BHC		----------NA----------				
9		Dacthal		----------NA----------				
10		Delta-BHC		----------NA----------				
11		Heptachlor Epoxide		----------NA----------				
12		Endosulfan I		----------NA----------				
13		gamma-Chlordane		----------NA----------				
14		alpha-Chlordane		----------NA----------				
15		4,4'-DDE		----------NA----------				
16		Dieldrin		----------NA----------				
17		Endrin		----------NA----------				
18		4,4'-DDD		----------NA----------				
19		Endosulfan II		----------NA----------				
20		4,4'-DDT		----------NA----------				
21		Endrin Aldehyde		----------NA----------				
22		Methoxychlor		----------NA----------				
23		Endosulfan Sulfate		----------NA----------				
24		Endrin Ketone		----------NA----------				
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A	200.000	190.601	4.7	97	0.00	2.88- 2.94
35	L1	AR1016-B	200.000	180.706	9.6	91	0.00	3.23- 3.29
36	L1	AR1016-C	200.000	183.613	8.2	95	0.00	3.33- 3.39
37	L1	AR1016-D	200.000	185.875	7.1	92	0.00	3.41- 3.47
38	L1	AR1016-E	200.000	181.002	9.5	91	0.00	3.71- 3.77
39	L1	AR1016-F	200.000	180.836	9.6	90	0.00	3.82- 3.88
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1461-ICV1461
Lab FileID: NN175608.D

42	L2	AR1221-C			----------NA----------			
43	L2	AR1221-D			----------NA----------			
44	L2	AR1221-E			----------NA----------			
45	L3	AR1232-A			----------NA----------			
46	L3	AR1232-B			----------NA----------			
47	L3	AR1232-C			----------NA----------			
48	L3	AR1232-D			----------NA----------			
49	L3	AR1232-E			----------NA----------			
50	L3	AR1232-F			----------NA----------			
51	L4	AR1242-A			----------NA----------			
52	L4	AR1242-B			----------NA----------			
53	L4	AR1242-C			----------NA----------			
54	L4	AR1242-D			----------NA----------			
55	L4	AR1242-E			----------NA----------			
56	L4	AR1242-F			----------NA----------			
57	L5	AR1248-A			----------NA----------			
58	L5	AR1248-B			----------NA----------			
59	L5	AR1248-C			----------NA----------			
60	L5	AR1248-D			----------NA----------			
61	L5	AR1248-E			----------NA----------			
62	L5	AR1248-F			----------NA----------			
63	L6	AR1254-A			----------NA----------			
64	L6	AR1254-B			----------NA----------			
65	L6	AR1254-C			----------NA----------			
66	L6	AR1254-D			----------NA----------			
67	L6	AR1254-E			----------NA----------			
68	L6	AR1254-F			----------NA----------			
69	L7	AR1260-A	200.000	174.268	12.9	86	0.00	4.73- 4.79
70	L7	AR1260-B	200.000	179.444	10.3	88	0.00	4.89- 4.95
71	L7	AR1260-C	200.000	180.828	9.6	91	0.00	5.21- 5.27
72	L7	AR1260-D	200.000	180.972	9.5	90	0.00	5.42- 5.48
73	L7	AR1260-E	200.000	183.851	8.1	92	0.00	5.59- 5.65
74	L7	AR1260-F	200.000	178.692	10.7	90	0.00	5.84- 5.90
75	L8	AR1262-A			----------NA----------			
76	L8	AR1262-B			----------NA----------			
77	L8	AR1262-C			----------NA----------			
78	L8	AR1262-D			----------NA----------			
79	L8	AR1262-E			----------NA----------			
80	L8	AR1262-F			----------NA----------			
81	L9	AR1268-A			----------NA----------			
82	L9	AR1268-B			----------NA----------			
83	L9	AR1268-C			----------NA----------			
84	L9	AR1268-D			----------NA----------			
85	L9	AR1268-E			----------NA----------			
86	L9	AR1268-F			----------NA----------			
87	S	Decachlorobiphenyl			----------NA----------			
*****		Signal #2 *****						
89	S	Tetrachloro-m-xylene #2			----------NA----------			
90		Hexachlorobenzene #2			----------NA----------			
91		alpha-BHC #2			----------NA----------			
92		gamma-BHC (Lindane) #2			----------NA----------			
93		beta-BHC #2			----------NA----------			
94		Heptachlor #2			----------NA----------			
95		Chlorothalonil #2			----------NA----------			
96		delta-BHC #2			----------NA----------			
97		Aldrin #2			----------NA----------			
98		Dacthal #2			----------NA----------			
99		Heptachlor Epoxide #2			----------NA----------			

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1461-ICV1461
Lab FileID: NN175608.D

100		gamma-Chlordane #2			----------NA----------			
101		alpha-Chlordane #2			----------NA----------			
102		Endosulfan I #2			----------NA----------			
103		4,4'-DDE #2			----------NA----------			
104		Dieldrin #2			----------NA----------			
105		Endrin #2			----------NA----------			
106		4,4'-DDD #2			----------NA----------			
107		Endosulfan II #2			----------NA----------			
108		4,4'-DDT #2			----------NA----------			
109		Endrin Aldehyde #2			----------NA----------			
110		Endosulfan Sulfate #2			----------NA----------			
111		Methoxychlor #2			----------NA----------			
112		Endrin Ketone #2			----------NA----------			
113	L1	Chlordane-A #2			----------NA----------			
114	L1	Chlordane-B #2			----------NA----------			
115	L1	Chlordane-C #2			----------NA----------			
116	L1	Chlordane-D #2			----------NA----------			
117	L1	Chlordane-E #2			----------NA----------			
118	L1	Chlordane-F #2			----------NA----------			
119	H	Toxaphene #2			----------NA----------			
120		Mirex #2			----------NA----------			
121		Dicofol #2			----------NA----------			
122	L1	AR1016-A #2	200.000	188.448	5.8	89	0.00	2.47- 2.53
123	L1	AR1016-B #2	200.000	196.123	1.9	92	0.00	2.77- 2.83
124	L1	AR1016-C #2	200.000	184.969	7.5	94	0.00	2.86- 2.92
125	L1	AR1016-D #2	200.000	189.672	5.2	96	0.00	2.90- 2.96
126	L1	AR1016-E #2	200.000	174.283	12.9	90	0.00	3.14- 3.20
127	L1	AR1016-F #2	200.000	173.483	13.3	94	0.00	3.20- 3.26
128	L2	AR1221-A #2			----------NA----------			
129	L2	AR1221-B #2			----------NA----------			
130	L2	AR1221-C #2			----------NA----------			
131	L2	AR1221-D #2			----------NA----------			
132	L2	AR1221-E #2			----------NA----------			
133	L3	AR1232-A #2			----------NA----------			
134	L3	AR1232-B #2			----------NA----------			
135	L3	AR1232-C #2			----------NA----------			
136	L3	AR1232-D #2			----------NA----------			
137	L3	AR1232-E #2			----------NA----------			
138	L3	AR1232-F #2			----------NA----------			
139	L4	AR1242-A #2			----------NA----------			
140	L4	AR1242-B #2			----------NA----------			
141	L4	AR1242-C #2			----------NA----------			
142	L4	AR1242-D #2			----------NA----------			
143	L4	AR1242-E #2			----------NA----------			
144	L4	AR1242-F #2			----------NA----------			
145	L5	AR1248-A #2			----------NA----------			
146	L5	AR1248-B #2			----------NA----------			
147	L5	AR1248-C #2			----------NA----------			
148	L5	AR1248-D #2			----------NA----------			
149	L5	AR1248-E #2			----------NA----------			
150	L5	AR1248-F #2			----------NA----------			
151	L6	AR1254-A #2			----------NA----------			
152	L6	AR1254-B #2			----------NA----------			
153	L6	AR1254-C #2			----------NA----------			
154	L6	AR1254-D #2			----------NA----------			
155	L6	AR1254-E #2			----------NA----------			
156	L6	AR1254-F #2			----------NA----------			
157	L7	AR1260-A #2	200.000	178.441	10.8	92	0.01	4.08- 4.14
158	L7	AR1260-B #2	200.000	175.709	12.1	89	0.00	4.30- 4.36
159	L7	AR1260-C #2	200.000	175.222	12.4	89	0.00	4.52- 4.58

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1461-ICV1461
Lab FileID: NN175608.D

160	L7	AR1260-D #2	200.000	179.710	10.1	91	0.01	4.78- 4.84
161	L7	AR1260-E #2	200.000	182.413	8.8	93	0.01	5.01- 5.07
162	L7	AR1260-F #2	200.000	179.354	10.3	91	0.01	5.21- 5.27
163	L8	AR1262-A #2	----------NA----------					
164	L8	AR1262-B #2	----------NA----------					
165	L8	AR1262-C #2	----------NA----------					
166	L8	AR1262-D #2	----------NA----------					
167	L8	AR1262-E #2	----------NA----------					
168	L8	AR1262-F #2	----------NA----------					
169	L9	AR1268-A #2	----------NA----------					
170	L9	AR1268-B #2	----------NA----------					
171	L9	AR1268-C #2	----------NA----------					
172	L9	AR1268-D #2	----------NA----------					
173	L9	AR1268-E #2	----------NA----------					
174	L9	AR1268-F #2	----------NA----------					
175	S	Decachlorobiphenyl #2	----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
NN175603.D 608Q1461.M Wed Aug 13 13:19:22 2014

8.9.23

8

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1463-CC1461
Lab FileID: NN175692.D

Evaluate Continuing Calibration Report

```
Signal #2 : C:\MSDCHEM\1\DATA\GNN1463\NN175692.D\ECD1A.CH Vial: 25
Signal #1 : C:\MSDCHEM\1\DATA\GNN1463\NN175692.D\ECD2B.CH
Acq On    : 8-15-2014 09:00:32 PM                    Operator: almar
Sample    : cc1461-300,pest                          Inst    : GCNN
Misc      : op33545,gnn1463                          Multiplr: 1.00
IntFile Signal #2: EVENTS.E     IntFile Signal #1: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1461.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 13 13:08:45 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	60.000	67.465	-12.4	116	0.00	2.27- 2.33
2		Hexachlorobenzene	60.000	64.781	-8.0	113	0.00	2.59- 2.65
3		alpha-BHC	30.000	33.721	-12.4	115	0.00	2.69- 2.75
4		gamma-BHC (Lindane)	30.000	33.096	-10.3	113	0.00	2.95- 3.01
5		Heptachlor	30.000	32.520	-8.4	112	0.00	3.30- 3.36
6		Aldrin	30.000	32.892	-9.6	113	0.00	3.57- 3.63
7		Chlorothalonil	60.000	63.956	-6.6	110	0.00	3.41- 3.47
8		beta-BHC	30.000	32.770	-9.2	113	0.00	3.02- 3.08
9		Dacthal	60.000	63.074	-5.1	107	0.00	3.86- 3.92
10		Delta-BHC	30.000	33.344	-11.1	115	0.00	3.25- 3.31
11		Heptachlor Epoxide	30.000	32.023	-6.7	110	0.00	4.06- 4.12
12		Endosulfan I	30.000	32.322	-7.7	110	0.00	4.39- 4.45
13		gamma-Chlordane	30.000	32.258	-7.5	111	0.00	4.22- 4.28
14		alpha-Chlordane	30.000	32.022	-6.7	109	0.00	4.34- 4.40
15		4,4'-DDE	60.000	66.010	-10.0	111	0.00	4.48- 4.54
16		Dieldrin	60.000	65.117	-8.5	111	0.00	4.60- 4.66
17		Endrin	60.000	64.118	-6.9	108	0.00	4.83- 4.89
18		4,4'-DDD	60.000	66.048	-10.1	111	0.00	4.93- 4.99
19		Endosulfan II	60.000	64.148	-6.9	109	0.00	5.00- 5.06
20		4,4'-DDT	60.000	63.823	-6.4	107	0.00	5.15- 5.21
21		Endrin Aldehyde	60.000	63.298	-5.5	108	0.00	5.24- 5.30
22		Methoxychlor	300.000	310.121	-3.4	105	0.00	5.64- 5.70
23		Endosulfan Sulfate	60.000	63.592	-6.0	107	0.00	5.44- 5.50
24		Endrin Ketone	60.000	62.977	-5.0	107	0.00	5.81- 5.87
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A		----------NA----------				
35	L1	AR1016-B		----------NA----------				
36	L1	AR1016-C		----------NA----------				
37	L1	AR1016-D		----------NA----------				
38	L1	AR1016-E		----------NA----------				
39	L1	AR1016-F		----------NA----------				
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175692.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

42	L2	AR1221-C	----------NA----------					
43	L2	AR1221-D	----------NA----------					
44	L2	AR1221-E	----------NA----------					
45	L3	AR1232-A	----------NA----------					
46	L3	AR1232-B	----------NA----------					
47	L3	AR1232-C	----------NA----------					
48	L3	AR1232-D	----------NA----------					
49	L3	AR1232-E	----------NA----------					
50	L3	AR1232-F	----------NA----------					
51	L4	AR1242-A	----------NA----------					
52	L4	AR1242-B	----------NA----------					
53	L4	AR1242-C	----------NA----------					
54	L4	AR1242-D	----------NA----------					
55	L4	AR1242-E	----------NA----------					
56	L4	AR1242-F	----------NA----------					
57	L5	AR1248-A	----------NA----------					
58	L5	AR1248-B	----------NA----------					
59	L5	AR1248-C	----------NA----------					
60	L5	AR1248-D	----------NA----------					
61	L5	AR1248-E	----------NA----------					
62	L5	AR1248-F	----------NA----------					
63	L6	AR1254-A	----------NA----------					
64	L6	AR1254-B	----------NA----------					
65	L6	AR1254-C	----------NA----------					
66	L6	AR1254-D	----------NA----------					
67	L6	AR1254-E	----------NA----------					
68	L6	AR1254-F	----------NA----------					
69	L7	AR1260-A	----------NA----------					
70	L7	AR1260-B	----------NA----------					
71	L7	AR1260-C	----------NA----------					
72	L7	AR1260-D	----------NA----------					
73	L7	AR1260-E	----------NA----------					
74	L7	AR1260-F	----------NA----------					
75	L8	AR1262-A	----------NA----------					
76	L8	AR1262-B	----------NA----------					
77	L8	AR1262-C	----------NA----------					
78	L8	AR1262-D	----------NA----------					
79	L8	AR1262-E	----------NA----------					
80	L8	AR1262-F	----------NA----------					
81	L9	AR1268-A	----------NA----------					
82	L9	AR1268-B	----------NA----------					
83	L9	AR1268-C	----------NA----------					
84	L9	AR1268-D	----------NA----------					
85	L9	AR1268-E	----------NA----------					
86	L9	AR1268-F	----------NA----------					
87	S	Decachlorobiphenyl	60.000	67.559	-12.6	119	0.00	6.61- 6.67
*****		Signal #1 *****						
89	S	Tetrachloro-m-xylene #	60.000	63.221	-5.4	107	0.00	2.06- 2.12
90		Hexachlorobenzene #2	60.000	63.670	-6.1	110	0.00	2.28- 2.34
91		alpha-BHC #2	30.000	33.270	-10.9	113	0.00	2.38- 2.44
92		gamma-BHC (Lindane) #2	30.000	33.029	-10.1	113	0.00	2.58- 2.64
93		beta-BHC #2	30.000	32.768	-9.2	114	0.00	2.63- 2.69
94		Heptachlor #2	30.000	32.186	-7.3	111	0.00	2.88- 2.94
95		Chlorothalonil #2	60.000	63.402	-5.7	108	0.00	3.14- 3.20
96		delta-BHC #2	30.000	33.257	-10.9	115	0.00	2.75- 2.81
97		Aldrin #2	30.000	32.583	-8.6	111	0.00	3.11- 3.17
98		Dacthal #2	60.000	64.151	-6.9	108	0.00	3.54- 3.60
99		Heptachlor Epoxide #2	30.000	31.498	-5.0	108	0.00	3.56- 3.62

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175692.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2	30.000	32.319	-7.7	110	0.00	3.67- 3.73
101		alpha-Chlordane #2	30.000	32.070	-6.9	110	0.01	3.76- 3.82
102		Endosulfan I #2	30.000	30.831	-2.8	108	0.00	3.88- 3.94
103		4,4'-DDE #2	60.000	66.972	-11.6	111	0.00	3.86- 3.92
104		Dieldrin #2	60.000	64.046	-6.7	109	0.00	4.08- 4.14
105		Endrin #2	60.000	63.639	-6.1	108	0.00	4.26- 4.32
106		4,4'-DDD #2	60.000	65.950	-9.9	111	0.00	4.34- 4.40
107		Endosulfan II #2	60.000	63.245	-5.4	108	0.00	4.43- 4.49
108		4,4'-DDT #2	60.000	63.342	-5.6	107	0.00	4.55- 4.61
109		Endrin Aldehyde #2	60.000	62.848	-4.7	107	0.01	4.73- 4.79
110		Endosulfan Sulfate #2	60.000	62.876	-4.8	107	0.00	5.06- 5.12
111		Methoxychlor #2	300.000	311.560	-3.9	104	0.00	4.93- 4.99
112		Endrin Ketone #2	60.000	62.933	-4.9	106	0.00	5.25- 5.31
113	L1	Chlordane-A #2		----------NA----------				
114	L1	Chlordane-B #2		----------NA----------				
115	L1	Chlordane-C #2		----------NA----------				
116	L1	Chlordane-D #2		----------NA----------				
117	L1	Chlordane-E #2		----------NA----------				
118	L1	Chlordane-F #2		----------NA----------				
119	H	Toxaphene #2		----------NA----------				
120		Mirex #2		----------NA----------				
121		Dicofol #2		----------NA----------				
122	L1	AR1016-A #2		----------NA----------				
123	L1	AR1016-B #2		----------NA----------				
124	L1	AR1016-C #2		----------NA----------				
125	L1	AR1016-D #2		----------NA----------				
126	L1	AR1016-E #2		----------NA----------				
127	L1	AR1016-F #2		----------NA----------				
128	L2	AR1221-A #2		----------NA----------				
129	L2	AR1221-B #2		----------NA----------				
130	L2	AR1221-C #2		----------NA----------				
131	L2	AR1221-D #2		----------NA----------				
132	L2	AR1221-E #2		----------NA----------				
133	L3	AR1232-A #2		----------NA----------				
134	L3	AR1232-B #2		----------NA----------				
135	L3	AR1232-C #2		----------NA----------				
136	L3	AR1232-D #2		----------NA----------				
137	L3	AR1232-E #2		----------NA----------				
138	L3	AR1232-F #2		----------NA----------				
139	L4	AR1242-A #2		----------NA----------				
140	L4	AR1242-B #2		----------NA----------				
141	L4	AR1242-C #2		----------NA----------				
142	L4	AR1242-D #2		----------NA----------				
143	L4	AR1242-E #2		----------NA----------				
144	L4	AR1242-F #2		----------NA----------				
145	L5	AR1248-A #2		----------NA----------				
146	L5	AR1248-B #2		----------NA----------				
147	L5	AR1248-C #2		----------NA----------				
148	L5	AR1248-D #2		----------NA----------				
149	L5	AR1248-E #2		----------NA----------				
150	L5	AR1248-F #2		----------NA----------				
151	L6	AR1254-A #2		----------NA----------				
152	L6	AR1254-B #2		----------NA----------				
153	L6	AR1254-C #2		----------NA----------				
154	L6	AR1254-D #2		----------NA----------				
155	L6	AR1254-E #2		----------NA----------				
156	L6	AR1254-F #2		----------NA----------				
157	L7	AR1260-A #2		----------NA----------				
158	L7	AR1260-B #2		----------NA----------				
159	L7	AR1260-C #2		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175692.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   60.000  62.817     -4.7  108   0.00    5.95- 6.01
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     NN175604.D 608Q1461.M       Sat Aug 16 13:11:33 2014
```

8.9.24

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175693.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #2 : C:\MSDCHEM\1\DATA\GNN1463\NN175693.D\ECD1A.CH Vial: 26
Signal #1 : C:\MSDCHEM\1\DATA\GNN1463\NN175693.D\ECD2B.CH
Acq On    : 8-15-2014 09:14:40 PM                    Operator: almar
Sample    : cc1461-300,1016/1260                     Inst    : GCNN
Misc      : op33545,gnn1463                          Multiplr: 1.00
IntFile Signal #2: EVENTS.E     IntFile Signal #1: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1461.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 13 13:08:45 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	60.000	67.343	-12.2	115	0.00	2.27- 2.33
2		Hexachlorobenzene		----------NA----------				
3		alpha-BHC		----------NA----------				
4		gamma-BHC (Lindane)		----------NA----------				
5		Heptachlor		----------NA----------				
6		Aldrin		----------NA----------				
7		Chlorothalonil		----------NA----------				
8		beta-BHC		----------NA----------				
9		Dacthal		----------NA----------				
10		Delta-BHC		----------NA----------				
11		Heptachlor Epoxide		----------NA----------				
12		Endosulfan I		----------NA----------				
13		gamma-Chlordane		----------NA----------				
14		alpha-Chlordane		----------NA----------				
15		4,4'-DDE		----------NA----------				
16		Dieldrin		----------NA----------				
17		Endrin		----------NA----------				
18		4,4'-DDD		----------NA----------				
19		Endosulfan II		----------NA----------				
20		4,4'-DDT		----------NA----------				
21		Endrin Aldehyde		----------NA----------				
22		Methoxychlor		----------NA----------				
23		Endosulfan Sulfate		----------NA----------				
24		Endrin Ketone		----------NA----------				
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A	300.000	323.336	-7.8	105	0.00	2.88- 2.94
35	L1	AR1016-B	300.000	333.705	-11.2	111	-0.01	3.23- 3.29
36	L1	AR1016-C	300.000	334.782	-11.6	110	0.00	3.33- 3.39
37	L1	AR1016-D	300.000	332.596	-10.9	112	0.00	3.41- 3.47
38	L1	AR1016-E	300.000	332.160	-10.7	110	0.00	3.71- 3.77
39	L1	AR1016-F	300.000	333.612	-11.2	109	0.00	3.82- 3.88
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175693.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

42	L2	AR1221-C			----------NA----------				
43	L2	AR1221-D			----------NA----------				
44	L2	AR1221-E			----------NA----------				
45	L3	AR1232-A			----------NA----------				
46	L3	AR1232-B			----------NA----------				
47	L3	AR1232-C			----------NA----------				
48	L3	AR1232-D			----------NA----------				
49	L3	AR1232-E			----------NA----------				
50	L3	AR1232-F			----------NA----------				
51	L4	AR1242-A			----------NA----------				
52	L4	AR1242-B			----------NA----------				
53	L4	AR1242-C			----------NA----------				
54	L4	AR1242-D			----------NA----------				
55	L4	AR1242-E			----------NA----------				
56	L4	AR1242-F			----------NA----------				
57	L5	AR1248-A			----------NA----------				
58	L5	AR1248-B			----------NA----------				
59	L5	AR1248-C			----------NA----------				
60	L5	AR1248-D			----------NA----------				
61	L5	AR1248-E			----------NA----------				
62	L5	AR1248-F			----------NA----------				
63	L6	AR1254-A			----------NA----------				
64	L6	AR1254-B			----------NA----------				
65	L6	AR1254-C			----------NA----------				
66	L6	AR1254-D			----------NA----------				
67	L6	AR1254-E			----------NA----------				
68	L6	AR1254-F			----------NA----------				
69	L7	AR1260-A	300.000	327.503	-9.2	114	0.00	4.73- 4.79	
70	L7	AR1260-B	300.000	325.004	-8.3	114	0.00	4.89- 4.95	
71	L7	AR1260-C	300.000	324.032	-8.0	113	0.00	5.21- 5.27	
72	L7	AR1260-D	300.000	328.497	-9.5	114	0.00	5.42- 5.48	
73	L7	AR1260-E	300.000	323.961	-8.0	112	0.00	5.59- 5.65	
74	L7	AR1260-F	300.000	324.889	-8.3	115	0.00	5.84- 5.90	
75	L8	AR1262-A			----------NA----------				
76	L8	AR1262-B			----------NA----------				
77	L8	AR1262-C			----------NA----------				
78	L8	AR1262-D			----------NA----------				
79	L8	AR1262-E			----------NA----------				
80	L8	AR1262-F			----------NA----------				
81	L9	AR1268-A			----------NA----------				
82	L9	AR1268-B			----------NA----------				
83	L9	AR1268-C			----------NA----------				
84	L9	AR1268-D			----------NA----------				
85	L9	AR1268-E			----------NA----------				
86	L9	AR1268-F			----------NA----------				
87	S	Decachlorobiphenyl	60.000	68.443	-14.1	120	0.00	6.61- 6.67	
*****		Signal #1 *****							
89	S	Tetrachloro-m-xylene #	60.000	65.693	-9.5	111	0.00	2.06- 2.12	
90		Hexachlorobenzene #2			----------NA----------				
91		alpha-BHC #2			----------NA----------				
92		gamma-BHC (Lindane) #2			----------NA----------				
93		beta-BHC #2			----------NA----------				
94		Heptachlor #2			----------NA----------				
95		Chlorothalonil #2			----------NA----------				
96		delta-BHC #2			----------NA----------				
97		Aldrin #2			----------NA----------				
98		Dacthal #2			----------NA----------				
99		Heptachlor Epoxide #2			----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175693.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2			----------NA----------				
101		alpha-Chlordane #2			----------NA----------				
102		Endosulfan I #2			----------NA----------				
103		4,4'-DDE #2			----------NA----------				
104		Dieldrin #2			----------NA----------				
105		Endrin #2			----------NA----------				
106		4,4'-DDD #2			----------NA----------				
107		Endosulfan II #2			----------NA----------				
108		4,4'-DDT #2			----------NA----------				
109		Endrin Aldehyde #2			----------NA----------				
110		Endosulfan Sulfate #2			----------NA----------				
111		Methoxychlor #2			----------NA----------				
112		Endrin Ketone #2			----------NA----------				
113	L1	Chlordane-A #2			----------NA----------				
114	L1	Chlordane-B #2			----------NA----------				
115	L1	Chlordane-C #2			----------NA----------				
116	L1	Chlordane-D #2			----------NA----------				
117	L1	Chlordane-E #2			----------NA----------				
118	L1	Chlordane-F #2			----------NA----------				
119	H	Toxaphene #2			----------NA----------				
120		Mirex #2			----------NA----------				
121		Dicofol #2			----------NA----------				
122	L1	AR1016-A #2	300.000	324.155	-8.1	107	0.00	2.47- 2.53	
123	L1	AR1016-B #2	300.000	312.564	-4.2	98	0.00	2.77- 2.83	
124	L1	AR1016-C #2	300.000	325.265	-8.4	110	0.00	2.86- 2.92	
125	L1	AR1016-D #2	300.000	335.660	-11.9	110	0.00	2.90- 2.96	
126	L1	AR1016-E #2	300.000	321.715	-7.2	110	0.00	3.14- 3.20	
127	L1	AR1016-F #2	300.000	335.972	-12.0	112	0.00	3.20- 3.26	
128	L2	AR1221-A #2			----------NA----------				
129	L2	AR1221-B #2			----------NA----------				
130	L2	AR1221-C #2			----------NA----------				
131	L2	AR1221-D #2			----------NA----------				
132	L2	AR1221-E #2			----------NA----------				
133	L3	AR1232-A #2			----------NA----------				
134	L3	AR1232-B #2			----------NA----------				
135	L3	AR1232-C #2			----------NA----------				
136	L3	AR1232-D #2			----------NA----------				
137	L3	AR1232-E #2			----------NA----------				
138	L3	AR1232-F #2			----------NA----------				
139	L4	AR1242-A #2			----------NA----------				
140	L4	AR1242-B #2			----------NA----------				
141	L4	AR1242-C #2			----------NA----------				
142	L4	AR1242-D #2			----------NA----------				
143	L4	AR1242-E #2			----------NA----------				
144	L4	AR1242-F #2			----------NA----------				
145	L5	AR1248-A #2			----------NA----------				
146	L5	AR1248-B #2			----------NA----------				
147	L5	AR1248-C #2			----------NA----------				
148	L5	AR1248-D #2			----------NA----------				
149	L5	AR1248-E #2			----------NA----------				
150	L5	AR1248-F #2			----------NA----------				
151	L6	AR1254-A #2			----------NA----------				
152	L6	AR1254-B #2			----------NA----------				
153	L6	AR1254-C #2			----------NA----------				
154	L6	AR1254-D #2			----------NA----------				
155	L6	AR1254-E #2			----------NA----------				
156	L6	AR1254-F #2			----------NA----------				
157	L7	AR1260-A #2	300.000	312.789	-4.3	107	0.00	4.08- 4.14	
158	L7	AR1260-B #2	300.000	316.929	-5.6	108	0.00	4.30- 4.36	
159	L7	AR1260-C #2	300.000	325.280	-8.4	110	0.00	4.52- 4.58	

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175693.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

160	L7	AR1260-D #2	300.000	318.952	-6.3	109	0.00	4.78- 4.84
161	L7	AR1260-E #2	300.000	313.529	-4.5	109	0.00	5.01- 5.07
162	L7	AR1260-F #2	300.000	313.572	-4.5	109	0.00	5.21- 5.27
163	L8	AR1262-A #2		----------NA----------				
164	L8	AR1262-B #2		----------NA----------				
165	L8	AR1262-C #2		----------NA----------				
166	L8	AR1262-D #2		----------NA----------				
167	L8	AR1262-E #2		----------NA----------				
168	L8	AR1262-F #2		----------NA----------				
169	L9	AR1268-A #2		----------NA----------				
170	L9	AR1268-B #2		----------NA----------				
171	L9	AR1268-C #2		----------NA----------				
172	L9	AR1268-D #2		----------NA----------				
173	L9	AR1268-E #2		----------NA----------				
174	L9	AR1268-F #2		----------NA----------				
175	S	Decachlorobiphenyl #2	60.000	63.527	-5.9	110	0.00	5.95- 6.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
NN175604.D 608Q1461.M Sat Aug 16 13:10:27 2014

8.9.25

8

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GNN1463-CC1461
Lab FileID: NN175698.D

Evaluate Continuing Calibration Report

```
Signal #2 : C:\MSDCHEM\1\DATA\GNN1463\NN175698.D\ECD1A.CH Vial: 31
Signal #1 : C:\MSDCHEM\1\DATA\GNN1463\NN175698.D\ECD2B.CH
Acq On    : 15 Aug 2014  10:25 pm                    Operator: almar
Sample    : cc1461-200,pest                          Inst    : GCNN
Misc      : op33545,gnn1463                          Multiplr: 1.00
IntFile Signal #2: EVENTS.E     IntFile Signal #1: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1461.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 13 13:08:45 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	43.610	-9.0	111	0.00	2.27- 2.33
2		Hexachlorobenzene	40.000	43.746	-9.4	108	0.00	2.59- 2.65
3		alpha-BHC	20.000	21.839	-9.2	109	0.00	2.69- 2.75
4		gamma-BHC (Lindane)	20.000	21.753	-8.8	109	0.00	2.95- 3.01
5		Heptachlor	20.000	21.719	-8.6	108	0.00	3.30- 3.36
6		Aldrin	20.000	21.764	-8.8	108	0.00	3.57- 3.63
7		Chlorothalonil	40.000	42.558	-6.4	105	0.00	3.41- 3.47
8		beta-BHC	20.000	21.674	-8.4	105	0.00	3.02- 3.08
9		Dacthal	40.000	42.627	-6.6	106	0.00	3.86- 3.92
10		Delta-BHC	20.000	21.679	-8.4	110	0.00	3.25- 3.31
11		Heptachlor Epoxide	20.000	21.622	-8.1	108	0.00	4.06- 4.12
12		Endosulfan I	20.000	21.751	-8.8	108	0.00	4.39- 4.45
13		gamma-Chlordane	20.000	21.968	-9.8	109	0.00	4.22- 4.28
14		alpha-Chlordane	20.000	21.735	-8.7	108	0.00	4.34- 4.40
15		4,4'-DDE	40.000	43.201	-8.0	109	0.00	4.48- 4.54
16		Dieldrin	40.000	42.935	-7.3	108	0.00	4.60- 4.66
17		Endrin	40.000	42.406	-6.0	106	0.00	4.83- 4.89
18		4,4'-DDD	40.000	43.391	-8.5	109	0.00	4.93- 4.99
19		Endosulfan II	40.000	42.827	-7.1	108	0.00	5.00- 5.06
20		4,4'-DDT	40.000	42.066	-5.2	106	0.00	5.15- 5.21
21		Endrin Aldehyde	40.000	42.700	-6.8	107	0.00	5.24- 5.30
22		Methoxychlor	200.000	211.287	-5.6	105	0.00	5.64- 5.70
23		Endosulfan Sulfate	40.000	42.771	-6.9	108	0.00	5.44- 5.50
24		Endrin Ketone	40.000	43.025	-7.6	108	0.00	5.81- 5.87
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A		----------NA----------				
35	L1	AR1016-B		----------NA----------				
36	L1	AR1016-C		----------NA----------				
37	L1	AR1016-D		----------NA----------				
38	L1	AR1016-E		----------NA----------				
39	L1	AR1016-F		----------NA----------				
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175698.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

42	L2	AR1221-C			----------NA----------			
43	L2	AR1221-D			----------NA----------			
44	L2	AR1221-E			----------NA----------			
45	L3	AR1232-A			----------NA----------			
46	L3	AR1232-B			----------NA----------			
47	L3	AR1232-C			----------NA----------			
48	L3	AR1232-D			----------NA----------			
49	L3	AR1232-E			----------NA----------			
50	L3	AR1232-F			----------NA----------			
51	L4	AR1242-A			----------NA----------			
52	L4	AR1242-B			----------NA----------			
53	L4	AR1242-C			----------NA----------			
54	L4	AR1242-D			----------NA----------			
55	L4	AR1242-E			----------NA----------			
56	L4	AR1242-F			----------NA----------			
57	L5	AR1248-A			----------NA----------			
58	L5	AR1248-B			----------NA----------			
59	L5	AR1248-C			----------NA----------			
60	L5	AR1248-D			----------NA----------			
61	L5	AR1248-E			----------NA----------			
62	L5	AR1248-F			----------NA----------			
63	L6	AR1254-A			----------NA----------			
64	L6	AR1254-B			----------NA----------			
65	L6	AR1254-C			----------NA----------			
66	L6	AR1254-D			----------NA----------			
67	L6	AR1254-E			----------NA----------			
68	L6	AR1254-F			----------NA----------			
69	L7	AR1260-A			----------NA----------			
70	L7	AR1260-B			----------NA----------			
71	L7	AR1260-C			----------NA----------			
72	L7	AR1260-D			----------NA----------			
73	L7	AR1260-E			----------NA----------			
74	L7	AR1260-F			----------NA----------			
75	L8	AR1262-A			----------NA----------			
76	L8	AR1262-B			----------NA----------			
77	L8	AR1262-C			----------NA----------			
78	L8	AR1262-D			----------NA----------			
79	L8	AR1262-E			----------NA----------			
80	L8	AR1262-F			----------NA----------			
81	L9	AR1268-A			----------NA----------			
82	L9	AR1268-B			----------NA----------			
83	L9	AR1268-C			----------NA----------			
84	L9	AR1268-D			----------NA----------			
85	L9	AR1268-E			----------NA----------			
86	L9	AR1268-F			----------NA----------			
87	S	Decachlorobiphenyl	40.000	47.388	-18.5#	131	0.00	6.61- 6.67
*****		Signal #1 *****						
89	S	Tetrachloro-m-xylene #	40.000	42.385	-6.0	107	0.00	2.06- 2.12
90		Hexachlorobenzene #2	40.000	42.880	-7.2	106	0.00	2.28- 2.34
91		alpha-BHC #2	20.000	21.312	-6.6	107	0.00	2.38- 2.44
92		gamma-BHC (Lindane) #2	20.000	21.622	-8.1	108	0.00	2.58- 2.64
93		beta-BHC #2	20.000	22.202	-11.0	109	0.00	2.63- 2.69
94		Heptachlor #2	20.000	21.713	-8.6	108	0.00	2.88- 2.94
95		Chlorothalonil #2	40.000	41.685	-4.2	103	0.00	3.14- 3.20
96		delta-BHC #2	20.000	22.024	-10.1	112	0.00	2.75- 2.81
97		Aldrin #2	20.000	21.777	-8.9	109	0.00	3.11- 3.17
98		Dacthal #2	40.000	42.288	-5.7	105	0.00	3.54- 3.60
99		Heptachlor Epoxide #2	20.000	22.285	-11.4	111	0.00	3.56- 3.62

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175698.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2	20.000	22.056	-10.3	111	0.00	3.67- 3.73
101		alpha-Chlordane #2	20.000	21.687	-8.4	107	0.01	3.76- 3.82
102		Endosulfan I #2	20.000	22.215	-11.1	109	0.00	3.88- 3.94
103		4,4'-DDE #2	40.000	42.160	-5.4	107	0.00	3.86- 3.92
104		Dieldrin #2	40.000	42.704	-6.8	108	0.00	4.08- 4.14
105		Endrin #2	40.000	42.280	-5.7	106	0.00	4.26- 4.32
106		4,4'-DDD #2	40.000	43.314	-8.3	109	0.00	4.34- 4.40
107		Endosulfan II #2	40.000	42.614	-6.5	106	0.00	4.43- 4.49
108		4,4'-DDT #2	40.000	41.853	-4.6	104	0.00	4.55- 4.61
109		Endrin Aldehyde #2	40.000	42.511	-6.3	105	0.01	4.73- 4.79
110		Endosulfan Sulfate #2	40.000	42.721	-6.8	106	0.00	5.06- 5.12
111		Methoxychlor #2	200.000	210.670	-5.3	105	0.00	4.93- 4.99
112		Endrin Ketone #2	40.000	42.418	-6.0	107	0.00	5.25- 5.31
113	L1	Chlordane-A #2		----------NA----------				
114	L1	Chlordane-B #2		----------NA----------				
115	L1	Chlordane-C #2		----------NA----------				
116	L1	Chlordane-D #2		----------NA----------				
117	L1	Chlordane-E #2		----------NA----------				
118	L1	Chlordane-F #2		----------NA----------				
119	H	Toxaphene #2		----------NA----------				
120		Mirex #2		----------NA----------				
121		Dicofol #2		----------NA----------				
122	L1	AR1016-A #2		----------NA----------				
123	L1	AR1016-B #2		----------NA----------				
124	L1	AR1016-C #2		----------NA----------				
125	L1	AR1016-D #2		----------NA----------				
126	L1	AR1016-E #2		----------NA----------				
127	L1	AR1016-F #2		----------NA----------				
128	L2	AR1221-A #2		----------NA----------				
129	L2	AR1221-B #2		----------NA----------				
130	L2	AR1221-C #2		----------NA----------				
131	L2	AR1221-D #2		----------NA----------				
132	L2	AR1221-E #2		----------NA----------				
133	L3	AR1232-A #2		----------NA----------				
134	L3	AR1232-B #2		----------NA----------				
135	L3	AR1232-C #2		----------NA----------				
136	L3	AR1232-D #2		----------NA----------				
137	L3	AR1232-E #2		----------NA----------				
138	L3	AR1232-F #2		----------NA----------				
139	L4	AR1242-A #2		----------NA----------				
140	L4	AR1242-B #2		----------NA----------				
141	L4	AR1242-C #2		----------NA----------				
142	L4	AR1242-D #2		----------NA----------				
143	L4	AR1242-E #2		----------NA----------				
144	L4	AR1242-F #2		----------NA----------				
145	L5	AR1248-A #2		----------NA----------				
146	L5	AR1248-B #2		----------NA----------				
147	L5	AR1248-C #2		----------NA----------				
148	L5	AR1248-D #2		----------NA----------				
149	L5	AR1248-E #2		----------NA----------				
150	L5	AR1248-F #2		----------NA----------				
151	L6	AR1254-A #2		----------NA----------				
152	L6	AR1254-B #2		----------NA----------				
153	L6	AR1254-C #2		----------NA----------				
154	L6	AR1254-D #2		----------NA----------				
155	L6	AR1254-E #2		----------NA----------				
156	L6	AR1254-F #2		----------NA----------				
157	L7	AR1260-A #2		----------NA----------				
158	L7	AR1260-B #2		----------NA----------				
159	L7	AR1260-C #2		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175698.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   40.000  43.570     -8.9  112   0.00    5.95- 6.01
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     NN175603.D 608Q1461.M       Sat Aug 16 13:09:57 2014
```

8.9.26

8

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GNN1463-CC1461
Lab FileID: NN175708.D

Evaluate Continuing Calibration Report

```
Signal #2 : C:\MSDCHEM\1\DATA\GNN1463\NN175708.D\ECD1A.CH Vial: 41
Signal #1 : C:\MSDCHEM\1\DATA\GNN1463\NN175708.D\ECD2B.CH
Acq On    : 16 Aug 2014  12:26 pm                    Operator: almar
Sample    : cc1461-200,pest                          Inst    : GCNN
Misc      : op33544,gnn1463                          Multiplr: 1.00
IntFile Signal #2: EVENTS.E     IntFile Signal #1: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1461.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 13 13:08:45 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	44.460	-11.2	113	0.00	2.27- 2.33
2		Hexachlorobenzene	40.000	44.123	-10.3	109	0.00	2.59- 2.65
3		alpha-BHC	20.000	22.237	-11.2	111	0.00	2.69- 2.75
4		gamma-BHC (Lindane)	20.000	22.204	-11.0	111	0.00	2.95- 3.01
5		Heptachlor	20.000	21.724	-8.6	108	0.00	3.30- 3.36
6		Aldrin	20.000	21.649	-8.2	108	0.00	3.57- 3.63
7		Chlorothalonil	40.000	43.496	-8.7	108	-0.01	3.41- 3.47
8		beta-BHC	20.000	22.290	-11.4	108	0.00	3.02- 3.08
9		Dacthal	40.000	43.727	-9.3	109	0.00	3.86- 3.92
10		Delta-BHC	20.000	22.328	-11.6	113	0.00	3.25- 3.31
11		Heptachlor Epoxide	20.000	21.742	-8.7	108	0.00	4.06- 4.12
12		Endosulfan I	20.000	21.935	-9.7	109	0.00	4.39- 4.45
13		gamma-Chlordane	20.000	21.835	-9.2	108	0.00	4.22- 4.28
14		alpha-Chlordane	20.000	21.838	-9.2	108	0.00	4.34- 4.40
15		4,4'-DDE	40.000	44.010	-10.0	111	0.00	4.48- 4.54
16		Dieldrin	40.000	43.315	-8.3	109	0.00	4.60- 4.66
17		Endrin	40.000	43.071	-7.7	108	0.00	4.83- 4.89
18		4,4'-DDD	40.000	45.162	-12.9	114	0.00	4.93- 4.99
19		Endosulfan II	40.000	43.145	-7.9	108	0.00	5.00- 5.06
20		4,4'-DDT	40.000	41.687	-4.2	105	0.00	5.15- 5.21
21		Endrin Aldehyde	40.000	41.693	-4.2	105	0.00	5.24- 5.30
22		Methoxychlor	200.000	207.748	-3.9	104	0.00	5.64- 5.70
23		Endosulfan Sulfate	40.000	42.464	-6.2	107	0.00	5.44- 5.50
24		Endrin Ketone	40.000	42.501	-6.3	107	0.00	5.81- 5.87
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A		----------NA----------				
35	L1	AR1016-B		----------NA----------				
36	L1	AR1016-C		----------NA----------				
37	L1	AR1016-D		----------NA----------				
38	L1	AR1016-E		----------NA----------				
39	L1	AR1016-F		----------NA----------				
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175708.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

42	L2	AR1221-C			----------NA----------			
43	L2	AR1221-D			----------NA----------			
44	L2	AR1221-E			----------NA----------			
45	L3	AR1232-A			----------NA----------			
46	L3	AR1232-B			----------NA----------			
47	L3	AR1232-C			----------NA----------			
48	L3	AR1232-D			----------NA----------			
49	L3	AR1232-E			----------NA----------			
50	L3	AR1232-F			----------NA----------			
51	L4	AR1242-A			----------NA----------			
52	L4	AR1242-B			----------NA----------			
53	L4	AR1242-C			----------NA----------			
54	L4	AR1242-D			----------NA----------			
55	L4	AR1242-E			----------NA----------			
56	L4	AR1242-F			----------NA----------			
57	L5	AR1248-A			----------NA----------			
58	L5	AR1248-B			----------NA----------			
59	L5	AR1248-C			----------NA----------			
60	L5	AR1248-D			----------NA----------			
61	L5	AR1248-E			----------NA----------			
62	L5	AR1248-F			----------NA----------			
63	L6	AR1254-A			----------NA----------			
64	L6	AR1254-B			----------NA----------			
65	L6	AR1254-C			----------NA----------			
66	L6	AR1254-D			----------NA----------			
67	L6	AR1254-E			----------NA----------			
68	L6	AR1254-F			----------NA----------			
69	L7	AR1260-A			----------NA----------			
70	L7	AR1260-B			----------NA----------			
71	L7	AR1260-C			----------NA----------			
72	L7	AR1260-D			----------NA----------			
73	L7	AR1260-E			----------NA----------			
74	L7	AR1260-F			----------NA----------			
75	L8	AR1262-A			----------NA----------			
76	L8	AR1262-B			----------NA----------			
77	L8	AR1262-C			----------NA----------			
78	L8	AR1262-D			----------NA----------			
79	L8	AR1262-E			----------NA----------			
80	L8	AR1262-F			----------NA----------			
81	L9	AR1268-A			----------NA----------			
82	L9	AR1268-B			----------NA----------			
83	L9	AR1268-C			----------NA----------			
84	L9	AR1268-D			----------NA----------			
85	L9	AR1268-E			----------NA----------			
86	L9	AR1268-F			----------NA----------			
87	S	Decachlorobiphenyl	40.000	47.192	-18.0#	131	0.00	6.61- 6.67
*****		Signal #1 *****						
89	S	Tetrachloro-m-xylene #	40.000	43.846	-9.6	111	0.00	2.06- 2.12
90		Hexachlorobenzene #2	40.000	44.009	-10.0	109	0.00	2.28- 2.34
91		alpha-BHC #2	20.000	22.104	-10.5	111	0.00	2.38- 2.44
92		gamma-BHC (Lindane) #2	20.000	22.351	-11.8	111	0.00	2.58- 2.64
93		beta-BHC #2	20.000	22.616	-13.1	111	0.00	2.63- 2.69
94		Heptachlor #2	20.000	21.752	-8.8	108	0.00	2.88- 2.94
95		Chlorothalonil #2	40.000	44.473	-11.2	110	0.00	3.14- 3.20
96		delta-BHC #2	20.000	22.704	-13.5	116	0.00	2.75- 2.81
97		Aldrin #2	20.000	22.128	-10.6	111	0.00	3.11- 3.17
98		Dacthal #2	40.000	46.309	-15.8#	115	0.00	3.54- 3.60
99		Heptachlor Epoxide #2	20.000	20.618	-3.1	103	0.00	3.56- 3.62

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175708.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2	20.000	22.290	-11.4	112	0.00	3.67- 3.73
101		alpha-Chlordane #2	20.000	22.077	-10.4	109	0.00	3.76- 3.82
102		Endosulfan I #2	20.000	19.365	3.2	95	0.00	3.88- 3.94
103		4,4'-DDE #2	40.000	48.021	-20.1#	122	-0.01	3.86- 3.92
104		Dieldrin #2	40.000	43.206	-8.0	109	0.00	4.08- 4.14
105		Endrin #2	40.000	42.950	-7.4	108	-0.01	4.26- 4.32
106		4,4'-DDD #2	40.000	46.185	-15.5#	116	-0.01	4.34- 4.40
107		Endosulfan II #2	40.000	43.180	-7.9	107	-0.01	4.43- 4.49
108		4,4'-DDT #2	40.000	42.199	-5.5	104	-0.01	4.55- 4.61
109		Endrin Aldehyde #2	40.000	41.631	-4.1	103	0.00	4.73- 4.79
110		Endosulfan Sulfate #2	40.000	43.062	-7.7	107	-0.01	5.06- 5.12
111		Methoxychlor #2	200.000	212.048	-6.0	105	-0.01	4.93- 4.99
112		Endrin Ketone #2	40.000	42.725	-6.8	108	-0.01	5.25- 5.31
113	L1	Chlordane-A #2		----------NA----------				
114	L1	Chlordane-B #2		----------NA----------				
115	L1	Chlordane-C #2		----------NA----------				
116	L1	Chlordane-D #2		----------NA----------				
117	L1	Chlordane-E #2		----------NA----------				
118	L1	Chlordane-F #2		----------NA----------				
119	H	Toxaphene #2		----------NA----------				
120		Mirex #2		----------NA----------				
121		Dicofol #2		----------NA----------				
122	L1	AR1016-A #2		----------NA----------				
123	L1	AR1016-B #2		----------NA----------				
124	L1	AR1016-C #2		----------NA----------				
125	L1	AR1016-D #2		----------NA----------				
126	L1	AR1016-E #2		----------NA----------				
127	L1	AR1016-F #2		----------NA----------				
128	L2	AR1221-A #2		----------NA----------				
129	L2	AR1221-B #2		----------NA----------				
130	L2	AR1221-C #2		----------NA----------				
131	L2	AR1221-D #2		----------NA----------				
132	L2	AR1221-E #2		----------NA----------				
133	L3	AR1232-A #2		----------NA----------				
134	L3	AR1232-B #2		----------NA----------				
135	L3	AR1232-C #2		----------NA----------				
136	L3	AR1232-D #2		----------NA----------				
137	L3	AR1232-E #2		----------NA----------				
138	L3	AR1232-F #2		----------NA----------				
139	L4	AR1242-A #2		----------NA----------				
140	L4	AR1242-B #2		----------NA----------				
141	L4	AR1242-C #2		----------NA----------				
142	L4	AR1242-D #2		----------NA----------				
143	L4	AR1242-E #2		----------NA----------				
144	L4	AR1242-F #2		----------NA----------				
145	L5	AR1248-A #2		----------NA----------				
146	L5	AR1248-B #2		----------NA----------				
147	L5	AR1248-C #2		----------NA----------				
148	L5	AR1248-D #2		----------NA----------				
149	L5	AR1248-E #2		----------NA----------				
150	L5	AR1248-F #2		----------NA----------				
151	L6	AR1254-A #2		----------NA----------				
152	L6	AR1254-B #2		----------NA----------				
153	L6	AR1254-C #2		----------NA----------				
154	L6	AR1254-D #2		----------NA----------				
155	L6	AR1254-E #2		----------NA----------				
156	L6	AR1254-F #2		----------NA----------				
157	L7	AR1260-A #2		----------NA----------				
158	L7	AR1260-B #2		----------NA----------				
159	L7	AR1260-C #2		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175708.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   40.000  44.076    -10.2  114  -0.01    5.95- 6.01
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0
     NN175603.D 608Q1461.M       Sat Aug 16 13:09:58 2014
```

8.9.27

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175709.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #2 : C:\MSDCHEM\1\DATA\GNN1463\NN175709.D\ECD1A.CH Vial: 42
Signal #1 : C:\MSDCHEM\1\DATA\GNN1463\NN175709.D\ECD2B.CH
Acq On    : 16 Aug 2014  12:39 pm                    Operator: almar
Sample    : cc1461-200,1016/1260                     Inst    : GCNN
Misc      : op33544,gnn1463                          Multiplr: 1.00
IntFile Signal #2: EVENTS.E     IntFile Signal #1: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1461.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 13 13:08:45 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	44.252	-10.6	113	0.00	2.27- 2.33
2		Hexachlorobenzene		----------NA----------				
3		alpha-BHC		----------NA----------				
4		gamma-BHC (Lindane)		----------NA----------				
5		Heptachlor		----------NA----------				
6		Aldrin		----------NA----------				
7		Chlorothalonil		----------NA----------				
8		beta-BHC		----------NA----------				
9		Dacthal		----------NA----------				
10		Delta-BHC		----------NA----------				
11		Heptachlor Epoxide		----------NA----------				
12		Endosulfan I		----------NA----------				
13		gamma-Chlordane		----------NA----------				
14		alpha-Chlordane		----------NA----------				
15		4,4'-DDE		----------NA----------				
16		Dieldrin		----------NA----------				
17		Endrin		----------NA----------				
18		4,4'-DDD		----------NA----------				
19		Endosulfan II		----------NA----------				
20		4,4'-DDT		----------NA----------				
21		Endrin Aldehyde		----------NA----------				
22		Methoxychlor		----------NA----------				
23		Endosulfan Sulfate		----------NA----------				
24		Endrin Ketone		----------NA----------				
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A	200.000	218.224	-9.1	111	-0.01	2.88- 2.94
35	L1	AR1016-B	200.000	226.188	-13.1	113	-0.02	3.23- 3.29
36	L1	AR1016-C	200.000	222.132	-11.1	113	-0.01	3.33- 3.39
37	L1	AR1016-D	200.000	223.373	-11.7	109	-0.01	3.41- 3.47
38	L1	AR1016-E	200.000	225.791	-12.9	112	-0.01	3.71- 3.77
39	L1	AR1016-F	200.000	217.158	-8.6	107	-0.01	3.82- 3.88
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175709.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

42	L2	AR1221-C		----------NA----------				
43	L2	AR1221-D		----------NA----------				
44	L2	AR1221-E		----------NA----------				
45	L3	AR1232-A		----------NA----------				
46	L3	AR1232-B		----------NA----------				
47	L3	AR1232-C		----------NA----------				
48	L3	AR1232-D		----------NA----------				
49	L3	AR1232-E		----------NA----------				
50	L3	AR1232-F		----------NA----------				
51	L4	AR1242-A		----------NA----------				
52	L4	AR1242-B		----------NA----------				
53	L4	AR1242-C		----------NA----------				
54	L4	AR1242-D		----------NA----------				
55	L4	AR1242-E		----------NA----------				
56	L4	AR1242-F		----------NA----------				
57	L5	AR1248-A		----------NA----------				
58	L5	AR1248-B		----------NA----------				
59	L5	AR1248-C		----------NA----------				
60	L5	AR1248-D		----------NA----------				
61	L5	AR1248-E		----------NA----------				
62	L5	AR1248-F		----------NA----------				
63	L6	AR1254-A		----------NA----------				
64	L6	AR1254-B		----------NA----------				
65	L6	AR1254-C		----------NA----------				
66	L6	AR1254-D		----------NA----------				
67	L6	AR1254-E		----------NA----------				
68	L6	AR1254-F		----------NA----------				
69	L7	AR1260-A	200.000	220.793	-10.4	109	0.00	4.73- 4.79
70	L7	AR1260-B	200.000	217.788	-8.9	107	0.00	4.89- 4.95
71	L7	AR1260-C	200.000	220.893	-10.4	111	0.00	5.21- 5.27
72	L7	AR1260-D	200.000	218.730	-9.4	108	0.00	5.42- 5.48
73	L7	AR1260-E	200.000	214.621	-7.3	108	0.00	5.59- 5.65
74	L7	AR1260-F	200.000	210.919	-5.5	106	0.00	5.84- 5.90
75	L8	AR1262-A		----------NA----------				
76	L8	AR1262-B		----------NA----------				
77	L8	AR1262-C		----------NA----------				
78	L8	AR1262-D		----------NA----------				
79	L8	AR1262-E		----------NA----------				
80	L8	AR1262-F		----------NA----------				
81	L9	AR1268-A		----------NA----------				
82	L9	AR1268-B		----------NA----------				
83	L9	AR1268-C		----------NA----------				
84	L9	AR1268-D		----------NA----------				
85	L9	AR1268-E		----------NA----------				
86	L9	AR1268-F		----------NA----------				
87	S	Decachlorobiphenyl	40.000	46.332	-15.8#	128	0.00	6.61- 6.67
*****		Signal #1 *****						
89	S	Tetrachloro-m-xylene #	40.000	43.561	-8.9	110	0.00	2.06- 2.12
90		Hexachlorobenzene #2		----------NA----------				
91		alpha-BHC #2		----------NA----------				
92		gamma-BHC (Lindane) #2		----------NA----------				
93		beta-BHC #2		----------NA----------				
94		Heptachlor #2		----------NA----------				
95		Chlorothalonil #2		----------NA----------				
96		delta-BHC #2		----------NA----------				
97		Aldrin #2		----------NA----------				
98		Dacthal #2		----------NA----------				
99		Heptachlor Epoxide #2		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175709.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2	----------NA----------					
101		alpha-Chlordane #2	----------NA----------					
102		Endosulfan I #2	----------NA----------					
103		4,4'-DDE #2	----------NA----------					
104		Dieldrin #2	----------NA----------					
105		Endrin #2	----------NA----------					
106		4,4'-DDD #2	----------NA----------					
107		Endosulfan II #2	----------NA----------					
108		4,4'-DDT #2	----------NA----------					
109		Endrin Aldehyde #2	----------NA----------					
110		Endosulfan Sulfate #2	----------NA----------					
111		Methoxychlor #2	----------NA----------					
112		Endrin Ketone #2	----------NA----------					
113	L1	Chlordane-A #2	----------NA----------					
114	L1	Chlordane-B #2	----------NA----------					
115	L1	Chlordane-C #2	----------NA----------					
116	L1	Chlordane-D #2	----------NA----------					
117	L1	Chlordane-E #2	----------NA----------					
118	L1	Chlordane-F #2	----------NA----------					
119	H	Toxaphene #2	----------NA----------					
120		Mirex #2	----------NA----------					
121		Dicofol #2	----------NA----------					
122	L1	AR1016-A #2	200.000	214.300	-7.2	101	0.00	2.47- 2.53
123	L1	AR1016-B #2	200.000	218.647	-9.3	102	0.00	2.77- 2.83
124	L1	AR1016-C #2	200.000	224.390	-12.2	113	0.00	2.86- 2.92
125	L1	AR1016-D #2	200.000	213.594	-6.8	107	0.00	2.90- 2.96
126	L1	AR1016-E #2	200.000	215.347	-7.7	109	0.00	3.14- 3.20
127	L1	AR1016-F #2	200.000	219.724	-9.9	118	-0.01	3.20- 3.26
128	L2	AR1221-A #2	----------NA----------					
129	L2	AR1221-B #2	----------NA----------					
130	L2	AR1221-C #2	----------NA----------					
131	L2	AR1221-D #2	----------NA----------					
132	L2	AR1221-E #2	----------NA----------					
133	L3	AR1232-A #2	----------NA----------					
134	L3	AR1232-B #2	----------NA----------					
135	L3	AR1232-C #2	----------NA----------					
136	L3	AR1232-D #2	----------NA----------					
137	L3	AR1232-E #2	----------NA----------					
138	L3	AR1232-F #2	----------NA----------					
139	L4	AR1242-A #2	----------NA----------					
140	L4	AR1242-B #2	----------NA----------					
141	L4	AR1242-C #2	----------NA----------					
142	L4	AR1242-D #2	----------NA----------					
143	L4	AR1242-E #2	----------NA----------					
144	L4	AR1242-F #2	----------NA----------					
145	L5	AR1248-A #2	----------NA----------					
146	L5	AR1248-B #2	----------NA----------					
147	L5	AR1248-C #2	----------NA----------					
148	L5	AR1248-D #2	----------NA----------					
149	L5	AR1248-E #2	----------NA----------					
150	L5	AR1248-F #2	----------NA----------					
151	L6	AR1254-A #2	----------NA----------					
152	L6	AR1254-B #2	----------NA----------					
153	L6	AR1254-C #2	----------NA----------					
154	L6	AR1254-D #2	----------NA----------					
155	L6	AR1254-E #2	----------NA----------					
156	L6	AR1254-F #2	----------NA----------					
157	L7	AR1260-A #2	200.000	219.773	-9.9	113	0.00	4.08- 4.14
158	L7	AR1260-B #2	200.000	223.291	-11.6	112	0.00	4.30- 4.36
159	L7	AR1260-C #2	200.000	225.073	-12.5	114	0.00	4.52- 4.58

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175709.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

160	L7	AR1260-D #2	200.000	219.230	-9.6	111	0.00	4.78- 4.84
161	L7	AR1260-E #2	200.000	193.056	3.5	98	0.00	5.01- 5.07
162	L7	AR1260-F #2	200.000	221.704	-10.9	113	0.00	5.21- 5.27
163	L8	AR1262-A #2	----------NA----------					
164	L8	AR1262-B #2	----------NA----------					
165	L8	AR1262-C #2	----------NA----------					
166	L8	AR1262-D #2	----------NA----------					
167	L8	AR1262-E #2	----------NA----------					
168	L8	AR1262-F #2	----------NA----------					
169	L9	AR1268-A #2	----------NA----------					
170	L9	AR1268-B #2	----------NA----------					
171	L9	AR1268-C #2	----------NA----------					
172	L9	AR1268-D #2	----------NA----------					
173	L9	AR1268-E #2	----------NA----------					
174	L9	AR1268-F #2	----------NA----------					
175	S	Decachlorobiphenyl #2	40.000	43.723	-9.3	113	-0.01	5.95- 6.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
NN175603.D 608Q1461.M Sat Aug 16 13:09:59 2014

8.9.28

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175717.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #2 : C:\MSDCHEM\1\DATA\GNN1463\NN175717.D\ECD1A.CH Vial: 50
Signal #1 : C:\MSDCHEM\1\DATA\GNN1463\NN175717.D\ECD2B.CH
Acq On    : 8-16-2014 02:28:14 PM                    Operator: almar
Sample    : cc1461-300,1016/1260                     Inst    : GCNN
Misc      : op33544,gnn1463                          Multiplr: 1.00
IntFile Signal #2: EVENTS.E     IntFile Signal #1: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1461.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 13 13:08:45 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	60.000	67.333	-12.2	115	0.00	2.27- 2.33
2		Hexachlorobenzene		----------NA----------				
3		alpha-BHC		----------NA----------				
4		gamma-BHC (Lindane)		----------NA----------				
5		Heptachlor		----------NA----------				
6		Aldrin		----------NA----------				
7		Chlorothalonil		----------NA----------				
8		beta-BHC		----------NA----------				
9		Dacthal		----------NA----------				
10		Delta-BHC		----------NA----------				
11		Heptachlor Epoxide		----------NA----------				
12		Endosulfan I		----------NA----------				
13		gamma-Chlordane		----------NA----------				
14		alpha-Chlordane		----------NA----------				
15		4,4'-DDE		----------NA----------				
16		Dieldrin		----------NA----------				
17		Endrin		----------NA----------				
18		4,4'-DDD		----------NA----------				
19		Endosulfan II		----------NA----------				
20		4,4'-DDT		----------NA----------				
21		Endrin Aldehyde		----------NA----------				
22		Methoxychlor		----------NA----------				
23		Endosulfan Sulfate		----------NA----------				
24		Endrin Ketone		----------NA----------				
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A	300.000	328.033	-9.3	107	-0.01	2.88- 2.94
35	L1	AR1016-B	300.000	339.933	-13.3	113	-0.02	3.23- 3.29
36	L1	AR1016-C	300.000	337.932	-12.6	111	-0.01	3.33- 3.39
37	L1	AR1016-D	300.000	334.477	-11.5	113	-0.01	3.41- 3.47
38	L1	AR1016-E	300.000	339.695	-13.2	112	-0.01	3.71- 3.77
39	L1	AR1016-F	300.000	330.024	-10.0	108	-0.01	3.82- 3.88
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175717.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

42	L2	AR1221-C			----------NA----------			
43	L2	AR1221-D			----------NA----------			
44	L2	AR1221-E			----------NA----------			
45	L3	AR1232-A			----------NA----------			
46	L3	AR1232-B			----------NA----------			
47	L3	AR1232-C			----------NA----------			
48	L3	AR1232-D			----------NA----------			
49	L3	AR1232-E			----------NA----------			
50	L3	AR1232-F			----------NA----------			
51	L4	AR1242-A			----------NA----------			
52	L4	AR1242-B			----------NA----------			
53	L4	AR1242-C			----------NA----------			
54	L4	AR1242-D			----------NA----------			
55	L4	AR1242-E			----------NA----------			
56	L4	AR1242-F			----------NA----------			
57	L5	AR1248-A			----------NA----------			
58	L5	AR1248-B			----------NA----------			
59	L5	AR1248-C			----------NA----------			
60	L5	AR1248-D			----------NA----------			
61	L5	AR1248-E			----------NA----------			
62	L5	AR1248-F			----------NA----------			
63	L6	AR1254-A			----------NA----------			
64	L6	AR1254-B			----------NA----------			
65	L6	AR1254-C			----------NA----------			
66	L6	AR1254-D			----------NA----------			
67	L6	AR1254-E			----------NA----------			
68	L6	AR1254-F			----------NA----------			
69	L7	AR1260-A	300.000	321.428	-7.1	112	0.00	4.73- 4.79
70	L7	AR1260-B	300.000	321.256	-7.1	113	0.00	4.89- 4.95
71	L7	AR1260-C	300.000	325.554	-8.5	114	0.00	5.21- 5.27
72	L7	AR1260-D	300.000	313.991	-4.7	109	0.00	5.42- 5.48
73	L7	AR1260-E	300.000	319.412	-6.5	111	0.00	5.59- 5.65
74	L7	AR1260-F	300.000	325.583	-8.5	115	0.00	5.84- 5.90
75	L8	AR1262-A			----------NA----------			
76	L8	AR1262-B			----------NA----------			
77	L8	AR1262-C			----------NA----------			
78	L8	AR1262-D			----------NA----------			
79	L8	AR1262-E			----------NA----------			
80	L8	AR1262-F			----------NA----------			
81	L9	AR1268-A			----------NA----------			
82	L9	AR1268-B			----------NA----------			
83	L9	AR1268-C			----------NA----------			
84	L9	AR1268-D			----------NA----------			
85	L9	AR1268-E			----------NA----------			
86	L9	AR1268-F			----------NA----------			
87	S	Decachlorobiphenyl	60.000	67.251	-12.1	118	0.00	6.61- 6.67
*****		Signal #1 *****						
89	S	Tetrachloro-m-xylene #	60.000	66.531	-10.9	113	0.00	2.06- 2.12
90		Hexachlorobenzene #2			----------NA----------			
91		alpha-BHC #2			----------NA----------			
92		gamma-BHC (Lindane) #2			----------NA----------			
93		beta-BHC #2			----------NA----------			
94		Heptachlor #2			----------NA----------			
95		Chlorothalonil #2			----------NA----------			
96		delta-BHC #2			----------NA----------			
97		Aldrin #2			----------NA----------			
98		Dacthal #2			----------NA----------			
99		Heptachlor Epoxide #2			----------NA----------			

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175717.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2			----------NA----------				
101		alpha-Chlordane #2			----------NA----------				
102		Endosulfan I #2			----------NA----------				
103		4,4'-DDE #2			----------NA----------				
104		Dieldrin #2			----------NA----------				
105		Endrin #2			----------NA----------				
106		4,4'-DDD #2			----------NA----------				
107		Endosulfan II #2			----------NA----------				
108		4,4'-DDT #2			----------NA----------				
109		Endrin Aldehyde #2			----------NA----------				
110		Endosulfan Sulfate #2			----------NA----------				
111		Methoxychlor #2			----------NA----------				
112		Endrin Ketone #2			----------NA----------				
113	L1	Chlordane-A #2			----------NA----------				
114	L1	Chlordane-B #2			----------NA----------				
115	L1	Chlordane-C #2			----------NA----------				
116	L1	Chlordane-D #2			----------NA----------				
117	L1	Chlordane-E #2			----------NA----------				
118	L1	Chlordane-F #2			----------NA----------				
119	H	Toxaphene #2			----------NA----------				
120		Mirex #2			----------NA----------				
121		Dicofol #2			----------NA----------				
122	L1	AR1016-A #2	300.000	329.668	-9.9	109	0.00	2.47-	2.53
123	L1	AR1016-B #2	300.000	336.518	-12.2	105	0.00	2.77-	2.83
124	L1	AR1016-C #2	300.000	337.430	-12.5	114	0.00	2.86-	2.92
125	L1	AR1016-D #2	300.000	319.935	-6.6	105	0.00	2.90-	2.96
126	L1	AR1016-E #2	300.000	323.552	-7.9	110	0.00	3.14-	3.20
127	L1	AR1016-F #2	300.000	316.255	-5.4	106	0.00	3.20-	3.26
128	L2	AR1221-A #2			----------NA----------				
129	L2	AR1221-B #2			----------NA----------				
130	L2	AR1221-C #2			----------NA----------				
131	L2	AR1221-D #2			----------NA----------				
132	L2	AR1221-E #2			----------NA----------				
133	L3	AR1232-A #2			----------NA----------				
134	L3	AR1232-B #2			----------NA----------				
135	L3	AR1232-C #2			----------NA----------				
136	L3	AR1232-D #2			----------NA----------				
137	L3	AR1232-E #2			----------NA----------				
138	L3	AR1232-F #2			----------NA----------				
139	L4	AR1242-A #2			----------NA----------				
140	L4	AR1242-B #2			----------NA----------				
141	L4	AR1242-C #2			----------NA----------				
142	L4	AR1242-D #2			----------NA----------				
143	L4	AR1242-E #2			----------NA----------				
144	L4	AR1242-F #2			----------NA----------				
145	L5	AR1248-A #2			----------NA----------				
146	L5	AR1248-B #2			----------NA----------				
147	L5	AR1248-C #2			----------NA----------				
148	L5	AR1248-D #2			----------NA----------				
149	L5	AR1248-E #2			----------NA----------				
150	L5	AR1248-F #2			----------NA----------				
151	L6	AR1254-A #2			----------NA----------				
152	L6	AR1254-B #2			----------NA----------				
153	L6	AR1254-C #2			----------NA----------				
154	L6	AR1254-D #2			----------NA----------				
155	L6	AR1254-E #2			----------NA----------				
156	L6	AR1254-F #2			----------NA----------				
157	L7	AR1260-A #2	300.000	332.323	-10.8	114	0.00	4.08-	4.14
158	L7	AR1260-B #2	300.000	335.807	-11.9	115	0.00	4.30-	4.36
159	L7	AR1260-C #2	300.000	341.940	-14.0	115	0.00	4.52-	4.58

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175717.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

160	L7	AR1260-D #2	300.000	331.786	-10.6	113	0.00	4.78- 4.84
161	L7	AR1260-E #2	300.000	295.038	1.7	103	0.00	5.01- 5.07
162	L7	AR1260-F #2	300.000	335.979	-12.0	117	0.00	5.21- 5.27
163	L8	AR1262-A #2	----------NA----------					
164	L8	AR1262-B #2	----------NA----------					
165	L8	AR1262-C #2	----------NA----------					
166	L8	AR1262-D #2	----------NA----------					
167	L8	AR1262-E #2	----------NA----------					
168	L8	AR1262-F #2	----------NA----------					
169	L9	AR1268-A #2	----------NA----------					
170	L9	AR1268-B #2	----------NA----------					
171	L9	AR1268-C #2	----------NA----------					
172	L9	AR1268-D #2	----------NA----------					
173	L9	AR1268-E #2	----------NA----------					
174	L9	AR1268-F #2	----------NA----------					
175	S	Decachlorobiphenyl #2	60.000	65.198	-8.7	113	-0.01	5.95- 6.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0
NN175604.D 608Q1461.M Sat Aug 16 14:54:32 2014

8.9.29

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175718.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\GNN1463\NN175718.D\ECD1A.CH Vial: 51
Acq On    : 8-16-2014 02:42:18 PM                    Operator: almar
Sample    : cc1461-300,pest                          Inst    : GCNN
Misc      : op33544,gnn1463                          Multiplr: 1.00
IntFile   : EVENTS.E

Data File : C:\MSDCHEM\1\DATA\GNN1463\NN175718.D\ECD2B.CH Vial: 51
Acq On    : 8-16-2014 02:42:19 PM                    Operator: almar
Sample    : cc1461-300,pest                          Inst    : GCNN
Misc      : op33544,gnn1463                          Multiplr: 1.00
IntFile   : events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1461.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 13 13:08:45 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	60.000	66.822	-11.4	114	0.00	2.27- 2.33
2		Hexachlorobenzene	60.000	65.057	-8.4	113	0.00	2.59- 2.65
3		alpha-BHC	30.000	33.836	-12.8	115	0.00	2.69- 2.75
4		gamma-BHC (Lindane)	30.000	33.335	-11.1	114	0.00	2.95- 3.01
5		Heptachlor	30.000	32.409	-8.0	112	0.00	3.30- 3.36
6		Aldrin	30.000	32.666	-8.9	112	0.00	3.57- 3.63
7		Chlorothalonil	60.000	64.290	-7.2	111	0.00	3.41- 3.47
8		beta-BHC	30.000	32.694	-9.0	113	0.00	3.02- 3.08
9		Dacthal	60.000	63.718	-6.2	108	0.00	3.86- 3.92
10		Delta-BHC	30.000	33.482	-11.6	115	0.00	3.25- 3.31
11		Heptachlor Epoxide	30.000	32.040	-6.8	110	0.00	4.06- 4.12
12		Endosulfan I	30.000	32.264	-7.5	110	0.00	4.39- 4.45
13		gamma-Chlordane	30.000	32.157	-7.2	110	0.00	4.22- 4.28
14		alpha-Chlordane	30.000	32.153	-7.2	110	0.00	4.34- 4.40
15		4,4'-DDE	60.000	66.276	-10.5	112	0.00	4.48- 4.54
16		Dieldrin	60.000	64.619	-7.7	110	0.00	4.60- 4.66
17		Endrin	60.000	64.111	-6.9	108	0.00	4.83- 4.89
18		4,4'-DDD	60.000	67.748	-12.9	114	0.00	4.93- 4.99
19		Endosulfan II	60.000	64.631	-7.7	110	0.00	5.00- 5.06
20		4,4'-DDT	60.000	62.773	-4.6	106	0.00	5.15- 5.21
21		Endrin Aldehyde	60.000	62.491	-4.2	106	0.00	5.24- 5.30
22		Methoxychlor	300.000	305.680	-1.9	103	0.00	5.64- 5.70
23		Endosulfan Sulfate	60.000	63.509	-5.8	107	0.00	5.44- 5.50
24		Endrin Ketone	60.000	63.785	-6.3	108	0.00	5.81- 5.87
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A		----------NA----------				
35	L1	AR1016-B		----------NA----------				
36	L1	AR1016-C		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175718.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

37	L1	AR1016-D			----------NA----------			
38	L1	AR1016-E			----------NA----------			
39	L1	AR1016-F			----------NA----------			
40	L2	AR1221-A			----------NA----------			
41	L2	AR1221-B			----------NA----------			
42	L2	AR1221-C			----------NA----------			
43	L2	AR1221-D			----------NA----------			
44	L2	AR1221-E			----------NA----------			
45	L3	AR1232-A			----------NA----------			
46	L3	AR1232-B			----------NA----------			
47	L3	AR1232-C			----------NA----------			
48	L3	AR1232-D			----------NA----------			
49	L3	AR1232-E			----------NA----------			
50	L3	AR1232-F			----------NA----------			
51	L4	AR1242-A			----------NA----------			
52	L4	AR1242-B			----------NA----------			
53	L4	AR1242-C			----------NA----------			
54	L4	AR1242-D			----------NA----------			
55	L4	AR1242-E			----------NA----------			
56	L4	AR1242-F			----------NA----------			
57	L5	AR1248-A			----------NA----------			
58	L5	AR1248-B			----------NA----------			
59	L5	AR1248-C			----------NA----------			
60	L5	AR1248-D			----------NA----------			
61	L5	AR1248-E			----------NA----------			
62	L5	AR1248-F			----------NA----------			
63	L6	AR1254-A			----------NA----------			
64	L6	AR1254-B			----------NA----------			
65	L6	AR1254-C			----------NA----------			
66	L6	AR1254-D			----------NA----------			
67	L6	AR1254-E			----------NA----------			
68	L6	AR1254-F			----------NA----------			
69	L7	AR1260-A			----------NA----------			
70	L7	AR1260-B			----------NA----------			
71	L7	AR1260-C			----------NA----------			
72	L7	AR1260-D			----------NA----------			
73	L7	AR1260-E			----------NA----------			
74	L7	AR1260-F			----------NA----------			
75	L8	AR1262-A			----------NA----------			
76	L8	AR1262-B			----------NA----------			
77	L8	AR1262-C			----------NA----------			
78	L8	AR1262-D			----------NA----------			
79	L8	AR1262-E			----------NA----------			
80	L8	AR1262-F			----------NA----------			
81	L9	AR1268-A			----------NA----------			
82	L9	AR1268-B			----------NA----------			
83	L9	AR1268-C			----------NA----------			
84	L9	AR1268-D			----------NA----------			
85	L9	AR1268-E			----------NA----------			
86	L9	AR1268-F			----------NA----------			
87	S	Decachlorobiphenyl	60.000	67.695	-12.8	119	0.01	6.61- 6.67
*****		Signal #1 *****						
89	S	Tetrachloro-m-xylene #	60.000	66.287	-10.5	112	0.00	2.06- 2.12
90		Hexachlorobenzene #2	60.000	65.501	-9.2	114	0.00	2.28- 2.34
91		alpha-BHC #2	30.000	33.872	-12.9	115	0.00	2.38- 2.44
92		gamma-BHC (Lindane) #2	30.000	33.748	-12.5	116	0.00	2.58- 2.64
93		beta-BHC #2	30.000	33.485	-11.6	117	0.00	2.63- 2.69
94		Heptachlor #2	30.000	32.782	-9.3	113	0.00	2.88- 2.94

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175718.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

95		Chlorothalonil #2	60.000	65.881	-9.8	113	0.00	3.14- 3.20
96		delta-BHC #2	30.000	33.822	-12.7	117	0.00	2.75- 2.81
97		Aldrin #2	30.000	33.253	-10.8	113	0.00	3.11- 3.17
98		Dacthal #2	60.000	67.128	-11.9	113	0.00	3.54- 3.60
99		Heptachlor Epoxide #2	30.000	31.198	-4.0	107	0.00	3.56- 3.62
100		gamma-Chlordane #2	30.000	32.785	-9.3	111	0.00	3.67- 3.73
101		alpha-Chlordane #2	30.000	32.642	-8.8	112	0.00	3.76- 3.82
102		Endosulfan I #2	30.000	29.866	0.4	105	0.00	3.88- 3.94
103		4,4'-DDE #2	60.000	70.646	-17.7#	117	0.00	3.86- 3.92
104		Dieldrin #2	60.000	64.952	-8.3	111	0.00	4.08- 4.14
105		Endrin #2	60.000	63.795	-6.3	108	0.00	4.26- 4.32
106		4,4'-DDD #2	60.000	68.743	-14.6	115	-0.01	4.34- 4.40
107		Endosulfan II #2	60.000	64.165	-6.9	110	0.00	4.43- 4.49
108		4,4'-DDT #2	60.000	62.692	-4.5	105	0.00	4.55- 4.61
109		Endrin Aldehyde #2	60.000	62.343	-3.9	107	0.00	4.73- 4.79
110		Endosulfan Sulfate #2	60.000	63.686	-6.1	108	0.00	5.06- 5.12
111		Methoxychlor #2	300.000	312.954	-4.3	105	-0.01	4.93- 4.99
112		Endrin Ketone #2	60.000	64.363	-7.3	109	-0.01	5.25- 5.31
113	L1	Chlordane-A #2		----------NA----------				
114	L1	Chlordane-B #2		----------NA----------				
115	L1	Chlordane-C #2		----------NA----------				
116	L1	Chlordane-D #2		----------NA----------				
117	L1	Chlordane-E #2		----------NA----------				
118	L1	Chlordane-F #2		----------NA----------				
119	H	Toxaphene #2		----------NA----------				
120		Mirex #2		----------NA----------				
121		Dicofol #2		----------NA----------				
122	L1	AR1016-A #2		----------NA----------				
123	L1	AR1016-B #2		----------NA----------				
124	L1	AR1016-C #2		----------NA----------				
125	L1	AR1016-D #2		----------NA----------				
126	L1	AR1016-E #2		----------NA----------				
127	L1	AR1016-F #2		----------NA----------				
128	L2	AR1221-A #2		----------NA----------				
129	L2	AR1221-B #2		----------NA----------				
130	L2	AR1221-C #2		----------NA----------				
131	L2	AR1221-D #2		----------NA----------				
132	L2	AR1221-E #2		----------NA----------				
133	L3	AR1232-A #2		----------NA----------				
134	L3	AR1232-B #2		----------NA----------				
135	L3	AR1232-C #2		----------NA----------				
136	L3	AR1232-D #2		----------NA----------				
137	L3	AR1232-E #2		----------NA----------				
138	L3	AR1232-F #2		----------NA----------				
139	L4	AR1242-A #2		----------NA----------				
140	L4	AR1242-B #2		----------NA----------				
141	L4	AR1242-C #2		----------NA----------				
142	L4	AR1242-D #2		----------NA----------				
143	L4	AR1242-E #2		----------NA----------				
144	L4	AR1242-F #2		----------NA----------				
145	L5	AR1248-A #2		----------NA----------				
146	L5	AR1248-B #2		----------NA----------				
147	L5	AR1248-C #2		----------NA----------				
148	L5	AR1248-D #2		----------NA----------				
149	L5	AR1248-E #2		----------NA----------				
150	L5	AR1248-F #2		----------NA----------				
151	L6	AR1254-A #2		----------NA----------				
152	L6	AR1254-B #2		----------NA----------				
153	L6	AR1254-C #2		----------NA----------				
154	L6	AR1254-D #2		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-CC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175718.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
155 L6  AR1254-E #2                          ----------NA----------
156 L6  AR1254-F #2                          ----------NA----------
157 L7  AR1260-A #2                          ----------NA----------
158 L7  AR1260-B #2                          ----------NA----------
159 L7  AR1260-C #2                          ----------NA----------
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   60.000  64.080     -6.8  111  -0.01    5.95- 6.01
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     NN175604.D 608Q1461.M       Sat Aug 16 14:55:25 2014
```

8.9.30

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-ECC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175724.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\GNN1463\NN175724.D\ECD1A.CH Vial: 57
Acq On    : 8-16-2014 04:02:42 PM                    Operator: almar
Sample    : ecc1461-200,pest                         Inst    : GCNN
Misc      : op33544,gnn1463                          Multiplr: 1.00
IntFile   : EVENTS.E

Data File : C:\MSDCHEM\1\DATA\GNN1463\NN175724.D\ECD2B.CH Vial: 57
Acq On    : 8-16-2014 04:02:41 PM                    Operator: almar
Sample    : ecc1461-200,pest                         Inst    : GCNN
Misc      : op33544,gnn1463                          Multiplr: 1.00
IntFile   : events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1461.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 13 13:08:45 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	39.346	1.6	100	0.00	2.27- 2.33
2		Hexachlorobenzene	40.000	39.230	1.9	97	0.00	2.59- 2.65
3		alpha-BHC	20.000	19.329	3.4	96	0.00	2.69- 2.75
4		gamma-BHC (Lindane)	20.000	19.435	2.8	97	0.00	2.95- 3.01
5		Heptachlor	20.000	19.069	4.7	95	0.00	3.30- 3.36
6		Aldrin	20.000	18.831	5.8	94	0.00	3.57- 3.63
7		Chlorothalonil	40.000	39.100	2.2	97	-0.01	3.41- 3.47
8		beta-BHC	20.000	19.541	2.3	95	0.00	3.02- 3.08
9		Dacthal	40.000	37.609	6.0	93	0.00	3.86- 3.92
10		Delta-BHC	20.000	19.782	1.1	100	0.00	3.25- 3.31
11		Heptachlor Epoxide	20.000	19.079	4.6	95	0.00	4.06- 4.12
12		Endosulfan I	20.000	19.070	4.6	94	0.00	4.39- 4.45
13		gamma-Chlordane	20.000	19.215	3.9	95	0.00	4.22- 4.28
14		alpha-Chlordane	20.000	19.029	4.9	94	0.00	4.34- 4.40
15		4,4'-DDE	40.000	38.065	4.8	96	0.00	4.48- 4.54
16		Dieldrin	40.000	37.326	6.7	94	0.00	4.60- 4.66
17		Endrin	40.000	37.653	5.9	94	0.00	4.83- 4.89
18		4,4'-DDD	40.000	39.383	1.5	99	0.00	4.93- 4.99
19		Endosulfan II	40.000	37.650	5.9	95	0.00	5.00- 5.06
20		4,4'-DDT	40.000	35.301	11.7	89	0.00	5.15- 5.21
21		Endrin Aldehyde	40.000	36.432	8.9	91	0.00	5.24- 5.30
22		Methoxychlor	200.000	180.325	9.8	90	0.00	5.64- 5.70
23		Endosulfan Sulfate	40.000	37.203	7.0	94	0.00	5.44- 5.50
24		Endrin Ketone	40.000	36.611	8.5	92	0.00	5.81- 5.87
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A		----------NA----------				
35	L1	AR1016-B		----------NA----------				
36	L1	AR1016-C		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1463-ECC1461
Lab FileID: NN175724.D

37	L1	AR1016-D		----------NA----------				
38	L1	AR1016-E		----------NA----------				
39	L1	AR1016-F		----------NA----------				
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				
42	L2	AR1221-C		----------NA----------				
43	L2	AR1221-D		----------NA----------				
44	L2	AR1221-E		----------NA----------				
45	L3	AR1232-A		----------NA----------				
46	L3	AR1232-B		----------NA----------				
47	L3	AR1232-C		----------NA----------				
48	L3	AR1232-D		----------NA----------				
49	L3	AR1232-E		----------NA----------				
50	L3	AR1232-F		----------NA----------				
51	L4	AR1242-A		----------NA----------				
52	L4	AR1242-B		----------NA----------				
53	L4	AR1242-C		----------NA----------				
54	L4	AR1242-D		----------NA----------				
55	L4	AR1242-E		----------NA----------				
56	L4	AR1242-F		----------NA----------				
57	L5	AR1248-A		----------NA----------				
58	L5	AR1248-B		----------NA----------				
59	L5	AR1248-C		----------NA----------				
60	L5	AR1248-D		----------NA----------				
61	L5	AR1248-E		----------NA----------				
62	L5	AR1248-F		----------NA----------				
63	L6	AR1254-A		----------NA----------				
64	L6	AR1254-B		----------NA----------				
65	L6	AR1254-C		----------NA----------				
66	L6	AR1254-D		----------NA----------				
67	L6	AR1254-E		----------NA----------				
68	L6	AR1254-F		----------NA----------				
69	L7	AR1260-A		----------NA----------				
70	L7	AR1260-B		----------NA----------				
71	L7	AR1260-C		----------NA----------				
72	L7	AR1260-D		----------NA----------				
73	L7	AR1260-E		----------NA----------				
74	L7	AR1260-F		----------NA----------				
75	L8	AR1262-A		----------NA----------				
76	L8	AR1262-B		----------NA----------				
77	L8	AR1262-C		----------NA----------				
78	L8	AR1262-D		----------NA----------				
79	L8	AR1262-E		----------NA----------				
80	L8	AR1262-F		----------NA----------				
81	L9	AR1268-A		----------NA----------				
82	L9	AR1268-B		----------NA----------				
83	L9	AR1268-C		----------NA----------				
84	L9	AR1268-D		----------NA----------				
85	L9	AR1268-E		----------NA----------				
86	L9	AR1268-F		----------NA----------				
87	S	Decachlorobiphenyl	40.000	38.470	3.8	106	0.00	6.61- 6.67
*****	Signal #1 *****							
89	S	Tetrachloro-m-xylene #	40.000	39.524	1.2	100	0.00	2.06- 2.12
90		Hexachlorobenzene #2	40.000	39.999	0.0	99	0.00	2.28- 2.34
91		alpha-BHC #2	20.000	19.578	2.1	98	0.00	2.38- 2.44
92		gamma-BHC (Lindane) #2	20.000	19.844	0.8	99	0.00	2.58- 2.64
93		beta-BHC #2	20.000	20.026	-0.1	99	0.00	2.63- 2.69
94		Heptachlor #2	20.000	19.439	2.8	97	0.00	2.88- 2.94

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1463-ECC1461
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175724.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

95		Chlorothalonil #2	40.000	40.546	-1.4	101	0.00	3.14- 3.20
96		delta-BHC #2	20.000	20.329	-1.6	104	0.00	2.75- 2.81
97		Aldrin #2	20.000	19.743	1.3	99	0.00	3.11- 3.17
98		Dacthal #2	40.000	42.041	-5.1	105	-0.01	3.54- 3.60
99		Heptachlor Epoxide #2	20.000	18.017	9.9	90	-0.01	3.56- 3.62
100		gamma-Chlordane #2	20.000	19.833	0.8	100	-0.01	3.67- 3.73
101		alpha-Chlordane #2	20.000	19.637	1.8	97	0.00	3.76- 3.82
102		Endosulfan I #2	20.000	17.296	13.5	85	-0.01	3.88- 3.94
103		4,4'-DDE #2	40.000	43.769	-9.4	111	-0.02	3.86- 3.92
104		Dieldrin #2	40.000	38.358	4.1	97	-0.01	4.08- 4.14
105		Endrin #2	40.000	38.502	3.7	97	-0.01	4.26- 4.32
106		4,4'-DDD #2	40.000	41.269	-3.2	104	-0.02	4.34- 4.40
107		Endosulfan II #2	40.000	38.025	4.9	94	-0.01	4.43- 4.49
108		4,4'-DDT #2	40.000	36.560	8.6	90	-0.01	4.55- 4.61
109		Endrin Aldehyde #2	40.000	37.802	5.5	93	0.00	4.73- 4.79
110		Endosulfan Sulfate #2	40.000	38.412	4.0	95	-0.01	5.06- 5.12
111		Methoxychlor #2	200.000	190.003	5.0	94	-0.01	4.93- 4.99
112		Endrin Ketone #2	40.000	37.660	5.9	95	-0.01	5.25- 5.31
113	L1	Chlordane-A #2		----------NA----------				
114	L1	Chlordane-B #2		----------NA----------				
115	L1	Chlordane-C #2		----------NA----------				
116	L1	Chlordane-D #2		----------NA----------				
117	L1	Chlordane-E #2		----------NA----------				
118	L1	Chlordane-F #2		----------NA----------				
119	H	Toxaphene #2		----------NA----------				
120		Mirex #2		----------NA----------				
121		Dicofol #2		----------NA----------				
122	L1	AR1016-A #2		----------NA----------				
123	L1	AR1016-B #2		----------NA----------				
124	L1	AR1016-C #2		----------NA----------				
125	L1	AR1016-D #2		----------NA----------				
126	L1	AR1016-E #2		----------NA----------				
127	L1	AR1016-F #2		----------NA----------				
128	L2	AR1221-A #2		----------NA----------				
129	L2	AR1221-B #2		----------NA----------				
130	L2	AR1221-C #2		----------NA----------				
131	L2	AR1221-D #2		----------NA----------				
132	L2	AR1221-E #2		----------NA----------				
133	L3	AR1232-A #2		----------NA----------				
134	L3	AR1232-B #2		----------NA----------				
135	L3	AR1232-C #2		----------NA----------				
136	L3	AR1232-D #2		----------NA----------				
137	L3	AR1232-E #2		----------NA----------				
138	L3	AR1232-F #2		----------NA----------				
139	L4	AR1242-A #2		----------NA----------				
140	L4	AR1242-B #2		----------NA----------				
141	L4	AR1242-C #2		----------NA----------				
142	L4	AR1242-D #2		----------NA----------				
143	L4	AR1242-E #2		----------NA----------				
144	L4	AR1242-F #2		----------NA----------				
145	L5	AR1248-A #2		----------NA----------				
146	L5	AR1248-B #2		----------NA----------				
147	L5	AR1248-C #2		----------NA----------				
148	L5	AR1248-D #2		----------NA----------				
149	L5	AR1248-E #2		----------NA----------				
150	L5	AR1248-F #2		----------NA----------				
151	L6	AR1254-A #2		----------NA----------				
152	L6	AR1254-B #2		----------NA----------				
153	L6	AR1254-C #2		----------NA----------				
154	L6	AR1254-D #2		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1463-ECC1461
Lab FileID: NN175724.D

```
155 L6  AR1254-E #2                        ----------NA----------
156 L6  AR1254-F #2                        ----------NA----------
157 L7  AR1260-A #2                        ----------NA----------
158 L7  AR1260-B #2                        ----------NA----------
159 L7  AR1260-C #2                        ----------NA----------
160 L7  AR1260-D #2                        ----------NA----------
161 L7  AR1260-E #2                        ----------NA----------
162 L7  AR1260-F #2                        ----------NA----------
163 L8  AR1262-A #2                        ----------NA----------
164 L8  AR1262-B #2                        ----------NA----------
165 L8  AR1262-C #2                        ----------NA----------
166 L8  AR1262-D #2                        ----------NA----------
167 L8  AR1262-E #2                        ----------NA----------
168 L8  AR1262-F #2                        ----------NA----------
169 L9  AR1268-A #2                        ----------NA----------
170 L9  AR1268-B #2                        ----------NA----------
171 L9  AR1268-C #2                        ----------NA----------
172 L9  AR1268-D #2                        ----------NA----------
173 L9  AR1268-E #2                        ----------NA----------
174 L9  AR1268-F #2                        ----------NA----------
175 S   Decachlorobiphenyl #2   40.000  36.893      7.8   95  -0.02    5.95- 6.01
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    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     NN175603.D 608Q1461.M       Sat Aug 16 16:17:20 2014
```

8.9.31

8

Initial Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GNN1464-ICC1464
Lab FileID: NN175748.D

Response Factor Report GCNN

Method : C:\MSDCHEM\1\METHODS\608Q1464.M (Chemstation Integrator)
Title : Pesticides by 608 or 8081
Last Update : Wed Aug 20 11:02:32 2014
Response via : Initial Calibration

Calibration Files
1 =NN175758.D 2 =NN175759.D 3 =NN175760.D 4 =NN175761.D
5 =NN175762.D 6 =NN175763.D 7 =NN175764.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1)S Tetrachloro-m-xyl	1.450	1.389	1.393	1.357	1.433	1.445	1.498	1.424 E6	3.30
2) Hexachlorobenzene	1.711	1.566	1.582	1.706	1.735	1.634	1.714	1.664 E6	4.15
3) alpha-BHC	1.798	1.689	1.795	2.033	2.120	2.030	2.084	1.936 E6	8.79
4) gamma-BHC (Lindan	1.840	1.745	1.786	1.977	2.060	1.977	2.033	1.917 E6	6.52
5) Heptachlor	2.110	1.921	1.944	2.122	2.184	2.126	2.104	2.073 E6	4.81
6) Aldrin	1.840	1.620	1.665	1.832	1.885	2.000	1.835	1.811 E6	7.17
7) Chlorothalonil	2.148	1.938	1.952	2.100	2.150	2.113	2.107	2.073 E6	4.30
8) beta-BHC	9.788	9.398	8.836	9.524	9.628	9.449	9.211	9.405 E5	3.29
9) Dacthal	1.706	1.547	1.524	1.636	1.659	1.665	1.583	1.617 E6	4.15
10) Delta-BHC	1.773	1.639	1.714	1.884	1.969	1.922	1.953	1.836 E6	6.98
11) Heptachlor Epoxid	1.849	1.757	1.698	1.864	1.908	1.912	1.838	1.832 E6	4.29
12) Endosulfan I	1.695	1.573	1.548	1.670	1.718	1.694	1.648	1.649 E6	3.93
13) gamma-Chlordane	1.939	1.819	1.697	1.864	1.909	1.895	1.815	1.848 E6	4.38
14) alpha-Chlordane	1.822	1.718	1.677	1.805	1.854	1.804	1.774	1.779 E6	3.47
15) 4,4'-DDE	1.627	1.548	1.577	1.745	1.826	1.799	1.800	1.703 E6	6.83
16) Dieldrin	1.731	1.640	1.678	1.832	1.919	1.891	1.877	1.796 E6	6.21
17) Endrin	1.566	1.420	1.466	1.601	1.664	1.617	1.619	1.565 E6	5.69
18) 4,4'-DDD	1.367	1.293	1.313	1.444	1.496	1.466	1.467	1.406 E6	5.79
19) Endosulfan II	1.661	1.548	1.534	1.668	1.721	1.674	1.681	1.641 E6	4.32
20) 4,4'-DDT	1.582	1.534	1.528	1.703	1.755	1.712	1.744	1.651 E6	6.04
21) Endrin Aldehyde	1.326	1.246	1.208	1.329	1.358	1.311	1.321	1.300 E6	4.09
22) Methoxychlor	9.982	9.466	9.066	9.689	9.693	9.338	9.334	9.510 E5	3.18
23) Endosulfan Sulfat	1.639	1.536	1.517	1.665	1.691	1.623	1.674	1.621 E6	4.21
24) Endrin Ketone	1.919	1.856	1.815	1.985	2.020	1.947	1.985	1.932 E6	3.84
25)L1Chlordane-A			6.265					6.265 E4	0.00
26)L1Chlordane-B			1.181					1.181 E5	0.00
27)L1Chlordane-C			7.994					7.994 E4	0.00
28)L1Chlordane-D			2.447					2.447 E5	0.00
29)L1Chlordane-E			1.913					1.913 E5	0.00
30)L1Chlordane-F			6.980					6.980 E4	0.00
31)H Toxaphene			1.633					1.633 E6	0.00
32) Mirex			1.702					1.702 E6	0.00
33) Dicofol			1.836					1.836 E6	0.00
34)L1AR1016-A	6.533	6.761	6.216	5.914	6.300	6.154	6.078	6.279 E4	4.55
35)L1AR1016-B	1.423	1.365	1.296	1.260	1.281	1.257	1.236	1.302 E5	5.17
36)L1AR1016-C	6.367	6.042	5.602	5.519	5.666	5.399	5.273	5.695 E4	6.71
37)L1AR1016-D	4.431	4.220	3.272	4.111	4.236	4.023	3.974	4.038 E4	9.17
38)L1AR1016-E	4.703	4.401	4.353	4.152	4.459	4.155	4.011	4.319 E4	5.38
39)L1AR1016-F	6.016	5.376	5.209	5.211	5.201	4.964	4.779	5.251 E4	7.43
40)L2AR1221-A			1.187					1.187 E4	0.00
41)L2AR1221-B			1.721					1.721 E4	0.00
42)L2AR1221-C			1.133					1.133 E4	0.00
43)L2AR1221-D			4.664					4.664 E4	0.00
44)L2AR1221-E			8.105					8.105 E3	0.00
45)L3AR1232-A			2.876					2.876 E4	0.00
46)L3AR1232-B			5.623					5.623 E4	0.00
47)L3AR1232-C			2.747					2.747 E4	0.00

Initial Calibration Summary

Job Number: TC52863 **Sample:** GNN1464-ICC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175748.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

48)	L3AR1232-D			1.585				1.585	E4	0.00
49)	L3AR1232-E			1.765				1.765	E4	0.00
50)	L3AR1232-F			2.254				2.254	E4	0.00
51)	L4AR1242-A			6.164				6.164	E4	0.00
52)	L4AR1242-B			1.278				1.278	E5	0.00
53)	L4AR1242-C			5.884				5.884	E4	0.00
54)	L4AR1242-D			3.682				3.682	E4	0.00
55)	L4AR1242-E			4.416				4.416	E4	0.00
56)	L4AR1242-F			5.601				5.601	E4	0.00
57)	L5AR1248-A			2.231				2.231	E4	0.00
58)	L5AR1248-B			6.465				6.465	E4	0.00
59)	L5AR1248-C			4.219				4.219	E4	0.00
60)	L5AR1248-D			5.581				5.581	E4	0.00
61)	L5AR1248-E			7.053				7.053	E4	0.00
62)	L5AR1248-F			3.738				3.738	E4	0.00
63)	L6AR1254-A			7.432				7.432	E4	0.00
64)	L6AR1254-B			8.918				8.918	E4	0.00
65)	L6AR1254-C			1.339				1.339	E5	0.00
66)	L6AR1254-D			9.075				9.075	E4	0.00
67)	L6AR1254-E			7.684				7.684	E4	0.00
68)	L6AR1254-F			1.249				1.249	E5	0.00
69)	L7AR1260-A	0.955	1.005	1.039	0.953	0.914	0.920	0.893	0.954	E5	5.45
70)	L7AR1260-B	1.238	1.205	1.240	1.095	1.077	1.081	1.039	1.139	E5	7.47
71)	L7AR1260-C	9.014	9.138	9.341	8.109	8.106	8.304	8.040	8.579	E4	6.55
72)	L7AR1260-D	1.028	0.979	1.027	0.920	0.921	0.918	0.891	0.955	E5	5.89
73)	L7AR1260-E	2.096	1.877	1.978	1.873	1.864	1.879	1.875	1.920	E5	4.53
74)	L7AR1260-F	1.459	1.427	1.447	1.362	1.334	1.374	1.346	1.393	E5	3.64
75)	L8AR1262-A			4.143				4.143	E3	0.00
76)	L8AR1262-B			4.531				4.531	E3	0.00
77)	L8AR1262-C			4.197				4.197	E3	0.00
78)	L8AR1262-D			6.046				6.046	E3	0.00
79)	L8AR1262-E			3.092				3.092	E3	0.00
80)	L8AR1262-F			7.437				7.437	E3	0.00
81)	L9AR1268-A			5.876				5.876	E4	0.00
82)	L9AR1268-B			7.307				7.307	E4	0.00
83)	L9AR1268-C			2.644				2.644	E5	0.00
84)	L9AR1268-D			2.701				2.701	E5	0.00
85)	L9AR1268-E			1.921				1.921	E5	0.00
86)	L9AR1268-F			8.392				8.392	E4	0.00
87)	S Decachlorobipheny	1.762	1.689	1.649	1.554	1.550	1.564	1.546	1.616	E6	5.28

Signal #2

89)	S Tetrachloro-m-xyl	1.119	1.063	1.071	1.075	1.081	1.083	1.122	1.088	E6	2.15
90)	Hexachlorobenzene	1.513	1.413	1.351	1.456	1.482	1.386	1.404	1.429	E6	3.97
91)	alpha-BHC #2	1.409	1.367	1.355	1.523	1.579	1.519	1.542	1.471	E6	6.19
92)	gamma-BHC (Lindan	1.421	1.352	1.355	1.476	1.537	1.452	1.500	1.442	E6	4.89
93)	beta-BHC #2	7.048	6.619	6.393	6.826	6.995	6.502	6.630	6.716	E5	3.69
94)	Heptachlor #2	1.620	1.492	1.477	1.596	1.651	1.551	1.588	1.568	E6	4.12
95)	Chlorothalonil #2	1.344	1.353	1.366	1.452	1.505	1.426	1.478	1.418	E6	4.55
96)	delta-BHC #2	1.391	1.278	1.294	1.431	1.494	1.407	1.471	1.395	E6	5.91
97)	Aldrin #2	1.318	1.269	1.249	1.348	1.404	1.330	1.370	1.327	E6	4.11
98)	Dacthal #2	1.213	1.133	1.100	1.160	1.184	1.128	1.157	1.153	E6	3.25
99)	Heptachlor Epoxid	1.510	1.450	1.401	1.511	1.549	1.441	1.456	1.474	E6	3.46
100)	gamma-Chlordane #	1.430	1.326	1.309	1.372	1.409	1.339	1.362	1.364	E6	3.23
101)	alpha-Chlordane #	1.452	1.342	1.295	1.366	1.401	1.326	1.354	1.362	E6	3.80
102)	Endosulfan I #2	1.537	1.412	1.321	1.440	1.475	1.388	1.337	1.416	E6	5.38
103)	4,4'-DDE #2	1.204	1.143	1.131	1.218	1.274	1.231	1.309	1.216	E6	5.31
104)	Dieldrin #2	1.346	1.268	1.264	1.379	1.421	1.369	1.403	1.350	E6	4.61
105)	Endrin #2	1.199	1.143	1.114	1.218	1.263	1.205	1.241	1.198	E6	4.39

Initial Calibration Summary

Job Number: TC52863 **Sample:** GNN1464-ICC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175748.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

106) 4,4'-DDD #2	1.058	1.021	0.982	1.065	1.101	1.062	1.100	1.056	E6	4.01
107) Endosulfan II #2	1.291	1.245	1.180	1.268	1.297	1.241	1.260	1.254	E6	3.11
108) 4,4'-DDT #2	1.235	1.192	1.177	1.289	1.313	1.266	1.297	1.253	E6	4.22
109) Endrin Aldehyde #	1.067	0.988	0.961	1.013	1.036	0.987	0.997	1.007	E6	3.50
110) Endosulfan Sulfat	1.300	1.191	1.171	1.247	1.277	1.220	1.233	1.234	E6	3.69
111) Methoxychlor #2	7.775	7.288	6.987	7.346	7.357	7.044	7.079	7.268	E5	3.71
112) Endrin Ketone #2	1.543	1.455	1.418	1.523	1.555	1.498	1.505	1.499	E6	3.24
113)L1Chlordane-A #2			4.718					4.718	E4	0.00
114)L1Chlordane-B #2			8.799					8.799	E4	0.00
115)L1Chlordane-C #2			6.266					6.266	E4	0.00
116)L1Chlordane-D #2			1.937					1.937	E5	0.00
117)L1Chlordane-E #2			3.017					3.017	E5	0.00
118)L1Chlordane-F #2			5.277					5.277	E4	0.00
119)H Toxaphene #2			1.335					1.335	E6	0.00
120) Mirex #2			1.345					1.345	E6	0.00
121) Dicofol #2			1.220					1.220	E6	0.00
122)L1AR1016-A #2	4.990	4.877	4.629	4.423	4.315	4.392	4.230	4.551	E4	6.38
123)L1AR1016-B #2	1.102	1.054	0.935	0.877	0.883	0.881	0.883	0.945	E5	9.96
124)L1AR1016-C #2	4.186	4.148	4.107	3.984	3.979	3.917	3.901	4.032	E4	2.84
125)L1AR1016-D #2	3.021	2.759	2.794	2.773	2.737	2.645	2.649	2.768	E4	4.56
126)L1AR1016-E #2	5.210	4.922	4.415	4.287	4.201	4.100	4.082	4.460	E4	9.80
127)L1AR1016-F #2	2.279	1.972	2.041	1.964	1.966	1.934	1.926	2.012	E4	6.13
128)L2AR1221-A #2			8.347					8.347	E3	0.00
129)L2AR1221-B #2			1.330					1.330	E4	0.00
130)L2AR1221-C #2			6.794					6.794	E3	0.00
131)L2AR1221-D #2			3.480					3.480	E4	0.00
132)L2AR1221-E #2			9.786					9.786	E3	0.00
133)L3AR1232-A #2			2.583					2.583	E3	0.00
134)L3AR1232-B #2			2.023					2.023	E4	0.00
135)L3AR1232-C #2			4.833					4.833	E4	0.00
136)L3AR1232-D #2			1.943					1.943	E4	0.00
137)L3AR1232-E #2			1.472					1.472	E4	0.00
138)L3AR1232-F #2			1.923					1.923	E4	0.00
139)L4AR1242-A #2			4.595					4.595	E4	0.00
140)L4AR1242-B #2			9.462					9.462	E4	0.00
141)L4AR1242-C #2			4.152					4.152	E4	0.00
142)L4AR1242-D #2			2.724					2.724	E4	0.00
143)L4AR1242-E #2			4.398					4.398	E4	0.00
144)L4AR1242-F #2			2.120					2.120	E4	0.00
145)L5AR1248-A #2			1.749					1.749	E4	0.00
146)L5AR1248-B #2			4.306					4.306	E4	0.00
147)L5AR1248-C #2			5.623					5.623	E4	0.00
148)L5AR1248-D #2			2.791					2.791	E4	0.00
149)L5AR1248-E #2			5.959					5.959	E4	0.00
150)L5AR1248-F #2			2.944					2.944	E4	0.00
151)L6AR1254-A #2			5.480					5.480	E4	0.00
152)L6AR1254-B #2			9.007					9.007	E4	0.00
153)L6AR1254-C #2			8.886					8.886	E4	0.00
154)L6AR1254-D #2			7.046					7.046	E4	0.00
155)L6AR1254-E #2			7.331					7.331	E4	0.00
156)L6AR1254-F #2			9.356					9.356	E4	0.00
157)L7AR1260-A #2	7.783	7.175	7.249	6.872	6.719	6.697	6.333	6.975	E4	6.76
158)L7AR1260-B #2	1.113	1.073	1.076	1.014	1.007	1.004	0.968	1.036	E5	4.99
159)L7AR1260-C #2	0.986	1.071	1.130	1.100	1.081	1.086	1.056	1.073	E5	4.17
160)L7AR1260-D #2	7.652	6.974	7.235	6.793	6.674	6.674	6.395	6.914	E4	6.05
161)L7AR1260-E #2	1.852	1.716	1.763	1.713	1.667	1.691	1.471	1.696	E5	6.85
162)L7AR1260-F #2	8.034	7.688	7.826	7.389	7.374	7.427	7.237	7.568	E4	3.81
163)L8AR1262-A #2			4.667					4.667	E3	0.00
164)L8AR1262-B #2			2.678					2.678	E3	0.00
165)L8AR1262-C #2			2.985					2.985	E3	0.00

Initial Calibration Summary

Job Number: TC52863 **Sample:** GNN1464-ICC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175748.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
166)L8AR1262-D #2                    3.914                          3.914 E3   0.00
167)L8AR1262-E #2                    2.748                          2.748 E3   0.00
168)L8AR1262-F #2                    6.573                          6.573 E3   0.00
169)L9AR1268-A #2                    5.198                          5.198 E4   0.00
170)L9AR1268-B #2                    6.219                          6.219 E4   0.00
171)L9AR1268-C #2                    2.277                          2.277 E5   0.00
172)L9AR1268-D #2                    2.519                          2.519 E5   0.00
173)L9AR1268-E #2                    1.832                          1.832 E5   0.00
174)L9AR1268-F #2                    7.848                          7.848 E4   0.00
175)S Decachlorobipheny 1.725 1.580 1.535 1.448 1.438 1.439 1.410 1.511 E6   7.43
 ---------------------------------------------------------------------------
 (#) = Out of Range

          608Q1464.M        Wed Aug 20 15:43:44 2014
```

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GNN1464-ICV1464
Lab FileID: NN175753.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1464\NN175753.D\ECD1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\1\DATA\GNN1464\NN175753.D\ECD2B.CH
Acq On    : 8-19-2014 03:46:34 PM                    Operator: almar
Sample    : icv1464-200,pest                         Inst    : GCNN
Misc      : op33313,gnn1464                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1464.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 20 11:02:32 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2		Hexachlorobenzene	40.000	40.426	-1.1	106	0.00	2.59- 2.65
3		alpha-BHC	20.000	18.649	6.8	101	0.00	2.69- 2.75
4		gamma-BHC (Lindane)	20.000	17.699	11.5	95	0.00	2.95- 3.01
5		Heptachlor	20.000	19.032	4.8	101	0.00	3.30- 3.36
6		Aldrin	20.000	18.173	9.1	99	0.00	3.57- 3.63
7		Chlorothalonil	40.000	40.541	-1.4	108	-0.01	3.41- 3.47
8		beta-BHC	20.000	18.364	8.2	98	0.00	3.01- 3.07
9		Dacthal	40.000	38.627	3.4	102	0.00	3.86- 3.92
10		Delta-BHC	20.000	18.489	7.6	99	0.00	3.25- 3.31
11		Heptachlor Epoxide	20.000	17.943	10.3	97	0.00	4.06- 4.12
12		Endosulfan I	20.000	19.316	3.4	103	0.00	4.39- 4.45
13		gamma-Chlordane	20.000	19.135	4.3	104	0.00	4.22- 4.28
14		alpha-Chlordane	20.000	19.821	0.9	105	0.00	4.34- 4.40
15		4,4'-DDE	40.000	36.668	8.3	99	0.00	4.48- 4.54
16		Dieldrin	40.000	36.202	9.5	97	0.00	4.60- 4.66
17		Endrin	40.000	40.453	-1.1	108	0.00	4.83- 4.89
18		4,4'-DDD	40.000	38.424	3.9	103	0.00	4.93- 4.99
19		Endosulfan II	40.000	38.215	4.5	102	0.00	5.00- 5.06
20		4,4'-DDT	40.000	37.961	5.1	103	0.00	5.15- 5.21
21		Endrin Aldehyde	40.000	39.379	1.6	106	0.00	5.24- 5.30
22		Methoxychlor	200.000	201.068	-0.5	105	0.00	5.64- 5.70
23		Endosulfan Sulfate	40.000	38.081	4.8	102	0.00	5.44- 5.50
24		Endrin Ketone	40.000	38.430	3.9	102	0.00	5.81- 5.87
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A		----------NA----------				
35	L1	AR1016-B		----------NA----------				
36	L1	AR1016-C		----------NA----------				
37	L1	AR1016-D		----------NA----------				
38	L1	AR1016-E		----------NA----------				
39	L1	AR1016-F		----------NA----------				
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1464-ICV1464
Lab FileID: NN175753.D

42	L2	AR1221-C	----------NA----------					
43	L2	AR1221-D	----------NA----------					
44	L2	AR1221-E	----------NA----------					
45	L3	AR1232-A	----------NA----------					
46	L3	AR1232-B	----------NA----------					
47	L3	AR1232-C	----------NA----------					
48	L3	AR1232-D	----------NA----------					
49	L3	AR1232-E	----------NA----------					
50	L3	AR1232-F	----------NA----------					
51	L4	AR1242-A	----------NA----------					
52	L4	AR1242-B	----------NA----------					
53	L4	AR1242-C	----------NA----------					
54	L4	AR1242-D	----------NA----------					
55	L4	AR1242-E	----------NA----------					
56	L4	AR1242-F	----------NA----------					
57	L5	AR1248-A	----------NA----------					
58	L5	AR1248-B	----------NA----------					
59	L5	AR1248-C	----------NA----------					
60	L5	AR1248-D	----------NA----------					
61	L5	AR1248-E	----------NA----------					
62	L5	AR1248-F	----------NA----------					
63	L6	AR1254-A	----------NA----------					
64	L6	AR1254-B	----------NA----------					
65	L6	AR1254-C	----------NA----------					
66	L6	AR1254-D	----------NA----------					
67	L6	AR1254-E	----------NA----------					
68	L6	AR1254-F	----------NA----------					
69	L7	AR1260-A	----------NA----------					
70	L7	AR1260-B	----------NA----------					
71	L7	AR1260-C	----------NA----------					
72	L7	AR1260-D	----------NA----------					
73	L7	AR1260-E	----------NA----------					
74	L7	AR1260-F	----------NA----------					
75	L8	AR1262-A	----------NA----------					
76	L8	AR1262-B	----------NA----------					
77	L8	AR1262-C	----------NA----------					
78	L8	AR1262-D	----------NA----------					
79	L8	AR1262-E	----------NA----------					
80	L8	AR1262-F	----------NA----------					
81	L9	AR1268-A	----------NA----------					
82	L9	AR1268-B	----------NA----------					
83	L9	AR1268-C	----------NA----------					
84	L9	AR1268-D	----------NA----------					
85	L9	AR1268-E	----------NA----------					
86	L9	AR1268-F	----------NA----------					
87	S	Decachlorobiphenyl	----------NA----------					
*****		Signal #2 *****						
89	S	Tetrachloro-m-xylene #2	----------NA----------					
90		Hexachlorobenzene #2	40.000	41.096	-2.7	109	0.00	2.28- 2.34
91		alpha-BHC #2	20.000	19.086	4.6	104	0.00	2.38- 2.44
92		gamma-BHC (Lindane) #2	20.000	17.833	10.8	95	0.00	2.58- 2.64
93		beta-BHC #2	20.000	18.989	5.1	100	0.00	2.63- 2.69
94		Heptachlor #2	20.000	19.083	4.6	101	0.00	2.88- 2.94
95		Chlorothalonil #2	40.000	42.131	-5.3	109	0.00	3.14- 3.20
96		delta-BHC #2	20.000	18.931	5.3	102	0.00	2.74- 2.80
97		Aldrin #2	20.000	18.673	6.6	99	-0.01	3.11- 3.17
98		Dacthal #2	40.000	40.569	-1.4	106	0.00	3.52- 3.58
99		Heptachlor Epoxide #2	20.000	18.503	7.5	97	0.00	3.55- 3.61

Initial Calibration Verification

Job Number: TC52863 **Sample:** GNN1464-ICV1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175753.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2	20.000	19.559	2.2	102	-0.02	3.67- 3.73
101		alpha-Chlordane #2	20.000	20.072	-0.4	106	0.00	3.76- 3.82
102		Endosulfan I #2	20.000	19.597	2.0	105	0.00	3.87- 3.93
103		4,4'-DDE #2	40.000	36.572	8.6	98	0.00	3.84- 3.90
104		Dieldrin #2	40.000	37.028	7.4	99	-0.02	4.08- 4.14
105		Endrin #2	40.000	41.002	-2.5	110	-0.02	4.26- 4.32
106		4,4'-DDD #2	40.000	38.778	3.1	104	-0.02	4.34- 4.40
107		Endosulfan II #2	40.000	38.961	2.6	104	-0.02	4.43- 4.49
108		4,4'-DDT #2	40.000	38.877	2.8	103	-0.02	4.55- 4.61
109		Endrin Aldehyde #2	40.000	39.222	1.9	103	0.00	4.73- 4.79
110		Endosulfan Sulfate #2	40.000	37.858	5.4	100	-0.02	5.06- 5.12
111		Methoxychlor #2	200.000	202.374	-1.2	105	-0.02	4.93- 4.99
112		Endrin Ketone #2	40.000	37.956	5.1	100	-0.02	5.25- 5.31
113	L1	Chlordane-A #2		----------NA----------				
114	L1	Chlordane-B #2		----------NA----------				
115	L1	Chlordane-C #2		----------NA----------				
116	L1	Chlordane-D #2		----------NA----------				
117	L1	Chlordane-E #2		----------NA----------				
118	L1	Chlordane-F #2		----------NA----------				
119	H	Toxaphene #2		----------NA----------				
120		Mirex #2		----------NA----------				
121		Dicofol #2		----------NA----------				
122	L1	AR1016-A #2		----------NA----------				
123	L1	AR1016-B #2		----------NA----------				
124	L1	AR1016-C #2		----------NA----------				
125	L1	AR1016-D #2		----------NA----------				
126	L1	AR1016-E #2		----------NA----------				
127	L1	AR1016-F #2		----------NA----------				
128	L2	AR1221-A #2		----------NA----------				
129	L2	AR1221-B #2		----------NA----------				
130	L2	AR1221-C #2		----------NA----------				
131	L2	AR1221-D #2		----------NA----------				
132	L2	AR1221-E #2		----------NA----------				
133	L3	AR1232-A #2		----------NA----------				
134	L3	AR1232-B #2		----------NA----------				
135	L3	AR1232-C #2		----------NA----------				
136	L3	AR1232-D #2		----------NA----------				
137	L3	AR1232-E #2		----------NA----------				
138	L3	AR1232-F #2		----------NA----------				
139	L4	AR1242-A #2		----------NA----------				
140	L4	AR1242-B #2		----------NA----------				
141	L4	AR1242-C #2		----------NA----------				
142	L4	AR1242-D #2		----------NA----------				
143	L4	AR1242-E #2		----------NA----------				
144	L4	AR1242-F #2		----------NA----------				
145	L5	AR1248-A #2		----------NA----------				
146	L5	AR1248-B #2		----------NA----------				
147	L5	AR1248-C #2		----------NA----------				
148	L5	AR1248-D #2		----------NA----------				
149	L5	AR1248-E #2		----------NA----------				
150	L5	AR1248-F #2		----------NA----------				
151	L6	AR1254-A #2		----------NA----------				
152	L6	AR1254-B #2		----------NA----------				
153	L6	AR1254-C #2		----------NA----------				
154	L6	AR1254-D #2		----------NA----------				
155	L6	AR1254-E #2		----------NA----------				
156	L6	AR1254-F #2		----------NA----------				
157	L7	AR1260-A #2		----------NA----------				
158	L7	AR1260-B #2		----------NA----------				
159	L7	AR1260-C #2		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1464-ICV1464
Lab FileID: NN175753.D

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2                ----------NA----------
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range                SPCC's out = 0  CCC's out = 0
     NN175760.D 608Q1464.M       Wed Aug 20 15:43:04 2014
```

8.9.33

8

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GNN1464-ICV1464
Lab FileID: NN175765.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1464\NN175765.D\ECD1A.CH Vial: 40
Signal #2 : C:\MSDCHEM\1\DATA\GNN1464\NN175765.D\ECD2B.CH
Acq On    : 8-19-2014 07:14:56 PM                    Operator: almar
Sample    : icv1464-200,1016/1260                    Inst    : GCNN
Misc      : op33313,gnn1464                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1464.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 20 11:02:32 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene		----------NA----------				
2		Hexachlorobenzene		----------NA----------				
3		alpha-BHC		----------NA----------				
4		gamma-BHC (Lindane)		----------NA----------				
5		Heptachlor		----------NA----------				
6		Aldrin		----------NA----------				
7		Chlorothalonil		----------NA----------				
8		beta-BHC		----------NA----------				
9		Dacthal		----------NA----------				
10		Delta-BHC		----------NA----------				
11		Heptachlor Epoxide		----------NA----------				
12		Endosulfan I		----------NA----------				
13		gamma-Chlordane		----------NA----------				
14		alpha-Chlordane		----------NA----------				
15		4,4'-DDE		----------NA----------				
16		Dieldrin		----------NA----------				
17		Endrin		----------NA----------				
18		4,4'-DDD		----------NA----------				
19		Endosulfan II		----------NA----------				
20		4,4'-DDT		----------NA----------				
21		Endrin Aldehyde		----------NA----------				
22		Methoxychlor		----------NA----------				
23		Endosulfan Sulfate		----------NA----------				
24		Endrin Ketone		----------NA----------				
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A	200.000	175.019	12.5	88	0.00	2.88- 2.94
35	L1	AR1016-B	200.000	173.158	13.4	87	0.00	3.23- 3.29
36	L1	AR1016-C	200.000	173.956	13.0	88	0.00	3.33- 3.39
37	L1	AR1016-D	200.000	186.352	6.8	115	0.00	3.41- 3.47
38	L1	AR1016-E	200.000	172.549	13.7	86	0.00	3.71- 3.77
39	L1	AR1016-F	200.000	170.777	14.6	86	0.00	3.82- 3.88
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1464-ICV1464
Lab FileID: NN175765.D

42	L2	AR1221-C	----------NA----------					
43	L2	AR1221-D	----------NA----------					
44	L2	AR1221-E	----------NA----------					
45	L3	AR1232-A	----------NA----------					
46	L3	AR1232-B	----------NA----------					
47	L3	AR1232-C	----------NA----------					
48	L3	AR1232-D	----------NA----------					
49	L3	AR1232-E	----------NA----------					
50	L3	AR1232-F	----------NA----------					
51	L4	AR1242-A	----------NA----------					
52	L4	AR1242-B	----------NA----------					
53	L4	AR1242-C	----------NA----------					
54	L4	AR1242-D	----------NA----------					
55	L4	AR1242-E	----------NA----------					
56	L4	AR1242-F	----------NA----------					
57	L5	AR1248-A	----------NA----------					
58	L5	AR1248-B	----------NA----------					
59	L5	AR1248-C	----------NA----------					
60	L5	AR1248-D	----------NA----------					
61	L5	AR1248-E	----------NA----------					
62	L5	AR1248-F	----------NA----------					
63	L6	AR1254-A	----------NA----------					
64	L6	AR1254-B	----------NA----------					
65	L6	AR1254-C	----------NA----------					
66	L6	AR1254-D	----------NA----------					
67	L6	AR1254-E	----------NA----------					
68	L6	AR1254-F	----------NA----------					
69	L7	AR1260-A	200.000	170.556	14.7	78	0.00	4.73- 4.79
70	L7	AR1260-B	200.000	174.192	12.9	80	0.00	4.89- 4.95
71	L7	AR1260-C	200.000	172.993	13.5	79	0.00	5.21- 5.27
72	L7	AR1260-D	200.000	172.270	13.9	80	0.00	5.42- 5.48
73	L7	AR1260-E	200.000	176.387	11.8	86	0.00	5.59- 5.65
74	L7	AR1260-F	200.000	176.437	11.8	85	0.00	5.84- 5.90
75	L8	AR1262-A	----------NA----------					
76	L8	AR1262-B	----------NA----------					
77	L8	AR1262-C	----------NA----------					
78	L8	AR1262-D	----------NA----------					
79	L8	AR1262-E	----------NA----------					
80	L8	AR1262-F	----------NA----------					
81	L9	AR1268-A	----------NA----------					
82	L9	AR1268-B	----------NA----------					
83	L9	AR1268-C	----------NA----------					
84	L9	AR1268-D	----------NA----------					
85	L9	AR1268-E	----------NA----------					
86	L9	AR1268-F	----------NA----------					
87	S	Decachlorobiphenyl	----------NA----------					
*****		Signal #2 *****						
89	S	Tetrachloro-m-xylene #2	----------NA----------					
90		Hexachlorobenzene #2	----------NA----------					
91		alpha-BHC #2	----------NA----------					
92		gamma-BHC (Lindane) #2	----------NA----------					
93		beta-BHC #2	----------NA----------					
94		Heptachlor #2	----------NA----------					
95		Chlorothalonil #2	----------NA----------					
96		delta-BHC #2	----------NA----------					
97		Aldrin #2	----------NA----------					
98		Dacthal #2	----------NA----------					
99		Heptachlor Epoxide #2	----------NA----------					

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1464-ICV1464
Lab FileID: NN175765.D

100		gamma-Chlordane #2			----------NA----------			
101		alpha-Chlordane #2			----------NA----------			
102		Endosulfan I #2			----------NA----------			
103		4,4'-DDE #2			----------NA----------			
104		Dieldrin #2			----------NA----------			
105		Endrin #2			----------NA----------			
106		4,4'-DDD #2			----------NA----------			
107		Endosulfan II #2			----------NA----------			
108		4,4'-DDT #2			----------NA----------			
109		Endrin Aldehyde #2			----------NA----------			
110		Endosulfan Sulfate #2			----------NA----------			
111		Methoxychlor #2			----------NA----------			
112		Endrin Ketone #2			----------NA----------			
113	L1	Chlordane-A #2			----------NA----------			
114	L1	Chlordane-B #2			----------NA----------			
115	L1	Chlordane-C #2			----------NA----------			
116	L1	Chlordane-D #2			----------NA----------			
117	L1	Chlordane-E #2			----------NA----------			
118	L1	Chlordane-F #2			----------NA----------			
119	H	Toxaphene #2			----------NA----------			
120		Mirex #2			----------NA----------			
121		Dicofol #2			----------NA----------			
122	L1	AR1016-A #2	200.000	179.223	10.4	88	0.00	2.47- 2.53
123	L1	AR1016-B #2	200.000	195.826	2.1	99	0.00	2.77- 2.83
124	L1	AR1016-C #2	200.000	178.273	10.9	88	0.00	2.86- 2.92
125	L1	AR1016-D #2	200.000	182.064	9.0	90	0.00	2.90- 2.96
126	L1	AR1016-E #2	200.000	175.655	12.2	89	-0.01	3.14- 3.20
127	L1	AR1016-F #2	200.000	170.513	14.7	84	-0.01	3.20- 3.26
128	L2	AR1221-A #2			----------NA----------			
129	L2	AR1221-B #2			----------NA----------			
130	L2	AR1221-C #2			----------NA----------			
131	L2	AR1221-D #2			----------NA----------			
132	L2	AR1221-E #2			----------NA----------			
133	L3	AR1232-A #2			----------NA----------			
134	L3	AR1232-B #2			----------NA----------			
135	L3	AR1232-C #2			----------NA----------			
136	L3	AR1232-D #2			----------NA----------			
137	L3	AR1232-E #2			----------NA----------			
138	L3	AR1232-F #2			----------NA----------			
139	L4	AR1242-A #2			----------NA----------			
140	L4	AR1242-B #2			----------NA----------			
141	L4	AR1242-C #2			----------NA----------			
142	L4	AR1242-D #2			----------NA----------			
143	L4	AR1242-E #2			----------NA----------			
144	L4	AR1242-F #2			----------NA----------			
145	L5	AR1248-A #2			----------NA----------			
146	L5	AR1248-B #2			----------NA----------			
147	L5	AR1248-C #2			----------NA----------			
148	L5	AR1248-D #2			----------NA----------			
149	L5	AR1248-E #2			----------NA----------			
150	L5	AR1248-F #2			----------NA----------			
151	L6	AR1254-A #2			----------NA----------			
152	L6	AR1254-B #2			----------NA----------			
153	L6	AR1254-C #2			----------NA----------			
154	L6	AR1254-D #2			----------NA----------			
155	L6	AR1254-E #2			----------NA----------			
156	L6	AR1254-F #2			----------NA----------			
157	L7	AR1260-A #2	200.000	177.039	11.5	85	0.00	4.08- 4.14
158	L7	AR1260-B #2	200.000	173.056	13.5	83	0.00	4.30- 4.36
159	L7	AR1260-C #2	200.000	177.496	11.3	84	0.00	4.52- 4.58

Initial Calibration Verification

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1464-ICV1464
Lab FileID: NN175765.D

160	L7	AR1260-D #2	200.000	175.324	12.3	84	0.00	4.78-	4.84
161	L7	AR1260-E #2	200.000	178.418	10.8	86	0.00	5.01-	5.07
162	L7	AR1260-F #2	200.000	176.739	11.6	85	0.00	5.21-	5.27
163	L8	AR1262-A #2	----------NA----------						
164	L8	AR1262-B #2	----------NA----------						
165	L8	AR1262-C #2	----------NA----------						
166	L8	AR1262-D #2	----------NA----------						
167	L8	AR1262-E #2	----------NA----------						
168	L8	AR1262-F #2	----------NA----------						
169	L9	AR1268-A #2	----------NA----------						
170	L9	AR1268-B #2	----------NA----------						
171	L9	AR1268-C #2	----------NA----------						
172	L9	AR1268-D #2	----------NA----------						
173	L9	AR1268-E #2	----------NA----------						
174	L9	AR1268-F #2	----------NA----------						
175	S	Decachlorobiphenyl #2	----------NA----------						

(#) = Out of Range SPCC's out = 0 CCC's out = 0
NN175760.D 608Q1464.M Wed Aug 20 15:43:06 2014

8.9.34

8

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GNN1465-CC1464
Lab FileID: NN175802.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1465\NN175802.D\ECD1A.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\GNN1465\NN175802.D\ECD2B.CH
Acq On    : 8-20-2014 01:37:30 PM                    Operator: almar
Sample    : cc1464-200,pest                          Inst    : GCNN
Misc      : op33313,gnn1465                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1464.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 20 11:02:32 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	41.990	-5.0	107	0.00	2.27- 2.33
2		Hexachlorobenzene	40.000	41.322	-3.3	109	0.00	2.59- 2.65
3		alpha-BHC	20.000	20.366	-1.8	110	0.00	2.69- 2.75
4		gamma-BHC (Lindane)	20.000	20.347	-1.7	109	0.00	2.95- 3.01
5		Heptachlor	20.000	20.499	-2.5	109	0.00	3.30- 3.36
6		Aldrin	20.000	20.241	-1.2	110	0.00	3.57- 3.63
7		Chlorothalonil	40.000	41.329	-3.3	110	0.00	3.41- 3.47
8		beta-BHC	20.000	20.584	-2.9	110	0.00	3.01- 3.07
9		Dacthal	40.000	40.304	-0.8	107	0.00	3.86- 3.92
10		Delta-BHC	20.000	20.267	-1.3	109	0.00	3.25- 3.31
11		Heptachlor Epoxide	20.000	20.440	-2.2	110	0.00	4.06- 4.12
12		Endosulfan I	20.000	20.404	-2.0	109	0.00	4.39- 4.45
13		gamma-Chlordane	20.000	19.997	0.0	109	0.00	4.22- 4.28
14		alpha-Chlordane	20.000	20.531	-2.7	109	0.00	4.34- 4.40
15		4,4'-DDE	40.000	40.050	-0.1	108	0.00	4.48- 4.54
16		Dieldrin	40.000	40.717	-1.8	109	0.00	4.60- 4.66
17		Endrin	40.000	40.743	-1.9	109	0.00	4.83- 4.89
18		4,4'-DDD	40.000	40.373	-0.9	108	0.00	4.93- 4.99
19		Endosulfan II	40.000	40.858	-2.1	109	0.00	5.00- 5.06
20		4,4'-DDT	40.000	40.448	-1.1	109	0.00	5.15- 5.21
21		Endrin Aldehyde	40.000	40.384	-1.0	109	0.00	5.24- 5.30
22		Methoxychlor	200.000	205.832	-2.9	108	0.00	5.64- 5.70
23		Endosulfan Sulfate	40.000	41.156	-2.9	110	0.00	5.44- 5.50
24		Endrin Ketone	40.000	41.877	-4.7	111	0.00	5.81- 5.87
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A		----------NA----------				
35	L1	AR1016-B		----------NA----------				
36	L1	AR1016-C		----------NA----------				
37	L1	AR1016-D		----------NA----------				
38	L1	AR1016-E		----------NA----------				
39	L1	AR1016-F		----------NA----------				
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1465-CC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175802.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

42	L2	AR1221-C			----------NA----------			
43	L2	AR1221-D			----------NA----------			
44	L2	AR1221-E			----------NA----------			
45	L3	AR1232-A			----------NA----------			
46	L3	AR1232-B			----------NA----------			
47	L3	AR1232-C			----------NA----------			
48	L3	AR1232-D			----------NA----------			
49	L3	AR1232-E			----------NA----------			
50	L3	AR1232-F			----------NA----------			
51	L4	AR1242-A			----------NA----------			
52	L4	AR1242-B			----------NA----------			
53	L4	AR1242-C			----------NA----------			
54	L4	AR1242-D			----------NA----------			
55	L4	AR1242-E			----------NA----------			
56	L4	AR1242-F			----------NA----------			
57	L5	AR1248-A			----------NA----------			
58	L5	AR1248-B			----------NA----------			
59	L5	AR1248-C			----------NA----------			
60	L5	AR1248-D			----------NA----------			
61	L5	AR1248-E			----------NA----------			
62	L5	AR1248-F			----------NA----------			
63	L6	AR1254-A			----------NA----------			
64	L6	AR1254-B			----------NA----------			
65	L6	AR1254-C			----------NA----------			
66	L6	AR1254-D			----------NA----------			
67	L6	AR1254-E			----------NA----------			
68	L6	AR1254-F			----------NA----------			
69	L7	AR1260-A			----------NA----------			
70	L7	AR1260-B			----------NA----------			
71	L7	AR1260-C			----------NA----------			
72	L7	AR1260-D			----------NA----------			
73	L7	AR1260-E			----------NA----------			
74	L7	AR1260-F			----------NA----------			
75	L8	AR1262-A			----------NA----------			
76	L8	AR1262-B			----------NA----------			
77	L8	AR1262-C			----------NA----------			
78	L8	AR1262-D			----------NA----------			
79	L8	AR1262-E			----------NA----------			
80	L8	AR1262-F			----------NA----------			
81	L9	AR1268-A			----------NA----------			
82	L9	AR1268-B			----------NA----------			
83	L9	AR1268-C			----------NA----------			
84	L9	AR1268-D			----------NA----------			
85	L9	AR1268-E			----------NA----------			
86	L9	AR1268-F			----------NA----------			
87	S	Decachlorobiphenyl	40.000	42.449	-6.1	104	0.00	6.61- 6.67
*****		Signal #2 *****						
89	S	Tetrachloro-m-xylene #	40.000	39.502	1.2	100	0.00	2.06- 2.12
90		Hexachlorobenzene #2	40.000	40.030	-0.1	106	0.00	2.28- 2.34
91		alpha-BHC #2	20.000	19.955	0.2	108	0.00	2.38- 2.44
92		gamma-BHC (Lindane) #2	20.000	19.801	1.0	105	0.00	2.58- 2.64
93		beta-BHC #2	20.000	20.111	-0.6	106	0.00	2.63- 2.69
94		Heptachlor #2	20.000	19.675	1.6	104	0.00	2.88- 2.94
95		Chlorothalonil #2	40.000	39.382	1.5	102	0.00	3.14- 3.20
96		delta-BHC #2	20.000	19.277	3.6	104	0.00	2.74- 2.80
97		Aldrin #2	20.000	19.898	0.5	106	0.00	3.11- 3.17
98		Dacthal #2	40.000	38.983	2.5	102	0.00	3.52- 3.58
99		Heptachlor Epoxide #2	20.000	20.748	-3.7	109	0.00	3.55- 3.61

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1465-CC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175802.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2	20.000	20.042	-0.2	104	-0.01	3.67- 3.73
101		alpha-Chlordane #2	20.000	19.838	0.8	104	0.00	3.76- 3.82
102		Endosulfan I #2	20.000	20.293	-1.5	109	0.00	3.87- 3.93
103		4,4'-DDE #2	40.000	37.882	5.3	102	0.00	3.84- 3.90
104		Dieldrin #2	40.000	39.878	0.3	106	-0.01	4.08- 4.14
105		Endrin #2	40.000	39.763	0.6	107	-0.01	4.26- 4.32
106		4,4'-DDD #2	40.000	38.653	3.4	104	-0.01	4.34- 4.40
107		Endosulfan II #2	40.000	39.920	0.2	106	-0.01	4.43- 4.49
108		4,4'-DDT #2	40.000	39.527	1.2	105	-0.01	4.55- 4.61
109		Endrin Aldehyde #2	40.000	39.354	1.6	103	0.00	4.73- 4.79
110		Endosulfan Sulfate #2	40.000	40.149	-0.4	106	-0.01	5.06- 5.12
111		Methoxychlor #2	200.000	199.212	0.4	104	-0.01	4.93- 4.99
112		Endrin Ketone #2	40.000	40.168	-0.4	106	-0.02	5.25- 5.31
113	L1	Chlordane-A #2		----------NA----------				
114	L1	Chlordane-B #2		----------NA----------				
115	L1	Chlordane-C #2		----------NA----------				
116	L1	Chlordane-D #2		----------NA----------				
117	L1	Chlordane-E #2		----------NA----------				
118	L1	Chlordane-F #2		----------NA----------				
119	H	Toxaphene #2		----------NA----------				
120		Mirex #2		----------NA----------				
121		Dicofol #2		----------NA----------				
122	L1	AR1016-A #2		----------NA----------				
123	L1	AR1016-B #2		----------NA----------				
124	L1	AR1016-C #2		----------NA----------				
125	L1	AR1016-D #2		----------NA----------				
126	L1	AR1016-E #2		----------NA----------				
127	L1	AR1016-F #2		----------NA----------				
128	L2	AR1221-A #2		----------NA----------				
129	L2	AR1221-B #2		----------NA----------				
130	L2	AR1221-C #2		----------NA----------				
131	L2	AR1221-D #2		----------NA----------				
132	L2	AR1221-E #2		----------NA----------				
133	L3	AR1232-A #2		----------NA----------				
134	L3	AR1232-B #2		----------NA----------				
135	L3	AR1232-C #2		----------NA----------				
136	L3	AR1232-D #2		----------NA----------				
137	L3	AR1232-E #2		----------NA----------				
138	L3	AR1232-F #2		----------NA----------				
139	L4	AR1242-A #2		----------NA----------				
140	L4	AR1242-B #2		----------NA----------				
141	L4	AR1242-C #2		----------NA----------				
142	L4	AR1242-D #2		----------NA----------				
143	L4	AR1242-E #2		----------NA----------				
144	L4	AR1242-F #2		----------NA----------				
145	L5	AR1248-A #2		----------NA----------				
146	L5	AR1248-B #2		----------NA----------				
147	L5	AR1248-C #2		----------NA----------				
148	L5	AR1248-D #2		----------NA----------				
149	L5	AR1248-E #2		----------NA----------				
150	L5	AR1248-F #2		----------NA----------				
151	L6	AR1254-A #2		----------NA----------				
152	L6	AR1254-B #2		----------NA----------				
153	L6	AR1254-C #2		----------NA----------				
154	L6	AR1254-D #2		----------NA----------				
155	L6	AR1254-E #2		----------NA----------				
156	L6	AR1254-F #2		----------NA----------				
157	L7	AR1260-A #2		----------NA----------				
158	L7	AR1260-B #2		----------NA----------				
159	L7	AR1260-C #2		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1465-CC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175802.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   40.000  40.597     -1.5  100  -0.02    5.95- 6.01
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     NN175760.D 608Q1464.M       Wed Aug 20 15:50:22 2014
```

8.9.35

8

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX
Sample: GNN1465-CC1464
Lab FileID: NN175803.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1465\NN175803.D\ECD1A.CH Vial: 6
Signal #2 : C:\MSDCHEM\1\DATA\GNN1465\NN175803.D\ECD2B.CH
Acq On    : 8-20-2014 01:50:44 PM                    Operator: almar
Sample    : cc1464-200,chlor                         Inst    : GCNN
Misc      : op33313,gnn1465                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1464.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 20 11:02:32 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	41.109	-2.8	105	0.00	2.27- 2.33
2		Hexachlorobenzene		----------NA----------				
3		alpha-BHC		----------NA----------				
4		gamma-BHC (Lindane)		----------NA----------				
5		Heptachlor		----------NA----------				
6		Aldrin		----------NA----------				
7		Chlorothalonil		----------NA----------				
8		beta-BHC		----------NA----------				
9		Dacthal		----------NA----------				
10		Delta-BHC		----------NA----------				
11		Heptachlor Epoxide		----------NA----------				
12		Endosulfan I		----------NA----------				
13		gamma-Chlordane		----------NA----------				
14		alpha-Chlordane		----------NA----------				
15		4,4'-DDE		----------NA----------				
16		Dieldrin		----------NA----------				
17		Endrin		----------NA----------				
18		4,4'-DDD		----------NA----------				
19		Endosulfan II		----------NA----------				
20		4,4'-DDT		----------NA----------				
21		Endrin Aldehyde		----------NA----------				
22		Methoxychlor		----------NA----------				
23		Endosulfan Sulfate		----------NA----------				
24		Endrin Ketone		----------NA----------				
25	L1	Chlordane-A	200.000	218.274	-9.1	109	0.00	3.18- 3.24
26	L1	Chlordane-B	200.000	197.938	1.0	99	0.00	3.30- 3.36
27	L1	Chlordane-C	200.000	197.312	1.3	99	0.00	3.70- 3.76
28	L1	Chlordane-D	200.000	207.544	-3.8	104	0.00	4.22- 4.28
29	L1	Chlordane-E	200.000	208.181	-4.1	104	0.00	4.34- 4.40
30	L1	Chlordane-F	200.000	207.913	-4.0	104	0.00	5.03- 5.09
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A		----------NA----------				
35	L1	AR1016-B		----------NA----------				
36	L1	AR1016-C		----------NA----------				
37	L1	AR1016-D		----------NA----------				
38	L1	AR1016-E		----------NA----------				
39	L1	AR1016-F		----------NA----------				
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1465-CC1464
Lab FileID: NN175803.D

42	L2	AR1221-C			----------NA----------				
43	L2	AR1221-D			----------NA----------				
44	L2	AR1221-E			----------NA----------				
45	L3	AR1232-A			----------NA----------				
46	L3	AR1232-B			----------NA----------				
47	L3	AR1232-C			----------NA----------				
48	L3	AR1232-D			----------NA----------				
49	L3	AR1232-E			----------NA----------				
50	L3	AR1232-F			----------NA----------				
51	L4	AR1242-A			----------NA----------				
52	L4	AR1242-B			----------NA----------				
53	L4	AR1242-C			----------NA----------				
54	L4	AR1242-D			----------NA----------				
55	L4	AR1242-E			----------NA----------				
56	L4	AR1242-F			----------NA----------				
57	L5	AR1248-A			----------NA----------				
58	L5	AR1248-B			----------NA----------				
59	L5	AR1248-C			----------NA----------				
60	L5	AR1248-D			----------NA----------				
61	L5	AR1248-E			----------NA----------				
62	L5	AR1248-F			----------NA----------				
63	L6	AR1254-A			----------NA----------				
64	L6	AR1254-B			----------NA----------				
65	L6	AR1254-C			----------NA----------				
66	L6	AR1254-D			----------NA----------				
67	L6	AR1254-E			----------NA----------				
68	L6	AR1254-F			----------NA----------				
69	L7	AR1260-A			----------NA----------				
70	L7	AR1260-B			----------NA----------				
71	L7	AR1260-C			----------NA----------				
72	L7	AR1260-D			----------NA----------				
73	L7	AR1260-E			----------NA----------				
74	L7	AR1260-F			----------NA----------				
75	L8	AR1262-A			----------NA----------				
76	L8	AR1262-B			----------NA----------				
77	L8	AR1262-C			----------NA----------				
78	L8	AR1262-D			----------NA----------				
79	L8	AR1262-E			----------NA----------				
80	L8	AR1262-F			----------NA----------				
81	L9	AR1268-A			----------NA----------				
82	L9	AR1268-B			----------NA----------				
83	L9	AR1268-C			----------NA----------				
84	L9	AR1268-D			----------NA----------				
85	L9	AR1268-E			----------NA----------				
86	L9	AR1268-F			----------NA----------				
87	S	Decachlorobiphenyl	40.000	42.026	-5.1	103	0.00	6.61- 6.67	
*****		Signal #2 *****							
89	S	Tetrachloro-m-xylene #	40.000	39.585	1.0	101	0.00	2.06- 2.12	
90		Hexachlorobenzene #2			----------NA----------				
91		alpha-BHC #2			----------NA----------				
92		gamma-BHC (Lindane) #2			----------NA----------				
93		beta-BHC #2			----------NA----------				
94		Heptachlor #2			----------NA----------				
95		Chlorothalonil #2			----------NA----------				
96		delta-BHC #2			----------NA----------				
97		Aldrin #2			----------NA----------				
98		Dacthal #2			----------NA----------				
99		Heptachlor Epoxide #2			----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1465-CC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175803.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2	----------NA----------					
101		alpha-Chlordane #2	----------NA----------					
102		Endosulfan I #2	----------NA----------					
103		4,4'-DDE #2	----------NA----------					
104		Dieldrin #2	----------NA----------					
105		Endrin #2	----------NA----------					
106		4,4'-DDD #2	----------NA----------					
107		Endosulfan II #2	----------NA----------					
108		4,4'-DDT #2	----------NA----------					
109		Endrin Aldehyde #2	----------NA----------					
110		Endosulfan Sulfate #2	----------NA----------					
111		Methoxychlor #2	----------NA----------					
112		Endrin Ketone #2	----------NA----------					
113	L1	Chlordane-A #2	200.000	207.390	-3.7	104	-0.01	2.84- 2.90
114	L1	Chlordane-B #2	200.000	204.176	-2.1	102	-0.01	2.90- 2.96
115	L1	Chlordane-C #2	200.000	214.052	-7.0	107	-0.02	3.21- 3.27
116	L1	Chlordane-D #2	200.000	203.034	-1.5	102	-0.02	3.67- 3.73
117	L1	Chlordane-E #2	200.000	205.151	-2.6	103	-0.02	3.77- 3.83
118	L1	Chlordane-F #2	200.000	215.305	-7.7	108	-0.02	4.38- 4.44
119	H	Toxaphene #2	----------NA----------					
120		Mirex #2	----------NA----------					
121		Dicofol #2	----------NA----------					
122	L1	AR1016-A #2	----------NA----------					
123	L1	AR1016-B #2	----------NA----------					
124	L1	AR1016-C #2	----------NA----------					
125	L1	AR1016-D #2	----------NA----------					
126	L1	AR1016-E #2	----------NA----------					
127	L1	AR1016-F #2	----------NA----------					
128	L2	AR1221-A #2	----------NA----------					
129	L2	AR1221-B #2	----------NA----------					
130	L2	AR1221-C #2	----------NA----------					
131	L2	AR1221-D #2	----------NA----------					
132	L2	AR1221-E #2	----------NA----------					
133	L3	AR1232-A #2	----------NA----------					
134	L3	AR1232-B #2	----------NA----------					
135	L3	AR1232-C #2	----------NA----------					
136	L3	AR1232-D #2	----------NA----------					
137	L3	AR1232-E #2	----------NA----------					
138	L3	AR1232-F #2	----------NA----------					
139	L4	AR1242-A #2	----------NA----------					
140	L4	AR1242-B #2	----------NA----------					
141	L4	AR1242-C #2	----------NA----------					
142	L4	AR1242-D #2	----------NA----------					
143	L4	AR1242-E #2	----------NA----------					
144	L4	AR1242-F #2	----------NA----------					
145	L5	AR1248-A #2	----------NA----------					
146	L5	AR1248-B #2	----------NA----------					
147	L5	AR1248-C #2	----------NA----------					
148	L5	AR1248-D #2	----------NA----------					
149	L5	AR1248-E #2	----------NA----------					
150	L5	AR1248-F #2	----------NA----------					
151	L6	AR1254-A #2	----------NA----------					
152	L6	AR1254-B #2	----------NA----------					
153	L6	AR1254-C #2	----------NA----------					
154	L6	AR1254-D #2	----------NA----------					
155	L6	AR1254-E #2	----------NA----------					
156	L6	AR1254-F #2	----------NA----------					
157	L7	AR1260-A #2	----------NA----------					
158	L7	AR1260-B #2	----------NA----------					
159	L7	AR1260-C #2	----------NA----------					

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1465-CC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175803.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   40.000  40.155     -0.4   99  -0.02    5.95- 6.01
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     NN175760.D 608Q1464.M       Wed Aug 20 15:50:23 2014
```

8.9.36

8

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1465-CC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175804.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1465\NN175804.D\ECD1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\GNN1465\NN175804.D\ECD2B.CH
Acq On    : 8-20-2014 02:03:59 PM                    Operator: almar
Sample    : cc1464-200,tox                           Inst    : GCNN
Misc      : op33313,gnn1465                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1464.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 20 11:02:32 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	44.402	-11.0	113	0.00	2.27- 2.33
2		Hexachlorobenzene		----------NA----------				
3		alpha-BHC		----------NA----------				
4		gamma-BHC (Lindane)		----------NA----------				
5		Heptachlor		----------NA----------				
6		Aldrin		----------NA----------				
7		Chlorothalonil		----------NA----------				
8		beta-BHC		----------NA----------				
9		Dacthal		----------NA----------				
10		Delta-BHC		----------NA----------				
11		Heptachlor Epoxide		----------NA----------				
12		Endosulfan I		----------NA----------				
13		gamma-Chlordane		----------NA----------				
14		alpha-Chlordane		----------NA----------				
15		4,4'-DDE		----------NA----------				
16		Dieldrin		----------NA----------				
17		Endrin		----------NA----------				
18		4,4'-DDD		----------NA----------				
19		Endosulfan II		----------NA----------				
20		4,4'-DDT		----------NA----------				
21		Endrin Aldehyde		----------NA----------				
22		Methoxychlor		----------NA----------				
23		Endosulfan Sulfate		----------NA----------				
24		Endrin Ketone		----------NA----------				
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene	200.000	202.056	-1.0	101	0.00	4.78- 6.58
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A		----------NA----------				
35	L1	AR1016-B		----------NA----------				
36	L1	AR1016-C		----------NA----------				
37	L1	AR1016-D		----------NA----------				
38	L1	AR1016-E		----------NA----------				
39	L1	AR1016-F		----------NA----------				
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1465-CC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175804.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

42	L2	AR1221-C			----------NA----------			
43	L2	AR1221-D			----------NA----------			
44	L2	AR1221-E			----------NA----------			
45	L3	AR1232-A			----------NA----------			
46	L3	AR1232-B			----------NA----------			
47	L3	AR1232-C			----------NA----------			
48	L3	AR1232-D			----------NA----------			
49	L3	AR1232-E			----------NA----------			
50	L3	AR1232-F			----------NA----------			
51	L4	AR1242-A			----------NA----------			
52	L4	AR1242-B			----------NA----------			
53	L4	AR1242-C			----------NA----------			
54	L4	AR1242-D			----------NA----------			
55	L4	AR1242-E			----------NA----------			
56	L4	AR1242-F			----------NA----------			
57	L5	AR1248-A			----------NA----------			
58	L5	AR1248-B			----------NA----------			
59	L5	AR1248-C			----------NA----------			
60	L5	AR1248-D			----------NA----------			
61	L5	AR1248-E			----------NA----------			
62	L5	AR1248-F			----------NA----------			
63	L6	AR1254-A			----------NA----------			
64	L6	AR1254-B			----------NA----------			
65	L6	AR1254-C			----------NA----------			
66	L6	AR1254-D			----------NA----------			
67	L6	AR1254-E			----------NA----------			
68	L6	AR1254-F			----------NA----------			
69	L7	AR1260-A			----------NA----------			
70	L7	AR1260-B			----------NA----------			
71	L7	AR1260-C			----------NA----------			
72	L7	AR1260-D			----------NA----------			
73	L7	AR1260-E			----------NA----------			
74	L7	AR1260-F			----------NA----------			
75	L8	AR1262-A			----------NA----------			
76	L8	AR1262-B			----------NA----------			
77	L8	AR1262-C			----------NA----------			
78	L8	AR1262-D			----------NA----------			
79	L8	AR1262-E			----------NA----------			
80	L8	AR1262-F			----------NA----------			
81	L9	AR1268-A			----------NA----------			
82	L9	AR1268-B			----------NA----------			
83	L9	AR1268-C			----------NA----------			
84	L9	AR1268-D			----------NA----------			
85	L9	AR1268-E			----------NA----------			
86	L9	AR1268-F			----------NA----------			
87	S	Decachlorobiphenyl	40.000	46.019	-15.0#	113	0.00	6.61- 6.67
*****		Signal #2 *****						
89	S	Tetrachloro-m-xylene #	40.000	43.644	-9.1	111	0.00	2.06- 2.12
90		Hexachlorobenzene #2			----------NA----------			
91		alpha-BHC #2			----------NA----------			
92		gamma-BHC (Lindane) #2			----------NA----------			
93		beta-BHC #2			----------NA----------			
94		Heptachlor #2			----------NA----------			
95		Chlorothalonil #2			----------NA----------			
96		delta-BHC #2			----------NA----------			
97		Aldrin #2			----------NA----------			
98		Dacthal #2			----------NA----------			
99		Heptachlor Epoxide #2			----------NA----------			

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1465-CC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175804.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2			----------NA----------			
101		alpha-Chlordane #2			----------NA----------			
102		Endosulfan I #2			----------NA----------			
103		4,4'-DDE #2			----------NA----------			
104		Dieldrin #2			----------NA----------			
105		Endrin #2			----------NA----------			
106		4,4'-DDD #2			----------NA----------			
107		Endosulfan II #2			----------NA----------			
108		4,4'-DDT #2			----------NA----------			
109		Endrin Aldehyde #2			----------NA----------			
110		Endosulfan Sulfate #2			----------NA----------			
111		Methoxychlor #2			----------NA----------			
112		Endrin Ketone #2			----------NA----------			
113	L1	Chlordane-A #2			----------NA----------			
114	L1	Chlordane-B #2			----------NA----------			
115	L1	Chlordane-C #2			----------NA----------			
116	L1	Chlordane-D #2			----------NA----------			
117	L1	Chlordane-E #2			----------NA----------			
118	L1	Chlordane-F #2			----------NA----------			
119	H	Toxaphene #2	200.000	193.375	3.3	97	0.00	4.11- 5.93
120		Mirex #2			----------NA----------			
121		Dicofol #2			----------NA----------			
122	L1	AR1016-A #2			----------NA----------			
123	L1	AR1016-B #2			----------NA----------			
124	L1	AR1016-C #2			----------NA----------			
125	L1	AR1016-D #2			----------NA----------			
126	L1	AR1016-E #2			----------NA----------			
127	L1	AR1016-F #2			----------NA----------			
128	L2	AR1221-A #2			----------NA----------			
129	L2	AR1221-B #2			----------NA----------			
130	L2	AR1221-C #2			----------NA----------			
131	L2	AR1221-D #2			----------NA----------			
132	L2	AR1221-E #2			----------NA----------			
133	L3	AR1232-A #2			----------NA----------			
134	L3	AR1232-B #2			----------NA----------			
135	L3	AR1232-C #2			----------NA----------			
136	L3	AR1232-D #2			----------NA----------			
137	L3	AR1232-E #2			----------NA----------			
138	L3	AR1232-F #2			----------NA----------			
139	L4	AR1242-A #2			----------NA----------			
140	L4	AR1242-B #2			----------NA----------			
141	L4	AR1242-C #2			----------NA----------			
142	L4	AR1242-D #2			----------NA----------			
143	L4	AR1242-E #2			----------NA----------			
144	L4	AR1242-F #2			----------NA----------			
145	L5	AR1248-A #2			----------NA----------			
146	L5	AR1248-B #2			----------NA----------			
147	L5	AR1248-C #2			----------NA----------			
148	L5	AR1248-D #2			----------NA----------			
149	L5	AR1248-E #2			----------NA----------			
150	L5	AR1248-F #2			----------NA----------			
151	L6	AR1254-A #2			----------NA----------			
152	L6	AR1254-B #2			----------NA----------			
153	L6	AR1254-C #2			----------NA----------			
154	L6	AR1254-D #2			----------NA----------			
155	L6	AR1254-E #2			----------NA----------			
156	L6	AR1254-F #2			----------NA----------			
157	L7	AR1260-A #2			----------NA----------			
158	L7	AR1260-B #2			----------NA----------			
159	L7	AR1260-C #2			----------NA----------			

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1465-CC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175804.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   40.000  43.823     -9.6  108  -0.02    5.95- 6.01
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range              SPCC's out = 0  CCC's out = 0
     NN175760.D 608Q1464.M       Wed Aug 20 15:50:24 2014
```

8.9.37

8

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1465-CC1464
Lab FileID: NN175816.D

Evaluate Continuing Calibration Report

```
Signal #1 : C:\MSDCHEM\1\DATA\GNN1465\NN175816.D\ECD1A.CH Vial: 19
Signal #2 : C:\MSDCHEM\1\DATA\GNN1465\NN175816.D\ECD2B.CH
Acq On    : 8-20-2014 04:46:15 PM                    Operator: almar
Sample    : cc1464-300,pest                          Inst    : GCNN
Misc      : op33586,gnn1465                          Multiplr: 1.00
IntFile Signal #1: EVENTS.E     IntFile Signal #2: events2.e

Method       : C:\MSDCHEM\1\METHODS\608Q1464.M (Chemstation Integrator)
Title        : Pesticides by 608 or 8081
Last Update  : Wed Aug 20 11:02:32 2014
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  15%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	60.000	59.930	0.1	105	0.00	2.27- 2.33
2		Hexachlorobenzene	60.000	58.533	2.4	95	0.00	2.59- 2.65
3		alpha-BHC	30.000	29.522	1.6	94	0.00	2.69- 2.75
4		gamma-BHC (Lindane)	30.000	29.174	2.8	94	0.00	2.95- 3.01
5		Heptachlor	30.000	28.782	4.1	94	0.00	3.30- 3.36
6		Aldrin	30.000	28.500	5.0	94	0.00	3.57- 3.63
7		Chlorothalonil	60.000	58.851	1.9	97	-0.01	3.41- 3.47
8		beta-BHC	30.000	28.903	3.7	95	0.00	3.01- 3.07
9		Dacthal	60.000	57.082	4.9	94	-0.01	3.86- 3.92
10		Delta-BHC	30.000	29.613	1.3	96	0.00	3.25- 3.31
11		Heptachlor Epoxide	30.000	29.055	3.2	95	-0.01	4.06- 4.12
12		Endosulfan I	30.000	28.891	3.7	95	0.00	4.39- 4.45
13		gamma-Chlordane	30.000	28.518	4.9	94	-0.01	4.22- 4.28
14		alpha-Chlordane	30.000	28.969	3.4	95	-0.01	4.34- 4.40
15		4,4'-DDE	60.000	58.078	3.2	94	0.00	4.48- 4.54
16		Dieldrin	60.000	58.261	2.9	95	0.00	4.60- 4.66
17		Endrin	60.000	57.801	3.7	94	0.00	4.83- 4.89
18		4,4'-DDD	60.000	58.839	1.9	96	0.00	4.93- 4.99
19		Endosulfan II	60.000	57.595	4.0	94	0.00	5.00- 5.06
20		4,4'-DDT	60.000	55.919	6.8	90	0.00	5.15- 5.21
21		Endrin Aldehyde	60.000	55.918	6.8	91	0.00	5.24- 5.30
22		Methoxychlor	300.000	281.867	6.0	92	0.00	5.64- 5.70
23		Endosulfan Sulfate	60.000	57.572	4.0	93	0.00	5.44- 5.50
24		Endrin Ketone	60.000	59.022	1.6	96	0.00	5.81- 5.87
25	L1	Chlordane-A		----------NA----------				
26	L1	Chlordane-B		----------NA----------				
27	L1	Chlordane-C		----------NA----------				
28	L1	Chlordane-D		----------NA----------				
29	L1	Chlordane-E		----------NA----------				
30	L1	Chlordane-F		----------NA----------				
31	H	Toxaphene		----------NA----------				
32		Mirex		----------NA----------				
33		Dicofol		----------NA----------				
34	L1	AR1016-A		----------NA----------				
35	L1	AR1016-B		----------NA----------				
36	L1	AR1016-C		----------NA----------				
37	L1	AR1016-D		----------NA----------				
38	L1	AR1016-E		----------NA----------				
39	L1	AR1016-F		----------NA----------				
40	L2	AR1221-A		----------NA----------				
41	L2	AR1221-B		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1465-CC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175816.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

42	L2	AR1221-C			----------NA----------			
43	L2	AR1221-D			----------NA----------			
44	L2	AR1221-E			----------NA----------			
45	L3	AR1232-A			----------NA----------			
46	L3	AR1232-B			----------NA----------			
47	L3	AR1232-C			----------NA----------			
48	L3	AR1232-D			----------NA----------			
49	L3	AR1232-E			----------NA----------			
50	L3	AR1232-F			----------NA----------			
51	L4	AR1242-A			----------NA----------			
52	L4	AR1242-B			----------NA----------			
53	L4	AR1242-C			----------NA----------			
54	L4	AR1242-D			----------NA----------			
55	L4	AR1242-E			----------NA----------			
56	L4	AR1242-F			----------NA----------			
57	L5	AR1248-A			----------NA----------			
58	L5	AR1248-B			----------NA----------			
59	L5	AR1248-C			----------NA----------			
60	L5	AR1248-D			----------NA----------			
61	L5	AR1248-E			----------NA----------			
62	L5	AR1248-F			----------NA----------			
63	L6	AR1254-A			----------NA----------			
64	L6	AR1254-B			----------NA----------			
65	L6	AR1254-C			----------NA----------			
66	L6	AR1254-D			----------NA----------			
67	L6	AR1254-E			----------NA----------			
68	L6	AR1254-F			----------NA----------			
69	L7	AR1260-A			----------NA----------			
70	L7	AR1260-B			----------NA----------			
71	L7	AR1260-C			----------NA----------			
72	L7	AR1260-D			----------NA----------			
73	L7	AR1260-E			----------NA----------			
74	L7	AR1260-F			----------NA----------			
75	L8	AR1262-A			----------NA----------			
76	L8	AR1262-B			----------NA----------			
77	L8	AR1262-C			----------NA----------			
78	L8	AR1262-D			----------NA----------			
79	L8	AR1262-E			----------NA----------			
80	L8	AR1262-F			----------NA----------			
81	L9	AR1268-A			----------NA----------			
82	L9	AR1268-B			----------NA----------			
83	L9	AR1268-C			----------NA----------			
84	L9	AR1268-D			----------NA----------			
85	L9	AR1268-E			----------NA----------			
86	L9	AR1268-F			----------NA----------			
87	S	Decachlorobiphenyl	60.000	57.580	4.0	100	0.00	6.61- 6.67
*****		Signal #2 *****						
89	S	Tetrachloro-m-xylene #	60.000	58.885	1.9	99	0.00	2.06- 2.12
90		Hexachlorobenzene #2	60.000	58.081	3.2	95	0.00	2.28- 2.34
91		alpha-BHC #2	30.000	29.884	0.4	96	0.00	2.38- 2.44
92		gamma-BHC (Lindane) #2	30.000	29.453	1.8	96	-0.01	2.58- 2.64
93		beta-BHC #2	30.000	30.108	-0.4	99	-0.01	2.63- 2.69
94		Heptachlor #2	30.000	28.899	3.7	95	0.00	2.88- 2.94
95		Chlorothalonil #2	60.000	61.190	-2.0	100	0.00	3.14- 3.20
96		delta-BHC #2	30.000	30.051	-0.2	98	0.00	2.74- 2.80
97		Aldrin #2	30.000	29.244	2.5	96	-0.01	3.11- 3.17
98		Dacthal #2	60.000	57.532	4.1	95	0.00	3.52- 3.58
99		Heptachlor Epoxide #2	30.000	29.099	3.0	95	0.00	3.55- 3.61

Continuing Calibration Summary

Job Number: TC52863 **Sample:** GNN1465-CC1464
Account: RFWTXHO Weston Solutions **Lab FileID:** NN175816.D
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

100		gamma-Chlordane #2	30.000	28.908	3.6	96	-0.02	3.67- 3.73
101		alpha-Chlordane #2	30.000	28.813	4.0	96	0.00	3.76- 3.82
102		Endosulfan I #2	30.000	28.188	6.0	92	0.00	3.87- 3.93
103		4,4'-DDE #2	60.000	58.111	3.1	97	0.00	3.84- 3.90
104		Dieldrin #2	60.000	58.181	3.0	95	-0.02	4.08- 4.14
105		Endrin #2	60.000	58.102	3.2	95	-0.02	4.26- 4.32
106		4,4'-DDD #2	60.000	58.986	1.7	97	-0.02	4.34- 4.40
107		Endosulfan II #2	60.000	58.165	3.1	96	-0.02	4.43- 4.49
108		4,4'-DDT #2	60.000	56.653	5.6	92	-0.02	4.55- 4.61
109		Endrin Aldehyde #2	60.000	56.441	5.9	94	0.00	4.73- 4.79
110		Endosulfan Sulfate #2	60.000	57.951	3.4	96	-0.02	5.06- 5.12
111		Methoxychlor #2	300.000	281.731	6.1	93	-0.02	4.93- 4.99
112		Endrin Ketone #2	60.000	57.819	3.6	95	-0.02	5.25- 5.31
113	L1	Chlordane-A #2		----------NA----------				
114	L1	Chlordane-B #2		----------NA----------				
115	L1	Chlordane-C #2		----------NA----------				
116	L1	Chlordane-D #2		----------NA----------				
117	L1	Chlordane-E #2		----------NA----------				
118	L1	Chlordane-F #2		----------NA----------				
119	H	Toxaphene #2		----------NA----------				
120		Mirex #2		----------NA----------				
121		Dicofol #2		----------NA----------				
122	L1	AR1016-A #2		----------NA----------				
123	L1	AR1016-B #2		----------NA----------				
124	L1	AR1016-C #2		----------NA----------				
125	L1	AR1016-D #2		----------NA----------				
126	L1	AR1016-E #2		----------NA----------				
127	L1	AR1016-F #2		----------NA----------				
128	L2	AR1221-A #2		----------NA----------				
129	L2	AR1221-B #2		----------NA----------				
130	L2	AR1221-C #2		----------NA----------				
131	L2	AR1221-D #2		----------NA----------				
132	L2	AR1221-E #2		----------NA----------				
133	L3	AR1232-A #2		----------NA----------				
134	L3	AR1232-B #2		----------NA----------				
135	L3	AR1232-C #2		----------NA----------				
136	L3	AR1232-D #2		----------NA----------				
137	L3	AR1232-E #2		----------NA----------				
138	L3	AR1232-F #2		----------NA----------				
139	L4	AR1242-A #2		----------NA----------				
140	L4	AR1242-B #2		----------NA----------				
141	L4	AR1242-C #2		----------NA----------				
142	L4	AR1242-D #2		----------NA----------				
143	L4	AR1242-E #2		----------NA----------				
144	L4	AR1242-F #2		----------NA----------				
145	L5	AR1248-A #2		----------NA----------				
146	L5	AR1248-B #2		----------NA----------				
147	L5	AR1248-C #2		----------NA----------				
148	L5	AR1248-D #2		----------NA----------				
149	L5	AR1248-E #2		----------NA----------				
150	L5	AR1248-F #2		----------NA----------				
151	L6	AR1254-A #2		----------NA----------				
152	L6	AR1254-B #2		----------NA----------				
153	L6	AR1254-C #2		----------NA----------				
154	L6	AR1254-D #2		----------NA----------				
155	L6	AR1254-E #2		----------NA----------				
156	L6	AR1254-F #2		----------NA----------				
157	L7	AR1260-A #2		----------NA----------				
158	L7	AR1260-B #2		----------NA----------				
159	L7	AR1260-C #2		----------NA----------				

Continuing Calibration Summary

Job Number: TC52863
Account: RFWTXHO Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Sample: GNN1465-CC1464
Lab FileID: NN175816.D

```
160 L7  AR1260-D #2                          ----------NA----------
161 L7  AR1260-E #2                          ----------NA----------
162 L7  AR1260-F #2                          ----------NA----------
163 L8  AR1262-A #2                          ----------NA----------
164 L8  AR1262-B #2                          ----------NA----------
165 L8  AR1262-C #2                          ----------NA----------
166 L8  AR1262-D #2                          ----------NA----------
167 L8  AR1262-E #2                          ----------NA----------
168 L8  AR1262-F #2                          ----------NA----------
169 L9  AR1268-A #2                          ----------NA----------
170 L9  AR1268-B #2                          ----------NA----------
171 L9  AR1268-C #2                          ----------NA----------
172 L9  AR1268-D #2                          ----------NA----------
173 L9  AR1268-E #2                          ----------NA----------
174 L9  AR1268-F #2                          ----------NA----------
175 S   Decachlorobiphenyl #2   60.000  57.564      4.1  100  -0.02    5.95- 6.01
 ---------------------------------------------------------------------------
 ---------------------------------------------------------------------------

    (#) = Out of Range               SPCC's out = 0  CCC's out = 0
     NN175761.D 608Q1464.M       Wed Aug 20 16:57:40 2014
```

8.9.38

8

Gulf Coast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
Analyst: SM Run ID: MA10019
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Mg,Mn,Ni,K,Se,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:02	MA10019-STD1	1		STDA
11:08	MA10019-STD2	1		STDB
11:15	MA10019-STD3	1		STDC
11:21	MA10019-ICV1	1		
11:34	MA10019-ICB1	1		
11:41	MA10019-CRI1	1		
11:48	ZZZZZZ	1		
11:54	MA10019-ICSA1	1		
12:01	MA10019-ICSAB1	1		
12:08	MA10019-CCV1	1		
12:14	MA10019-CCB1	1		
12:21	ZZZZZZ	1		
12:28	ZZZZZZ	1		
12:35	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:48	ZZZZZZ	1		
12:54	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:14	MA10019-CCV2	1		
13:21	MA10019-CCB2	1		
13:28	ZZZZZZ	1		
13:34	ZZZZZZ	1		
13:41	ZZZZZZ	5		
13:47	MA10019-CCV3	1		
13:54	MA10019-CCB3	1		
14:00	ZZZZZZ	1		
14:07	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:20	ZZZZZZ	5		
14:27	ZZZZZZ	1		
14:33	ZZZZZZ	1		
14:40	ZZZZZZ	5		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
Analyst: SM Run ID: MA10019
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Mg,Mn,Ni,K,Se,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:46	ZZZZZZ	25		
14:53	ZZZZZZ	5		
14:59	ZZZZZZ	5		
15:06	MA10019-CCV4	1		
15:12	MA10019-CCB4	1		
15:19	ZZZZZZ	1		
15:25	ZZZZZZ	5		
15:32	ZZZZZZ	1		
15:39	ZZZZZZ	5		
15:45	ZZZZZZ	1		
15:52	ZZZZZZ	5		
15:58	ZZZZZZ	1		
16:05	ZZZZZZ	5		
16:11	ZZZZZZ	1		
16:18	ZZZZZZ	5		
16:24	MA10019-CCV5	1		
16:31	MA10019-CCB5	1		
16:37	ZZZZZZ	1		
16:44	ZZZZZZ	5		
16:51	ZZZZZZ	1		
16:57	ZZZZZZ	5		
17:04	ZZZZZZ	1		
17:10	ZZZZZZ	5		
17:17	MA10019-CCV6	1		
17:23	MA10019-CCB6	1		
17:30	ZZZZZZ	1		
17:37	ZZZZZZ	1		
17:43	ZZZZZZ	1		
17:49	ZZZZZZ	1		
17:56	ZZZZZZ	1		
18:02	ZZZZZZ	1		
18:09	MA10019-CCV7	1		
18:15	MA10019-CCB7	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
Analyst: SM Run ID: MA10019
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Mg,Mn,Ni,K,Se,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
18:22	MA10019-CRI2	1		
18:29	ZZZZZZ	1		
18:35	MA10019-ICSA2	1		
18:42	MA10019-ICSAB2	1		AG HH, RERUN AG
18:49	MA10019-CCV8	1		
18:55	MA10019-CCB8	1		
19:02	MP23973-MB1	1		
19:09	MP23973-B1	1		
19:15	TC52768-1	1		(sample used for QC only; not part of login TC52863)
19:22	MP23973-SD1	5		
19:28	MP23973-S1	1		
19:35	MP23973-S2	1		
19:41	ZZZZZZ	5		
19:48	ZZZZZZ	10		
19:55	ZZZZZZ	5		
20:02	ZZZZZZ	10		
20:08	MA10019-CCV9	1		
20:15	MA10019-CCB9	1		
20:21	ZZZZZZ	5		
20:28	ZZZZZZ	10		
20:35	ZZZZZZ	5		
20:42	ZZZZZZ	10		
20:48	ZZZZZZ	1		
20:55	ZZZZZZ	5		
21:01	MA10019-CCV10	1		
21:08	MA10019-CCB10	1		
21:15	MP23977-MB1	1		
21:21	MP23977-B1	1		
21:28	TC52835-1	1		(sample used for QC only; not part of login TC52863)
21:34	MP23977-SD1	5		
21:41	MP23977-S1	1		
21:48	MP23977-S2	1		
21:54	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
Analyst: SM Run ID: MA10019
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Mg,Mn,Ni,K,Se,Na,V,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
22:01	TC52863-1	5		
22:08	TC52863-1	10		NOT REPORTED.
22:14	MA10019-CCV11	1		
22:21	MA10019-CCB11	1		
22:27	TC52863-2	5		
22:34	TC52863-2	10		NOT REPORTED.
---------->	Last reportable sample/prep for job TC52863			
22:40	MA10019-CCV12	1		
22:47	MA10019-CCB12	1		
22:53	ZZZZZZ	1		
23:00	MA10019-CRI3	1		
23:07	MA10019-ICSA3	1		
23:14	MA10019-ICSAB3	1		AG HH, RERUN AG.
23:20	MA10019-CCV13	1		
23:27	MA10019-CCB13	1		
---------->	Last reportable CCB for job TC52863			

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
Analyst: SM Run ID: MA10019
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Mg,Mn,Ni,K,Se,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
11:02	MA10019-STD1	1144 R	53447 R	5018 R	278 R
11:08	MA10019-STD2	1153	53560	4964	288
11:15	MA10019-STD3	1142	54164	4912	284
11:21	MA10019-ICV1	1157	53178	5019	283
11:34	MA10019-ICB1	1155	53112	5043	279
11:41	MA10019-CRI1	1162	52942	4997	287
11:48	ZZZZZZ	1167	53356	5022	286
11:54	MA10019-ICSA1	1094	51443	4713	285
12:01	MA10019-ICSAB1	1099	51454	4723	284
12:08	MA10019-CCV1	1179	53952	4958	295
12:14	MA10019-CCB1	1177	53204	5040	283
12:21	ZZZZZZ	1098	50274	4822	313
12:28	ZZZZZZ	1197	55054	4677	304
12:35	ZZZZZZ	1195	53848	4959	272
12:41	ZZZZZZ	1168	52975	4997	243
12:48	ZZZZZZ	1174	52906	4999	284
12:54	ZZZZZZ	1183	53078	5007	278
13:01	ZZZZZZ	1117	53315	4972	285
13:08	ZZZZZZ	1183	53247	4982	287
13:14	MA10019-CCV2	1182	53869	4891	294
13:21	MA10019-CCB2	1190	53334	4968	285
13:28	ZZZZZZ	1160	51933	4907	281
13:34	ZZZZZZ	1334	61134	5620	278
13:41	ZZZZZZ	1174	53948	4984	299
13:47	MA10019-CCV3	1193	53569	4873	296
13:54	MA10019-CCB3	1195	53351	4956	286
14:00	ZZZZZZ	1152	51872	4906	282
14:07	ZZZZZZ	1307	59464	5504	281
14:14	ZZZZZZ	1296	61100	5512	294
14:20	ZZZZZZ	1176	54362	5100	295
14:27	ZZZZZZ	1275	61039	5478	286
14:33	ZZZZZZ	1282	60782	5427	289
14:40	ZZZZZZ	1169	54011	5050	294

INTERNAL STANDARD SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
Analyst: SM Run ID: MA10019
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Mg,Mn,Ni,K,Se,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:46	ZZZZZZ	1164	52779	4951	290
14:53	ZZZZZZ	1169	53794	5040	294
14:59	ZZZZZZ	1159	53647	5037	294
15:06	MA10019-CCV4	1175	53388	4857	293
15:12	MA10019-CCB4	1173	52666	4932	283
15:19	ZZZZZZ	1178	55600	4959	284
15:25	ZZZZZZ	1154	53530	4881	292
15:32	ZZZZZZ	1265	59169	5561	283
15:39	ZZZZZZ	1174	53289	5097	290
15:45	ZZZZZZ	1229	57038	5366	283
15:52	ZZZZZZ	1166	53221	5061	289
15:58	ZZZZZZ	1346	62541	5926	282
16:05	ZZZZZZ	1174	53989	5182	288
16:11	ZZZZZZ	1278	59772	5640	282
16:18	ZZZZZZ	1163	53402	5113	289
16:24	MA10019-CCV5	1171	53121	4864	292
16:31	MA10019-CCB5	1177	52509	4911	282
16:37	ZZZZZZ	1237	57715	5414	278
16:44	ZZZZZZ	1169	52688	5005	290
16:51	ZZZZZZ	1281	58704	5563	278
16:57	ZZZZZZ	1171	53422	5095	288
17:04	ZZZZZZ	1248	58226	5511	279
17:10	ZZZZZZ	1163	52654	5054	290
17:17	MA10019-CCV6	1164	52899	4851	290
17:23	MA10019-CCB6	1156	52729	4921	281
17:30	ZZZZZZ	1123	50894	4876	276
17:37	ZZZZZZ	1306	59292	5473	276
17:43	ZZZZZZ	1248	56364	5231	272
17:49	ZZZZZZ	1213	55862	5178	269
17:56	ZZZZZZ	1202	54857	5068	282
18:02	ZZZZZZ	1188	54417	5057	277
18:09	MA10019-CCV7	1163	52958	4852	292
18:15	MA10019-CCB7	1154	52168	4929	280

INTERNAL STANDARD SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
Analyst: SM Run ID: MA10019
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Mg,Mn,Ni,K,Se,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
18:22	MA10019-CRI2	1170	52791	4872	286
18:29	ZZZZZZ	1171	52847	4900	287
18:35	MA10019-ICSA2	1089	50273	4575	285
18:42	MA10019-ICSAB2	1092	50325	4544	282
18:49	MA10019-CCV8	1162	52902	4821	289
18:55	MA10019-CCB8	1170	51784	4864	283
19:02	MP23973-MB1	1152	52229	4996	277
19:09	MP23973-B1	1157	53135	4879	295
19:15	TC52768-1	1192	54264	4865	302
19:22	MP23973-SD1	1152	52443	4821	288
19:28	MP23973-S1	1145	52628	4789	299
19:35	MP23973-S2	1140	52624	4745	298
19:41	ZZZZZZ	1324	57859	4484	341
19:48	ZZZZZZ	1304	57211	4572	334
19:55	ZZZZZZ	1367	59109	4339	345
20:02	ZZZZZZ	1334	58229	4472	342
20:08	MA10019-CCV9	1174	52810	4666	290
20:15	MA10019-CCB9	1176	52529	4810	279
20:21	ZZZZZZ	1355	59063	4462	346
20:28	ZZZZZZ	1329	57763	4540	338
20:35	ZZZZZZ	1172	52798	4812	285
20:42	ZZZZZZ	1166	52038	4786	283
20:48	ZZZZZZ	1182	53679	4779	293
20:55	ZZZZZZ	1172	52282	4767	287
21:01	MA10019-CCV10	1155	52236	4656	287
21:08	MA10019-CCB10	1163	52015	4765	279
21:15	MP23977-MB1	1134	51360	4770	277
21:21	MP23977-B1	1151	52317	4675	292
21:28	TC52835-1	1214	54856	4657	311
21:34	MP23977-SD1	1196	53182	4708	298
21:41	MP23977-S1	1185	53727	4611	309
21:48	MP23977-S2	1183	53770	4627	309
21:54	ZZZZZZ	1196	55225	4145	314

INTERNAL STANDARD SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
Analyst: SM Run ID: MA10019
Parameters: Al,Sb,As,Ba,Be,Cd,Ca,Cr,Co,Cu,Fe,Mg,Mn,Ni,K,Se,Na,V,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
22:01	TC52863-1	1152	52075	4789	281
22:08	TC52863-1	1140	52188	4839	280
22:14	MA10019-CCV11	1152	52647	4717	289
22:21	MA10019-CCB11	1155	52176	4772	280
22:27	TC52863-2	1183	54151	4597	290
22:34	TC52863-2	1168	53457	4662	288
22:40	MA10019-CCV12	1161	52621	4724	291
22:47	MA10019-CCB12	1167	52593	4808	283
22:53	ZZZZZZ	1169	52829	4765	286
23:00	MA10019-CRI3	1184	52897	4767	289
23:07	MA10019-ICSA3	1091	50488	4470	284
23:14	MA10019-ICSAB3	1094	50582	4456	281
23:20	MA10019-CCV13	1165	52773	4668	290
23:27	MA10019-CCB13	1175	52162	4760	284

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3710)	60-125 %
Istd#3	Yttrium (3710-2)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL Run ID: MA10019 Units: ug/l

Time:			11:34		12:14		13:21		13:54	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	8.3	9.9	<200	8.0	<200	5.2	<200	5.1	<200
Antimony	5.0	1	0.010	<5.0	1.0	<5.0	-0.48	<5.0	0.77	<5.0
Arsenic	5.0	1.7	1.0	<5.0	0.070	<5.0	-0.74	<5.0	-0.77	<5.0
Barium	200	.97	0.74	<200	-0.040	<200	-0.010	<200	-0.050	<200
Beryllium	4.0	.056	0.78	<4.0	0.050	<4.0	0.070	<4.0	0.11	<4.0
Boron	100	1.4								
Cadmium	4.0	.11	0.39	<4.0	0.070	<4.0	0.11	<4.0	0.19	<4.0
Calcium	5000	7.4	8.0	<5000	1.0	<5000	-0.29	<5000	0.23	<5000
Chromium	10	.23	0.96	<10	0.050	<10	-0.020	<10	-0.27	<10
Cobalt	50	.15	0.70	<50	0.26	<50	0.19	<50	0.34	<50
Copper	20	1.1	0.62	<20	-0.070	<20	-0.41	<20	-0.19	<20
Iron	100	1.1	8.3	<100	4.2	<100	1.2	<100	4.1	<100
Lead	3.0	1								
Lithium	300	2								
Magnesium	5000	7.7	14.4	<5000	27.9	<5000	0.020	<5000	-2.7	<5000
Manganese	15	.054	0.71	<15	0.060	<15	0.070	<15	0.11	<15
Molybdenum	10	.39								
Nickel	40	.69	1.6	<40	0.30	<40	0.94	<40	0.93	<40
Potassium	5000	39	-37	<5000	-50	<5000	-33	<5000	-59	<5000
Selenium	5.0	1.5	1.5	<5.0	-0.64	<5.0	0.20	<5.0	-0.17	<5.0
Sodium	5000	9.2	-16	<5000	-35	<5000	-41	<5000	-41	<5000
Strontium	10	.061								
Thallium	10	.67								
Tin	50	.69								
Titanium	20	.29								
Vanadium	50	.3	0.66	<50	-0.26	<50	0.23	<50	0.090	<50
Zinc	20	.51	0.60	<20	0.13	<20	0.030	<20	0.20	<20
Sulfur	50									

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL Run ID: MA10019 Units: ug/l

Time:			15:12		16:31		17:23		18:15	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	8.3	6.2	<200	8.8	<200	9.3	<200	3.0	<200
Antimony	5.0	1	0.40	<5.0	1.6	<5.0	2.8	<5.0	1.2	<5.0
Arsenic	5.0	1.7	1.4	<5.0	-0.16	<5.0	0.34	<5.0	-0.60	<5.0
Barium	200	.97	-0.030	<200	-0.050	<200	0.11	<200	-0.15	<200
Beryllium	4.0	.056	0.040	<4.0	0.34	<4.0	0.35	<4.0	0.010	<4.0
Boron	100	1.4								
Cadmium	4.0	.11	0.12	<4.0	0.56	<4.0	0.020	<4.0	0.32	<4.0
Calcium	5000	7.4	-0.37	<5000	7.0	<5000	10.4	<5000	3.0	<5000
Chromium	10	.23	-0.030	<10	0.28	<10	-0.32	<10	-0.050	<10
Cobalt	50	.15	0.24	<50	0.28	<50	0.42	<50	0.16	<50
Copper	20	1.1	0.39	<20	0.68	<20	0.97	<20	0.98	<20
Iron	100	1.1	3.2	<100	7.2	<100	10.1	<100	5.8	<100
Lead	3.0	1								
Lithium	300	2								
Magnesium	5000	7.7	-2.3	<5000	-15	<5000	-0.65	<5000	-1.1	<5000
Manganese	15	.054	0.040	<15	0.42	<15	0.43	<15	0.070	<15
Molybdenum	10	.39								
Nickel	40	.69	0.68	<40	-0.010	<40	0.82	<40	0.58	<40
Potassium	5000	39	-11	<5000	-22	<5000	-29	<5000	-6.0	<5000
Selenium	5.0	1.5	0.61	<5.0	0.16	<5.0	0.88	<5.0	0.80	<5.0
Sodium	5000	9.2	-33	<5000	-44	<5000	-46	<5000	-52	<5000
Strontium	10	.061								
Thallium	10	.67								
Tin	50	.69								
Titanium	20	.29								
Vanadium	50	.3	-0.17	<50	-0.030	<50	0.050	<50	-0.040	<50
Zinc	20	.51	0.27	<20	0.62	<20	0.39	<20	0.23	<20
Sulfur	50									

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL Run ID: MA10019 Units: ug/l

Time:			18:55		20:15		21:08		22:21	
Sample ID:			CCB8		CCB9		CCB10		CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	8.3	4.2	<200	1.9	<200	6.0	<200	3.0	<200
Antimony	5.0	1	2.0	<5.0	0.89	<5.0	0.41	<5.0	1.7	<5.0
Arsenic	5.0	1.7	0.63	<5.0	0.40	<5.0	-1.0	<5.0	-0.65	<5.0
Barium	200	.97	-0.12	<200	-0.050	<200	-0.030	<200	0.040	<200
Beryllium	4.0	.056	0.0	<4.0	0.070	<4.0	0.0	<4.0	-0.030	<4.0
Boron	100	1.4								
Cadmium	4.0	.11	-0.050	<4.0	-0.040	<4.0	-0.060	<4.0	0.090	<4.0
Calcium	5000	7.4	1.4	<5000	3.1	<5000	1.7	<5000	4.4	<5000
Chromium	10	.23	0.040	<10	-0.13	<10	-0.45	<10	0.12	<10
Cobalt	50	.15	0.050	<50	-0.020	<50	-0.43	<50	0.36	<50
Copper	20	1.1	1.3	<20	-0.21	<20	0.34	<20	-0.14	<20
Iron	100	1.1	3.9	<100	2.1	<100	2.5	<100	5.3	<100
Lead	3.0	1								
Lithium	300	2								
Magnesium	5000	7.7	19.1	<5000	-9.3	<5000	-11	<5000	-4.1	<5000
Manganese	15	.054	0.0	<15	-0.020	<15	0.010	<15	0.020	<15
Molybdenum	10	.39								
Nickel	40	.69	0.92	<40	0.30	<40	0.94	<40	0.43	<40
Potassium	5000	39	-25	<5000	-20	<5000	-38	<5000	-38	<5000
Selenium	5.0	1.5	1.0	<5.0	1.3	<5.0	-0.86	<5.0	-0.54	<5.0
Sodium	5000	9.2	-51	<5000	235	<5000	48.2	<5000	65.7	<5000
Strontium	10	.061								
Thallium	10	.67								
Tin	50	.69								
Titanium	20	.29								
Vanadium	50	.3	-0.080	<50	-0.040	<50	-0.10	<50	-0.47	<50
Zinc	20	.51	0.11	<20	0.10	<20	0.030	<20	0.090	<20
Sulfur	50									

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL Run ID: MA10019 Units: ug/l

Time:			22:47		23:27	
Sample ID:			CCB12		CCB13	
Metal	RL	IDL	raw	final	raw	final
Aluminum	200	8.3	-1.0	<200	6.1	<200
Antimony	5.0	1	0.91	<5.0	2.3	<5.0
Arsenic	5.0	1.7	0.76	<5.0	-1.4	<5.0
Barium	200	.97	-0.060	<200	0.0	<200
Beryllium	4.0	.056	-0.030	<4.0	-0.030	<4.0
Boron	100	1.4				
Cadmium	4.0	.11	-0.080	<4.0	0.26	<4.0
Calcium	5000	7.4	6.1	<5000	2.9	<5000
Chromium	10	.23	-0.20	<10	0.050	<10
Cobalt	50	.15	-0.47	<50	-0.32	<50
Copper	20	1.1	-0.030	<20	0.090	<20
Iron	100	1.1	4.8	<100	6.0	<100
Lead	3.0	1				
Lithium	300	2				
Magnesium	5000	7.7	-1.1	<5000	1.8	<5000
Manganese	15	.054	0.080	<15	0.0	<15
Molybdenum	10	.39				
Nickel	40	.69	0.68	<40	0.85	<40
Potassium	5000	39	-42	<5000	-56	<5000
Selenium	5.0	1.5	0.87	<5.0	1.1	<5.0
Sodium	5000	9.2	26.5	<5000	1.3	<5000
Strontium	10	.061				
Thallium	10	.67				
Tin	50	.69				
Titanium	20	.29				
Vanadium	50	.3	-0.32	<50	-0.21	<50
Zinc	20	.51	0.020	<20	-0.010	<20
Sulfur	50					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA10019 Units: ug/l

Time:		11:21			12:08			13:14	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	5000	4920	98.4	40000	39500	98.8	40000	40000	100.0
Antimony	3000	2900	96.7	2000	1950	97.5	2000	1960	98.0
Arsenic	3000	2990	99.7	2000	1990	99.5	2000	2010	100.5
Barium	3000	3010	100.3	2000	1990	99.5	2000	1980	99.0
Beryllium	3000	3060	102.0	2000	2040	102.0	2000	2050	102.5
Boron									
Cadmium	3000	2860	95.3	2000	1950	97.5	2000	1960	98.0
Calcium	5000	5150	103.0	40000	40700	101.8	40000	41200	103.0
Chromium	3000	2980	99.3	2000	2030	101.5	2000	2050	102.5
Cobalt	3000	2920	97.3	2000	1960	98.0	2000	1970	98.5
Copper	3000	2830	94.3	2000	1950	97.5	2000	1960	98.0
Iron	5000	5060	101.2	40000	41100	102.8	40000	41500	103.8
Lead									
Lithium									
Magnesium	5000	4790	95.8	40000	40700	101.8	40000	41500	103.8
Manganese	3000	2960	98.7	2000	2030	101.5	2000	2060	103.0
Molybdenum									
Nickel	3000	2970	99.0	2000	1950	97.5	2000	1980	99.0
Potassium	5000	4710	94.2	40000	39300	98.3	40000	39600	99.0
Selenium	3000	2970	99.0	2000	1970	98.5	2000	1970	98.5
Sodium	5000	4850	97.0	40000	39400	98.5	40000	39600	99.0
Strontium									
Thallium									
Tin									
Titanium									
Vanadium	3000	2940	98.0	2000	2020	101.0	2000	2050	102.5
Zinc	3000	2970	99.0	2000	1990	99.5	2000	2000	100.0
Sulfur									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA10019 Units: ug/l

Time:		13:47			15:06			16:24	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40000	100.0	40000	40200	100.5	40000	39400	98.5
Antimony	2000	1940	97.0	2000	1980	99.0	2000	1980	99.0
Arsenic	2000	1990	99.5	2000	2030	101.5	2000	2060	103.0
Barium	2000	1990	99.5	2000	1990	99.5	2000	1980	99.0
Beryllium	2000	2060	103.0	2000	2080	104.0	2000	2060	103.0
Boron									
Cadmium	2000	1950	97.5	2000	1970	98.5	2000	1980	99.0
Calcium	40000	41200	103.0	40000	41100	102.8	40000	41500	103.8
Chromium	2000	2060	103.0	2000	2050	102.5	2000	2070	103.5
Cobalt	2000	1950	97.5	2000	1970	98.5	2000	1990	99.5
Copper	2000	1970	98.5	2000	1980	99.0	2000	2000	100.0
Iron	40000	41700	104.3	40000	42200	105.5	40000	41800	104.5
Lead									
Lithium									
Magnesium	40000	41600	104.0	40000	41700	104.3	40000	41600	104.0
Manganese	2000	2050	102.5	2000	2040	102.0	2000	2090	104.5
Molybdenum									
Nickel	2000	1960	98.0	2000	1980	99.0	2000	2000	100.0
Potassium	40000	39500	98.8	40000	39300	98.3	40000	39200	98.0
Selenium	2000	1960	98.0	2000	2010	100.5	2000	2010	100.5
Sodium	40000	39700	99.3	40000	39400	98.5	40000	39100	97.8
Strontium									
Thallium									
Tin									
Titanium									
Vanadium	2000	2060	103.0	2000	2050	102.5	2000	2080	104.0
Zinc	2000	1980	99.0	2000	2000	100.0	2000	2020	101.0
Sulfur									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA10019 Units: ug/l

Time:		17:17			18:09			18:49	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40300	100.8	40000	40500	101.3	40000	39600	99.0
Antimony	2000	2000	100.0	2000	2020	101.0	2000	2000	100.0
Arsenic	2000	2050	102.5	2000	2050	102.5	2000	2040	102.0
Barium	2000	2010	100.5	2000	2020	101.0	2000	2010	100.5
Beryllium	2000	2090	104.5	2000	2090	104.5	2000	2100	105.0
Boron									
Cadmium	2000	1980	99.0	2000	1990	99.5	2000	1980	99.0
Calcium	40000	41400	103.5	40000	41300	103.3	40000	41400	103.5
Chromium	2000	2080	104.0	2000	2080	104.0	2000	2070	103.5
Cobalt	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Copper	2000	2000	100.0	2000	2010	100.5	2000	2000	100.0
Iron	40000	42500	106.3	40000	42800	107.0	40000	42100	105.3
Lead									
Lithium									
Magnesium	40000	41900	104.8	40000	41900	104.8	40000	41700	104.3
Manganese	2000	2070	103.5	2000	2050	102.5	2000	2070	103.5
Molybdenum									
Nickel	2000	2000	100.0	2000	2000	100.0	2000	1990	99.5
Potassium	40000	38900	97.3	40000	38900	97.3	40000	38900	97.3
Selenium	2000	2030	101.5	2000	2060	103.0	2000	2030	101.5
Sodium	40000	39200	98.0	40000	39200	98.0	40000	39000	97.5
Strontium									
Thallium									
Tin									
Titanium									
Vanadium	2000	2080	104.0	2000	2070	103.5	2000	2070	103.5
Zinc	2000	2020	101.0	2000	2020	101.0	2000	2010	100.5
Sulfur									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA10019 Units: ug/l

Time:		20:08			21:01			22:14	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40100	100.3	40000	40800	102.0	40000	40800	102.0
Antimony	2000	1960	98.0	2000	2010	100.5	2000	2040	102.0
Arsenic	2000	2020	101.0	2000	2030	101.5	2000	2050	102.5
Barium	2000	2010	100.5	2000	2040	102.0	2000	2060	103.0
Beryllium	2000	2120	106.0	2000	2150	107.5	2000	2150	107.5
Boron									
Cadmium	2000	1980	99.0	2000	2020	101.0	2000	2030	101.5
Calcium	40000	42300	105.8	40000	42500	106.3	40000	42200	105.5
Chromium	2000	2090	104.5	2000	2110	105.5	2000	2120	106.0
Cobalt	2000	2000	100.0	2000	2030	101.5	2000	2040	102.0
Copper	2000	1990	99.5	2000	2010	100.5	2000	2010	100.5
Iron	40000	42900	107.3	40000	43300	108.3	40000	43200	108.0
Lead									
Lithium									
Magnesium	40000	42500	106.3	40000	42600	106.5	40000	42200	105.5
Manganese	2000	2090	104.5	2000	2080	104.0	2000	2070	103.5
Molybdenum									
Nickel	2000	2020	101.0	2000	2030	101.5	2000	2030	101.5
Potassium	40000	38800	97.0	40000	39000	97.5	40000	38800	97.0
Selenium	2000	1970	98.5	2000	2030	101.5	2000	2070	103.5
Sodium	40000	38500	96.3	40000	39200	98.0	40000	39100	97.8
Strontium									
Thallium									
Tin									
Titanium									
Vanadium	2000	2080	104.0	2000	2080	104.0	2000	2070	103.5
Zinc	2000	2010	100.5	2000	2040	102.0	2000	2050	102.5
Sulfur									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA10019 Units: ug/l

Time:		22:40			23:20	
Sample ID:	CCV	CCV12		CCV	CCV13	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum	40000	40600	101.5	40000	40700	101.8
Antimony	2000	2040	102.0	2000	2010	100.5
Arsenic	2000	2030	101.5	2000	2010	100.5
Barium	2000	2060	103.0	2000	2040	102.0
Beryllium	2000	2150	107.5	2000	2150	107.5
Boron						
Cadmium	2000	2020	101.0	2000	2010	100.5
Calcium	40000	42200	105.5	40000	42200	105.5
Chromium	2000	2130	106.5	2000	2110	105.5
Cobalt	2000	2030	101.5	2000	2030	101.5
Copper	2000	2020	101.0	2000	2000	100.0
Iron	40000	43100	107.8	40000	43200	108.0
Lead						
Lithium						
Magnesium	40000	42400	106.0	40000	42300	105.8
Manganese	2000	2070	103.5	2000	2060	103.0
Molybdenum						
Nickel	2000	2030	101.5	2000	2020	101.0
Potassium	40000	38800	97.0	40000	38400	96.0
Selenium	2000	2070	103.5	2000	2020	101.0
Sodium	40000	39100	97.8	40000	38800	97.0
Strontium						
Thallium						
Tin						
Titanium						
Vanadium	2000	2080	104.0	2000	2060	103.0
Zinc	2000	2040	102.0	2000	2030	101.5
Sulfur						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 50 to 150 % Recovery Run ID: MA10019 Units: ug/l

Time:			11:41		18:22		23:00	
Sample ID:	CRI	CRIA	CRI1		CRI2		CRI3	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	200	400	216	108.0	206	103.0	215	107.5
Antimony	5.0	10	3.1	62.0	4.2	84.0	3.7	74.0
Arsenic	5.0	10	5.1	102.0	4.0	80.0	5.1	102.0
Barium	200	400	200	100.0	201	100.5	206	103.0
Beryllium	4.0	4.0	4.3	107.5	4.3	107.5	4.4	110.0
Boron	100	200						
Cadmium	4.0	4.0	4.1	102.5	4.0	100.0	3.8	95.0
Calcium	5000	10000	5190	103.8	5310	106.2	5480	109.6
Chromium	10	10	10.2	102.0	10.4	104.0	10.4	104.0
Cobalt	50	10	47.7	95.4	47.5	95.0	48.9	97.8
Copper	20	20	18.1	90.5	19.4	97.0	18.8	94.0
Iron	100	200	106	106.0	116	116.0	111	111.0
Lead	3.0	6.0						
Lithium	300	600						
Magnesium	5000	10000	5140	102.8	5310	106.2	5410	108.2
Manganese	15	30	15.4	102.7	15.8	105.3	15.8	105.3
Molybdenum	10	20						
Nickel	40	20	39.1	97.8	39.6	99.0	39.5	98.8
Potassium	5000	10000	4730	94.6	4710	94.2	4710	94.2
Selenium	5.0	10	6.4	128.0	6.4	128.0	7.1	142.0
Sodium	5000	10000	4840	96.8	4770	95.4	4830	96.6
Strontium	20	20						
Thallium	10	4.0						
Tin	20	20						
Titanium	20	20						
Vanadium	50	100	49.4	98.8	51.2	102.4	51.3	102.6
Zinc	20	10	24.3	121.5	22.5	112.5	21.4	107.0
Sulfur	50	50						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA10019 Units: ug/l

Time:			11:54		12:01		18:35		18:42	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	522000	104.4	525000	105.0	532000	106.4	523000	104.6
Antimony		1000	-0.090		1050	105.0	0.26		1060	106.0
Arsenic		1000	2.0		1020	102.0	3.0		1020	102.0
Barium		500	4.5		505	101.0	4.7		501	100.2
Beryllium		500	-0.030		513	102.6	-0.030		516	103.2
Boron			-3.1		-5.1		-6.4		-8.8	
Cadmium		1000	2.2		1080	108.0	2.1		1080	108.0
Calcium	500000	500000	479000	95.8	485000	97.0	497000	99.4	492000	98.4
Chromium		500	0.77		518	103.6	0.96		522	104.4
Cobalt		500	3.1		529	105.8	2.6		527	105.4
Copper		500	1.3		573	114.6	3.0		580	116.0
Iron	200000	200000	187000	93.5	188000	94.0	197000	98.5	195000	97.5
Lead		1000	1.5		1020	102.0	2.3		1010	101.0
Lithium			4.6		4.2		4.8		4.5	
Magnesium	500000	500000	524000	104.8	528000	105.6	548000	109.6	545000	109.0
Manganese		500	0.41		524	104.8	0.26		523	104.6
Molybdenum		500	-4.0		521	104.2	-5.1		522	104.4
Nickel		1000	-2.1		1010	101.0	-2.7		1010	101.0
Potassium			-12		-12		69.4		32.7	
Selenium		1000	-2.8		1030	103.0	-1.7		1040	104.0
Sodium			-42		-50		-85		-83	
Strontium			4.1		4.1		4.2		4.1	
Thallium		1000	0.0		1010	101.0	-5.2		1010	101.0
Tin			-7.2		-6.2		-8.6		-8.1	
Titanium			3.0		2.8		2.7		3.0	
Vanadium		500	-0.94		519	103.8	-1.1		530	106.0
Zinc		1000	3.2		1070	107.0	2.9		1070	107.0
Sulfur			31.4		22.3		26.3		18.1	

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SA080814.ICP Date Analyzed: 08/08/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA10019 Units: ug/l

Time:			23:07		23:14	
Sample ID:	ICSA	ICSAB	ICSA3		ICSAB3	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	533000	106.6	531000	106.2
Antimony		1000	0.66		1090	109.0
Arsenic		1000	1.7		1030	103.0
Barium		500	4.8		517	103.4
Beryllium		500	-0.060		536	107.2
Boron			-2.6		-5.5	
Cadmium		1000	2.1		1120	112.0
Calcium	500000	500000	507000	101.4	501000	100.2
Chromium		500	0.97		536	107.2
Cobalt		500	2.2		548	109.6
Copper		500	2.0		584	116.8
Iron	200000	200000	197000	98.5	197000	98.5
Lead		1000	-1.7		1070	107.0
Lithium			4.9		4.7	
Magnesium	500000	500000	547000	109.4	545000	109.0
Manganese		500	0.75		533	106.6
Molybdenum		500	-3.9		545	109.0
Nickel		1000	-1.8		1050	105.0
Potassium			18.4		-4.1	
Selenium		1000	-1.7		1060	106.0
Sodium			91.1		55.8	
Strontium			4.0		3.9	
Thallium		1000	-1.4		1070	107.0
Tin			-8.7		-9.1	
Titanium			2.7		2.7	
Vanadium		500	-1.0		530	106.0
Zinc		1000	2.5		1090	109.0
Sulfur			34.8		19.5	

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
Analyst: NS Run ID: MA10020
Parameters: Pb,Ag,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:37	MA10020-STD1	1		STDA
10:44	MA10020-STD2	1		STDB
10:51	MA10020-STD3	1		STDC
10:58	MA10020-ICV1	1		
11:04	MA10020-ICB1	1		
11:11	MA10020-CRI1	1		
11:18	ZZZZZZ	1		
11:24	MA10020-ICSA1	1		
11:31	MA10020-ICSAB1	1		
11:38	MA10020-CCV1	1		
11:44	MA10020-CCB1	1		
11:51	ZZZZZZ	1		
11:58	ZZZZZZ	1		
12:05	ZZZZZZ	1		
12:12	ZZZZZZ	1		
12:18	ZZZZZZ	1		
12:25	ZZZZZZ	1		
12:32	ZZZZZZ	1		
12:38	ZZZZZZ	1		
12:45	MA10020-CCV2	1		
12:51	MA10020-CCB2	1		
12:58	MP23977-MB1	1		
13:05	MP23977-B1	1		
13:11	TC52835-1	1		(sample used for QC only; not part of login TC52863)
13:18	MP23977-SD1	5		
13:25	MP23977-S1	1		
13:31	MP23977-S2	1		
13:38	TC52863-1	5		
13:44	TC52863-2	5		
---------->	Last reportable sample/prep for job TC52863			
13:51	MA10020-CCV3	1		
13:57	MA10020-CCB3	1		
14:04	MP23973-MB1	1		
14:11	MP23973-B1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
Analyst: NS Run ID: MA10020
Parameters: Pb,Ag,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:17	TC52768-1	1		(sample used for QC only; not part of login TC52863)
14:24	MP23973-SD1	5		
14:31	MP23973-S1	1		
14:37	MP23973-S2	1		
14:44	ZZZZZZ	5		
14:51	ZZZZZZ	5		
14:57	ZZZZZZ	1		
15:04	MA10020-CCV4	1		
15:11	MA10020-CCB4	1		
15:17	MP23978-MB1	1		
15:24	MP23978-MB2	1		
15:31	MP23978-B1	1		
15:37	TC52843-1	1		(sample used for QC only; not part of login TC52863)
15:44	MP23978-SD1	5		
15:51	MP23978-S1	1		
15:57	MP23978-S2	1		
16:04	ZZZZZZ	1		
16:11	ZZZZZZ	1		
16:17	ZZZZZZ	1		
16:24	MA10020-CCV5	1		
16:31	MA10020-CCB5	1		
16:37	ZZZZZZ	1		
16:44	ZZZZZZ	1		
16:51	ZZZZZZ	1		
16:58	ZZZZZZ	1		
17:04	ZZZZZZ	1		
17:11	ZZZZZZ	1		
17:18	ZZZZZZ	1		
17:25	ZZZZZZ	1		
17:31	MA10020-CCV6	1		
17:38	MA10020-CCB6	1		
17:45	MA10020-CRI2	1		
17:51	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
Analyst: NS Run ID: MA10020
Parameters: Pb,Ag,Tl

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:58	MA10020-ICSA2	1		
18:05	MA10020-ICSAB2	1		
18:12	MA10020-CCV7	1		
18:18	MA10020-CCB7	1		

----------> Last reportable CCB for job TC52863
Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
Analyst: NS Run ID: MA10020
Parameters: Pb,Ag,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:37	MA10020-STD1	3495 R	180000 R	16790 R	788 R
10:44	MA10020-STD2	3313	169470	16721	699
10:51	MA10020-STD3	3107	160800	16351	647
10:58	MA10020-ICV1	3353	174700	17035	741
11:04	MA10020-ICB1	3464	180350	16995	791
11:11	MA10020-CRI1	3423	177470	17019	772
11:18	ZZZZZZ	3436	177580	16982	776
11:24	MA10020-ICSA1	2959	151480	15902	609
11:31	MA10020-ICSAB1	2943	151290	15923	609
11:38	MA10020-CCV1	3259	167620	16689	696
11:44	MA10020-CCB1	3453	179580	17001	795
11:51	ZZZZZZ	3359	161040	17172	669
11:58	ZZZZZZ	2929	150670	15852	608
12:05	ZZZZZZ	3296	170670	16820	812
12:12	ZZZZZZ	3419	180220	17183	739
12:18	ZZZZZZ	3465	180410	17166	804
12:25	ZZZZZZ	3428	178370	17093	783
12:32	ZZZZZZ	3449	179560	17078	796
12:38	ZZZZZZ	3473	180340	17141	802
12:45	MA10020-CCV2	3261	166720	16616	696
12:51	MA10020-CCB2	3430	178240	16934	792
12:58	MP23977-MB1	3415	179860	17214	792
13:05	MP23977-B1	3196	164840	16712	691
13:11	TC52835-1	3107	158370	16555	666
13:18	MP23977-SD1	3323	170220	16924	739
13:25	MP23977-S1	3052	156250	16433	634
13:31	MP23977-S2	3065	155950	16371	635
13:38	TC52863-1	3358	176680	17197	779
13:44	TC52863-2	3047	157490	16390	665
13:51	MA10020-CCV3	3245	166120	16629	691
13:57	MA10020-CCB3	3440	178390	16927	792
14:04	MP23973-MB1	3409	178440	17352	792
14:11	MP23973-B1	3176	165310	16935	687

INTERNAL STANDARD SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
Analyst: NS Run ID: MA10020
Parameters: Pb,Ag,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:17	TC52768-1	3140	162170	16886	676
14:24	MP23973-SD1	3232	170100	17124	738
14:31	MP23973-S1	3060	159030	16739	639
14:37	MP23973-S2	3029	158750	16893	636
14:44	ZZZZZZ	2801	133250	15761	538
14:51	ZZZZZZ	3090	156910	16681	658
14:57	ZZZZZZ	3166	167000	17194	714
15:04	MA10020-CCV4	3191	164690	16740	687
15:11	MA10020-CCB4	3377	177630	17030	785
15:17	MP23978-MB1	3372	177960	17227	783
15:24	MP23978-MB2	3369	178760	17355	786
15:31	MP23978-B1	3156	164900	16983	685
15:37	TC52843-1	3085	157550	16736	655
15:44	MP23978-SD1	3094	168940	17034	692
15:51	MP23978-S1	3065	153090	15728	622
15:57	MP23978-S2	3082	152510	15539	625
16:04	ZZZZZZ	2818	135130	14950	536
16:11	ZZZZZZ	3128	154120	15667	648
16:17	ZZZZZZ	3143	153310	15621	655
16:24	MA10020-CCV5	3274	162790	15712	686
16:31	MA10020-CCB5	3460	174570	15996	787
16:37	ZZZZZZ	3186	156560	15796	659
16:44	ZZZZZZ	2944	155030	15693	626
16:51	ZZZZZZ	2988	157040	17134	647
16:58	ZZZZZZ	2992	156980	17126	641
17:04	ZZZZZZ	2977	156500	17120	642
17:11	ZZZZZZ	2974	157010	17167	646
17:18	ZZZZZZ	2984	156720	17188	640
17:25	ZZZZZZ	3003	156200	16966	639
17:31	MA10020-CCV6	3084	163020	17000	673
17:38	MA10020-CCB6	3285	175380	17288	772
17:45	MA10020-CRI2	3253	173700	17352	759
17:51	ZZZZZZ	3269	174160	17319	758

INTERNAL STANDARD SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
Analyst: NS Run ID: MA10020
Parameters: Pb,Ag,Tl

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
17:58	MA10020-ICSA2	2827	147180	16102	589
18:05	MA10020-ICSAB2	2786	147020	16097	585
18:12	MA10020-CCV7	3124	164440	16944	678
18:18	MA10020-CCB7	3296	176290	17281	772

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	60-125 %
Istd#2	Yttrium (3710)	60-125 %
Istd#3	Yttrium (3710-2)	60-125 %
Istd#4	Indium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL Run ID: MA10020 Units: ug/l

Time:			11:04		11:44		12:51		13:57	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	6.9								
Antimony	5.0	.56	anr							
Arsenic	5.0	1	anr							
Barium	200	.16	anr							
Beryllium	4.0	.1	anr							
Boron	100	.39								
Cadmium	4.0	.15	anr							
Calcium	5000	4								
Chromium	10	.22	anr							
Cobalt	50	.25	anr							
Copper	20	.24	anr							
Iron	100	4.6								
Lead	3.0	.65	-0.030	<3.0	-0.060	<3.0	-0.93	<3.0	-0.38	<3.0
Lithium	300	.65								
Magnesium	5000	7.7								
Manganese	15	.09	anr							
Molybdenum	10	.62	anr							
Nickel	40	.22	anr							
Potassium	5000	7.6								
Selenium	5.0	1.2	anr							
Silver	10	.2	-0.33	<10	-0.090	<10	-0.10	<10	-0.15	<10
Sodium	5000	5.7								
Strontium	10	.07								
Thallium	10	.83	-0.12	<10	-1.3	<10	-1.1	<10	-2.9	<10
Tin	50	.67	anr							
Titanium	20	.19	anr							
Vanadium	50	.18	anr							
Zinc	20	.13	anr							
Sulfur	50									

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
QC Limits: result < RL Run ID: MA10020 Units: ug/l

Time:			15:11		16:31		17:38		18:18	
Sample ID:			CCB4		CCB5		CCB6		CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	6.9								
Antimony	5.0	.56	anr							
Arsenic	5.0	1	anr							
Barium	200	.16	anr							
Beryllium	4.0	.1	anr							
Boron	100	.39								
Cadmium	4.0	.15	anr							
Calcium	5000	4								
Chromium	10	.22	anr							
Cobalt	50	.25	anr							
Copper	20	.24	anr							
Iron	100	4.6								
Lead	3.0	.65	-0.32	<3.0	-0.17	<3.0	-0.56	<3.0	-0.65	<3.0
Lithium	300	.65								
Magnesium	5000	7.7								
Manganese	15	.09	anr							
Molybdenum	10	.62	anr							
Nickel	40	.22	anr							
Potassium	5000	7.6								
Selenium	5.0	1.2	anr							
Silver	10	.2	-0.12	<10	-0.020	<10	0.030	<10	-0.21	<10
Sodium	5000	5.7								
Strontium	10	.07								
Thallium	10	.83	0.020	<10	-2.2	<10	-1.5	<10	-0.82	<10
Tin	50	.67	anr							
Titanium	20	.19	anr							
Vanadium	50	.18	anr							
Zinc	20	.13	anr							
Sulfur	50									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA10020 Units: ug/l

Time:		10:58			11:38			12:45	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron									
Lead	3000	2990	99.7	2000	1970	98.5	2000	1960	98.0
Lithium									
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	500	522	104.4	250	241	96.4	250	242	96.8
Sodium									
Strontium									
Thallium	3000	3060	102.0	2000	2000	100.0	2000	2020	101.0
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								
Sulfur									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA10020 Units: ug/l

Time:		13:51			15:04			16:24	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron									
Lead	2000	1960	98.0	2000	1940	97.0	2000	2040	102.0
Lithium									
Magnesium									
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium									
Selenium	anr								
Silver	250	242	96.8	250	242	96.8	250	248	99.2
Sodium									
Strontium									
Thallium	2000	2020	101.0	2000	2010	100.5	2000	2080	104.0
Tin	anr								
Titanium	anr								
Vanadium	anr								
Zinc	anr								
Sulfur									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA10020 Units: ug/l

Time:		17:31			18:12	
Sample ID:	CCV	CCV6		CCV	CCV7	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron						
Lead	2000	1930	96.5	2000	1930	96.5
Lithium						
Magnesium						
Manganese	anr					
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	anr					
Silver	250	240	96.0	250	240	96.0
Sodium						
Strontium						
Thallium	2000	2010	100.5	2000	2010	100.5
Tin	anr					
Titanium	anr					
Vanadium	anr					
Zinc	anr					
Sulfur						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 50 to 150 % Recovery Run ID: MA10020 Units: ug/l

Time:			11:11		17:45	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	200	400				
Antimony	5.0	10	anr			
Arsenic	5.0	10	anr			
Barium	200	400	anr			
Beryllium	4.0	4.0	anr			
Boron	100	200				
Cadmium	4.0	4.0	anr			
Calcium	5000	10000				
Chromium	10	10	anr			
Cobalt	50	10	anr			
Copper	20	20	anr			
Iron	100	200				
Lead	3.0	6.0	3.1	103.3	3.4	113.3
Lithium	300	600				
Magnesium	5000	10000				
Manganese	15	30	anr			
Molybdenum	10	20	anr			
Nickel	40	20	anr			
Potassium	5000	10000				
Selenium	5.0	10	anr			
Silver	10	4.0	9.9	99.0	9.8	98.0
Sodium	5000	10000				
Strontium	20	20				
Thallium	10	4.0	10.1	101.0	7.8	78.0
Tin	20	20	anr			
Titanium	20	20	anr			
Vanadium	50	100	anr			
Zinc	20	10	anr			
Sulfur	50	50				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: SB081114.ICP Date Analyzed: 08/11/14 Methods: EPA 200.7, SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA10020 Units: ug/l

Time:			11:24		11:31		17:58		18:05	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1		ICSA2		ICSAB2	
Metal	True	True	Results	% Rec	Results	% Rec	Results	% Rec	Results	% Rec
Aluminum	500000	500000	500000	100.0	508000	101.6	508000	101.6	509000	101.8
Antimony		1000	2.1		1040	104.0	1.6		1080	108.0
Arsenic		1000	8.9		999	99.9	5.8		1030	103.0
Barium		500	4.6		513	102.6	4.6		518	103.6
Beryllium		500	0.19		513	102.6	0.35		506	101.2
Boron			2.0		1.0		2.1		0.58	
Cadmium		1000	0.12		1070	107.0	0.25		1090	109.0
Calcium	500000	500000	464000	92.8	468000	93.6	449000	89.8	448000	89.6
Chromium		500	0.32		480	96.0	0.090		476	95.2
Cobalt		500	-1.4		476	95.2	-0.87		483	96.6
Copper		500	0.32		540	108.0	0.70		554	110.8
Iron	200000	200000	178000	89.0	180000	90.0	175000	87.5	175000	87.5
Lead		1000	1.7		938	93.8	1.6		935	93.5
Lithium			6.0		5.9		5.7		5.4	
Magnesium	500000	500000	499000	99.8	505000	101.0	491000	98.2	491000	98.2
Manganese		500	1.6		493	98.6	1.7		488	97.6
Molybdenum		500	-1.5		495	99.0	-1.8		502	100.4
Nickel		1000	-0.58		942	94.2	-0.64		939	93.9
Potassium			97.1		41.9		103		58.7	
Selenium		1000	0.55		1010	101.0	-2.7		1050	105.0
Silver		1000	-2.5		1160	116.0	-2.0		1160	116.0
Sodium			-33		-27		14.4		12.2	
Strontium			2.4		2.4		2.7		2.7	
Thallium		1000	-6.7		923	92.3	-4.3		929	92.9
Tin			-4.7		-5.5		-5.0		-7.0	
Titanium			3.1		3.0		3.1		2.7	
Vanadium		500	2.3		486	97.2	2.7		484	96.8
Zinc		1000	-4.2		1030	103.0	-2.4		1050	105.0
Sulfur			24.2		22.5					

(*) Outside of QC limits
(anr) Analyte not requested

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3081514W1.CSV Date Analyzed: 08/15/14 Methods: SW846 7470A
Analyst: CC Run ID: MA10037
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:36	MA10037-STD1	1		STDA
13:38	MA10037-STD2	1		STDB
13:40	MA10037-STD3	1		STDC
13:42	MA10037-STD4	1		STDD
13:44	MA10037-STD5	1		STDE
13:46	MA10037-STD6	1		STDF
13:49	MA10037-ICV1	1		
13:51	MA10037-ICB1	1		
13:53	MA10037-CRI1	1		
13:55	MA10037-CCV1	1		
13:56	MA10037-CCB1	1		
13:58	MP24017-MB	1		
14:00	MP24017-B1	1		
14:05	ZZZZZZ	5		
14:07	TC53134-1	1		(sample used for QC only; not part of login TC52863)
14:11	MP24017-S2	1		
14:12	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:16	ZZZZZZ	1		
14:18	TC52863-1	50		
14:20	MA10037-CCV2	50		
14:24	MA10037-CCB2	1		
14:26	TC52863-2	1		
14:28	MP24017-S1	1		
14:30	TC52863-1	2		
---------->	Last reportable sample/prep for job TC52863			
14:37	MP24018-MB	1		
14:38	MP24018-LB	1		
14:40	MP24018-B1	1		
14:42	TC53082-1	1		(sample used for QC only; not part of login TC52863)
14:44	MP24018-S1	1		
14:46	MP24018-S2	1		
14:48	ZZZZZZ	1		
14:50	MA10037-CCV3	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3081514W1.CSV Date Analyzed: 08/15/14 Methods: SW846 7470A
Analyst: CC Run ID: MA10037
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:52	MA10037-CCB3	1		
14:53	ZZZZZZ	1		
14:55	ZZZZZZ	1		
14:57	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:01	MP24019-MB	1		
15:03	MP24019-LB	1		
15:05	MP24019-B1	1		
15:07	TC53188-4AA	1		(sample used for QC only; not part of login TC52863)
15:08	MP24019-S1	1		
15:10	MP24019-S2	1		
15:12	MA10037-CCV4	1		
15:14	MA10037-CCB4	1		
15:16	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:20	ZZZZZZ	1		
15:22	ZZZZZZ	1		
15:25	MA10037-CRI2	1		
15:27	MA10037-CCV5	1		
15:29	MA10037-CCB5	1		

----------> Last reportable CCB for job TC52863
Refer to raw data for calibration curve and standards.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3081514W1.CSV Date Analyzed: 08/15/14 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA10037 Units: ug/l

Time:			13:51		13:56		14:24		14:52	
Sample ID:			ICB1		CCB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.05	-0.030	<0.20	-0.042	<0.20	-0.030	<0.20	-0.045	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3081514W1.CSV Date Analyzed: 08/15/14 Methods: SW846 7470A
QC Limits: result < RL Run ID: MA10037 Units: ug/l

Time:			15:14		15:29	
Sample ID:			CCB4		CCB5	
Metal	RL	IDL	raw	final	raw	final
Mercury	0.20	.05	-0.028	<0.20	-0.046	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

9.3.1
9

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3081514W1.CSV Date Analyzed: 08/15/14 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA10037 Units: ug/l

Time:		13:49			13:55			14:20	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.1	103.3	3.0	3.0	100.0	3	2.7	90.0

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3081514W1.CSV Date Analyzed: 08/15/14 Methods: SW846 7470A
QC Limits: 90 to 110 % Recovery Run ID: MA10037 Units: ug/l

Time:		14:50			15:12			15:27	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	2.8	93.3	3	3.1	103.3	3.0	3.0	100.0

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: H3081514W1.CSV Date Analyzed: 08/15/14 Methods: SW846 7470A
QC Limits: 50 to 150 % Recovery Run ID: MA10037 Units: ug/l

Time:			13:53		15:25	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.16	80.0	0.16	80.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23977
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 08/08/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	6.9	10	55.6	<200
Antimony	5.0	.56	1.1	1.8	<5.0
Arsenic	5.0	1	2.6	2.1	<5.0
Barium	200	.16	.39	-0.11	<200
Beryllium	4.0	.056	.07	-0.010	<4.0
Boron	100	.39	2.9		
Cadmium	4.0	.11	.21	0.14	<4.0
Calcium	5000	4	12	112	<5000
Chromium	10	.22	.36	-0.29	<10
Cobalt	50	.15	.23	-0.20	<50
Copper	20	.24	2.9	0.74	<20
Iron	100	1.1	13	4.5	<100
Lead	3.0	.65	.77	-0.25	<3.0
Lithium	300	.65	1.8		
Magnesium	5000	7.7	19	-22	<5000
Manganese	15	.054	.22	0.10	<15
Molybdenum	10	.39	.37		
Nickel	40	.22	.36	-0.22	<40
Potassium	5000	7.6	52	-25	<5000
Selenium	5.0	1.2	2.4	1.8	<5.0
Silver	10	.2	.48	0.0	<10
Sodium	5000	5.7	18	46.2	<5000
Strontium	10	.061	.16		
Thallium	10	.67	1.6	-2.1	<10
Tin	50	.67	1		
Titanium	20	.19	.4		
Vanadium	50	.18	.31	-0.20	<50
Zinc	20	.13	1.5	1.1	<20
Sulfur	50		5.8		

Associated samples MP23977: TC52863-1, TC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23977
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 08/08/14

Metal	TC52835-1 Original	MS	Spikelot MPTW11	% Rec	QC Limits
Aluminum	41.7	52100	50000	104.1	75-125
Antimony	0.66	398	400	99.3	75-125
Arsenic	2.1	388	400	96.5	75-125
Barium	17.4	419	400	100.3	75-125
Beryllium	0.44	414	400	103.4	75-125
Boron					
Cadmium	0.0	412	400	103.0	75-125
Calcium	13800	67400	50000	107.2	75-125
Chromium	0.61	419	400	104.6	75-125
Cobalt	0.0	404	400	101.0	75-125
Copper	0.99	430	400	107.3	75-125
Iron	1070	53400	50000	104.8	75-125
Lead	0.0	387	400	96.8	75-125
Lithium					
Magnesium	40800	98600	50000	115.6	75-125
Manganese	71.1	480	400	101.8	75-125
Molybdenum					
Nickel	0.0	389	400	97.3	75-125
Potassium	24300	76800	50000	107.2	75-125
Selenium	0.0	398	400	99.5	75-125
Silver	0.0	424	400	106.0	75-125
Sodium	279000	342000	50000	126.0(a)	75-125
Strontium					
Thallium	0.0	388	400	97.0	75-125
Tin					
Titanium					
Vanadium	0.0	405	400	101.1	75-125
Zinc	2.4	446	400	110.9	75-125
Sulfur					

Associated samples MP23977: TC52863-1, TC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23977
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 08/08/14

Metal	TC52835-1 Original	MSD	Spikelot MPTW11	% Rec	MSD RPD	QC Limit
Aluminum	41.7	51600	50000	103.1	1.0	20
Antimony	0.66	402	400	100.3	1.0	20
Arsenic	2.1	389	400	96.7	0.3	20
Barium	17.4	417	400	99.8	0.5	20
Beryllium	0.44	413	400	103.1	0.2	20
Boron						
Cadmium	0.0	411	400	102.7	0.2	20
Calcium	13800	66400	50000	105.2	1.5	20
Chromium	0.61	417	400	104.1	0.5	20
Cobalt	0.0	404	400	101.0	0.0	20
Copper	0.99	428	400	106.8	0.5	20
Iron	1070	53000	50000	104.0	0.8	20
Lead	0.0	395	400	98.8	2.0	20
Lithium						
Magnesium	40800	95800	50000	110.0	2.9	20
Manganese	71.1	476	400	100.8	0.8	20
Molybdenum						
Nickel	0.0	389	400	97.3	0.0	20
Potassium	24300	75500	50000	104.6	1.7	20
Selenium	0.0	399	400	99.8	0.3	20
Silver	0.0	429	400	107.3	1.2	20
Sodium	279000	327000	50000	96.0	4.5	20
Strontium						
Thallium	0.0	396	400	99.0	2.0	20
Tin						
Titanium						
Vanadium	0.0	403	400	100.6	0.5	20
Zinc	2.4	447	400	111.2	0.2	20
Sulfur						

Associated samples MP23977: TC52863-1, TC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23977
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 08/08/14

Metal	BSP Result	Spikelot MPTW11	% Rec	QC Limits
Aluminum	52400	50000	104.8	80-120
Antimony	400	400	100.0	80-120
Arsenic	399	400	99.8	80-120
Barium	402	400	100.5	80-120
Beryllium	429	400	107.3	80-120
Boron				
Cadmium	406	400	101.5	80-120
Calcium	53300	50000	106.6	80-120
Chromium	425	400	106.3	80-120
Cobalt	398	400	99.5	80-120
Copper	412	400	103.0	80-120
Iron	53200	50000	106.4	80-120
Lead	387	400	96.8	80-120
Lithium				
Magnesium	53900	50000	107.8	80-120
Manganese	412	400	103.0	80-120
Molybdenum				
Nickel	391	400	97.8	80-120
Potassium	49400	50000	98.8	80-120
Selenium	402	400	100.5	80-120
Silver	411	400	102.8	80-120
Sodium	49800	50000	99.6	80-120
Strontium				
Thallium	399	400	99.8	80-120
Tin				
Titanium				
Vanadium	412	400	103.0	80-120
Zinc	446	400	111.5	80-120
Sulfur				

Associated samples MP23977: TC52863-1, TC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP23977
Matrix Type: AQUEOUS

Methods: EPA 200.7, SW846 6010B
Units: ug/l

Prep Date: 08/08/14

Metal	TC52835-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	41.7	0.00	100.0(a)	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	2.12	0.00	100.0(a)	0-10
Barium	17.4	17.4	1.6	0-10
Beryllium	0.440	0.00	100.0(a)	0-10
Boron				
Cadmium	0.00	1.46	1023.1(a	0-10
Calcium	13800	15000	9.0	0-10
Chromium	0.610	0.00	100.0(a)	0-10
Cobalt	0.180	0.00	100.0(a)	0-10
Copper	0.00	0.00	NC	0-10
Iron	1070	1050	6.3	0-10
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium	40800	43300	6.1	0-10
Manganese	71.1	70.4	3.4	0-10
Molybdenum				
Nickel	0.00	5.22	NC	0-10
Potassium	24300	22300	3.8	0-10
Selenium	0.00	10.6	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium	279000	284000	2.0	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	0.00	0.00	NC (a)	0-10
Zinc	2.38	8.99	277.7(a)	0-10
Sulfur				

Associated samples MP23977: TC52863-1, TC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24017
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/15/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.05	.05	-0.026	<0.20

Associated samples MP24017: TC52863-1, TC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24017 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 08/15/14

Metal	TC53134-1 Original	MSD	Spikelot HGTXAQ40	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.9	3	96.7	3.5	20

Associated samples MP24017: TC52863-1, TC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24017
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/15/14

Metal	TC53134-1 Original	MS	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	0.0	2.8	3	93.3	75-125

Associated samples MP24017: TC52863-1, TC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

9.5.2

9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

QC Batch ID: MP24017
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 08/15/14

Metal	BSP Result	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	3.1	3	103.3	81-122

Associated samples MP24017: TC52863-1, TC52863-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

9.5.3

9

Gulf Coast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP29094/GN60366	0.50	0.0	mg/l	10	9.85	98.5	90-110%
Chloride	GP29094/GN60366	0.50	0.0	mg/l	10	9.63	96.3	90-110%
Cyanide	GP29066/GN60312	0.0050	0.0	mg/l	0.1	0.0972	97.2	91-108%
Moisture, Karl Fischer	GN60391			wt%	0.1	0.100	100.0	90-110%
Nitrogen, Ammonia	GP29030/GN60260	0.10	0.0	mg/l	2	1.93	96.5	90-110%
Nitrogen, Nitrate	GP29040/GN60267	0.50	0.0	mg/l	10	9.00	90.0	90-110%
Phosphorus, Total	GP29086/GN60350	0.020	0.0	mg/l	0.4	0.41	102.0	91-108%
Solids, Total Suspended	GN60300	2.0	0.0	mg/l	500	506	101.2	80-112%
Specific Conductivity	GN60318	1.0	<1.0	umhos/cm				
Specific Gravity	GN60299		0.99					
Sulfate	GP29094/GN60366	0.50	0.0	mg/l	10	9.89	98.9	90-110%
Sulfide	GN60376	0.020	0.0	mg/l	1600	1600	100.0	90-105%
Total Organic Carbon	GP29058/GN60295	1.0	0.0	mg/l	25	22.9	91.6	90-110%

Associated Samples:
Batch GN60299: TC52863-1, TC52863-2
Batch GN60300: TC52863-1, TC52863-2
Batch GN60318: TC52863-1, TC52863-2
Batch GN60376: TC52863-1, TC52863-2
Batch GN60391: TC52863-1, TC52863-2
Batch GP29030: TC52863-1, TC52863-2
Batch GP29040: TC52863-1, TC52863-2
Batch GP29058: TC52863-1, TC52863-2
Batch GP29066: TC52863-1, TC52863-2
Batch GP29086: TC52863-1, TC52863-2
Batch GP29094: TC52863-1, TC52863-2
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Sulfide	GN60376	mg/l	1600	1600	0.0	

Associated Samples:
Batch GN60376: TC52863-1, TC52863-2
(*) Outside of QC limits

10.2
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DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Bromide	GP29040/GN60267	TC52823-1	mg/l	0.0	0.0	0.0	0-19%
Bromide	GP29094/GN60366	TC52816-1	mg/l	0.28 U	0.32	200.0(a)	0-19%
Chloride	GP29094/GN60366	TC52816-1	mg/l	23.4	23.6	0.9	0-13%
Corrosivity as pH	GN60273	TC52863-1		4.7	4.7(b)	0.0	0-%
Cyanide	GP29066/GN60312	TC52907-1	mg/l	0.0054	0.0056	3.6	0-20%
Fluoride	GP29040/GN60267	TC52823-1	mg/l	0.0	0.0	0.0	0-12%
Ignitability (Flashpoint)	GN60435	TC52863-1	Deg. F	>200	>200	0.0	0-10%
Moisture, Karl Fischer	GN60391	TC52863-1	wt%	94.70	98.80	4.2	0-20%
Nitrogen, Ammonia	GP29030/GN60260	TC52857-2A	mg/l	0.0	0.010	200.0(a)	0-20%
Nitrogen, Nitrate	GP29040/GN60267	TC52823-1	mg/l	2.3	2.2	4.4	0-14%
Nitrogen, Nitrite	GP29040/GN60267	TC52823-1	mg/l	0.0	0.0	0.0	0-10%
Phosphorus, Total	GP29086/GN60350	TC52816-1	mg/l	0.039	0.039	0.0	0-20%
Solids, Total Suspended	GN60300	TC52973-1	mg/l	32.0	32.5	1.6	0-19%
Specific Conductivity	GN60318	TC52711-2	umhos/cm	1820	1810	0.9	0-10%
Specific Gravity	GN60299	TC52863-1		0.98	0.98	0.3	0-%
Sulfate	GP29094/GN60366	TC52816-1	mg/l	18.5	18.5	0.0	0-20%
Total Organic Carbon	GP29058/GN60295	TC52960-3	mg/l	6.3	6.8	7.6	0-17%
pH	GN60272	TC52940-2	su	8.20	8.20(c)	0.0	0-10%

Associated Samples:
Batch GN60272: TC52863-1, TC52863-2
Batch GN60273: TC52863-1, TC52863-2
Batch GN60299: TC52863-1, TC52863-2
Batch GN60300: TC52863-1, TC52863-2
Batch GN60318: TC52863-1, TC52863-2
Batch GN60391: TC52863-1, TC52863-2
Batch GN60435: TC52863-1, TC52863-2
Batch GP29030: TC52863-1, TC52863-2
Batch GP29040: TC52863-1, TC52863-2
Batch GP29058: TC52863-1, TC52863-2
Batch GP29066: TC52863-1, TC52863-2
Batch GP29086: TC52863-1, TC52863-2
Batch GP29094: TC52863-1, TC52863-2
(*) Outside of QC limits
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) TEMP 22.4 C
(c) TEMP 21.7 C

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP29040/GN60267	TC52823-1	mg/l	0.0	10	0.0(a)	0.0N	90-110%
Bromide	GP29094/GN60366	TC52816-1	mg/l	0.28 U	10	10.3	103.0	90-110%
Chloride	GP29094/GN60366	TC52816-1	mg/l	23.4	50	73.6	100.4	90-110%
Cyanide	GP29066/GN60312	TC52907-1	mg/l	0.0054	0.2	0.21	102.3	90-110%
Fluoride	GP29040/GN60267	TC52823-1	mg/l	0.0	10	0.0(a)	0.0N	90-110%
Nitrogen, Ammonia	GP29030/GN60260	TC52857-2A	mg/l	0.0	2	1.9	95.0	90-110%
Nitrogen, Nitrate	GP29040/GN60267	TC52823-1	mg/l	2.3	10	2.6(a)	3.0N	90-110%
Nitrogen, Nitrite	GP29040/GN60267	TC52823-1	mg/l	0.0	10	6.5(a)	65.0N	90-110%
Phosphorus, Total	GP29086/GN60350	TC52816-1	mg/l	0.039	0.4	0.42	95.3	83-110%
Sulfate	GP29094/GN60366	TC52816-1	mg/l	18.5	50	68.3	99.6	90-110%
Total Organic Carbon	GP29058/GN60295	TC52960-3	mg/l	6.3	25	31.1	99.2	90-110%

Associated Samples:
Batch GP29030: TC52863-1, TC52863-2
Batch GP29040: TC52863-1, TC52863-2
Batch GP29058: TC52863-1, TC52863-2
Batch GP29066: TC52863-1, TC52863-2
Batch GP29086: TC52863-1, TC52863-2
Batch GP29094: TC52863-1, TC52863-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Outside control limits due to matrix interference

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: 080814AMN.TXT Date Analyzed: 08/08/14 Methods: EPA 350.1
Analyst: DP Run ID: GN60260
Parameters: Nitrogen, Ammonia

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:00	GN60260-STD1	1		STD-4.0
00:00	GN60260-STD2	1		STD-3.0
00:00	GN60260-STD3	1		STD-2.0
00:00	GN60260-STD4	1		STD-1.0
00:00	GN60260-STD5	1		STD-0.5
00:00	GN60260-STD6	1		STD-0.1
00:00	GN60260-STD7	1		STD-0.0
00:00	GN60260-HSTD1	1		
00:00	GN60260-CRI1	1		
00:00	GN60260-CRI2	1		
00:00	GN60260-ICV1	1		
00:00	GN60260-ICB1	1		
00:00	GP29030-B1	1		
00:00	GP29030-MB1	1		
00:00	GP29030-S1	1		
00:00	GP29030-D1	1		
00:00	TC52857-2A	1		(sample used for QC only; not part of login TC52863)
00:00	ZZZZZZ	1		
00:00	GN60260-CCV1	1		
00:00	GN60260-CCB1	1		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	100		
00:00	ZZZZZZ	1		
00:00	GP29031-B1	1		
00:00	GP29031-MB1	1		
00:00	GP29031-S1	1		
00:00	GP29031-D1	1		
00:00	TC52817-1	1		(sample used for QC only; not part of login TC52863)
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	GN60260-CCV2	1		
00:00	GN60260-CCB2	1		
00:00	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: 080814AMN.TXT Date Analyzed: 08/08/14 Methods: EPA 350.1
Analyst: DP Run ID: GN60260
Parameters: Nitrogen, Ammonia

Time	Sample Description	Dilution Factor	PS Recov	Comments
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	GP29032-B1	1		
00:00	GP29032-MB1	1		
00:00	GP29032-S1	1		
00:00	GN60260-CCV3	1		
00:00	GN60260-CCB3	1		
00:00	GP29032-D1	1		
00:00	TC52817-11	1		(sample used for QC only; not part of login TC52863)
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	GN60260-CCV4	1		
00:00	GN60260-CCB4	1		
00:00	ZZZZZZ	1		
00:00	TC52863-1	20		
00:00	TC52863-2	20		
00:00	ZZZZZZ	1		
00:00	ZZZZZZ	1		
00:00	GN60260-CCV5	1		
00:00	GN60260-CCB5	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: 080814AMN.TXT Date Analyzed: 08/08/14 Methods: EPA 350.1
Run ID: GN60260 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN60260-CCB1	Nitrogen, Ammonia	-0.012	0.10	0.010			
GN60260-ICV1	Nitrogen, Ammonia	1.9	0.10	0.010	2	95.0	90-110
GN60260-CCB3	Nitrogen, Ammonia	0.010 U	0.10	0.010			
GN60260-CCB4	Nitrogen, Ammonia	-0.032	0.10	0.010			
GN60260-CCB5	Nitrogen, Ammonia	-0.017	0.10	0.010			
GN60260-CCV1	Nitrogen, Ammonia	3.2	0.10	0.010	3	106.7	90-110
GN60260-CCV2	Nitrogen, Ammonia	3.1	0.10	0.010	3	103.3	90-110
GN60260-CCV3	Nitrogen, Ammonia	3.1	0.10	0.010	3	103.3	90-110
GN60260-CCV4	Nitrogen, Ammonia	3.2	0.10	0.010	3	106.7	90-110
GN60260-CCV5	Nitrogen, Ammonia	3.0	0.10	0.010	3	100.0	90-110
GN60260-CRI1	Nitrogen, Ammonia	0.11	0.10	0.010	.1	110.0	90-110
GN60260-CRI2	Nitrogen, Ammonia	0.11	0.10	0.010	.1	110.0	90-110
GN60260-HSTD1	Nitrogen, Ammonia	3.9	0.10	0.010	4	97.5	90-110
GN60260-ICB1	Nitrogen, Ammonia	0.010 U	0.10	0.010			
GN60260-CCB2	Nitrogen, Ammonia	-0.017	0.10	0.010			

(!) Outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: 208071401.TXT Date Analyzed: 08/07/14 Methods: EPA 300/SW846 9056, EPA 300/SW846 9056 M
Analyst: ES Run ID: GN60267
Parameters: Bromide,Fluoride,Nitrogen, Nitrate,Nitrogen, Nitrite

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:15	GN60267-ICV1	1		
10:32	GN60267-ICB1	1		
10:49	GP29039-B1	1		
11:06	GP29039-MB1	1		
11:23	TC52714-1	1		(sample used for QC only; not part of login TC52863)
11:40	GP29039-D1	1		
11:57	GP29039-S1	1		
12:54	ZZZZZZ	1		
13:11	ZZZZZZ	20		
14:04	ZZZZZZ	1		
14:21	ZZZZZZ	5		
14:38	ZZZZZZ	20		
14:55	GN60267-CCV1	1		
15:12	GN60267-CCB1	1		
15:29	ZZZZZZ	2		
15:46	ZZZZZZ	5		
16:03	ZZZZZZ	1		
16:20	ZZZZZZ	1		
16:37	ZZZZZZ	1		
16:54	ZZZZZZ	10		
17:11	GN60267-CCV2	1		
17:28	GN60267-CCB2	1		
17:45	TC52823-1	1		(sample used for QC only; not part of login TC52863)
18:02	GP29040-D1	1		
18:19	GP29040-S1	1		
18:36	TC52863-1	1		
18:53	TC52863-2	1		
19:10	GP29040-B1	1		
19:27	GP29040-MB1	1		
19:44	GN60267-CCV3	1		
20:01	GN60267-CCB3	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: 208071401.TXT Date Analyzed: 08/07/14 Methods: EPA 300/SW846 9056, EPA 300/SW846 9056 M
Run ID: GN60267 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN60267-ICV1	Fluoride	10	0.50	0.25	10	100.0	90-110
GN60267-ICV1	Nitrogen, Nitrite	9.8	0.50	0.26	10	98.0	90-110
GN60267-ICV1	Bromide	9.9	0.50	0.28	10	99.0	90-110
GN60267-ICV1	Nitrogen, Nitrate	9.5	0.50	0.26	10	95.0	90-110
GN60267-ICB1	Fluoride	0.25 U	0.50	0.25			
GN60267-ICB1	Nitrogen, Nitrite	0.26 U	0.50	0.26			
GN60267-ICB1	Bromide	0.28 U	0.50	0.28			
GN60267-ICB1	Nitrogen, Nitrate	0.26 U	0.50	0.26			
GN60267-CCV1	Fluoride	9.7	0.50	0.25	10	97.0	90-110
GN60267-CCV1	Nitrogen, Nitrite	9.5	0.50	0.26	10	95.0	90-110
GN60267-CCV1	Bromide	9.5	0.50	0.28	10	95.0	90-110
GN60267-CCV1	Nitrogen, Nitrate	9.2	0.50	0.26	10	92.0	90-110
GN60267-CCB1	Fluoride	0.25 U	0.50	0.25			
GN60267-CCB1	Nitrogen, Nitrite	0.26 U	0.50	0.26			
GN60267-CCB1	Bromide	0.28 U	0.50	0.28			
GN60267-CCB1	Nitrogen, Nitrate	0.26 U	0.50	0.26			
GN60267-CCV2	Fluoride	9.7	0.50	0.25	10	97.0	90-110
GN60267-CCV2	Nitrogen, Nitrite	9.6	0.50	0.26	10	96.0	90-110
GN60267-CCV2	Bromide	9.7	0.50	0.28	10	97.0	90-110
GN60267-CCV2	Nitrogen, Nitrate	9.3	0.50	0.26	10	93.0	90-110
GN60267-CCB2	Fluoride	0.25 U	0.50	0.25			
GN60267-CCB2	Nitrogen, Nitrite	0.26 U	0.50	0.26			
GN60267-CCB2	Bromide	0.28 U	0.50	0.28			
GN60267-CCB2	Nitrogen, Nitrate	0.26 U	0.50	0.26			
GN60267-CCV3	Fluoride	9.3	0.50	0.25	10	93.0	90-110
GN60267-CCV3	Nitrogen, Nitrite	9.3	0.50	0.26	10	93.0	90-110
GN60267-CCV3	Bromide	9.3	0.50	0.28	10	93.0	90-110
GN60267-CCV3	Nitrogen, Nitrate	9.0	0.50	0.26	10	90.0	90-110
GN60267-CCB3	Fluoride	0.25 U	0.50	0.25			
GN60267-CCB3	Nitrogen, Nitrite	0.26 U	0.50	0.26			
GN60267-CCB3	Bromide	0.28 U	0.50	0.28			
GN60267-CCB3	Nitrogen, Nitrate	0.26 U	0.50	0.26			

(!) Outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: B081114W1.TXT Date Analyzed: 08/11/14 Methods: SM5310B/9060A
Analyst: ES Run ID: GN60295
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:09	ZZZZZZ	1		
09:09	ZZZZZZ	1		
09:25	ZZZZZZ	1		
09:25	ZZZZZZ	1		
09:47	GN60295-ICV1	1		
09:47	ZZZZZZ	1		
10:04	GN60295-ICB1	1		
10:04	ZZZZZZ	1		
10:20	GP29058-B1	1		
10:20	ZZZZZZ	1		
10:37	GP29058-MB1	1		
10:37	ZZZZZZ	1		
11:08	GP29058-S1	1		
11:08	ZZZZZZ	1		
11:24	GP29058-D1	1		
11:24	ZZZZZZ	1		
11:52	TC52960-3	1		(sample used for QC only; not part of login TC52863)
11:52	ZZZZZZ	1		
12:14	ZZZZZZ	1		
12:14	ZZZZZZ	1		
12:36	ZZZZZZ	1		
12:36	ZZZZZZ	1		
12:56	ZZZZZZ	1		
12:56	ZZZZZZ	1		
13:32	TC52863-1	200		
13:32	ZZZZZZ	200		
14:02	TC52863-2	200		
14:02	ZZZZZZ	200		
14:18	GN60295-CCV1	1		
14:18	ZZZZZZ	1		
14:34	GN60295-CCB1	1		
14:34	ZZZZZZ	1		
15:15	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: B081114W1.TXT Date Analyzed: 08/11/14 Methods: SM5310B/9060A
Analyst: ES Run ID: GN60295
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:38	ZZZZZZ	1		
16:00	ZZZZZZ	1		
16:22	ZZZZZZ	1		
16:44	ZZZZZZ	1		
17:06	ZZZZZZ	1		
17:28	ZZZZZZ	1		
17:50	ZZZZZZ	1		
18:13	ZZZZZZ	1		
18:35	ZZZZZZ	1		
18:55	GN60295-CCV2	1		
19:11	GN60295-CCB2	1		
19:27	ZZZZZZ	1		
19:43	ZZZZZZ	1		
19:59	ZZZZZZ	1		
20:15	ZZZZZZ	1		
20:32	GN60295-CCV3	1		
20:48	GN60295-CCB3	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: B081114W1.TXT Date Analyzed: 08/11/14 Methods: SM5310B/9060A
Run ID: GN60295 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN60295-ICV1	Total Organic Carbon	22.9	1.0	0.32	25	91.6	90-110
GN60295-ICB1	Total Organic Carbon	0.32 U	1.0	0.32			
GN60295-CCV1	Total Organic Carbon	47.5	1.0	0.32	50	95.0	90-110
GN60295-CCB1	Total Organic Carbon	0.32 U	1.0	0.32			
GN60295-CCV2	Total Organic Carbon	50.4	1.0	0.32	50	100.8	90-110
GN60295-CCB2	Total Organic Carbon	0.32 U	1.0	0.32			
GN60295-CCV3	Total Organic Carbon	51.0	1.0	0.32	50	102.0	90-110
GN60295-CCB3	Total Organic Carbon	0.32 U	1.0	0.32			

(!) Outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: 081114W2CN.TXT Date Analyzed: 08/11/14 Methods: EPA 335.4/SW 9012
Analyst: CV Run ID: GN60312
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:58	GN60312-ICV1	1		
15:58	GN60312-ICB1	1		
16:00	GP29066-B1	1		
16:01	GP29066-MB1	1		
16:03	GP29066-S1	1		
16:03	GP29066-D1	1		
16:05	TC52907-1	1		(sample used for QC only; not part of login TC52863)
16:06	ZZZZZZ	1		
16:08	ZZZZZZ	1		
16:08	ZZZZZZ	1		
16:10	ZZZZZZ	1		
16:11	TC52863-1	50		
16:13	GN60312-CCV1	1		
16:13	GN60312-CCB1	1		
16:15	TC52863-2	50		
16:15	ZZZZZZ	1		
16:18	ZZZZZZ	1		
16:18	ZZZZZZ	1		
16:20	GP29067-B1	1		
16:20	GP29067-MB1	1		
16:23	GP29067-S1	1		
16:23	GP29067-D1	1		
16:25	TC52937-1	1		(sample used for QC only; not part of login TC52863)
16:25	ZZZZZZ	1		
16:28	GN60312-CCV2	1		
16:28	GN60312-CCB2	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: 081114W2CN.TXT Date Analyzed: 08/11/14 Methods: EPA 335.4/SW 9012
Run ID: GN60312 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN60312-ICV1	Cyanide	0.099	0.0050		.1	99.0	90-110
GN60312-ICB1	Cyanide	0.0050 U	0.0050				
GN60312-CCV1	Cyanide	0.19	0.0050		.2	95.0	90-110
GN60312-CCB1	Cyanide	0.0050 U	0.0050				
GN60312-CCV2	Cyanide	0.19	0.0050		.2	95.0	90-110
GN60312-CCB2	Cyanide	0.0050 U	0.0050				

(!) Outside of QC limits

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: 208121401.TXT Date Analyzed: 08/12/14 Methods: EPA 300/SW846 9056
Analyst: ES Run ID: GN60366
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:45	GN60366-ICV1	1		
10:02	GN60366-ICB1	1		
10:18	GP29094-B1	1		
10:36	GP29094-MB1	1		
10:53	TC52816-1	1		(sample used for QC only; not part of login TC52863)
11:10	GP29094-D1	1		
11:27	GP29094-S1	1		
11:44	TC52816-1	5		(sample used for QC only; not part of login TC52863)
12:01	GP29094-D1	5		
12:18	GP29094-S1	5		
12:35	ZZZZZZ	1		
12:52	ZZZZZZ	2		
13:09	GN60366-CCV1	1		
13:26	GN60366-CCB1	1		
13:43	ZZZZZZ	1		
14:00	ZZZZZZ	2		
14:17	ZZZZZZ	2		
14:34	ZZZZZZ	2		
14:51	ZZZZZZ	2		
15:08	ZZZZZZ	2		
15:25	ZZZZZZ	2		
15:42	ZZZZZZ	1		
15:59	ZZZZZZ	1		
16:16	ZZZZZZ	100		
16:33	GN60366-CCV2	1		
16:50	GN60366-CCB2	1		
17:07	ZZZZZZ	5		
17:24	ZZZZZZ	10		
17:41	ZZZZZZ	5		
17:58	ZZZZZZ	10		
18:15	ZZZZZZ	1		
18:32	ZZZZZZ	100		
18:49	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: 208121401.TXT Date Analyzed: 08/12/14 Methods: EPA 300/SW846 9056
Analyst: ES Run ID: GN60366
Parameters: Chloride,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:06	ZZZZZZ	100		
19:23	ZZZZZZ	200		
19:40	TC52863-1	500		
19:57	GN60366-CCV3	1		
20:14	GN60366-CCB3	1		
20:31	TC52863-1	50		
20:48	TC52863-2	500		
21:05	TC52863-2	50		
21:22	ZZZZZZ	1		
21:39	ZZZZZZ	2		
21:56	ZZZZZZ	1		
22:13	ZZZZZZ	2		
22:30	ZZZZZZ	1		
22:47	ZZZZZZ	2		
23:04	GN60366-CCV4	1		
23:21	GN60366-CCB4	1		
23:38	GP29095-B1	1		
23:55	GP29095-MB1	1		
00:12	ZZZZZZ	10		
00:29	TC53073-1	1		(sample used for QC only; not part of login TC52863)
00:46	GP29095-D1	1		
01:03	GP29095-S1	1		
01:20	GN60366-CCV5	1		
01:37	GN60366-CCB5	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: TC52863
Account: RFWTXHO - Weston Solutions
Project: CES- Chemical Spill/4904 Griggs, Houston, TX

File ID: 208121401.TXT Date Analyzed: 08/12/14 Methods: EPA 300/SW846 9056
Run ID: GN60366 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN60366-ICV1	Chloride	9.7	0.50	0.25	10	97.0	90-110
GN60366-ICV1	Sulfate	9.9	0.50	0.25	10	99.0	90-110
GN60366-ICB1	Chloride	0.25 U	0.50	0.25			
GN60366-ICB1	Sulfate	0.25 U	0.50	0.25			
GN60366-CCV1	Chloride	9.4	0.50	0.25	10	94.0	90-110
GN60366-CCV1	Sulfate	9.7	0.50	0.25	10	97.0	90-110
GN60366-CCB1	Chloride	0.25 U	0.50	0.25			
GN60366-CCB1	Sulfate	0.25 U	0.50	0.25			
GN60366-CCV2	Chloride	9.4	0.50	0.25	10	94.0	90-110
GN60366-CCV2	Sulfate	9.6	0.50	0.25	10	96.0	90-110
GN60366-CCB2	Chloride	0.25 U	0.50	0.25			
GN60366-CCB2	Sulfate	0.25 U	0.50	0.25			
GN60366-CCV3	Chloride	9.4	0.50	0.25	10	94.0	90-110
GN60366-CCV3	Sulfate	9.7	0.50	0.25	10	97.0	90-110
GN60366-CCB3	Chloride	0.25 U	0.50	0.25			
GN60366-CCB3	Sulfate	0.25 U	0.50	0.25			
GN60366-CCV4	Chloride	9.5	0.50	0.25	10	95.0	90-110
GN60366-CCV4	Sulfate	9.8	0.50	0.25	10	98.0	90-110
GN60366-CCB4	Chloride	0.25 U	0.50	0.25			
GN60366-CCB4	Sulfate	0.25 U	0.50	0.25			
GN60366-CCV5	Chloride	9.4	0.50	0.25	10	94.0	90-110
GN60366-CCV5	Sulfate	9.8	0.50	0.25	10	98.0	90-110
GN60366-CCB5	Chloride	0.25 U	0.50	0.25			
GN60366-CCB5	Sulfate	0.25 U	0.50	0.25			

(!) Outside of QC limits

Gulf Coast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

(Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody

WW PW

SUBCONTRACT COC

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking #	Bottle Order Control #
5642 4618 2542	
Accutest Quote #	Accutest Job #
	TC52863

Client Information		Subcontract Information	
Company Name: Accutest Gulf Coast		Subcontract Laboratory: ACCUTEST **NEW JERSEY**	
Project Contact: Sylvia Garza	Email	Laboratory Contact: Sample Receiving	Email
Address: 10165 Harwin Dr, Suite 150		Address	
City: Houston State: TX Zip: 77036		City State Zip	
Phone No.: 713-271-4700		Phone No.	

Requested Analyses: VISCOSTIY (VISC), BTU, TOX

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Liquid; SOL - Other Solid

Accutest Sample Number	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	DI/MeOH	TSP	NONE	OTHER	VISCOSTIY (VISC)	BTU	TOX	LAB USE ONLY
TC52863-1	8/7/2014	11:20	W	13							X		X	x	x	530
TC52863-2	8/7/2014	12:15	W	13							X		X	x	x	

Turnaround Time (Business days)

- [x] STANDARD
- [ ] 7 Day
- [ ] 4 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Approved By:/ Date: July 8th

Data Deliverable Information

- [ ] Commercial "A"
- [x] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] TRRP-13
- [ ] EDD Format_____
- [ ] Other_____ NARR+

Commercial "A" = Results Only

Commercial "B" = Results & Standard QC

Comments / Remarks

Real time analytical data available via Lablink

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	8-8-14	1 FEDEX	2 FEDEX	8/9/14 0830	2
Relinquished by: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # CLIENT SEAL INTACT	Preserved where applicable ☐	On Ice ☑ Cooler Temp. 3.0° C

3 A

11.1 11

TC52863: Chain of Custody
Page 1 of 3
Accutest New Jersey

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: TC52863 **Client:** ACCUTEST GULF COAST **Project:** TC52863

Date / Time Received: 8/9/2014 0930 **Delivery Method:** FedEx **Airbill #'s:** 564246182542

Cooler Temps (Initial/Adjusted): #1: (3/3); 0

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:		
3. Cooler media:	Ice (Bag)	
4. No, Coolers	1	

Quality Control Preservatio	Y	N	N/A
1. Trip Blank present / cooler:	☐	☑	☐
2. Trip Blank listed on COC:	☐	☑	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments -1 & 2 Rec'd 3x 1000ml N/P Ambers. Did not receive H2SO4 TOX volumes.

-1 2 of 3 bottles has approx 1/2 inch layer of product on top of water. 1 bottle is all AQ. Run which layer?
Collection times on labels 11:30, not 11:20.

-2 Samples are AQ.

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Dayton, New Jersey
www/accutest.com

TC52863: Chain of Custody
Page 2 of 3

Sample Receipt Summary - Problem Resolution

Accutest Job Number: TC52863

Initiator: ANDREWS

CSR: Michelle

Response Date: 8/12/2014

Response: -1 and -2, preserve w/N2SO4 and run TOX
1, please run AQ portaion

Per Sylvia

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Gulf Coast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

(Accutest New Jersey)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC52863
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: RFWTXHO: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Total Organic Halides	GP82177/GN9849	0.050	0.0	mg/l	.5	0.48	96.0	90-110%

Associated Samples:
Batch GP82177: TC52863-1, TC52863-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC52863
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: RFWTXHO: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Total Organic Halides	GP82177/GN9849	JB73589-1	mg/l	0.44	0.39	12.0	0-96%
Viscosity At 40 Deg. C	GN9904	TC52863-2	cS	0.60	0.60	0.1	0-20%

Associated Samples:
Batch GN9904: TC52863-1, TC52863-2
Batch GP82177: TC52863-1, TC52863-2
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: TC52863
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: RFWTXHO: CES- Chemical Spill/4904 Griggs, Houston, TX

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Total Organic Halides	GP82177/GN9849	JB73589-1	mg/l	0.44	.5	0.87	86.0	37-160%

Associated Samples:
Batch GP82177: TC52863-1, TC52863-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits