



ATTACHMENT 7
Data Usability Summary Reports
~~**(Electronic Copy Only - Provided on attached CD)**~~

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-115248-1
May 11, 2017
Sampling date: 3/28/2017

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Nash Rd., Wheatfield
SDG# 480-115248-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers., project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-115248-1, submitted to Vali-Data of WNY, LLC on May 5, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C, 6020A), Mercury (7471B) and in accordance with wet chemistry methods.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Method Blank and Laboratory Control Samples.

Samples; LSW-20-04, LSW-20-04MS/MSD, LSS-001 0-2", LSS-002 0-2", LSS-002 2-12", LSS-012 0-2", LSS-012 2-6", LSS-011 0-2", LSS-011 2-6", LSS-011 6-12", LSS-010 0-2", LSS-010 2-6" and LSS-010 6-12" were diluted due to color, appearance and/or viscosity.

Sample; LSED-04 2-12" was diluted due to sample matrix.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of some of the surrogates was outside QC limits due to dilution; no further action is required.

METHOD BLANK

All the criteria were met except Diethyl phthalate was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-349416/1-A. This target analyte was not detected in the associated samples, so no further action is required.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 3,3-Dichlorobenzidine was outside QC limits, high, in LCS 480-349416/2-A and is qualified with an 'E'. This target analyte was within limits in the matrix spike and matrix spike duplicate, so no further action is required

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of several target analytes was outside laboratory QC limits but was within ASP limits, so no further action is required.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Method Blank, MS/MSD, Compound Quantitation and Continuing Calibration.

Samples; LSS-011 0-2", LSS-011 2-6", LSS-011 6-12" and LSS-010 0-2" were diluted due to sample matrix.

Samples; LSS-002 0-2", LSS-002 2-12", LSS-012 0-2", LSS-012 2-6" and LSS-012 6-12" may contain enhanced positive peaks due to the presence of biphenyl peaks.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of DCBP was outside QC limits in sample LSED-04 2-12" due to dilution and interfering peaks. No further action is required.

The %Rec of the surrogates in sample LSS-011 6-12" were outside QC limits due to dilution, so no further action is required.

The %Rec of several surrogates were outside laboratory QC limits, but within ASP limits, so no further action is required.

METHOD BLANK

All the criteria were met except 4,4'-DDT was detected above the MDL, below the reporting limit and is qualified as estimated in MB 180-207882/1-B. This target analyte should be qualified as undetected at the reporting limit, if it is detected in the associated samples below the reporting limit.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met except the %Rec of Methoxychlor was outside QC limits, high in LSW-04MS/MSD and should be qualified as estimated high in LSW-04 and LSW-04MS/MSD. The %Rec of Endrin and Endrin Aldehyde was outside QC limits, high in LSW-04MSD and should be qualified as estimated high in LSW-04MSD.

COMPOUND QUANTITATION

All criteria were met except the RPD of beta-BHC, oxy-Chlordane, Dieldrin, 4,4'-DDD and 4,4'-DDT was outside QC limits between the two columns in sample LSED-002-0-2". The RPD of beta-BHC, oxy-Chlordane, 4,4'-DDD, alpha-Chlordane, Mirex and 4,4'-DDT was outside QC limits between the two columns in sample LSED-002 2-12". The RPD of beta-BHC, oxy-Chlordane, Dieldrin, 4,4'-DDD, Mirex and 4,4'-DDT was outside QC limits between the two columns in sample LSED-001 0-2". The RPD of beta-BHC, oxy-Chlordane, alpha-Chlordane, Endosulfan I, 2,4'-DDT, 4,4'-DDD, Endosulfan II and 4,4'-DDT was outside QC limits between the two columns in sample LSED-005 0-2". The RPD of beta-BHC, oxy-Chlordane, 2,4'-DDT, Mirex, Endosulfan sulfate and 4,4'-DDT was outside QC limits between the two columns in sample LSED-005 2-12". The RPD of trans-Nonachlor, 4,4'-DDD and 4,4'-DDT was outside QC limits between the two columns in sample LSED-005 2-12"DL. The RPD of oxy-Chlordane, Heptachlor epoxide, 4,4'-

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DDD, Endosulfan II and 4,4'-DDT was outside QC limits between the two columns in sample LSED-004 0-2". The RPD of alpha-Chlordane, 4,4'-DDD and 4,4'-DDT was outside QC limits between the two columns in sample LSED-004 2-12". The RPD of Toxaphene was outside QC limits between the two columns in sample LSW-002. The RPD of 4,4'-DDE and 4,4'-DDT was outside QC limits between the two columns in samples LSS-001 0-2" and LSS-011 0-2". The RPD of 4,4'-DDE and Dieldrin was outside QC limits between the two columns in sample LSS-002 2-12". The RPD of 4,4'-DDE was outside QC limits between the two columns in samples LSS-002 0-2", LSS-012 0-2", LSS-011 6-12" and LSS-010 2-6". The RPD of 4,4'-DDT was outside QC limits between the two columns in sample LSS-012 2-6". The RPD of 4,4'-DDD and 4,4'-DDT was outside QC limits between the two columns in sample LSS-012 6-12". The RPD of alpha-BHC was outside QC limits between the two columns in sample LSW-04. The RPD of gamma-BHC, alpha-BHC, gamma-Chlordane, alpha-Chlordane, 4,4'-DDE and Methoxychlor was outside QC limits between the two columns in LSW-04MS/MSD. The RPD of gamma-Chlordane was outside QC limits between the two columns in LCS 480-349417/2-A. The RPD of alpha-BHC, Endrin aldehyde and Endosulfan sulfate was outside QC limits between the two columns in LCS 480-349432/2-A. The RPD of delta-BHC was outside QC limits between the two columns in LSW-04MSD. These target analytes should be qualified as estimated in the associated samples.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates in the initial calibrations performed on instruments HP6890-25 and HP6890-5 with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of DCBP off column MR-1 and MR-2 was outside QC limits in CCV 180-208894/29. This surrogate should be qualified as estimated in the associated samples, blanks and spikes.

The %D of Mirex off column MR-1 was outside QC limits in CCV 180-209014/4. The %D of Endrin aldehyde, Endosulfan sulfate and Endrin Ketone was outside QC limits in CCVIS 480-349667/5 off column RTX-CLPI. These target analytes should be qualified as estimated in associated samples, blanks and spikes off the associated column.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision

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- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Laboratory Control Samples, Compound Quantitation and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of DCBP off column ZB-5 was outside ASP QC limits, high, in LCS 480-349562/2-A. The %Rec of DCBP off both columns was outside QC limits, high, in LSED-04 2-12". These surrogates and detects in these samples, off the associated column, should be qualified as estimated high.

The %Rec of TCMX off column RTX-CLPI was outside ASP QC limits, low in LSED-002-0-2" and should be qualified as estimated.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Aroclor 1016 was outside ASP QC limits, high in LCS 480-349562/2-A and should be qualified as estimated.

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All criteria were met except the RPD between the columns was outside QC limits for Aroclor 1254 in samples LSS-012 0-2", LSS-012 2-6", LSS-011 0-2", LSS-011 6-12", LSED-005 0-2" and LSED-005 2-12". The RPD between the columns was outside QC limits for Aroclor 1260 in samples LSS-011 2-6" and LSED-002 2-12". These target analytes should be qualified as estimated in the associated samples.

INITIAL CALIBRATION

All criteria were met except a single point calibration was used on Aroclor 1254 and Aroclor 1268 off instrument CHGC16. ASP requires a three point calibration for all detected target analytes. These target analytes should be qualified as estimated if detected in associated samples.

Alternate forms of regression were used on the initial calibration performed on instrument HP6890-7 with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1248 peaks 2 and 3 was outside QC limits off column ZB-35 in CCV 480-349510/8. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1221 peak 3 was outside QC limits off column ZB-35 in CCV 480-349510/5.

The %D of Aroclor 1221 peaks 1 and 2 were outside QC limits off column ZB-35 in CCB 480-349735/5. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

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The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks, Laboratory Control Samples, MS/MSD, Serial Dilution and Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Zn was detected in MB 480-349435/1-A above the MDL, below the reporting limit and is qualified as estimated. Ca and Mg were detected in MB 480-349516/1-A above the MDL, below the reporting limit and are qualified as estimated. Mn was detected in CCB 480-349637/38 and CCB 480-349932/30 above the MDL, below the reporting limit and is qualified as estimated. K was detected in CCB1 180-209095/11 above the MDL, below the reporting limit and is qualified as estimated. Tl was detected in CCB3 180-209095/35 above the MDL, below the reporting limit and is qualified as estimated. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high. Fe and Mn were detected above the reporting limit in MB 480-349516/1-A. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit and below the blank result should be reported with the blank result and 'undetected'. Associated samples in which these target analytes were detected above the blank result should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met except the %Rec of Sb was outside ASP QC limits, low in LCSSRM 480-349516/2-A. This target analyte should be qualified as estimated in LCSSRM 480-349516/2-A and the associated samples.

MS/MSD

All criteria were met except the %Rec of Ba and K were outside QC limits, high in LSS-002 0-2"MS/MSD. The %Rec of As was outside QC limits, high in LSED-002 2-12"MS/MSD. These target analytes were within limits in the post digest spike. These target analytes should be qualified as estimated high in the associated samples, if detected.

The %Rec of Sb was outside QC limits, low in LSS-002 0-2"MS/MSD. The %Rec of Sb and Ca was outside QC limits, low in LSED-002 2-12"MS/MSD. These target analytes were within limits in the post digest spike. These target analytes should be qualified as estimated in the associated samples.

FIELD DUPLICATE

No field duplicate was acquired.

SERIAL DILUTION

All criteria were met except the %D of Ca, Fe and Mg in LSS-002 0-2"SD and Cu, Fe and K in LSED-002 2-12"SD were outside QC limits. These target analytes should be qualified as estimated in the associated samples.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Sb, As, Mn and Se was outside ASP QC limits, high, in ICVL 480-349637/7. The %Rec of Ag and Na was outside ASP QC limits, high in CCVL 480-349637/27. The %Rec of As, Cu, Mn, Se and Na was outside ASP QC limits, high in CCVL 480-349637/39. The %Rec of As, Cd, Cr, Mn, Se and Na was outside ASP QC limits, high in CCVL 480-349637/51. The %Rec of Sb, Zn and Se was outside ASP QC limits, high, in ICVL 480-349932/7. The %Rec of As, Mn and Zn was outside ASP QC limits, high in CCVL 480-349932/31. The %Rec of Sb, Mn and Zn was outside ASP QC limits, high in CCVL 480-349932/42. The %Rec of Mn and Zn was outside ASP QC limits, high in CCVL 480-349932/54. The %Rec of Zn was outside ASP QC limits, high in CCVL 480-349932/63. The %Rec of Hg was outside ASP QC limits, high, in ICVL 480-349539/3. The %Rec of Hg was outside ASP QC limits, high in CCVL 480-349539/62, 75. The %Rec of Co, Se, Na, Tl and Zn was outside ASP QC limits, high, in ICVL 180-209095/7. The %Rec of Al, Be, Co, Cu, Pb, Fe, Ni and Tl was outside ASP QC limits, high in CCVL 180-209095/74. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

All criteria were met except the %Rec of Be was outside ASP QC limits, low, in CCVL 480-349637/19. The %Rec of Al, Cr and Pb was outside ASP QC limits, low in CCVL 480-349637/27. The %Rec of K was outside ASP QC limits, low in CCVL 480-349637/39. The %Rec of Ag and Pb was outside ASP QC limits, low in CCVL 480-349637/51. The %Rec of V was outside ASP QC limits, low, in ICVL 480-349932/7. The %Rec of Al was outside ASP QC limits, low in CCVL 480-349932/31. The %Rec of Cu and V was outside ASP QC limits, low in CCVL 480-349932/42. The %Rec of Cu, Ag and V was outside ASP QC limits, low in CCVL 480-349932/54. The %Rec of Cu and Se was outside ASP QC limits, low in CCVL 480-349932/63. The %Rec of V was outside ASP

QC limits, low in CCVL 180-209095/74. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- %Solids

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below.

%SOLIDS

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
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Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-115273-1
May 13, 2017
Sampling date: 3/28/2017

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Nash Rd., Wheatfield
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DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-115273-1, submitted to Vali-Data of WNY, LLC on May 5, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7471B) and in accordance with wet chemistry methods.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

Sample; LSS-016 2-12", LSS-016 2-12"MS/MSD, LSS-016 2-12"DUP and LSS-016 2-12"DUPMS/MSD were diluted due to sample matrix.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of some of the surrogates was outside QC limits due to dilution; no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except Naphthalene, Acenaphthene, Dibenzofuran and Dibenz(a,h)anthracene were detected above the MDL, below the reporting limit in LSS-016 2-12"DUP but not LSS-016 2-12".

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

The data was not useful due to the dilution.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of some target analytes was outside laboratory QC limits but was within ASP limits, so no further action is required.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Compound Quantitation and Continuing Calibration.

All samples and MS/MSD's were diluted due to sample matrix.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of most of the surrogates was outside QC limits in samples and MS/MSD's due to dilution. No further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except 4,4'-DDE and delta-BHC were detected above the MDL, below the reporting limit in LSS-016 2-12"Dup but no detected in LSS-016 2-12".

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

Due to dilution, all of the target analytes were either undetected or outside QC limits except alpha-BHC and 4,4'-DDE in LSS-016 2-12"DUPMSD. This data is not useful due to dilution.

COMPOUND QUANTITATION

All criteria were met except the RPD of Endrin Ketone and 4,4'-DDT was outside QC limits between the two columns in sample LSS-013 0-2". The RPD of 4,4'-DDT was outside QC limits between the two columns in sample LSS-014 0-2", LSS-014 2-12", LSS-016 0-2" and LSS-016 2-12". The RPD of alpha-BHC and gamma-BHC was outside QC limits between the two columns in sample LSS-016 2-12"MS/MSD. The RPD of 4,4'-DDE was outside QC limits between the two columns in sample LSS-016 2-12"DUP. The RPD of alpha-BHC, 4,4'-DDE, Endrin, Endosulfan II and 4,4'-DDD was outside QC limits between the two columns in sample LSS-016 2-12"DUPMS. The RPD of 4,4'-DDE, Endrin, Endosulfan II and 4,4'-DDD was outside QC limits between the two columns in sample LSS-016 2-12"DUPMSD. The RPD of alpha-BHC, gamma-BHC, delta-BHC, gamma-Chlordane and alpha-Chlordane was outside QC limits between the two columns in LCS 480-349652/2-A. These target analytes should be qualified as estimated in the associated samples.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on most of the target analytes and surrogates in the initial calibrations performed on instruments HP6890-25 and HP6890-5 with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of alpha-BHC off column RTX-CLPI was outside QC limits in CCV 480-350325/5. This target analyte should be qualified as estimated in associated samples, blanks and spikes off column RTX-CLPI.

The %D of Toxaphene peak 5 was outside QC limits off column RTX-CLPI in CCV 480-351321/4. ASP requires three peaks to be compliant, so no further action is required.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Laboratory Control Samples, MS/MSD, Compound Quantitation and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of all surrogates in LSS-014 2-12" were outside ASP QC limits, high. The %Rec of DCBP off column ZB-35 was outside ASP QC limits, high in LSS-013 0-2", LSS-013 2-12", MB 480-349557/1-A, LCS 480-349557/2-A and LSS-016 2-12"MS/MSD. The %Rec of DCBP off column ZB-5 was outside ASP QC limits, high, in MB 480-349557/1-A, LCS 480-349557/2-A and LSS-016 2-12"MS/MSD. The %Rec of TCMX off column ZB-5 was outside ASP

QC limits, high, in LSS-016 2-12"MS. These surrogates and detects in these samples, off the associated column, should be qualified as estimated high.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except Aroclor 1260 was detected above the MDL, below the reporting limit in LSS-016 2-12" but was not detected in LSS-016 2-12"DUP.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Aroclor 1016 and 1260 was outside ASP QC limits, high in LCS 480-349557/2-A and should be qualified as estimated

MS/MSD

All criteria were met except the %Rec of Aroclor 1016 and 1260 was outside ASP QC limits, high in LSS-016 2-12"MS and should be qualified as estimated. These target analytes were within limits in LSS-016 2-12"MSD, so no further action is required for the samples.

COMPOUND QUANTITATION

All criteria were met except the RPD between the columns was outside QC limits for Aroclor 1254 in sample LSS-015 2-12". The RPD between the columns was outside QC limits for Aroclor 1260 in samples LSS-013 0-2", LSS-014 2-12", LSS-016 0-2" and LSS-016 2-12". These target analytes should be qualified as estimated in the associated samples.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the initial calibration performed on instrument HP6890-7 with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1260 peak 1 was outside QC limits off column ZB-5 in CCVIS 480-349730/4. The %D of Aroclor 1016 peak 3 was outside QC limits off column ZB-35 in CCVIS 480-349730/4. The %D of Aroclor 1232 peak 4 was outside QC limits off column ZB-5 in CCV 480-349730/6. The %D of Aroclor 1232 peak 5 was outside QC limits off column ZB-35 in CCV 480-349730/6. The %D of Aroclor 1242 peak 4 was outside QC limits off column ZB-5 in CCV 480-349730/7. The %D of Aroclor 1248 peak 3 was outside QC limits off column ZB-35 in CCV 480-349730/8. The %D of Aroclor 1248 peak 3 was outside QC limits off column ZB-35 in CCV 480-351188/8. ASP requires three conforming peaks, so no further action is required. The %D of Aroclor 1016 peaks 1-3 and 5 was outside QC limits off column ZB-5 in CCVIS 480-349730/4. The %D of DCBP and Aroclor 1260 peaks 1-5 was outside QC limits off column ZB-35 in CCVIS 480-349730/4. The %D of Aroclor 1254 peaks 1, 3 and 4 was outside QC limits off column ZB-5 in CCV 480-349730/5. The %D of Aroclor 1254 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-349730/5. The %D of Aroclor 1262 peaks 1-3 and 5 was outside QC

limits off column ZB-5 in CCV 480-349730/6. The %D of Aroclor 1268 peaks 1, 2 and 4 was outside QC limits off column ZB-5 in CCV 480-349730/7. The %D of Aroclor 1248 peaks 1-5 was outside QC limits off column ZB-5 in CCV 480-349730/8. The %D of Aroclor 1221 peak 1 was outside QC limits off column ZB-5 in CCV 480-351188/5. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks, Laboratory Control Samples, MS/MSD, Serial Dilution and Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Ca, Mn, Se were detected in MB 480-349517/1-A above the MDL,

Nash Rd., Wheatfield

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below the reporting limit and is qualified as estimated. Ca, Cr, Se and Mg were detected in MB 480-351395/1-A above the MDL, below the reporting limit and are qualified as estimated. Mn was detected in CCB 480-349932/18 and CCB 480-349932/30 above the MDL, below the reporting limit and is qualified as estimated. Cu was detected in ICB 480-351888/6 and CCB 480-351888/28 above the MDL, below the reporting limit and is qualified as estimated. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met except the %Rec of Sb was outside ASP QC limits, low in LCSSRM 480-349517/2-A, LCSSRM 480-351395/2-A and LCSDSRM 480-351395/3-A. This target analyte should be qualified as estimated in the associated laboratory control samples and the associated samples.

MS/MSD

All criteria were met except the %Rec of Sb and Zn was outside QC limits, low in LSS-016 2-12"MS/MSD. Sb was within limits in the post digest spike and should be qualified as estimated in the associated samples. The %Rec of Zn was outside QC limits, low in the post digest spike. Zn should be qualified as estimated low if detected in associated samples and estimated if undetected.

The RPD between LSS-016 2-12"MS and LSS-016 2-12"MSD was outside QC limits for Mg. Mg should be qualified as estimated in the associated samples.

FIELD DUPLICATE

All criteria were met.

SERIAL DILUTION

There were no detects in the serial dilution, so all target analytes detected in the sample are outside QC limits in the serial dilution, LSS-016 2-12"SD. All effected target analytes should be qualified as estimated in LSS-016 2-12"SD and LSS-016 2-12".

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Al, Cd and Se was outside ASP QC limits, high, in ICVL 480-351888/7. The %Rec of Al, As, Cu and Se was outside ASP QC limits, high in CCVL 480-351888/17. The %Rec of Al, Cu, Fe and Se was outside ASP QC limits, high in CCVL 480-351888/29. The %Rec of Mn and Ag was outside ASP QC limits, high in CCVL 480-351888/41. The %Rec of Sb, Zn and Se was outside ASP QC limits, high, in ICVL 480-349932/7. The %Rec of Sb, Mn and Zn was outside ASP QC limits, high in CCVL 480-349932/19. The %Rec of As, Mn and Zn was outside ASP QC limits, high in CCVL 480-349932/31. The %Rec of Sb, Mn and Zn was

outside ASP QC limits, high in CCVL 480-349932/42. The %Rec of Hg was outside ASP QC limits, high, in ICVL 480-349539/3. The %Rec of Hg was outside ASP QC limits, high in CCVL 480-349539/62. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Cr and K was outside ASP QC limits, low, in ICVL 480-351888/7. The %Rec of Sb was outside ASP QC limits, low in CCVL 480-351888/17. The %Rec of Cr was outside ASP QC limits, low in CCVL 480-351888/29. The %Rec of As and Cr was outside ASP QC limits, low in CCVL 480-351888/41. The %Rec of V was outside ASP QC limits, low, in ICVL 480-349932/7. The %Rec of Ag and Cu was outside ASP QC limits, low in CCVL 480-349932/19. The %Rec of Al was outside ASP QC limits, low in CCVL 480-349932/31. The %Rec of Cu and V was outside ASP QC limits, low in CCVL 480-349932/42. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- %Solids

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below.

%SOLIDS

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-115331-1
May 17, 2017
Reissued: July 21, 2017
Sampling date: 3/29/2017

Prepared by:
Jodi Zimmerman
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Nash Rd., Wheatfield
SDG# 480-115331-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers. (reissued; July 21, 2017), project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-115331-1, submitted to Vali-Data of WNY, LLC on May 5, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C, 6020A), Mercury (7470A, 7471B) and in accordance with wet chemistry methods.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Method Blank, Laboratory Control Samples and MS/MSD.

Samples; LSS-007 0-2", LSS-007 0-2"MS/MSD, LSS-007 2-12", LSS-018 0-2", LSS-004 0-2", LSS-005 0-2", LSS-006 0-2" and LSS-009 0-2" were diluted due to color, appearance and/or viscosity.

Samples; LSS-007 0-2"MS/MSD, LSED-003 0-2", LSED-003 0-2"DU, LSED-003 0-2"MS/MSD were diluted due to sample matrix.

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DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of some of the surrogates was outside QC limits due to dilution; no further action is required.

METHOD BLANK

All the criteria were met except Diethyl phthalate and Di-n-butyl phthalate were detected above the MDL, below the reporting limit and are qualified as estimated in MB 480-349909/1-A. These target analytes should be qualified as undetected at the reporting limit if they are detected in the associated samples below the reporting limit. If they are detected above the reporting limit in the associated samples, they should be qualified as estimated.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 3,3-Dichlorobenzidine was outside QC limits, high, in LCS 480-349909/2-A and is qualified with an 'E'. This target analyte was within limits in the associated matrix spike and matrix spike duplicate, so no further action is required

MS/MSD

All criteria were met except the %Rec of 2,4-Dinitrotoluene was outside QC limits, high in LSS-007 0-2"MS/MSD and should be qualified as estimated in LSS-007 0-2"MS/MSD and LSS-007 0-2", if detected.

The %Rec of 2,4-Dinitrophenol was 0% in LSS-007 0-2"MS/MSD and should be qualified as estimated in LSS-007 0-2", if detected, and unusable, if not detected.

The %Rec of 3,3'-Dichlorobenzidine and Hexachlorocyclopentadiene was outside QC limits, low in LSED-003 0-2"MS/MSD and should be qualified as estimated in LSED-003 0-2"MS/MSD and LSED-007 0-2".

The %Rec of 2,4-Dinitrophenol was outside QC limits, low in LSED-007 0-2"MS but within limits in LSED-007 0-2"MSD, so no further action is required.

COMPOUND QUANTITATION

All criteria were met except Acenaphthene and Acenaphthylene were detected above the MDL, below the reporting limit in LSED-003 0-2" but were not detected in LSED-003 0-2"DU.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of several target analytes was outside laboratory QC limits but was within ASP limits, so no further action is required.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Method Blank, Laboratory Control Samples, MS/MSD, Compound Quantitation and Continuing Calibration.

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Sample; LSS-007 0-2" was diluted due to sample matrix.

Samples; LSS-004 0-2", LSS-005 0-2" and LSS-006 0-2" were diluted due to high target analyte concentration.

Samples; LSS-003 0-2", LSS-004 0-2", LSS-005 0-2", LSS-006 0-2", LSS-007 2-12" and LSS-017 2-12" may contain enhanced positive peaks due to the presence of biphenyl peaks.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of some of the surrogates was outside QC limits in sample LSS-004 0-2" and LSS-005 0-2" due to dilution and interfering peaks. No further action is required.

The %Rec of several surrogates were outside laboratory QC limits, but within ASP limits, so no further action is required.

METHOD BLANK

All the criteria were met except 4,4'-DDT was detected above the MDL, below the reporting limit and is qualified as estimated in MB 180-207882/1-B. This target analyte should be qualified as undetected at the reporting limit, if it is detected in the associated samples below the reporting limit.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Endosulfan sulfate was outside QC limits, high in LCS 480-349618/2-A and LCSD 480-349618/3-A. This target analyte should be qualified as estimated high if detected in the associated samples.

The %Rec of Endrin and 4,4'-DDT was outside QC limits, high in LCSD 480-349618/3-A but within limits in LCS 480-349618/2-A, so no further action is required.

MS/MSD

All criteria were met except the RPD of 4,4'-DDE, Endosulfan I and gamma-Chlordane between LSS-007 0-2"MS and LSS-007 0-2"MSD was outside QC limits. These target analytes should be qualified as estimated in LSS-007 0-2"MS/MSD and LSS-007 0-2".

4,4'-DDT and gamma-BHC were outside laboratory QC limits, but within ASP limits, so no further action is required.

COMPOUND QUANTITATION

All criteria were met except the RPD of Heptachlor epoxide, Dieldrin, 2,4'-DDT, 4,4'-DDD and 4,4'-DDT was outside QC limits between the two columns in sample LSED-003 0-2". The RPD of oxy-Chlordane was outside QC limits between the two columns in sample LSED-003 0-2"MS/MSD. The RPD of Mirex was outside QC limits between the two columns in sample LSED-003 0-2"MSD. The RPD of Heptachlor epoxide, gamma-Chlordane, alpha-Chlordane, Dieldrin, 4,4'-DDD and 4,4'-DDT was outside QC limits between the two columns in sample LSED-003 0-2"DU. The RPD of beta-BHC, oxy-Chlordane and Mirex was outside QC limits between the two columns in sample LSED-006 0-2". The RPD of alpha-BHC was outside QC limits between the two columns in sample LSW-003. The RPD of 4,4'-DDT was outside QC limits between the two columns in sample LSS-004 0-2". The RPD of Endosulfan II was outside QC limits between the two columns in sample LSS-005 0-2". The RPD of Heptachlor epoxide, gamma-Chlordane, Endosulfan I, Endosulfan II, Methoxychlor and Endrin ketone was outside QC limits between the two columns in sample LSS-007 0-2"MS. The RPD of Heptachlor epoxide, gamma-Chlordane, Endosulfan II and Methoxychlor was outside QC limits between the two columns in sample LSS-007 0-2"MSD. The RPD of 4,4'-DDE and delta-BHC was outside QC limits between the two columns in samples LSS-007 2-12", LSS-009 2-12", LSS-017 2-12" and LSS-018 0-2". The RPD of alpha-BHC, alpha-Chlordane and Methoxychlor was outside QC limits between the two columns in LCS 480-349618/2-A and LCSD 480-349618/3-A. The RPD of gamma-Chlordane, Heptachlor epoxide, Endrin aldehyde and Endosulfan I was outside QC limits between the two columns in LCS 480-349858/2-A. These target analytes should be qualified as estimated in the associated samples.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates in the initial calibrations performed on instruments HP6890-25 and HP6890-5 with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of DCBP off column MR-1 and MR-2 was outside QC limits in CCV 180-208894/29. This surrogate should be qualified as estimated in the associated samples, blanks and spikes.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Laboratory Control Samples, MS/MSD, Compound Quantitation and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of DCBP off column ZB-5 was outside ASP QC limits, high, in LCS 480-349693/2-A and should be qualified as estimated high.

The %Rec of several surrogates were outside laboratory QC limits, but within ASP limits, so no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Aroclor 1016 was outside ASP QC limits, high in LCS 480-349693/2-A and LCSD 480-349619/3-A and should be qualified as estimated.

MS/MSD

All criteria were met except the RPD between LSS-007 0-2"MS and LSS-007 0-2"MSD and LSED-003 0-2"MS and LSED-003 0-2"MSD was outside QC limits for Aroclor 1016 and Aroclor 1260. These target analytes should be qualified as estimated in the associated samples.

COMPOUND QUANTITATION

All criteria were met except the RPD between the columns was outside QC limits for Aroclor 1254 in samples LSS-005 0-2" and LSS-006 0-2". The RPD between the columns was outside QC limits for Aroclor 1260 in samples LSS-004 0-2", LSS-005 0-2", LSS-006 0-2" and LSS-007 2-12". The RPD between the columns was outside QC limits for Aroclor 1016 in sample LSS-007 0-2"MS. These target analytes should be qualified as estimated in the associated samples.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on some of the target analytes and surrogates in the initial calibration performed on instrument HP6890-6 with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1016 peaks 1-3 and 5 was outside QC limits off column ZB-5 in CCVIS 480-349730/4. The %D of Aroclor 1260 peaks 1-5 and DCBP was outside QC limits off column ZB-35 in CCVIS 480-349730/4. The %D of Aroclor 1254 peaks 1, 3 and 4 was outside QC limits off column ZB-5 in CCV 480-349730/5. The %D of Aroclor 1254 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-349730/5. The %D of Aroclor 1262 peaks 1-3 and 5 was outside QC limits off column ZB-5 in CCV 480-349730/6. The %D of Aroclor 1268 peaks 1, 2 and 4 was outside QC limits off column ZB-5 in CCV 480-349730/7. The %D of Aroclor 1248 peaks 1-5 was outside QC limits off column ZB-5 in CCV 480-349730/8. The %D of Aroclor 1260 peaks 1, 2 and 4 and TCMX was outside QC limits off column ZB-5 in CCV 480-349730/30. The %D of Aroclor 1016 peaks 1, 3 and 5 was outside QC limits off column ZB-5 in CCV 480-349733/26. The %D of Aroclor 1221 peaks 1 and 3 was outside QC limits off column ZB-5 in CCV 480-349733/27. The %D of Aroclor 1262 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-349733/28. The %D of Aroclor 1242 peaks 2, 4 and 5 and Aroclor 1268 peaks 1-5 was outside QC limits off column ZB-5 in CCV 480-349733/29. The %D of Aroclor 1268 peaks 2-4 was outside QC limits off column ZB-35 in CCV 480-349733/29. The %D of Aroclor 1221 peaks 1 and 3 was outside QC limits off column RTX-CLP1 in CCV 180-207953/1.

The %D of Aroclor 1221 peaks 1-3 was outside QC limits off column RTX-CLP2 in CCV 180-207953/1. The %D of TCMX was outside QC limits off both columns in CCV 480-349733/26. The %D of Aroclor 1254 peaks 1-5 was outside QC limits off both columns in CCV 180-207953/1. These target analytes should be qualified as estimated in the associated samples off the associated column.

All criteria were met except the %D of Aroclor 1260 peak 1 was outside QC limits off column ZB-5 in CCV 480-349730/4. The %D of Aroclor 1016 peak 3 was outside QC limits off column ZB-35 in CCV 480-349730/4. The %D of Aroclor 1232 peak 4 was outside QC limits off column ZB-5 in CCV 480-349730/6. The %D of Aroclor 1232 peak 5 and Aroclor 1262 peak 5 was outside QC limits off column ZB-35 in CCV 480-349730/6. The %D of Aroclor 1242 peak 4 was outside QC limits off column ZB-5 in CCV 480-349730/7. The %D of Aroclor 1248 peak 3 was outside QC limits off column ZB-35 in CCV 480-349730/8. The %D of Aroclor 1016 peaks 1 and 3 was outside QC limits off column ZB-5 in CCV 480-349730/30. The %D of Aroclor 1016 peak 1 was outside QC limits off column ZB-35 in CCV 480-349733/4. The %D of Aroclor 1242 peak 5 was outside QC limits off column ZB-35 in CCV 480-349733/7. The %D of Aroclor 1248 peak 1 was outside QC limits off column ZB-5 in CCV 480-349733/8. The %D of Aroclor 1248 peak 5 was outside QC limits off column ZB-35 in CCV 480-349733/8. The %D of Aroclor 1016 peaks 3 and 4 was outside QC limits off column ZB-35 in CCV 480-349733/26. The %D of Aroclor 1232 peaks 3 and 5 was outside QC limits off column ZB-35 in CCV 480-349733/28. The %D of Aroclor 1242 peak 4 was outside QC limits off column ZB-35 in CCV 480-349733/29. The %D of Aroclor 1248 peak 3 was outside QC limits off column ZB-35 in CCV 480-349733/30. ASP requires three conforming peaks, so no further action is required.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks, Laboratory Control Sample, MS/MSD, Serial Dilution and Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Ba was detected in MB 180-209044/1-A above the MDL, below the reporting limit and is qualified as estimated. K was detected in CCB1 180-209311/11 above the MDL, below the reporting limit and is qualified as estimated. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met except the %Rec of Sb was outside ASP QC limits, low in LCSSRM 480-349750/2-A. This target analyte should be qualified as estimated in LCSSRM 480-349750/2-A and the associated samples.

MS/MSD

All criteria were met except the %Rec of Al, Ba and K was outside QC limits, high in LSS-007 0-2"MS/MSD. These target analytes were within limits in the post digest spike. These target analytes should be qualified as estimated high in the associated samples.

The %Rec of Sb was outside QC limits, low in LSED-003 0-2"MS/MSD. This target analyte was within limits in the post digest spike. This target analyte should be qualified as estimated in the associated samples.

The RPD of Sb between LSS-007 0-2"MS and LSS-007 0-2"MSD was outside QC limits. This target analyte should be qualified as estimated in the associated samples.

The %Rec of Hg was outside QC limits in LSS-007 0-2"MS but within limits in LSS-007 0-2"MSD, so no further action is required.

The %Rec of Se was outside QC limits in LSED-003 0-2"MSD but within limits in LSED-003 0-2"MS, so no further action is required.

FIELD DUPLICATE

No field duplicate was acquired.

SERIAL DILUTION

All criteria were met except the %D of Zn in LSS-007 0-2"SD was outside QC limits. This target analyte should be qualified as estimated in the associated samples.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Sb, Zn and Se was outside ASP QC limits, high, in ICVL 480-349930/7 and CCVL 480-349930/43. The %Rec of As and Zn was outside ASP QC limits, high in CCVL 480-349930/19. The %Rec of Pb, Mn and Zn was outside ASP QC limits, high in CCVL 480-349930/31. The %Rec of Zn was outside ASP QC limits, high in CCVL 480-349930/49. The %Rec of Cr and Fe was outside ASP QC limits, high, in ICVL 480-350184/7. The %Rec of Cr was outside ASP QC limits, high in CCVL 480-350184/17. The %Rec of Sb, Cd, Cr and Mn was outside ASP QC limits, high in CCVL 480-350184/21. The %Rec of Cr, Fe and Zn was outside ASP QC limits, high in ICVL 480-350194/7. The %Rec of Al, Cr, Fe, Mn and Zn was outside ASP QC limits, high in CCVL 480-350194/19. The %Rec of Al, Cd and Zn was outside ASP QC limits, high in CCVL 480-350194/27. The %Rec of Al, Na and Zn was outside ASP QC limits, high, in ICVL 180-209311/7. The %Rec of Al, As, Cu, Na and Zn was outside ASP QC limits, high in CCVL 180-209311/93. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of V was outside ASP QC limits, low, in ICVL 480-349930/7, CCVL 480-349930/19, 31. The %Rec of Al was outside ASP QC limits, low in CCVL 480-349930/43. The %Rec of Fe was outside ASP QC limits, low in CCVL 480-349930/49. The %Rec of Cu and Pb was outside ASP QC limits, low, in CCVL 480-350184/17. The %Rec of Pb was outside ASP QC limits, low in CCVL 480-350184/21. The %Rec of As was outside ASP QC limits, low in ICVL 480-350194/7. The %Rec of Pb was outside ASP QC limits, low in CCVL 480-350194/19. The %Rec of Pb, Ag and Se was outside ASP QC limits, low in CCVL 480-350194/27. The %Rec of Pb and As was outside ASP QC limits, low in CCVL 480-350194/36. The %Rec of As, Co, Fe, Se, Tl and V was outside ASP QC limits, low in ICVL 180-209311/7. The %Rec of Co and Tl was outside ASP QC limits, low in CCVL 180-209311/93. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- %Solids

Nash Rd., Wheatfield

SDG# 480-115331-1

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below.

%SOLIDS

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-117880-1
May 31, 2017
Sampling date: 5/11/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-117880-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-117880-1, submitted to Vali-Data of WNY, LLC on May 26, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7471B) and in accordance with wet chemistry methods.

The temperature of the samples was outside QC limits. Due to the ambient temperature on the day of sampling and the time it took the samples to arrive at the laboratory, no further action is required.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples and MS/MSD.

Samples; RSS-019, RSS-020, RSS-020MS/MSD, RSS-021, RSS-021DUP, RSS-023, RSS-024 were diluted due to color and appearance.

Nash Rd., Wheatfield

SDG# 480-117880-1

Samples; LSS-019, LSS-020, LSS021, LSS022 were diluted due to sample matrix, color and viscosity.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of some of the surrogates was outside QC limits due to dilution; no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 2-Methylnaphthalene and 4-Chloro-3-methylphenol was outside QC limits, high, in LCS 480-357131/2-A. These target analytes should be qualified as estimated in LCS 480-357131/2-A and the associated samples, if detected.

MS/MSD

All criteria were met except the %Rec of 2,4-Dinitrotoluene was outside QC limits, high in RSS-020MS/MSD and should be qualified as estimated in RSS-020MS/MSD and RSS-020, if detected. The %Rec of 2,4-Dinitrophenol was 0% in RSS-020MS/MSD and should be qualified as estimated in RSS-020, if detected, and unusable, if not detected.

The RPD of Biphenyl, 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 2,6-Dinitrotoluene, 2-Chloronaphthalene, 2-Nitroaniline, Acenaphthylene and Dimethylphthalate was outside QC limits between RSS-020MS and RSS-020MSD and should be qualified as estimated in RSS-020MS/MSD and RSS-020.

The %Rec of 2,6-Dinitrotoluene was outside QC limits in RSS-020MSD but within limits in RSS-020MS, so no further action is required.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, MS/MSD and Compound Quantitation.

Samples; RSS-018 and RSS-024 were diluted due to sample matrix.

Nash Rd., Wheatfield

SDG# 480-117880-1

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of TCMX off column RTX-CLPI was outside ASP QC limits, high in RSS-020 and RSS-024. The %Rec of DCBP off column RTX-CLPI was outside ASP QC limits, high in RSS-020MSD. Target analytes detected in these samples, off column RTX-CLPI, should be qualified as estimated high.

The %Rec of several surrogates were outside laboratory QC limits, but within ASP limits, so no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except delta-BHC was detected above the MDL, below the reporting limit in RSS-021 but was undetected in RSS-021DUP.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met except the RPD of Heptachlor epoxide and alpha-Chlordane between RSS-020MS and RSS-020MSD was outside QC limits. These target analytes should be qualified as estimated in RSS-020MS/MSD and RSS-020.

COMPOUND QUANTITATION

All criteria were met except the RPD of Dieldrin and alpha-Chlordane was outside QC limits between the two columns in sample RSS-019. The RPD of gamma-BHC, alpha-Chlordane and 4,4'-DDT was outside QC limits between the two columns in sample RSS-020. The RPD of Dieldrin and 4,4'-DDT was outside QC limits between the two columns in sample RSS-021 and RSS-021DUP. The RPD of Heptachlor, Aldrin and Endrin aldehyde was outside QC limits between the two columns in sample RSS-022. The RPD of 4,4'-DDD was outside QC limits between the two columns in sample RSS-023. The RPD of 4,4'-DDE, 4,4'-DDT and Endrin aldehyde was outside QC limits between the two columns in sample RSS-024. The RPD of

Endosulfan sulfate was outside QC limits between the two columns in LCS 480-357346/2-A. These target analytes should be qualified as estimated in the associated samples.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All the criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Aroclor 1016 was outside ASP QC limits, high in LCS 480-357008/2-A and should be qualified as estimated in the associated samples, if detected.

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All criteria were met except the RPD between the columns was outside QC limits for Aroclor 1260 in sample LSS-020. This target analyte should be qualified as estimated in LSS-020.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1254 peak 1 was outside QC limits off column ZB-35 in CCV 480-357251/7. The %D of Aroclor 1268 peaks 1 and 4 was outside QC limits off column ZB-35 in CCV 480-357251/9. The %D of Aroclor 1248 peak 1 was outside QC limits off column ZB-35 in CCB 480-357251/10. ASP requires three conforming peaks, so no further action is required.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks, Laboratory Control Samples, MS/MSD, Serial Dilution and Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Ca was detected in MB 480-357650/1-A above the MDL, below the reporting limit and is qualified as estimated. Zn was detected in CCB 480-358904/109 above the MDL, below the reporting limit and is qualified as estimated. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high. Mn was detected above the reporting limit in MB 480-357650/1-A. Associated samples in

which this target analyte was detected below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which this target analyte was detected above the reporting limit but below the blank concentration, should be qualified as undetected. Associated samples in which this target analyte was detected above the blank concentration should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met except the %Rec of Sb was outside ASP QC limits, low in LCSSRM 480-357650/2-A. This target analyte should be qualified as estimated in LCSSRM 480-357650/2-A and the associated samples.

MS/MSD

All criteria were met except the %Rec of Ba and K was outside QC limits, high in RSS-020MS/MSD. These target analytes were within limits in the post digest spike. These target analytes should be qualified as estimated high in RSS-020MS/MSD and RSS-020, if detected. The %Rec of Sb was outside QC limits, low in RSS-020MS/MSD. This target analyte was within limits in the post digest spike. This target analyte should be qualified as estimated in RSS-020MS/MSD and RSS-020.

FIELD DUPLICATE

All criteria were met.

SERIAL DILUTION

All criteria were met except the %D of Zn in RSS-020SD was outside QC limits. This target analyte should be qualified as estimated in RSS-020SD and RSS-020.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Cr was outside ASP QC limits, high, in ICVL 480-358904/7. The %Rec of Cr, Fe and Mn was outside ASP QC limits, high in CCVL 480-358904/110. The %Rec of Al, Cr and Mn was outside ASP QC limits, high in CCVL 480-358904/122. The %Rec of Al and Mn was outside ASP QC limits, high in CCVL 480-358904/134. The %Rec of Al, Be, Cr, Fe, Mn and Zn was outside ASP QC limits, high, in CCVL 480-358904/140. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high. The %Rec of Pb was outside ASP QC limits, low, in ICVL 480-358904/7, CCVL 480-358904/110, 140. This target analyte should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- %Solids

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

%SOLIDS

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-117891-1
June 2, 2017
Sampling date: 5/10/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-117891-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-117891-1, submitted to Vali-Data of WNY, LLC on May 26, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7471B) and in accordance with wet chemistry methods.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples and MS/MSD.

Samples; RSS-002, RSS-008, RSS-011, RSS-011MS/MSD, RSS-012, RSS-014, RSS-015, RSS-016, RSS-017 were diluted due to viscosity and appearance.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except Benzo(a)anthracene, Benzo(g,h,i)perylene, Bis(2-ethylhexyl)phthalate, Fluoranthene and Pyrene were detected above the MDL, below the reporting limit in RSS-011DUP but were not detected in RSS-011.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 2-Methylnaphthalene and 4-Chloro-3-methylphenol was outside QC limits, high, in LCS 480-357131/2-A. These target analytes should be qualified as estimated in the associated samples, if detected.

MS/MSD

All criteria were met except the %Rec of 2,4-Dinitrophenol was 0% in RSS-011MS/MSD and should be qualified as estimated in RSS-011 and RSS-011DUP, if detected, and unusable, if not detected.

The %Rec of 2,4-Dinitrotoluene was outside QC limits in RSS-011MS but within limits in RSS-011MSD, so no further action is required.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Method Blank, Laboratory Control Samples and Compound Quantitation.

Sample; RSS-002 was diluted due to high target analyte concentration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

The %Rec of DCBP off column RTX-CLPII in RSS-006 was outside laboratory QC limits, but within ASP limits, so no further action is required.

METHOD BLANK

All the criteria were met except alpha-Chlordane and gamma-BHC were detected above the MDL, below the reporting limit and are qualified as estimated in MB 480-357745/1-A. These target analytes were not detected in the associated sample, so no further action is required.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except delta-BHC was detected above the MDL, below the reporting limit in RSS-011 but was undetected in RSS-011DUP. 4,4'-DDE was detected above the MDL, below the reporting limit in RSS-011DUP but was undetected in RSS-011.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Endosulfan sulfate was outside ASP QC limits, high in LCS 480-357745/2-A and should be qualified as estimated. This target analyte was not detected in the associated sample, so no further action is required.

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All criteria were met except the RPD of 4,4'-DDD was outside QC limits between the two columns in sample RSS-002. The RPD of 4,4'-DDT was outside QC limits between the two columns in sample RSS-003. The RPD of Dieldrin and Heptachlor was outside QC limits between the two columns in sample RSS-004. The RPD of Dieldrin and Endrin was outside QC limits between the two columns in sample RSS-008. The RPD of 4,4'-DDE was outside QC limits between the two columns in sample RSS-011DUP. The RPD of Dieldrin was outside QC limits between the two columns in sample RSS-015. The RPD of delta-BHC was outside QC limits between the two columns in RSS-016. The RPD of 4,4'-DDE and Dieldrin was outside QC limits between the two columns in sample RSS-017. The RPD of alpha-Chlordane was outside QC limits between the two columns in sample MB 480-357745/1-A. The RPD of Endosulfan sulfate was outside QC limits between the two columns in sample LCS 480-357745/2-A. These target analytes should be qualified as estimated in the associated samples.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Laboratory Control Samples and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of TCMX and DCBP off column ZB-5 was outside ASP QC limits, high in RSS-002, RSS-003, RSS-011, RSS-011MSD and MB 480-357277/1-A. The %RPD of

Nash Rd., Wheatfield

SDG# 480-117891-1

DCBP off column ZB-5 was outside ASP QC limits, high in RSS-001, RSS-004, RSS-005, RSS-013, RSS-014, RSS-017 and RSS-011MS. The %Rec of DCBP off column ZB-35 was outside ASP QC limits, high in RSS-002 and MB 480-357227/1-A. The %Rec of all surrogates off both columns was outside ASP QC limits, high in LCS 480-357227/2-A. Detects in these samples, off these columns, should be qualified as estimated high.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All the criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Aroclor 1016 and 1260 was outside ASP QC limits, high in LCS 480-357227/2-A and should be qualified as estimated in the associated samples, if detected.

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1221 peak 3 and Aroclor 1254 peak 3 and 4 was outside QC limits off column ZB-35 in CCV 480-357472/5. The %D of Aroclor 1232 peak 5 was outside QC limits off column ZB-5 in CCV 480-357472/6. The %D of Aroclor 1248 peak 1 was outside QC limits off column ZB-5 in CCV 480-357472/8. The %D of Aroclor 1248 peak 5 was outside QC limits off column ZB-35 in CCV 480-357472/8. The %D of Aroclor 1016 peak 1 and 2 was outside QC limits off column ZB-5 in CCV 480-357472/30. The %D of Aroclor 1221 peak 1 and Aroclor 1254 peak 3 was outside QC limits off column ZB-5 in CCV 480-357659/5. The %D of Aroclor 1254 peaks 2 and 5 was outside QC limits off column ZB-35 in CCV 480-357659/5. The %D of Aroclor 1232 peak 5 was outside QC limits off column ZB-5 in CCV 480-357659/6. The %D of Aroclor 1268 peak 1 was outside QC limits off column ZB-5 in CCV 480-357659/7. The %D of Aroclor 1242 peak 3 was outside QC limits off column ZB-35 in CCV 480-357659/7. The %D of Aroclor 1248 peak 5 was outside QC limits off column ZB-35 in CCV 480-357659/8. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1221 peaks 1-3 and Aroclor 1254 peaks 1-3 was outside QC limits off column ZB-5 in CCV 480-357472/5. The %D of Aroclor 1268 peak 1-5 was outside QC limits off column

ZB-5 in CCV 480-357472/7. The %D of Aroclor 1242 peaks 1, 2-5 and Aroclor 1268 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-357472/7. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks, Laboratory Control Sample, MS/MSD, Serial Dilution and Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Ca was detected in MB 480-357649/1-A above the MDL, below the reporting limit and is qualified as estimated. Associated samples in which these target analytes

were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met except the %Rec of Sb was outside ASP QC limits, low in LCSSRM 480-357649/2-A. This target analyte should be qualified as estimated in LCSSRM 480-357649/2-A and the associated samples.

MS/MSD

All criteria were met except the %Rec of Al, Mn and K was outside QC limits, high in RSS-011MS/MSD. These target analytes were within limits in the post digest spike. These target analytes should be qualified as estimated high in RSS-011MS/MSD, RSS-011DUP and RSS-011. The %Rec of Sb was outside QC limits, low in RSS-011MS/MSD. This target analyte was within limits in the post digest spike. This target analyte should be qualified as estimated in RSS-011MS/MSD, RSS-011DUP and RSS-011.

Several target analytes were outside QC limits in RSS-011MSD but were within limits in RSS-011MS, so no further action is required.

FIELD DUPLICATE

All criteria were met.

SERIAL DILUTION

All criteria were met except the %D of Al, Ba, Ca, Fe, Mg, Mn and Zn in RSS-011SD was outside QC limits. These target analytes should be qualified as estimated in RSS-011SD, RSS-011 and RSS-011.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Zn was outside ASP QC limits, high, in ICVL 480-358481/7 and CCVL 480-358481/19. The %Rec of As and Se was outside ASP QC limits, high in CCVL 480-358481/26. The %Rec of Fe, Se and Zn was outside ASP QC limits, high in CCVL 480-358481/50. The %Rec of As and Zn was outside ASP QC limits, high in CCVL 480-358481/55. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Al and Tl was outside ASP QC limits, low, in ICVL 480-358481/7. The %Rec of Pb, Mn, Se and Ag was outside ASP QC limits, low, in CCVL 480-358481/19. The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-358481/26. The %Rec of Se and Ag was outside ASP QC limits, low, in CCVL 480-358481/55. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- %Solids

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

%SOLIDS

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-121321-1
November 4, 2017
Sampling date: 7/19/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-121321-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-121321-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7471B) and in accordance with wet chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Method Blank, Laboratory Control Samples, MS/MSD and Continuing Calibration.

Samples were qualified by the laboratory with a 'vs' due to possible low bias based on collection method.

DATA COMPLETENESS

All criteria were met.

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NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met except 1,2,4-Trichlorobenzene and Acetone were detected above the MDL below the reporting limit and are qualified as estimated in MB 480-368516/2-A. These target analytes should be qualified as undetected at the reporting limit if they were detected above the reporting limit in the associated samples. These target analytes should be qualified as estimated high if they were detected above the reporting limit in the associated samples.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Chloroethane in LSC 480-368516/1-A was outside QC limits, high. This target analyte should be qualified as estimated in the associated samples, if detected.

MS/MSD

All criteria were met except the %Rec of 1,1,1-Trichloroethane, 1,1,2,2,-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1,2-Trichloro-1,2,2-Trifluoroethane, 1,1-Dichloroethene, 1,2,4-Trichlorobenzene, 1,2-Dibromoethane, 2-Butanone, Acetone, Benzene, Bromoform, Carbon disulfide, Carbon tetrachloride, cis-1,3-Dichloropropene, Cyclohexane, Dichlorodifluoromethane, Ethylbenzene, Methylcyclohexane, Styrene, Tetrachloroethene, Toluene, trans-1,2-Dichloroethene and Trichlorofluoromethane was outside QC limits, low in TP-04MS/MSD. These target analytes should be qualified as estimated in TP-04 and TP-04MS/MSD.

The %Rec of some target analytes was outside QC limits in TP-04MSD but within limits in TP-04MS, so no further action is required.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Bromomethane and Chloroethane was outside ASP outer QC limits in CCVIS 480-368496/3. Associated blanks, spikes and samples should be qualified as estimated for these target analytes.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in MS/MSD and Initial Calibration.

Samples; TP-01 and TP-18 were diluted due to color and appearance.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except some surrogates were outside QC limits, but due to the fact that the samples were diluted, no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met except the %Rec of 2,4-Dinitrotoluene was outside QC limits, high in TP-04MS/MSD and should be qualified as estimated, if detected in TP-04 and TP-04MS/MSD.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results except for 2-Nitrophenol, 2-Nitroaniline, 2,6-Dinitrotoluene, 3-Nitroaniline, 2,4-Dinitrophenol, 4-Nitrophenol, 2,4-Dinitrotoluene and 4,6-Dinitro-2-methylphenol in the initial calibration performed on instrument HP5973U on 7/21/17. These target analytes should be qualified as estimated in the blanks, spikes and samples performed using this initial calibration.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in MS/MSD and Continuing Calibration.

Sample, TP-18 was diluted due to a bad matrix.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

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SURROGATE SPIKE RECOVERIES

All criteria were met except some surrogates were outside QC limits, but due to the fact that the sample was diluted, no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except delta-BHC was detected above the MDL, below the reporting limit in TP-05 but was not detected in DUP.

MS/MSD

All criteria were met except the %Rec of Methoxychlor was outside QC limits, high in TP-04MS/MSD. This target analyte should be qualified as estimated, if detected, in TP-04 and TP-04MS/MSD.

The RPD of Endosulfan sulfate and Methoxychlor was outside QC limits between the two columns in TP-04MS/MSD. These target analytes should be qualified as estimated in TP-04MS/MSD.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of beta-BHC was outside QC limits in CCVIS 480-368232/7. This target analyte should be qualified as estimated in the associated samples, blank and spikes.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries

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- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Laboratory Control Samples, MS/MSD, Compound Quantitation and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of TCMX off column ZB-5 was outside ASP QC limits, high in TP-04MSD and LCS 480-367916/2-A. This surrogate should be qualified as estimated in these samples.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All the criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Aroclor 1016 and Aroclor 1260 was outside ASP QC limits, high in LCS 480-367916/2-A and should be qualified as estimated in the associated samples, if detected.

MS/MSD

All criteria were met except the %Rec of Aroclor 1016 was outside QC limits, high in TP-04MS/MSD and should be qualified as estimated in TP-04 and TP-04MS/MSD, if detected. The %Rec of Aroclor 1260 was outside QC limits in TP-04MS but within limits in TP-04MSD, so no further action is required.

COMPOUND QUANTITATION

All criteria were met except the RPD of Aroclor 1248 between the columns was outside QC limits in TP-18 and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1260 peak 5 was outside QC limits off column ZB-35 in CCVIS 480-367887/4. The %D of Aroclor 1254 peak 1 off column ZB-5 and Aroclor 1254 peak 2 off column ZB-35 were outside QC limits in CCVIS 480-367887/5. The %D of Aroclor 1232 peak 1 and Aroclor 1262 peak 1 was outside QC limits off column ZB-5 in CCVIS 480-367887/6. The %D of Aroclor 1268 peak 1 was outside QC limits off column ZB-5 in CCVIS 480-367887/7. The %D of Aroclor 1248 peaks 1 and 5 was outside QC limits off column ZB-35 in CCVIS 480-367887/8. ASP requires three peaks to be compliant, so no further action is required.

The %D of Aroclor 1016 peaks 2, 4 and 5 off column ZB-5 and Aroclor 1016 peaks 1, 3 and 5 off column ZB-35 was outside QC limits in CCVIS 480-367887/4. The %D of Aroclor 1221 peaks 1-3 was outside QC limits off column ZB-35 in CCVIS 480-367887/5. The %D of Aroclor 1232 peaks 1-5 was outside QC limits off column ZB-35 in CCVIS 480-367887/6. The %D of Aroclor 1242 peaks 1, 2, 4 and 5 was outside QC limits off column ZB-35 in CCVIS 480-367887/7. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate

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- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks, MS/MSD, Serial Dilution and Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Ca, Mn and Na were detected in MB 480-368424/1-A above the MDL, below the reporting limit and is qualified as estimated. Fe was detected above the MDL, below the reporting limit and is qualified as estimated in CCB 480-368738/29. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

Mn was detected above the reporting limit in CCB 480-368738/29. Associated samples in which this target analyte was detected below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which this target analyte was detected above the reporting limit but below the blank concentration should be qualified as undetected. Associated samples in which these target analytes were detected above the blank concentration should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

All criteria were met except the %Rec of Fe, Mg, Mn and K was outside QC limits, high in TP-

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04MS/MSD. These target analytes were within limits in the post digest spike. These target analytes should be qualified as estimated high in TP-04MS/MSD and TP-04.

The %Rec of Zn was outside QC limits in TP-04MSD but within limits in TP-04MS, so no further action is required.

The RPD of Ca, Mg and Mn was outside QC limits between TP-04MS and TP-04MSD and should be qualified as estimated in TP-04 and TP-04MS/MSD.

FIELD DUPLICATE

All criteria were met.

SERIAL DILUTION

All criteria were met except the %D of Pb in TP-04SD was outside QC limits. This target analyte should be qualified as estimated in TP-04SD and TP-04.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of V and Zn was outside ASP QC limits, high in CCVL 480-368738/19. The %Rec of Mn and Zn was outside ASP QC limits, high in CCVL 480-368738/30. The %Rec of Fe, Mn and Zn was outside ASP QC limits, high in CCVL 480-368738/42. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Pb and Se was outside ASP QC limits, low, in CCVL 480-368738/42. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- %Solids

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

%SOLIDS

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-121411-1
November 7, 2017
Sampling date: 7/21/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-121411-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-121411-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7471B) and in accordance with wet chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Method Blank, Laboratory Control Samples and Continuing Calibration.

Samples were qualified by the laboratory with a 'vs' due to possible low bias based on collection method.

DATA COMPLETENESS

All criteria were met.

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NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met except 1,2,4-Trichlorobenzene and Acetone were detected above the MDL below the reporting limit and are qualified as estimated in MB 480-368757/2-A and MB 480-369004/2-A . These target analytes should be qualified as undetected at the reporting limit if they were detected below the reporting limit in the associated samples. These target analytes should be qualified as estimated high if they were detected above the reporting limit in the associated samples.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Bromomethane and Chloroethane in LSC 480-368757/1-A and Chloroethane in LCS 480-369004/1-A was outside QC limits, high. These target analytes should be qualified as estimated in the associated samples, if detected.

MS/MSD

All criteria were met except the %Rec of Bromomethane and Chloroethane was outside QC limits in TP-15MS but within limits in TP-15MSD, so no further action is required.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Bromomethane and Chloroethane was outside ASP outer QC limits in CCVIS 480-368716/3 and CCVIS 480-368964/3. Associated blanks, spikes and samples should be qualified as estimated for these target analytes.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in MS/MSD.

Samples; TP-07, DUP, TP-15 and TP-15MS/MSD were diluted due to color and appearance.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met except the %Rec of 2,4-Dinitrophenol was 0% in TP-15MS/MSD and should be qualified as estimated in TP-15, if detected, and unusable, if not detected.

The %Rec of 2,4-Dinitrotoluene was outside QC limits, high in TP-15MS/MSD and should be qualified as estimated, if detected in TP-15 and TP-15MS/MSD.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in MS/MSD, Compound Quantitation and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met except the %Rec of gamma-Chlordane was outside QC limits, high in TP-15MS/MSD. This target analyte should be qualified as estimated, if detected, in TP-15 and TP-15MS/MSD.

The RPD of gamma-Chlordane, Methoxychlor and Heptachlor epoxide was outside QC limits between TP-15MS and TP-15MSD. These target analytes should be qualified as estimated in TP-15 and TP-15MS/MSD.

The %Rec of Methoxychlor was outside QC limits in TP-15MS but within limits in TP-15MSD, so no further action is required.

The RPD of gamma-Chlordane, Endosulfan sulfate and Methoxychlor was outside QC limits between the two columns in sample TP-15MS. These target analytes should be qualified as estimated in TP-15MS.

The RPD of beta-BHC, gamma-Chlordane, Endosulfan sulfate and 4,4'-DDE was outside QC limits between the two columns in sample TP-15MSD. These target analytes should be qualified as estimated in TP-15MSD.

COMPOUND QUANTITATION

All criteria were met except the RPD of Dieldrin and 4,4'-DDE was outside QC limits between the two columns in sample TP-09. These target analytes should be qualified as estimated in the associated samples.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of beta-BHC was outside QC limits in CCVIS 480-368232/7. This target analyte should be qualified as estimated in the associated samples, blank and spikes.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports

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- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Laboratory Control Samples, MS/MSD and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of TCMX and DCBP off column ZB-5 was outside ASP QC limits, high in TP-15MS, LCS 480-368612/2-A, LCS 480-368288/2-A and MB 480-368612/1-A. The %Rec of TCMX and DCBP off column ZB-35 was outside ASP QC limits, high in TP-15MS and MB 480-368288/1-A. These surrogates should be qualified as estimated in these samples

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All the criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Aroclor 1016 was outside ASP QC limits, high in LCS 480-368612/2-A and should be qualified as estimated in the associated samples, if detected. The %Rec of Aroclor 1016 and Aroclor 1260 was outside ASP QC limits, high in LCS 480-368288/2-A and should be qualified as estimated in the associated samples, if detected. The RPD of Aroclor 1260 between the columns was outside QC limits in LCS 480-368288/2-A and should be qualified as estimated.

MS/MSD

All criteria were met except the %Rec of Aroclor 1016 and 1260 was outside QC limits, high in TP-15MS/MSD and should be qualified as estimated in TP-15 and TP-15MS/MSD, if detected. The RPD of Aroclor 1260 between the columns was outside QC limits in TP-15MS and TP-15MSD and should be qualified as estimated.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1016 peaks 4 and 5 was outside QC limits off column ZB-5 in CCVIS 480-368775/5 and CCVIS 480-368358/4. The %D of Aroclor 1260 peaks 2 and 4 was outside QC limits off column ZB-35 in CCVIS 480-368775/5. The %D of Aroclor 1221 peak 3 was outside QC limits off column ZB-35 in CCVIS 480-368775/7. The %D of Aroclor 1232 peak 1 was outside QC limits off column ZB-35 in CCVIS 480-368775/8. The %D of Aroclor 1248 peak 4 was outside QC limits off column ZB-5 in CCVIS 480-368775/10. The %D of Aroclor 1248 peak 5 was outside QC limits off column ZB-5 in CCVIS 480-368358/8. The %D of Aroclor 1248 conforming peaks, so no further action is required.

The %D of Aroclor 1260 peaks 1-5, DCBP and TCMX was outside QC limits off column ZB-35 in CCVIS 480-368358/4. The %D of Aroclor 1221 peaks 1-3 and Aroclor 1254 peaks 1-5 were outside QC limits off column ZB-35 in CCVIS 480-368358/5. The %D of Aroclor 1232 peaks 1-5 and Aroclor 1262 peaks 1-5 were outside QC limits off column ZB-35 in CCVIS 480-368358/6. The %D of Aroclor 1242 peaks 1-4 and Aroclor 1268 peaks 1-5 were outside QC limits off column ZB-35 in CCVIS 480-368358/7. The %D of Aroclor 1248 peaks 1, 4 and 5 were outside QC limits off column ZB-35 in CCVIS 480-368358/8. The %D of Aroclor 1221 peaks 2, 3 and 4 and Aroclor 1254 peaks 1-4 was outside QC limits off column ZB-5 in CCVIS 480-368775/7. The %D of Aroclor 1262 peaks 3-5 was outside QC limits off column ZB-35 in CCVIS 480-368775/8. The %D of Aroclor 1268 peaks 1-5 was outside QC limits off column ZB-35 in CCVIS 480-368775/9. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks, Laboratory Control Samples, MS/MSD, Serial Dilution and Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Cd, Ca, Mn and Zn were detected in MB 480-368425/1-A above the MDL, below the reporting limit and is qualified as estimated. Ba was detected above the MDL, below the reporting limit and is qualified as estimated in CCB 480-368988/18. Mn was detected above the MDL, below the reporting limit and is qualified as estimated in CCB-480-368988/30. Zn was detected above the MDL, below the reporting limit and is qualified as estimated in ICB-480-369045/6. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting

limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

Mn was detected above the reporting limit in CCB 480-368988/18. Associated samples in which this target analyte was detected below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which this target analyte was detected above the reporting limit but below the blank concentration should be qualified as undetected. Associated samples in which these target analytes were detected above the blank concentration should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met except the %Rec of Sb was outside QC limits, low in LCS 480-368425/2-A and should be qualified as estimated in associated samples.

MS/MSD

All criteria were met except the %Rec of Al and K was outside QC limits, high in TP-15MS/MSD. This target analyte was within limits in the post digest spike. This target analyte should be qualified as estimated high in TP-15MS/MSD and TP-15.

The %Rec of Zn was outside QC limits, low in TP-15MS/MSD. This target analyte was within limits in the post digest spike. This target analyte should be qualified as estimated in TP-15MS/MSD and TP-15.

Sb outside QC limits in TP-15MS but within limits in TP-15MSD, so no further action is required.

FIELD DUPLICATE

All criteria were met.

SERIAL DILUTION

All criteria were met except the %D of Ca, Cr, Mn, V, Fe and Zn in TP-15SD was outside QC limits. These target analytes should be qualified as estimated in TP-15SD and TP-15.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Se was outside ASP QC limits, high, in ICVL 480-368988/7. The %Rec of Ba, Cd, Cr, Cu and Mn was outside ASP QC limits, high in CCVL 480-368988/19. The %Rec of Ba, Cr, Cu, Mn, Se, Zn and Fe was outside ASP QC limits, high in CCVL 480-368988/31. The %Rec of Ba, Cr, Mn, Zn and K was outside ASP QC limits, high in CCVL 480-368988/41. The %Rec of As and Tl was outside ASP QC limits, high in ICVL 480-369045/7. The %Rec of As and Zn was outside ASP QC limits, high in CCVL 480-369045/21. The %Rec of Zn was outside ASP QC limits, high in CCVL 480-369045/25. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-368988/31 and CCVL 480-369045/21. The %Rec of Ag and Se was outside ASP QC limits, low, in CCVL 480-368988/19. The %Rec of Ag and Cu was outside ASP QC limits, low, in CCVL 480-369045/25. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- %Solids

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

%SOLIDS

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
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West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-121501-1
November 7, 2017
Sampling date: 7/21/2017

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Nash Rd., Wheatfield
SDG# 480-121501-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-121501-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7471B) and in accordance with wet chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples, MS/MSD and Continuing Calibration.

Samples were qualified by the laboratory with a 'vs' due to possible low bias based on collection method.

DATA COMPLETENESS

All criteria were met.

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NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Bromomethane and Chloroethane in LSC 480-368925/1-A and Chloroethane in LCS 480-369004/1-A was outside QC limits, high. These target analytes should be qualified as estimated in the associated samples, if detected.

MS/MSD

All criteria were met except the %Rec of 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, 2-Butanone, Bromoform, cis-1,3-Dichloropropane and Styrene was outside QC limits, low in TP-11MS/MSD. These target analytes should be qualified as estimated in TP-11 and TP-11MS/MSD.

The %Rec of Bromomethane and Chloroethane was outside QC limits, high in TP-11MS/MSD. These target analytes should be qualified as estimated in TP-11 and TP-11MS/MSD, if detected. The %Rec of 1,1,2,2-Tetrachloroethane and Dibromochloromethane was outside QC limits in TP-11MS but within limits in TP-11MSD, so no further action is required.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Bromomethane and Chloroethane was outside ASP outer QC limits in CCVIS 480-368964/3 and CCVIS 480-368916/3. Associated blanks, spikes and samples should be qualified as estimated for these target analytes.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in MS/MSD.

Samples; TP-12, TP-11 and TP-11MS/MSD were diluted due to color and appearance.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met except the %Rec of 2,4-Dinitrophenol was 0% in TP-11MS/MSD and should be qualified as estimated in TP-11, if detected, and unusable, if not detected.

The RPD of Benzaldehyde was outside QC limits between TP-11MS and TP-11MSD and should be qualified as estimated in TP-11 and TP-11MS/MSD.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Method Blank, Laboratory Control Samples, MS/MSD and Compound Quantitation.

Samples; TP-11 and TP-11MS/MSD were diluted due to high target analyte concentration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of DCBP off column RTX-CLPII was outside ASP QC limits in TP-12 and should be qualified as estimated.

The %Rec of DCBP off column RTX-CLPII in TP-11 was outside laboratory QC limits, but within ASP limits, so no further action is required.

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METHOD BLANK

All the criteria were met except delta-BHC was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-368494/1-A. If this target analyte was detected in the associated samples below the reporting limit, it should be qualified as undetected at the reporting limit. If this target analyte was detected above the reporting limit in the associated samples, it should be qualified as estimated, high.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD of Endosulfan sulfate and Methoxychlor was outside QC limits between the two columns in LCS 480-368494/2-A. These target analytes should be qualified as estimated in LCS 480-368494/2-A.

MS/MSD

All criteria were met except the %Rec of 4,4'-DDD was outside QC limits, high in TP-11MS/MSD. This target analyte should be qualified as estimated, if detected, in TP-11 and TP-11MS/MSD. The RPD of 4,4'-DDD and Aldrin was outside QC limits between TP-11MS and TP-11MSD. This target analyte should be qualified as estimated in TP-11 and TP-11MS/MSD.

The %Rec of Dieldrin was outside QC limits in TP-11MS but within limits in TP-11MSD, so no further action is required.

The RPD of Heptachlor epoxide, gamma-Chlordane, 4,4'-DDT, Endrin aldehyde, Endosulfan II and Methoxychlor was outside QC limits between the two columns in sample TP-11MS. These target analytes should be qualified as estimated in TP-11MS. The RPD of delta-BHC, Aldrin, Heptachlor epoxide, gamma-Chlordane, 4,4'-DDE, Endrin aldehyde, Endosulfan II, 4,4'-DDT, Methoxychlor and Dieldrin was outside QC limits between the two columns in sample TP-11MSD. These target analytes should be qualified as estimated in TP-11MSD.

COMPOUND QUANTITATION

All criteria were met except the RPD of all detects except 4,4'-DDD was outside QC limits between the two columns in sample TP-12. The RPD of delta-BHC, Heptachlor epoxide, Dieldrin, Endrin, Endosulfan II and Methoxychlor was outside QC limits between the two columns in sample TP-11. These target analytes should be qualified as estimated in the associated samples.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Laboratory Control Samples, MS/MSD, Compound Quantitation and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of TCMX and DCBP off column ZB-5 was outside ASP QC limits, high in TP-11MS/MSD, DUP, LCS 480-368612/2-A and MB 480-368612/1-A. These surrogates should be qualified as estimated in these samples.

METHOD BLANK

All the criteria were met.

Nash Rd., Wheatfield

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FIELD DUPLICATE SAMPLE PRECISION

All the criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Aroclor 1016 was outside ASP QC limits, high in LCS 480-368612/2-A and should be qualified as estimated in the associated samples, if detected.

MS/MSD

All criteria were met except the %Rec of Aroclor 1016 and 1260 was outside QC limits, high in TP-11MS/MSD and should be qualified as estimated in TP-11 and TP-11MS/MSD, if detected. The RPD of Aroclor 1254 between the columns was outside QC limits in TP-11MS and TP-11MSD and should be qualified as estimated.

COMPOUND QUANTITATION

All criteria were met except the RPD of Aroclor 1254 between the columns was outside QC limits in TP-12 and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1016 peaks 4 and 5 was outside QC limits off column ZB-5 in CCVIS 480-368775/5. The %D of Aroclor 1260 peaks 2 and 4 was outside QC limits off column ZB-35 in CCVIS 480-368775/5. The %D of Aroclor 1221 peak 3 was outside QC limits off column ZB-35 in CCVIS 480-368775/7. The %D of Aroclor 1232 peak 1 was outside QC limits off column ZB-35 in CCVIS 480-368775/8. The %D of Aroclor 1248 peak 4 was outside QC limits off column ZB-5 in CCVIS 480-368775/10. The %D of Aroclor 1248 peak 2 was outside QC limits off column ZB-35 in CCVIS 480-368775/10. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1221 peaks 2, 3 and 4 and Aroclor 1254 peaks 1-4 was outside QC limits off column ZB-5 in CCVIS 480-368775/7. The %D of Aroclor 1262 peaks 3-5 was outside QC limits off column ZB-35 in CCVIS 480-368775/8. The %D of Aroclor 1268 peaks 1-5 was outside QC limits off column ZB-35 in CCVIS 480-368775/9. These target analytes should be qualified as estimated in the associated samples, blanks and spikes, off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks, MS/MSD, Serial Dilution and Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Ca, Mg and Mn were detected in MB 480-368566/1-A above the MDL, below the reporting limit and is qualified as estimated. K was detected above the MDL, below the reporting limit and is qualified as estimated in CCB 480-368994/23. Zn was detected above the MDL, below the reporting limit and is qualified as estimated in ICB-480-369047/6. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be

qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

All criteria were met except the %Rec of Al was outside QC limits, high in TP-11MS/MSD. This target analyte was within limits in the post digest spike. This target analyte should be qualified as estimated high in TP-11MS/MSD and TP-11.

The %Rec of Pb was outside QC limits, low in TP-11MS/MSD. This target analyte was within limits in the post digest spike. This target analyte should be qualified as estimated in TP-11MS/MSD and TP-11.

The RPD between TP-11MS and TP-11MSD was outside QC limits for all target analytes except Sb and Cu. The non-compliant target analytes should be qualified as estimated in TP-11 and TP-11MS/MSD.

Several target analytes were outside QC limits in TP-11MS or TP-11MSD but not both, so no further action is required.

The concentration of Hg exceeded the calibration range in TP-11MS/MSD and should be qualified as estimated in TP-11 and TP-11MS/MSD.

FIELD DUPLICATE

All criteria were met.

SERIAL DILUTION

All criteria were met except the %D of Fe and Zn in TP-11SD was outside QC limits. These target analytes should be qualified as estimated in TP-11SD and TP-11.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Se was outside ASP QC limits, high, in ICVL 480-368994/7. The %Rec of Ba, Cr, Cu, Fe, Mg and Zn was outside ASP QC limits, high in CCVL 480-368994/19. The %Rec of Ba, K and Fe was outside ASP QC limits, high in CCVL 480-368994/24.

The %Rec of Al, Ba, Cd, Cu and K was outside ASP QC limits, high in CCVL 480-368994/36.

The %Rec of As and Tl was outside ASP QC limits, high in ICVL 480-369047/7. The %Rec of As and Zn was outside ASP QC limits, high in CCVL 480-369047/21. The %Rec of Zn was outside ASP QC limits, high in CCVL 480-369047/25. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-368994/36 and CCVL 480-369047/21. The %Rec of Ag and Cu was outside ASP QC limits, low, in CCVL 480-369047/25.

The %Rec of Hg was outside ASP QC limits, low, in ICVL 480-369052/3 and CCVL 480-369052/57.

These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- %Solids

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

%SOLIDS

All criteria were met.

Data Usability Summary Report

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Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-123019-1
November 8, 2017
Sampling date: 8/21/2017

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DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-123019-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7470A) and in accordance with general chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

Samples, NS-LPZ-04S-GW, NS-LPZ-05S-GW and NS-LPZ-07S-GW were diluted due to foaming.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Nash Rd., Wheatfield

SDG# 480-123019-1

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Method Blank, Laboratory Control Samples and Compound Quantitation.

Sample, NS-LPZ-03S-GW was treated with Copper due to the presence of Sulfur in the sample.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met except gamma-BHC was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-373350/1-A. If this target analyte was detected in the associated samples below the reporting limit, it should be qualified as undetected at the reporting limit. If this target analyte was detected above the reporting limit in the associated samples, it should be qualified as estimated, high.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD between the columns was outside QC limits for Endrin aldehyde in LCS 480-373350/2-A and alpha-Chlordane in LCSD 480-373350/3-A. These target analytes should be qualified as estimated in the associated laboratory control sample.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met except the RPD of 4,4'-DDD was outside QC limits between the two columns in sample NS-LPZ-06S-GW. The RPD of alpha-BHC was outside QC limits between the two columns in sample NS-LPZ-07S-GW. These target analytes should be qualified as estimated in the associated samples.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD between the columns was outside QC limits for Aroclor 1260 in LCS 480-373590/2-A and LCSD 480-373590/3-A and should be qualified as estimated in the laboratory control samples.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1260 peak 1 was outside QC limits off column ZB-35 in CCVIS 480-373762/4. The %D of Aroclor 1254 peaks 1 and 3 off column ZB-5 and Aroclor 1254 peak 1 off column ZB-35 was outside QC limits in CCVIS 480-373762/5. The %D of Aroclor 1232 peak 5 and Aroclor 1262 peak 1 was outside QC limits off column ZB-35 in CCVIS 480-373762/6. The %D of Aroclor 1242 peaks 4 and 5 and Aroclor 1268 peak 2 was outside QC limits off column ZB-35 in CCVIS 480-373762/7. The %D of Aroclor 1248 peak 1 off column ZB-35 and Aroclor 1248 peak 5 off column ZB-35 was outside QC limits in CCVIS 480-373762/8. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1260 peaks 1-4 and TCMX was outside QC limits off column ZB-5 in CCVIS 480-373762/4. The %D of Aroclor 1221 peak 3 was outside QC limits off column ZB-35 in CCVIS 480-373762/5. The %D of Aroclor 1262 peaks 1,2 and 4 was outside QC limits off column ZB-5 in CCVIS 480-373762/6. The %D of Aroclor 1242 peak 1, 2 and 4 and Aroclor 1268 peaks 1-3 was outside QC limits off column ZB-5 in CCVIS 480-373762/7. These target analytes should be qualified as estimated in the associated blanks, spikes and samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

The samples arrived at the laboratory unpreserved but were preserved by the laboratory within QC limits, so no further action is required.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Mn was detected in MB 480-373796/1-A above the MDL, below the reporting limit and is qualified as estimated. Cu and Mn were detected above the MDL, below the reporting limit and are qualified as estimated in MB 480-373533/1-B. Zn was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-374565/1-B. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

All criteria were met.

FIELD DUPLICATE

No field duplicate was acquired.

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Pb was outside ASP QC limits, high, in ICVL 480-374370/27 and CCVL 480-374371/21. Associated samples, blanks and spikes in which this target analyte was detected above the MDL should be qualified as estimated high. The %Rec of Al and Se was outside ASP QC limits, low, in CCVL 480-374188/19. The %Rec of As was outside ASP QC limits, low, in CCVL 480-374188/24 and CCVL 480-374190/23. The %Rec of Se was outside ASP QC limits, low, in CCVL 480-374188/48 and CCVL 480-374190/35. The %Rec of Al was outside ASP QC limits, low, in CCVL 480-374188/57. The %Rec of As and Se was outside ASP QC limits, low, in CCVL 480-374190/45. The %Rec of Hg was outside ASP QC limits, low, in ICVL 480-373821/3 and CCVL 480-373821/82. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Alkalinity
- Chloride/Sulfate

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

ALKALINITY

All criteria were met.

CHLORIDE/SULFATE

All criteria were met except samples, NS-LPZ-04S-GW, NS-LPZ-05S-GW, NS-LPZ-07S-GW, NS-LPZ-03S-GW and NS-LPZ-06S-GW were diluted due to high target analyte concentration.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-123050-1
November 9, 2017
Sampling date: 8/22/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-123050-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-123050-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7470A) and in accordance with general chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

Nash Rd., Wheatfield

SDG# 480-123050-1

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

Nash Rd., Wheatfield

SDG# 480-123050-1

METHOD BLANK

All the criteria were met except Bis(2-ethylhexyl)phthalate was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-373789/1-A. This target analyte was not detected in the samples, so no further action is required.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD between LCS 480-373789/2-A and LCSD 480-373789/3-A was outside QC limits for Bis(2-ethylhexyl)phthalate. This target analyte should be qualified as estimated in the laboratory control samples and associated samples.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of 4-Nitrophenol was outside ASP outer QC limits in CCVIS 480-374270/3 and should be qualified as estimated in the associated blank, samples and spikes.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples

Nash Rd., Wheatfield

SDG# 480-123050-1

- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Method Blank, Laboratory Control Samples and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of DCBP off column RTX-CLPII was outside ASP QC limits, low in NS-OW-34-GW and should be qualified as estimated.

METHOD BLANK

All the criteria were met except alpha-BHC was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-373892/1-A. If this target analyte was detected in the associated samples below the reporting limit, it should be qualified as undetected at the reporting limit. If this target analyte was detected above the reporting limit in the associated samples, it should be qualified as estimated, high.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD between the columns was outside QC limits for Endrin aldehyde in LCS 480-373892/2-A . This target analyte should be qualified as estimated in LCS 480-373892/2-A.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met except the RPD of 4,4'-DDT was outside QC limits between the two columns in sample NS-OW-34-GW and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD between the columns was outside QC limits for Aroclor 1260 in LCS 480-373590/2-A and LCSD 480-373590/3-A and should be qualified as estimated in the laboratory control sample.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1260 peak 1 was outside QC limits off column ZB-35 in CCVIS 480-373762/4. The %D of Aroclor 1254 peaks 1 and 3 off column ZB-5 and Aroclor 1254 peak 1 off column ZB-35 was outside QC limits in CCVIS 480-373762/5. The %D of Aroclor 1232 peak 5 and Aroclor 1262 peak 1 was outside QC limits off column ZB-35 in CCVIS 480-373762/6. The %D of Aroclor 1242 peaks 4 and 5 and Aroclor 1268 peak 2 was outside QC limits off column ZB-35 in CCVIS 480-373762/7. The %D of Aroclor 1248 peak 1 off column ZB-35 and Aroclor 1248 peak 5 off column ZB-35 were outside QC limits in CCVIS 480-373762/8. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1260 peaks 1-4 and TCMX was outside QC limits off column ZB-5 in CCVIS 480-373762/4. The %D of Aroclor 1221 peak 3 was outside QC limits off column ZB-35 in CCVIS 480-373762/5. The %D of Aroclor 1262 peaks 1,2 and 4 was outside QC limits off column ZB-5 in CCVIS 480-373762/6. The %D of Aroclor 1242 peak 1, 2 and 4 and Aroclor 1268 peaks 1-3 was outside QC limits off column ZB-5 in CCVIS 480-373762/7. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

The samples arrived at the laboratory unpreserved but were preserved by the laboratory within QC limits, so no further action is required.

Sample, NS-OW-31-GW was diluted for lead due to the presence of sulfur.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Mn was detected in MB 480-373796/1-A above the MDL, below the reporting limit and is qualified as estimated. Cu and Mn were detected above the MDL, below the reporting limit and are qualified as estimated in MB 480-373533/1-B. Zn was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-374565/1-B. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

No MS/MSD was acquired.

FIELD DUPLICATE

No field duplicate was acquired.

SERIAL DILUTION

No serial dilution was performed.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Pb was outside ASP QC limits, high, in CCVL 480-374370/27. Associated samples, blanks and spikes in which this target analyte was detected above the MDL should be qualified as estimated high.

The %Rec of Al and Se was outside ASP QC limits, low, in CCVL 480-374188/19. The %Rec of As was outside ASP QC limits, low, in CCVL 480-374188/24 and CCVL 480-374190/23. The %Rec of Se was outside ASP QC limits, low, in CCVL 480-374188/48 and CCVL 480-374190/35. The %Rec of Al was outside ASP QC limits, low, in CCVL 480-374188/57 and CCVL 480-374190/19. The %Rec of As and Se was outside ASP QC limits, low, in CCVL 480-374190/45. The %Rec of Hg was outside ASP QC limits, low, in ICVL 480-373821/3 and CCVL 480-373821/82. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Alkalinity
- Chloride/Sulfate

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

ALKALINITY

All criteria were met.

CHLORIDE/SULFATE

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-123215-1
November 15, 2017
Sampling date: 8/24/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-123215-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-123215-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C) and Mercury (7470A).

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the concentration of 3,3'-Dichlorobenzidine exceeded the initial calibration in LCS/SD 480-374019/2-A/3-A and should be qualified with an 'E'. This target analyte should be qualified as estimated in the associated samples, if detected.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration

Nash Rd., Wheatfield

SDG# 480-123215-1

- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Method Blank, Laboratory Control Samples and Compound Quantitation.

Sample, NS-LDP-002-GW was diluted due to the sample matrix.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of DCBP off column RTX-CLPII was outside ASP QC limits, low in NS-LDP-001-GW. The %Rec of TCMX was outside QC limits, high off column RTX-CLP I in NS-LDP-003-GW. These surrogates should be qualified as estimated in the associated sample. The %Rec of a couple of surrogates was outside QC limits in NS-LDP-002-GW. Due to dilution of this sample, no further action is required.

METHOD BLANK

All the criteria were met except alpha-BHC was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-373892/1-A. If this target analyte was detected in the associated samples below the reporting limit, it should be qualified as undetected at the reporting limit. If this target analyte was detected above the reporting limit in the associated samples, it should be qualified as estimated, high.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD between the columns was outside QC limits for Endrin aldehyde in LCS 480-373892/2-A . This target analyte should be qualified as estimated in LCS 480-373892/2-A.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met except the RPD of 4,4'-DDD, alpha-BHC and Aldrin was outside QC limits between the two columns in sample NS-LDP-001-GW and should be qualified as estimated. The RPD of gamma-BHC was outside QC limits between the two columns in sample NS-LDP-002-GW and should be qualified as estimated. The RPD of 4,4'-DDD, Endosulfan I and 4,4'-DDT was outside QC limits between the two columns in sample NS-LDP-003-GW and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD between the columns was outside QC limits for Aroclor 1016 and Aroclor 1260 in LCS 480-374278/2-A and LCSD 480-374278/3-A and should be qualified as estimated in the laboratory control sample.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1016 peak 5 and Aroclor 1260 peaks 3 and 5 was outside QC limits off column ZB-5 in CCVIS 480-374407/6. The %D of Aroclor 1262 peak 4 was outside QC limits off column ZB-5 in CCV 480-374407/8. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1016 peaks 1-5 and Aroclor 1260 peaks 1, 2, 4, 5, DCBP and TCMX was outside QC limits off column ZB-35 in CCVIS 480-374407/6. The %D of Aroclor 1221 peaks 2 and 3 and Aroclor 1254 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-374407/7.

The %D of Aroclor 1232 peaks 2-5 and Aroclor 1262 peaks 1-5 were outside QC limits off column ZB-35 in CCV 480-374407/8. The %D of Aroclor 1242 peaks 1-5 and Aroclor 1268 peaks 1-5 were outside QC limits off column ZB-35 in CCV 480-374407/9. The %D of Aroclor 1248 peaks 2, 3 and 5 off column ZB-5 and Aroclor 1248 peaks 2-5 was outside QC limits off column ZB-35 in CCV 480-374407/10. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

The samples arrived at the laboratory unpreserved but were preserved by the laboratory within QC limits, so no further action is required.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Mn was detected in MB 480-373992/1-A above the MDL, below the reporting limit and is qualified as estimated. K and Zn were detected above the MDL, below the reporting limit and are qualified as estimated in MB 480-373973/1-B. K was detected above the MDL, below the reporting limit and is qualified as estimated in CCB 480-374374/18 and CCB 480-374381/60. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

All criteria were met.

FIELD DUPLICATE

No field duplicate was acquired.

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Cr and Ag was outside ASP QC limits, high, in ICVL 480-374374/7. The %Rec of As, Cr and K was outside ASP QC limits, high, in CCVL 480-374374/19. The %Rec of Cd, Se, Ag and K was outside ASP QC limits, high, in CCVL 480-374374/24. The %Rec of Cr and Zn was outside ASP QC limits, high, in CCVL 480-374374/36. The %Rec of Cr was outside ASP QC limits, high, in ICVL 480-374381/7. The %Rec of As, V and K was outside ASP QC limits, high, in CCVL 480-374381/50. The %Rec of V, Se, Zn and K was outside ASP QC limits,

high, in CCVL 480-374381/61. The %Rec of Cr, K, Se and Zn was outside ASP QC limits, high, in CCVL 480-374381/73. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Se was outside ASP QC limits, low, in ICVL 480-374374/7. The %Rec of Tl was outside ASP QC limits, low, in CCVL 480-374374/19 and CCVL 480-374374/36. The %Rec of Tl and As was outside ASP QC limits, low, in CCVL 480-374374/24. The %Rec of Fe and Pb was outside ASP QC limits, low, in ICVL 480-374381/7. The %Rec of Fe was outside ASP QC limits, low, in CCVL 480-374381/50, CCVL 480-374381/61 and CCVL 480-374381/73. The %Rec of As was outside ASP QC limits, low, in CCVL 480-374479/17. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-123255-1
November 20, 2017
Sampling date: 8/24/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-123255-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-123255-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7471B) and in accordance with wet chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Laboratory Control Samples and Method Blank.

Samples were qualified by the laboratory with a 'vs' due to possible low bias based on collection method.

DATA COMPLETENESS

All criteria were met.

Nash Rd., Wheatfield

SDG# 480-123255-1

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of Toluene-d₈ was outside ASP QC limits, low in NS-LDP-001-SOIL. Associated target analytes in this sample should be qualified as estimated.

METHOD BLANK

All the criteria were met except Toluene was detected above the MDL below the reporting limit and is qualified as estimated in MB 480-374359/3-A. This target analyte should be qualified as undetected at the reporting limit if it was detected above the reporting limit in the associated samples. This target analyte should be qualified as estimated high if it was detected above the reporting limit in the associated samples.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 2-Butanone in LSC 480-374359/19-A was outside QC limits, high. This target analyte should be qualified as estimated in the associated samples, if detected.

MS/MSD

No MS/MSD was acquired for this analysis.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

Nash Rd., Wheatfield

SDG# 480-123255-1

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired for this analysis.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision

Nash Rd., Wheatfield

SDG# 480-123255-1

- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met except delta-BHC was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-374388/1-A. This target analyte was not detected in the samples, so no further action is required.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Aroclor 1016 was outside ASP QC limits, high in LCS 480-374385/2-A and should be qualified as estimated in the associated samples, if detected. The RPD of Aroclor 1260 and Aroclor 1016 between the columns was outside QC limits in LCS 480-374385/2-A and should be qualified as estimated.

MS/MSD

No MS/MSD was acquired for this analysis.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1016 peak 5 and Aroclor 1260 peaks 3 and 5 was outside QC limits off column ZB-5 in CCVIS 480-374407/6. The %D of Aroclor 1262 peak 4 was outside QC limits off column ZB-5 in CCVIS 480-374407/8. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1016 peaks 1-5 and Aroclor 1260 peaks 1, 2, 4, 5, DCBP and TCMX was outside QC limits off column ZB-35 in CCVIS 480-374407/6. The %D of Aroclor 1221 peaks 2 and 3 and Aroclor 1254 peaks 1-5 was outside QC limits off column ZB-35 in CCVIS 480-374407/7. The %D of Aroclor 1232 peaks 2-5 and Aroclor 1262 peaks 1-5 were outside QC limits off column ZB-35 in CCVIS 480-374407/8. The %D of Aroclor 1242 peaks 1-5 and Aroclor 1268 peaks 1-5 were outside QC limits off column ZB-35 in CCVIS 480-374407/9. The %D of Aroclor 1248 peaks 2, 3 and 5 off column ZB-5 and Aroclor 1248 peaks 2-5 was outside QC limits off column ZB-35 in CCVIS 480-374407/10. The %D of Aroclor 1016 peaks 1-5 and Aroclor 1260 peaks 1, 2, 4, 5 was outside QC limits off column ZB-35 in CCVIS 480-374407/32. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks, Laboratory Control Sample and Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Cd, Ca, Cr, Fe, Mn and Mg were detected in MB 480-374218/1-A above the MDL, below the reporting limit and is qualified as estimated. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met except the %Rec of Sb was outside ASP QC limits, low in LCSSRM 480-374218/2-A and LCDSRM 480-374218/3-A. This target analyte should be qualified as estimated in the associated samples and laboratory control samples.

MS/MSD

No MS/MSD was acquired for this analysis.

FIELD DUPLICATE

No field duplicate was acquired.

SERIAL DILUTION

No serial dilution was performed.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Cd was outside ASP QC limits, high in ICVL 480-374574/7 and CCVL 480-374574/53. The %Rec of Cd, Cr and Zn was outside ASP QC limits, high in CCVL 480-374574/20. The %Rec of Zn was outside ASP QC limits, high in CCVL 480-374574/29. The %Rec of Cd and Zn was outside ASP QC limits, high in CCVL 480-374574/41. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Cr was outside ASP QC limits, low, in ICVL 480-374574/7. The %Rec of Pb and K was outside ASP QC limits, low, in CCVL 480-374574/29. The %Rec of Pb was outside ASP QC limits, low, in CCVL 480-374574/41. The %Rec of Hg was outside ASP QC limits, low, in CCVL 480-374467/37. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- %Solids

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

Nash Rd., Wheatfield

SDG# 480-123255-1

%SOLIDS

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-123256-1
November 21, 2017
Sampling date: 8/25/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-123256-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-123256-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7470A) and in accordance with general chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

Nash Rd., Wheatfield

SDG# 480-123256-1

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples.

Sample; NS-LDP-004-GW was diluted due to sample matrix.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the concentration of 3,3'-Dichlorobenzidine exceeded the initial calibration in LCS/SD 480-374150/2-A/3-A and should be qualified with an 'E'. This target analyte should be qualified as estimated in the associated samples, if detected.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Pentachlorophenol was outside QC limits in CCVIS 480-374660/3. ASP allows for up to four target analytes to be outside QC limits without further action.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank

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- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of TCMX was outside laboratory QC limits in NS-LDP-004-GW but was within ASP limits, so no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Endosulfan Sulfate was outside ASP QC limits, high in LCS 480-374344/2-A. This target analyte was not detected in the sample, so no further action is required.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met except the RPD of 4,4'-DDT and alpha-BHC was outside QC limits between the two columns in sample NS-LDP-004-GW and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD between the columns was outside QC limits for Aroclor 1016 and Aroclor 1260 in LCS 480-374278/2-A and LCSD 480-374278/3-A and should be qualified as estimated in the laboratory control sample.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1016 peak 5 and Aroclor 1260 peaks 3 and 5 was outside QC limits off column ZB-5 in CCVIS 480-374407/6. The %D of Aroclor 1262 peak 4 was outside QC limits off column ZB-5 in CCV 480-374407/8. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1016 peaks 1-5 and Aroclor 1260 peaks 1, 2, 4, 5, DCBP and TCMX was outside QC limits off column ZB-35 in CCVIS 480-374407/6. The %D of Aroclor 1221 peaks 2 and 3 and Aroclor 1254 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-374407/7.

The %D of Aroclor 1232 peaks 2-5 and Aroclor 1262 peaks 1-5 were outside QC limits off column ZB-35 in CCV 480-374407/8. The %D of Aroclor 1242 peaks 1-5 and Aroclor 1268 peaks 1-5 were outside QC limits off column ZB-35 in CCV 480-374407/9. The %D of Aroclor 1248 peaks 2, 3 and 5 off column ZB-5 and Aroclor 1248 peaks 2-5 was outside QC limits off column

ZB-35 in CCV 480-374407/10. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

The samples arrived at the laboratory unpreserved but were preserved by the laboratory within QC limits, so no further action is required.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Mn and K were detected in MB 480-374152/1-A above the MDL,

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below the reporting limit and is qualified as estimated. Mn and Zn were detected above the MDL, below the reporting limit and are qualified as estimated in MB 480-374194/1-C. K was detected above the MDL, below the reporting limit and is qualified as estimated in CCB 480-374381/25. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

All criteria were met.

FIELD DUPLICATE

No field duplicate was acquired.

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Cr and Ag was outside ASP QC limits, high, in ICVL 480-374381/7. The %Rec of Zn was outside ASP QC limits, high, in CCVL 480-374381/20. The %Rec of Zn and K was outside ASP QC limits, high, in CCVL 480-374381/26. The %Rec of Cr and K was outside ASP QC limits, high, in CCVL 480-374381/38. The %Rec of As, V and K was outside ASP QC limits, high, in CCVL 480-374381/50. The %Rec of Cr was outside ASP QC limits, high, in ICVL 480-374496/7. The %Rec of Cu and V was outside ASP QC limits, high, in CCVL 480-374496/34. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Fe and Pb was outside ASP QC limits, low, in ICVL 480-374381/7. The %Rec of Fe was outside ASP QC limits, low, in CCVL 480-374381/20. The %Rec of Pb was outside ASP QC limits, low, in CCVL 480-374381/26. The %Rec of Al, Pb and Fe was outside ASP QC limits, low, in CCVL 480-374381/38. The %Rec of Al, Fe and Ag was outside ASP QC limits, low, in ICVL 480-374496/7. The %Rec of Al, Fe and K was outside ASP QC limits, low, in CCVL 480-374496/19. The %Rec of Al, Fe and As was outside ASP QC limits, low, in CCVL 480-374496/23. The %Rec of Al, As, Co, Fe, Ni and K was outside ASP QC limits, low, in CCVL 480-374496/34. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Alkalinity
- Chloride/Sulfate

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

ALKALINITY

All criteria were met.

CHLORIDE/SULFATE

All criteria were met.

All of the samples were diluted.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-123304-1
November 22, 2017
Sampling date: 8/28/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-123304-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-123304-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7470A) and in accordance with general chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

Samples; NS-OW22-GW, NS-OW21-GW, NS-OW1-GW and NS-OWD-GW were diluted due to foaming.

DATA COMPLETENESS

All criteria were met.

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NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met except the pH of NS-OW1-GW was outside QC limits. This sample was analyzed within seven days of collection, so no further action is required.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met except the %Rec of several target analytes was outside QC limits in NS-OW23-GWMSD but within limits in NS-OW23-GWMS, so no further action is required.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in MS/MSD and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

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METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met except the %Rec of 4-Nitrophenol was outside ASP QC limits, high in NS-OW1-GWMS/MSD and should be qualified as estimated in NS-OW1-GWMS/MSD and NS-OW1-GWMS/MSD, if detected.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of 4-Nitrophenol was outside the outer ASP QC limits in CCVIS 480-374591/3 and should be qualified as estimated in the blank, spikes and samples.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation

Nash Rd., Wheatfield

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- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of TCMX was outside QC limits, high off column RTX-CLP I in NS-OW1-GW. This surrogate should be qualified as estimated in the associated sample. The %Rec of a couple of surrogates was outside laboratory QC limits but within ASP limits, so no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except gamma-BHC and alpha-BHC were detected in NS-OWD-GW but were not detected in NS-OW1-GW.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Endosulfan Sulfate was outside ASP QC limits, high in LCS 480-374344/2-A. This target analyte was not detected in the sample, so no further action is required.

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All criteria were met except the RPD of 4,4'-DDT was outside QC limits between the two columns in sample NS-OW21-GW and should be qualified as estimated. The RPD of gamma-BHC was outside QC limits between the two columns in sample NS-OWD-GW and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples, MS/MSD and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD between the columns was outside QC limits for Aroclor 1260 in LCS 480-374461/2-A and should be qualified as estimated.

MS/MSD

All criteria were met except the RPD between the columns was outside QC limits for Aroclor 1260 in NS-OW23-GWMS/MSD and should be qualified as estimated.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1221 peak 1 was outside QC limits off column ZB-5 in CCV 480-374627/5. The %D of Aroclor 1262 peak 4 was outside QC limits off column ZB-5 in CCV 480-374627/6. The %D of Aroclor 1232 peaks 3 and 5 was outside QC limits off column ZB-35 in CCV 480-374627/6. The %D of Aroclor 1016 peak 5 was outside QC limits off column ZB-35 in CCV 480-374627/30. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1016 peaks 1-5 and Aroclor 1260 peaks 1, 2, 4, 5 and DCBP was outside QC limits off column ZB-35 in CCVIS 480-374627/4. The %D of Aroclor 1221 peaks 1 and 2 and Aroclor 1254 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-374627/5. The %D

of Aroclor 1262 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-374627/6. The %D of Aroclor 1242 peaks 2-5 and Aroclor 1268 peaks 1-4 were outside QC limits off column ZB-35 in CCV 480-374627/7. The %D of Aroclor 1248 peaks 1, 4 and 5 off column ZB-35 was outside QC limits in CCV 480-374627/8. The %D of Aroclor 1260 peaks 2, 4 and 5 was outside QC limits off column ZB-35 in CCV 480-374627/30. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Al, Mn and Zn were detected in MB 480-374343/1-B above the MDL, below the reporting limit and are qualified as estimated. Cu and Mn were detected above the MDL, below the reporting limit and are qualified as estimated in MB 480-374277/1-A. Mn and Na were detected above the MDL, below the reporting limit and are qualified as estimated in CCB 480-374572/19. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

All criteria were met.

FIELD DUPLICATE

All criteria were met.

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Cr was outside ASP QC limits, high, in ICVL 480-374772/7. The %Rec of Cu and V was outside ASP QC limits, high, in CCVL 480-374772/20. The %Rec of Cu and Se was outside ASP QC limits, high, in CCVL 480-374754/49. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Fe and Ag was outside ASP QC limits, low, in ICVL 480-374772/7. The %Rec of As, Co, Fe, Ni and K was outside ASP QC limits, low, in CCVL 480-374772/20. The %Rec of Fe, Se and Ag was outside ASP QC limits, low, in CCVL 480-374772/32. The %Rec of As, Co, Fe, Ni and Se was outside ASP QC limits, low, in CCVL 480-374772/44. The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-374754/49. The %Rec of As and V was outside ASP QC limits, low, in CCVL 480-374754/60. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

Nash Rd., Wheatfield

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- Alkalinity
- Chloride/Sulfate

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below.

ALKALINITY

All criteria were met.

CHLORIDE/SULFATE

All criteria were met except the concentration of Sulfate in NS-OW23-GWMS/MSD and should be qualified as estimated in NS-OW23-GWMS/MSD and NS-OW23-GW, if detected.

All of the samples except NS-SD2-GW were diluted.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-123342-1
November 27, 2017
Sampling date: 8/29/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-123342-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-123342-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7470A) and in accordance with general chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

Sample, NS-OW36-GW was diluted due to high target analyte concentrations.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Nash Rd., Wheatfield

SDG# 480-123342-1

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Spike Recoveries and Laboratory Control Samples.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of 2,4,6-Tribromophenol was outside QC limits, high in NS-OW36-GW. Associated target analytes detected in this sample should be qualified as estimated high.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the concentration of 3,3'-Dichlorobenzidine exceeded the initial calibration in LCS/SD 480-374524/2-A/3-A and should be qualified with an 'E'. This target analyte should be qualified as estimated in the associated samples, if detected.

The %Rec of 3,3'-Dichlorobenzidine and 4,6-Dinitro-2-methylphenol was outside QC limits, high in LCS/SD 480-374524/2-A/3-A and should be qualified as estimated in the associated samples, if detected.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports

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- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Laboratory Control Samples and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of TCMX was outside QC limits, high off column RTX-CLP I in NS-OW36-GW and should be qualified as estimated.

The %Rec of a couple of surrogates was outside laboratory QC limits but within ASP limits, so no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Endosulfan sulfate was outside ASP QC limits, high in LSC 480-374528/2-A and LCSD 480-374528/3-A. This target analyte should be qualified as estimated in LSC 480-374528/2-A and LCSD 480-374528/3-A and associated samples in which it was detected.

The %Rec of Endrin was outside QC limits in LCSD 480-374528/3-A but within limits in LSC 480-374528/2-A, so no further action is required.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met except the RPD of alpha-BHC was outside QC limits between the two columns in sample NS-LPZ02S-GW and should be qualified as estimated. The RPD of beta-BHC was outside QC limits between the two columns in sample NS-LPZ08S-GW and should be qualified as estimated. The RPD of Aldrin was outside QC limits between the two columns in sample NS-OW36-GW and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Toxaphene peak 5 was outside QC limits off column RTX-CLPII in CCV 480-374637/7. ASP requires three peaks to be compliant, so no further action is required.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration

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- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except TCMX off column ZB-5 was outside laboratory QC limits in LCS 480-374652/2-A but within ASP limits, so no further action is required.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Aroclor 1016 in LCS 480-374652/2-A was outside QC limits and should be qualified as estimated. The %Rec of Aroclor 1260 in LCS 480-374652/2-A was outside laboratory QC limits but within ASP limits, so no further action is required.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1260 peak 1 was outside QC limits off column ZB-35 in CCVIS 480-374834/4. The %D of Aroclor 1254 peaks 3 and 5 was outside QC limits off column ZB-35 in CCV 480-374834/5. The %D of Aroclor 1016 peak 2 was outside QC limits off column ZB-5 in CCV 480-374834/30. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1016 peaks 1, 2, 4 and 5 and Aroclor 1260 peaks 1, 2, 4, 5 was outside QC limits off column ZB-5 in CCVIS 480-374834/4. The %D of Aroclor 1016 peaks 1, 2, 4 and 5, TCMX and DCBP was outside QC limits off column ZB-35 in CCVIS 480-374834/4. The %D of Aroclor 1221 peaks 1-4 and Aroclor 1254 peaks 1-5 were outside QC limits off column ZB-5 in CCV 480-374834/5. The %D of Aroclor 1221 peaks 1, 3, 4 was outside QC limits off column ZB-35 in CCV 480-374834/5. The %D of Aroclor 1232 peaks 1-4 and Aroclor 1262 peaks 1-3 were outside QC limits off column ZB-5 in CCV 480-374834/6. The %D of Aroclor 1232 peaks 2, 3, 4 was outside QC limits off column ZB-35 in CCV 480-374834/6. The %D of Aroclor 1242 peaks 1-5 and Aroclor 1268 peaks 1, 2, 4 was outside QC limits off column ZB-5 in CCV 480-374834/7. The %D of Aroclor 1242 peaks 2, 3, 4 was outside QC limits off column ZB-35 in CCV 480-374834/7. The %D of Aroclor 1248 peaks 1, 3-5 off column ZB-5 and Aroclor 1248 peaks 2-5 off column ZB-35 was outside QC limits in CCV 480-374834/8. The %D of Aroclor 1260 peaks 1, 2, 4, 5 and TCMX was outside QC limits off column ZB-5 in CCV 480-374834/30. The %D of Aroclor 1016 peaks 1-5, TCMX and DCBP was outside QC limits off column ZB-35 in CCV 480-374834/30. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

Nash Rd., Wheatfield

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The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

The samples arrived at the laboratory unpreserved but were preserved by the laboratory within QC limits, so no further action is required.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Mn was detected in MB 480-374525/1-A above the MDL, below the reporting limit and is qualified as estimated. Mn and Zn were detected above the MDL, below the reporting limit and are qualified as estimated in MB 480-374567/1-B. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

All criteria were met.

FIELD DUPLICATE

All criteria were met except Al and Pb were detected above the MDL, below the reporting limit in NS-LPZD-GW but were not detected in NS-LPZ01S-GW. Fe was detected above the MDL, below the reporting limit in NS-LPZD-GW(diss) but was not detected in NS-LPZ01S-GW(diss).

SERIAL DILUTION

All criteria were met.

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COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Cu and Se was outside ASP QC limits, high, in CCVL 480-374754/49. The %Rec of Se was outside ASP QC limits, high, in CCVL 480-374754/95. The %Rec of Cr and Se was outside ASP QC limits, high, in ICVL 480-374966/7. The %Rec of Cr was outside ASP QC limits, high, in CCVL 480-374966/50 and CCVL 480-374966/58. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-374754/49. The %Rec of As and V was outside ASP QC limits, low, in CCVL 480-374754/60. The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-374754/84. The %Rec of Ag and As was outside ASP QC limits, low, in CCVL 480-374754/95. The %Rec of Pb was outside ASP QC limits, low, in ICVL 480-374966/7. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Alkalinity
- Chloride/Sulfate

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below.

All of the samples except NS-OW36-GW were diluted for Chloride and Sulfate due to high target analyte concentrations.

ALKALINITY

All criteria were met except there was a detect above the MDL, below the reporting limit in CCB29 batch# 374778. Associated target analytes that were detected above the reporting limit and should be qualified as estimated high.

CHLORIDE/SULFATE

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-123420-1
November 28, 2017
Sampling date: 8/30/2017

Prepared by:
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Nash Rd., Wheatfield
SDG# 480-123420-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-123420-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7470A) and in accordance with general chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples.

Sample; NS-OW35-GW was diluted due to high target analyte concentrations.

Samples; NS-OW16-GW, NS-OW32-GW and NS-OWD-GW were diluted due to foaming.

DATA COMPLETENESS

All criteria were met.

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NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met except the pH of NS-OW16-GW and NS-OWD-GW was outside QC limits. These samples were analyzed within 7 days of collection, so no further action is required.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 1,1,2,2-Tetrachloroethane was outside QC limits, high in LCS 480-375300/5. This target analyte should be qualified as estimated high in the associated samples, if detected.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

The %D of some target analytes were outside laboratory QC limits but were within ASP limits, so no further action is required.

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GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples and MS/MSD.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the concentration of 3,3'-Dichlorobenzidine exceeded the initial calibration in LCS/SD 480-374940/2-A/3-A and should be qualified with an 'E'. This target analyte should be qualified as estimated in the associated samples, if detected.

The %Rec of 3,3'-Dichlorobenzidine and 4,6-Dinitro-2-methylphenol was outside QC limits, high in LCS/SD 480-374940/2-A/3-A and should be qualified as estimated in the associated samples, if detected.

MS/MSD

All criteria were met except the %Rec of 4-Chloro-3-methylphenol, 2,4-Dinitrotoluene and Pentachlorophenol was outside ASP QC limits, high in NS-OW35-GWMS/MSD. These target analytes should be qualified as estimated in NS-OW35-GW, NS-OWD-GW and NS-OW35-GWMS/MSD, if detected.

The %Rec of 3,3'-Dichlorobenzidine was outside QC limits, low in NS-OW35-GWMS/MSD. This target analyte should be qualified as estimated in NS-OW35-GW, NS-OWD-GW and NS-OW35-GWMS/MSD.

The RPD of 2,6-Dinitrotoluene, 2-Nitroaniline, 3,3'-Dichlorobenzidine, 3-Nitroaniline, 4-Nitrophenol, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene Bis(2-ethylhexyl)phthalate, Chrysene, Di-n-octyl phthalate, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene and N-nitrosodiphenylamine was outside QC limits between NS-OW35-GWMS and NS-OW35-GWMSD and should be qualified as estimated in NS-OW35-GW, NS-OWD-GW and NS-OW35-GWMS/MSD.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except alpha-BHC was detected in NS-OW16-GW but was not detected in NS-OWD-GW. 4,4'-DDD was detected in NS-OWD-GW but was not detected in NS-OW16-GW.

LABORATORY CONTROL SAMPLES

All criteria were met except the RPD of Endrin aldehyde was outside QC limits between the two columns in LCS 480-374875/2-A and LSCD 480-374875/3-A. This target analyte should be qualified as estimated in LCS 480-374875/2-A and LSCD 480-374875/3-A.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met except the RPD of alpha-BHC was outside QC limits between the two columns in sample NS-OW16-GW and should be qualified as estimated. The RPD of 4,4'-DDT was outside QC limits between the two columns in sample NS-OW2-GW and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Toxaphene peaks 4 and 5 was outside QC limits off column RTX-CLPII in CCV 480-374979/7. ASP requires three peaks to be compliant, so no further action is required.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries

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- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except DCBP off column ZB-35 was outside ASP QC limits, low in NS-OW16-GW and should be qualified as estimated.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1016 peak 2 was outside QC limits off column ZB-5 in CCVIS 480-375251/4. The %D of Aroclor 1260 peak 1 was outside QC limits off column ZB-35 in CCVIS 480-375251/4. The %D of Aroclor 1254 peak 3 was outside QC limits off column ZB-5 in CCV 480-375251/5. The %D of Aroclor 1232 peak 5 was outside QC limits off both columns in CCV 480-375251/6. The %D of Aroclor 1248 peaks 2 and 3 was outside QC limits off column ZB-5 in CCV 480-375251/8. The %D of Aroclor 1016 peak 2 was outside QC limits off column ZB-5 in CCV 480-375251/30. The %D of Aroclor 1016 peak 4 was outside QC limits off column ZB-35 in CCV 480-375251/30. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1260 peaks 1-5 was outside QC limits off column ZB-5 in CCVIS 480-375251/4. The %D of Aroclor 1221 peak 1 was outside QC limits off column ZB-5 in CCV 480-375251/5. The %D of Aroclor 1254 peaks 1, 3, 4, 5 was outside QC limits off column ZB-35 in CCV 480-375251/5. The %D of Aroclor 1262 peaks 1-5 was outside QC limits off column ZB-5 in CCV 480-375251/6. The %D of Aroclor 1262 peaks 1-3 was outside QC limits off column ZB-35 in CCV 480-375251/6. The %D of Aroclor 1268 peaks 1, 2, 5 was outside QC limits off column ZB-5 in CCV 480-375251/7. The %D of Aroclor 1268 peaks 1, 2, 5 was outside QC limits off column ZB-35 in CCV 480-375251/7. The %D of Aroclor 1260 peaks 1-5 was outside QC limits off column ZB-5 in CCV 480-375251/30. The %D of Aroclor 1260 peaks 1-4 was outside QC limits off column ZB-35 in CCV 480-375251/30. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution

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- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

The samples arrived at the laboratory unpreserved but were preserved by the laboratory within QC limits, so no further action is required.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Ca and Mn were detected in MB 480-374738/1-A above the MDL, below the reporting limit and is qualified as estimated. Zn was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-374984/1-B. Zn was detected above the MDL, below the reporting limit and is qualified as estimated in CCB 480-375388/29, 35 and CCB 480-375823/18, 23. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

No MS/MSD was acquired.

FIELD DUPLICATE

All criteria were met.

Nash Rd., Wheatfield

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SERIAL DILUTION

No serial dilution was performed.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Zn was outside ASP QC limits, high, in ICVL 480-375338/7 and CCVL 480-375593/30. The %Rec of Cr and V was outside ASP QC limits, high, in ICVL 480-375173/7. The %Rec of Ba, Cr, Cu and Na was outside ASP QC limits, high, in CCVL 480-375173/19. The %Rec of Cr was outside ASP QC limits, high, in CCVL 480-375173/24 and CCVL 480-375173/48. The %Rec of Ba, Cr and Mn was outside ASP QC limits, high, in CCVL 480-375173/36. The %Rec of Ba was outside ASP QC limits, high, in CCVL 480-375173/57. The %Rec of Zn was outside ASP QC limits, high, in ICVL 480-375446/7 and CCVL 480-375446/17, 29, 36. The %Rec of Zn was outside ASP QC limits, high, in ICVL 480-375823/7 and CCVL 480-375823/19, 21. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Al and As was outside ASP QC limits, low, in CCVL 480-375173/24. The %Rec of As and Ag was outside ASP QC limits, low, in CCVL 480-375173/36. The %Rec of Al, Fe and Ag was outside ASP QC limits, low, in CCVL 480-375173/48. The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-375173/57. The %Rec of Al and Se was outside ASP QC limits, low, in ICVL 480-375446/7 and CCVL 480-375446/29, 36. The %Rec of Al, As and Cr was outside ASP QC limits, low, in CCVL 480-375446/17. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Alkalinity
- Chloride/Sulfate

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

All of the samples were diluted for Chloride and Sulfate due to high target analyte concentrations.

ALKALINITY

All criteria were met.

CHLORIDE/SULFATE

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-123498-1
November 28, 2017
Sampling date: 8/31/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-123498-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-123498-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7470A) and in accordance with general chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

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CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the concentration of 3,3'-Dichlorobenzidine exceeded the initial calibration in LCS/SD 480-374940/2-A/3-A and should be qualified with an 'E'. This target analyte should be qualified as estimated in the associated samples, if detected.

The %Rec of 3,3'-Dichlorobenzidine and 4,6-Dinitro-2-methylphenol was outside QC limits, high in LCS/SD 480-374940/2-A/3-A and should be qualified as estimated in the associated samples, if detected.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples

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- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Toxaphene peaks 4 and 5 was outside QC limits off column RTX-CLPII in CCV 480-375373/7. ASP requires three peaks to be compliant, so no further action is required.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Laboratory Control Samples and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except TCMX off column ZB-35 was outside ASP QC limits, high in all samples, blank and spikes except NS-OW5-GW and should be qualified as estimated in the non-compliant sample, blank and spikes.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Aroclor 1016 was outside ASP QC limits, high in LCSD 480-375057/3-A and should be qualified as estimated. This target analyte was within limits in LCS 480-375057/2-A, so no further action is required.

The RPD of Aroclor 1016 and Aroclor 1260 was outside QC limits between the columns in LCS 480-375057/2-A and should be qualified as estimated.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1016 peak 2 and Aroclor 1260 peaks 2 and 4 was outside QC limits off column ZB-35 in CCVIS 480-375255/4. The %D of Aroclor 1221 peak 3 was outside QC limits off column ZB-5 in CCV 480-375255/5. The %D of Aroclor 1262 peak 3 was outside QC limits off column ZB5 in CCV 480-375255/6. The %D of Aroclor 1242 peak 4 and Aroclor 1268 peak 5 was outside QC limits off column ZB-5 in CCV 480-375255/7. The %D of Aroclor 1248 peaks 4 was outside QC limits off column ZB-5 in CCV 480-375255/8. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1016 peaks 1, 4, 5 and TCMX was outside QC limits off column ZB-35 in CCVIS 480-375255/4. The %D of Aroclor 1221 peaks 1, 3, 4 and Aroclor 1254 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-375255/5. The %D of Aroclor DCBP was outside QC limits off column ZB-5 in CCV 480-375255/5. The %D of Aroclor 1232 peaks 1, 2 and 4 was

outside QC limits off column ZB-5 in CCV 480-375255/6. The %D of Aroclor 1232 peaks 1, 2, 4 and Aroclor 1262 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-375255/6. The %D of Aroclor 1242 peak 1-3 and 5 and Aroclor 1268 peaks 1-3 and 5 was outside QC limits off column ZB-35 in CCV 480-375255/7. The %D of Aroclor 1248 peaks 1, 2 and 5 was outside QC limits off column ZB-35 in CCV 480-375255/8. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

The samples arrived at the laboratory unpreserved but were preserved by the laboratory within QC limits, so no further action is required.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Fe and Mn were detected in MB 480-374937/1-A above the MDL, below the reporting limit and is qualified as estimated. Zn was detected above the MDL, below the reporting limit and is qualified as estimated in MB 480-374984/1-B. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

All criteria were met.

FIELD DUPLICATE

All criteria were met except Cu was detected above the MDL, below the reporting limit in NS-OWD-GW but was not detected in NS-OW5-GW.

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Se was outside ASP QC limits, high, in ICVL 480-375393/7. The %Rec of Zn was outside ASP QC limits, high, in ICVL 480-375446/7 and CCVL 480-375446/17, 29. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Al, Fe and Pb was outside ASP QC limits, low, in ICVL 480-375393/7. The %Rec of Al, Sb, Fe and Pb was outside ASP QC limits, low, in CCVL 480-375393/19. The %Rec of Al, Fe and V was outside ASP QC limits, low, in CCVL 480-375393/27. The %Rec of Fe and Pb was outside ASP QC limits, low, in CCVL 480-375393/39. The %Rec of Al, Fe, Pb and V was outside ASP QC limits, low, in CCVL 480-375393/51. The %Rec of As, Fe, Se and V was outside ASP QC limits, low, in CCVL 480-375393/59. The %Rec of Al and Se was outside ASP QC limits, low, in ICVL 480-375446/7 and CCVL 480-375446/29. The %Rec of Al, As and Cr was outside ASP QC limits, low, in CCVL 480-375446/17. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Alkalinity
- Chloride/Sulfate

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

All of the samples were diluted for Chloride and Sulfate due to high target analyte concentrations.

ALKALINITY

All criteria were met.

CHLORIDE/SULFATE

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-124495-1
November 29, 2017
Sampling date: 9/20/2017

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
SDG# 480-124495-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-124495-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7470A) and in accordance with general chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

All samples were diluted due to foaming.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

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Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

The %D of some target analytes was outside laboratory QC limits but within ASP limits, so no further action is required.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

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METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except 4-Methylphenol was detected in NS-LPZD-GW but not in NS-LPZ10S-GW.

LABORATORY CONTROL SAMPLES

All criteria were met except the concentration of 3,3'-Dichlorobenzidine exceeded the initial calibration in LCS/SD 480-377953/2-A/3-A and should be qualified with an 'E'. This target analyte should be qualified as estimated in the associated samples, if detected.

The %Rec of Carbazole was outside QC limits, high in LCS/SD 480-377953/2-A/3-A and should be qualified as estimated in the associated samples, if detected.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Carbazole was outside outer ASP QC limits in CCVIS 480-378101/3 and should be qualified as estimated in the associated samples, blanks and spikes.

The %D of Pentachlorophenol was outside QC limits in CCVIS 480-378101/3. ASP allows for up to four target analytes to be outside QC limits without further action.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries

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- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met except 4,4'-DDD was detected in NS-LPZ10S-GW but was not detected in NS-LPZD-GW.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Endosulfan sulfate was outside ASP QC limits, high in LCS 480-378178/2-A and LCSD 480-378178/3-A and should be qualified as estimated in the associated samples, if detected.

The RPD of Endrin aldehyde and Methoxychlor was outside QC between the columns in LCS 480-378178/2-A and LCSD 480-378178/3-A and should be qualified as estimated.

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MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met except the RPD of 4,4'-DDD was outside QC limits between the columns in NS-LPZ13S-GW and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1016 peaks 1 and 2 was outside QC limits off column ZB-5 in CCVIS 480-378396/8. The %D of Aroclor 1262 peak 3 was outside QC limits off both columns in CCV 480-378396/10. The %D of Aroclor 1232 peaks 1 and 2 was outside QC limits off column ZB-5 in CCV 480-378396/10. ASP requires three conforming peaks, so no further action is required.

The %D of TCMX was outside QC limits off column ZB-35 in CCVIS 480-378396/8. The %D of Aroclor 1254 peaks 2-5 was outside QC limits off column ZB-5 in CCV 480-378396/9. The %D of Aroclor 1221 peaks 1-4 was outside QC limits off column ZB-5 in CCV 480-378396/9. The %D of Aroclor 1268 peaks 1-3 and 5 were outside QC limits off column ZB-5 in CCV 480-378396/11. The %D of Aroclor 1268 peaks 1-3 was outside QC limits off column ZB-35 in CCV 480-378396/7.

These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

The samples arrived at the laboratory unpreserved but were preserved by the laboratory within QC limits, so no further action is required.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Ca and Mn were detected in CCB 480-378968/31 above the MDL,

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below the reporting limit and are qualified as estimated. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

No MS/MSD was acquired.

FIELD DUPLICATE

All criteria were met except As and Pb were detected above the MDL, below the reporting limit in NS-LPZD-GW but was not detected in NS-LPZ10S-GW. V was detected above the MDL, below the reporting limit in NS-LPZ10S-GW but was not detected in NS-LPZD-GW.

SERIAL DILUTION

No serial dilution was performed.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Ba and Cr was outside ASP QC limits, high, in ICVL 480-378205/7. The %Rec of K and Cr was outside ASP QC limits, high, in CCVL 480-378205/63. The %Rec of Ba, Mn and Cr was outside ASP QC limits, high, in CCVL 480-378205/75. The %Rec of Ba, Cr and Fe was outside ASP QC limits, high, in CCVL 480-378205/93. The %Rec of Cu was outside ASP QC limits, high, in CCV 480-378968/40. The %Rec of Al, Ba, Cr and Fe was outside ASP QC limits, high, in ICVL 480-378968/7. The %Rec of Ba and Cr was outside ASP QC limits, high, in CCVL 480-378968/20. The %Rec of Al, Ba, Ca, Mn and Cr was outside ASP QC limits, high, in CCVL 480-378968/32. The %Rec of Ba, Cu, Mn, K and Cr was outside ASP QC limits, high, in CCVL 480-378968/42. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Sb was outside ASP QC limits, low, in ICVL 480-378205/7 and CCVL 480-378205/55. The %Rec of As was outside ASP QC limits, low, in CCVL 480-378205/63. The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-378205/75. The %Rec of As and Sb was outside ASP QC limits, low, in CCVL 480-378205/87. The %Rec of As and Ag was outside ASP QC limits, low, in CCVL 480-378205/93. The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-378968/20, 32, 42. The %Rec of Hg was outside ASP QC limits, low, in ICVL 480-378113/3 and CCVL 480-378113/77. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

Nash Rd., Wheatfield

SDG# 480-124495-1

The following items/criteria were reviewed for this analytical suite:

- Alkalinity
- Chloride/Sulfate

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

All of the samples were diluted for Chloride and Sulfate due to high target analyte concentrations.

ALKALINITY

All criteria were met.

CHLORIDE/SULFATE

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-124643-1
November 30, 2017
Reissued March 16, 2018
Sampling date: 9/21/2017

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Nash Rd., Wheatfield
SDG# 480-124643-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package (reissued; March 16, 2018) for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-124643-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7470A) and in accordance with general chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Spike Recoveries and MS/MSD.

Sample; NS-LPZ12S-GW was diluted due to foaming.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

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Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of Toluene-d₈ was outside ASP QC limits, low in NS-LPZ12S-GW, NS-LPZ09S-GW, NS-LPZD-GW and MB 480-378703/7. Associated target analytes in these samples should be qualified as estimated.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met except the %Rec of Ethyl benzene and Isopropyl benzene was outside QC, high limits in NS-LPZ11S-GWMS/MSD. These target analytes should be qualified as estimated in NS-LPZ11S-GW and NS-LPZ11S-GWMS/MSD, if detected.

Toluene was outside laboratory QC limits but within ASP limits, so no further action is required. Tetrachloroethene was outside QC limits in NS-LPZ11S-GWMSD but within limits in NS-LPZ11S-GWMS, so no further action is required.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Vinyl Chloride was outside QC limits in CCVIS 480-378703/3. ASP allows for up to two target analytes to be outside QC limits without further action.

The %D of some target analytes was outside laboratory QC limits but within ASP limits, so no further action is required.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Spike Recoveries, Laboratory Control Samples and MS/MSD.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of Nitrobenzene-d₅ and 2,4,6-Tribromophenol were outside QC limits, high in NS-LPZD-GW. Associated target analytes detected in this sample should be qualified as estimated high.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the concentration of 3,3'-Dichlorobenzidine exceeded the initial calibration in LCS/SD 480-377953/2-A/3-A and should be qualified with an 'E'. This target analyte should be qualified as estimated in the associated samples, if detected.

The %Rec of Carbazole, 3,3'-Dichlorobenzidine and 3-Nitroaniline was outside QC limits, high in LCS 480-378294/2-A and should be qualified as estimated in the associated samples, if detected.

MS/MSD

All criteria were met except the %Rec of 4-Chloro-3-methylphenol, 4-Nitrophenol and 2,4-Dinitrotoluene was outside QC limits, high in NS-LPZ11S-GWMS/MSD and should be qualified as estimated in NS-LPZ11S-GW and NS-LPZ11S-GWMS/MSD, if detected.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

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GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples, Compound Quantitation and MS/MSD.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

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METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Endosulfan sulfate was outside ASP QC limits, high in LCS 480-378303/2-A and should be qualified as estimated in the associated samples, if detected.

The RPD on Endrin aldehyde was outside QC limits between the columns in LCS 480-378303/2-A and should be qualified as estimated.

MS/MSD

All criteria were met except the %Rec of Endosulfan sulfate was outside QC limits in NS-LPZ11S-GWMSD but was within limits in NS-LPZ11S-GWMS, so no further action is required.

The RPD on Methoxychlor was outside QC limits between the columns in NS-LPZ11S-GWMS and should be qualified as estimated. The RPD on Methoxychlor, gamma-BHC and Endosulfan sulfate was outside QC limits between the columns in NS-LPZ11S-GWMSD and should be qualified as estimated.

COMPOUND QUANTITATION

All criteria were met except the RPD of 4,4'-DDD and beta-BHC was outside QC limits between the columns in NS-LPZ09S-GW and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank

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- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Surrogate Spike Recoveries, Compound Quantitation and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of DCBP off column ZB-35 was outside QC limits, low in NS-LPZ12S-GW and should be qualified as estimated.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

All criteria were met.

COMPOUND QUANTITATION

All criteria were met except the RPD of Aroclor 1242 was outside QC limits between the columns in NS-LPZ09S-GW and should be qualified as estimated.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1260 peak 2 was outside QC limits off column ZB-35 in CCVIS 480-378399/6. The %D of Aroclor 1242 peaks 4 and 5 was outside QC limits off column ZB-35 in CCV 480-378399/9. The %D of Aroclor 1248 peaks 2 and 3 was outside QC limits off column ZB-35 in CCV 480-378399/10. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1262 peaks 3-5 was outside QC limits off column ZB-35 in CCV 480-378399/8.

The %D of Aroclor 1268 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-378399/9.

These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

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The samples arrived at the laboratory unpreserved but were preserved by the laboratory within QC limits, so no further action is required.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Ca, Zn and Mn were detected in MB 480-378515/1-A above the MDL, below the reporting limit and are qualified as estimated. Ca and Mn were detected in CCB 480-378968/31 and CCB 480-378969/19 above the MDL, below the reporting limit and are qualified as estimated. Mn was detected in CCB 480-378969/35, CCB 480-378969/55 and CCB 480-379295/23 above the MDL, below the reporting limit and is qualified as estimated. Fe was detected in CCB 480-378969/47 above the MDL, below the reporting limit and is qualified as estimated. Fe and Mn were detected in CCB 480-379295/18 above the MDL, below the reporting limit and are qualified as estimated. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

All criteria were met.

FIELD DUPLICATE

All criteria were met except Cd was detected above the MDL, below the reporting limit in NS-LPZD-GW but was not detected in NS-LPZ09S-GW. V was detected above the MDL, below the reporting limit in NS-LPZ09S -GW but was not detected in NS-LPZD-GW. As and Cr were detected above the MDL, below the reporting limit in NS-LPZD-GW(diss) but were not detected in NS-LPZ09S-GW(diss).

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Cu was outside ASP QC limits, high, in CCV 480-378968/18, 30, 40 and CCV 480-378969/18, 22, 34. The %Rec of Al, Ba, Cr and Fe was outside ASP QC limits, high, in ICVL 480-378968/7 and ICVL 480-378969/7. The %Rec of Ba and Cr was outside ASP QC limits, high, in CCVL 480-378968/20. The %Rec of Al, Ba, Ca, Mn and Cr was outside ASP QC limits, high, in CCVL 480-378968/32 and CCVL 480-378969/20. The %Rec of Ba, Cu, Mn, K and Cr was outside ASP QC limits, high, in CCVL 480-378968/42. The %Rec of Cr, Cu, Mn and K was outside ASP QC limits, high, in CCVL 480-378969/24. The %Rec of Ba, Cr, Mg, Mn and K was outside ASP QC limits, high, in CCVL 480-378969/36. The %Rec of As, Ba and Cr was outside ASP QC limits, high, in CCVL 480-378969/48. The %Rec of Ba, Cr, Fe, Mn and Na was outside ASP QC limits, high, in CCVL 480-378969/56. The %Rec of Fe was outside ASP QC limits, high, in CCVL 480-379295/19. The %Rec of Fe and Mn was outside ASP QC limits, high, in CCVL 480-379295/24. The %Rec of Hg was outside ASP QC limits, high, in CCVL 480-378340/88.

Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-378968/20, 32, 42 and CCVL 480-378969/20, 24, 56. The %Rec of Fe was outside ASP QC limits, low, in ICVL 480-379046/7 and CCVL 480-379046/19, 29. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Alkalinity
- Chloride/Sulfate

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

All of the samples, except NS-LPZ12S-GW, were diluted for Chloride and Sulfate due to high target analyte concentrations.

Sample, NS-LPZ12S-GW was diluted due to screening results.

ALKALINITY

All criteria were met.

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CHLORIDE/SULFATE

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-124700-1
November 30, 2017
Reissued March 19, 2018
Sampling date: 9/22/2017

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Nash Rd., Wheatfield
SDG# 480-124700-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package (reissued; March 19, 2018) for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-124700-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDCE Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7470A) and in accordance with general chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

Nash Rd., Wheatfield

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CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 1,1,2,2-Tetrachloroethane, 2-Hexanone and 4-Methyl-2-pentanone was outside QC limits, high in LCS 480-378878/5. These target analytes should be qualified as estimated in the associated samples, if detected.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Carbon tetrachloride was outside QC limits in CCVIS 480-378878/3. ASP allows for up to two target analytes to be outside QC limits without further action.

The %D of some target analytes was outside laboratory QC limits but within ASP limits, so no further action is required.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the concentration of 3,3'-Dichlorobenzidine exceeded the initial calibration in LCS/SD 480-378616/2-A/3-A and should be qualified with an 'E'. This target analyte should be qualified as estimated in the associated samples, if detected.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration

Nash Rd., Wheatfield

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- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Endosulfan sulfate was outside ASP QC limits, high in LCS 480-378695/2-A and should be qualified as estimated in the associated samples, if detected.

The RPD on Methoxychlor was outside QC limits between the columns in LCS 480-378695/2-A and should be qualified as estimated.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

Nash Rd., Wheatfield

SDG# 480-124700-1

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

All criteria were met.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1260 peak 2 was outside QC limits off column ZB-35 in CCVIS 480-378993/6. The %D of Aroclor 1232 peaks 2 and 3 was outside QC limits off column ZB-5 in CCV 480-378993/8. The %D of Aroclor 1242 peaks 4 and 5 was outside QC limits off column ZB-35 in CCV 480-378993/9. The %D of Aroclor 1248 peak 1 was outside QC limits off column ZB-35 in CCV 480-378993/10. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1221 peaks 2 and 3 was outside QC limits off column ZB-5 in CCV 480-378993/7. The %D of Aroclor 1221 peaks 1-4 and Aroclor 1254 peaks 1-5 were outside QC limits off column ZB-35 in CCV 480-378993/7. The %D of Aroclor 1232 peaks 2-4 and Aroclor 1262 peaks 1-5 were outside QC limits off column ZB-35 in CCV 480-378993/8. The %D of Aroclor 1242 peaks 3-5 was outside QC limits off column ZB-5 in CCV 480-378993/9. The %D of Aroclor 1268 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-378993/9. The %D of Aroclor 1248 peaks 2, 3 and 5 was outside QC limits off column ZB-5 in CCV 480-378993/10. These target analytes should be qualified as estimated in the associated samples off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Ca, Zn and Mn were detected in MB 480-378515/1-A above the MDL, below the reporting limit and are qualified as estimated. Zn and Mn were detected in MB 480-378541/1-B above the MDL, below the reporting limit and are qualified as estimated. Ca and Mn were detected in CCB 480-378969/19 above the MDL, below the reporting limit and are qualified as estimated. Mn was detected in CCB 480-378969/35, CCB 480-378969/55 and CCB 480-379295/23 above the MDL, below the reporting limit and is qualified as estimated. Fe was detected in CCB 480-378969/47 above the MDL, below the reporting limit and is qualified as estimated. Fe and Mn were detected in CCB 480-379295/18 above the MDL, below the

reporting limit and are qualified as estimated. Zn was detected in ICB 480-379181/6 above the MDL, below the reporting limit and is qualified as estimated. Associated samples in which these target analytes were detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

No MS/MSD was acquired.

FIELD DUPLICATE

All criteria were met except Mn was detected above the MDL, below the reporting limit in NS-OW1B-GW(diss) but was not detected in NS-OWD-GW(diss).

SERIAL DILUTION

No serial dilution was performed.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of Cu was outside ASP QC limits, high, in CCV 480-378969/18, 22. The %Rec of Al, Ba, Cr and Fe was outside ASP QC limits, high, in ICVL 480-378969/7. The %Rec of Al, Ba, Ca, Mn and Cr was outside ASP QC limits, high, in CCVL 480-378969/20. The %Rec of Cr, Cu, Mn and K was outside ASP QC limits, high, in CCVL 480-378969/24. The %Rec of Ba, Cr, Mg, Mn and K was outside ASP QC limits, high, in CCVL 480-378969/36. The %Rec of As, Ba and Cr was outside ASP QC limits, high, in CCVL 480-378969/48. The %Rec of Ba, Cr, Fe, Mn and Na was outside ASP QC limits, high, in CCVL 480-378969/56. The %Rec of Fe was outside ASP QC limits, high, in CCVL 480-379295/19. The %Rec of Fe and Mn was outside ASP QC limits, high, in CCVL 480-379295/24. The %Rec of Zn was outside ASP QC limits, high, in ICVL 480-379181/7 and CCVL 480-379181/65, 76, 88, 100. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-378969/20, 24, 56. The %Rec of Fe was outside ASP QC limits, low, in ICVL 480-379046/7 and CCVL 480-379046/19, 29, 37. The %Rec of Cr and Ag was outside ASP QC limits, low, in CCVL 480-379181/65, 88, 100. The %Rec of Pb and Ag was outside ASP QC limits, low, in CCVL 480-379181/76. The %Rec of Ag was outside ASP QC limits, low, in CCVL 480-379181/107. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Alkalinity
- Chloride/Sulfate

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use.

All of the samples, except NS-OW15-GW, were diluted for Chloride and Sulfate due to high target analyte concentrations.

Sample, NS-OW15-GW was diluted for Sulfate due to high target analyte concentration.

ALKALINITY

All criteria were met.

CHLORIDE/SULFATE

All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Nash Rd., Wheatfield
TestAmerica Laboratories, Inc. SDG#480-124764-1
December 1, 2017
Reissued March 16, 2018
Sampling date: 9/25/2017

Prepared by:
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Nash Rd., Wheatfield
SDG# 480-124764-1

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package (reissued; March 16, 2018) for LiRo Engineers, project located at Nash Rd., Wheatfield, Project #932054, TestAmerica Laboratories, Inc., SDG#480-124764-1, submitted to Vali-Data of WNY, LLC on October 13, 2017. This DUSR has been prepared in general compliance with NYSDCE Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Semi-Volatile Organics (8270D), Pesticides (8081B), PCB (8082A), Inorganics (6010C), Mercury (7470A) and in accordance with general chemistry methods.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Surrogate Spike Recoveries.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

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CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met except the %Rec of 4-Bromofluorobenzene was outside ASP QC limits, low in LCS 480-379879/9. Associated target analytes in LCS 480-379879/9 should be qualified as estimated.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Bromoform was outside QC limits in CCVIS 480-379879/3. ASP allows for up to two target analytes to be outside QC limits without further action.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the sample were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the concentration of 3,3'-Dichlorobenzidine exceeded calibration limits in LCS/LCSD 480-378905/2-A,3-A and should be qualified as estimated in LCS/LCSD 480-378905/2-A,3-A and associated samples, if detected.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

PESTICIDES

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration

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- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Laboratory Control Samples.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Endosulfan sulfate was outside ASP QC limits, high in LCS 480-378695/2-A and should be qualified as estimated in the associated samples, if detected.

The RPD on Methoxychlor was outside QC limits between the columns in LCS 480-378695/2-A and should be qualified as estimated.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on all target analytes and surrogates with acceptable results.

CONTINUING CALIBRATION

All criteria were met.

PCB

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times for the samples were met.

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SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were used on the target analytes and surrogates in which the %RSD was >20.0%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Aroclor 1260 peak 2 was outside QC limits off column ZB-35 in CCVIS 480-378993/6. The %D of Aroclor 1232 peaks 2 and 3 was outside QC limits off column ZB-5 in CCV 480-378993/8. The %D of Aroclor 1242 peaks 4 and 5 was outside QC limits off column ZB-35 in CCV 480-378993/9. The %D of Aroclor 1248 peak 1 was outside QC limits off column ZB-35 in CCV 480-378993/10. ASP requires three conforming peaks, so no further action is required.

The %D of Aroclor 1221 peaks 2 and 3 was outside QC limits off column ZB-5 in CCV 480-378993/7. The %D of Aroclor 1221 peaks 1-4 and Aroclor 1254 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-378993/7. The %D of Aroclor 1232 peaks 2-4 and Aroclor 1262 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-378993/8. The %D of Aroclor 1242 peaks 3-5 was outside QC limits off column ZB-5 in CCV 480-378993/9. The %D of Aroclor 1268 peaks 1-5 was outside QC limits off column ZB-35 in CCV 480-378993/9. The %D of Aroclor 1248 peaks 2, 3 and 5 was outside QC limits off column ZB-5 in CCV 480-378993/10. These target analytes should be qualified as estimated in the associated samples, blanks and spikes off the associated column.

METALS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Blanks
- Laboratory Control Sample
- MS/MSD
- Field Duplicate
- Serial Dilution
- Compound Quantitation
- Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use but are qualified below in Blanks and Calibration.

The sample arrived at the laboratory unpreserved but was preserved by the laboratory within QC limits, so no further action is required.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

BLANKS

All criteria were met except Mn was detected in MB 480-378934/1-A above the MDL, below the reporting limit and is qualified as estimated. Zn was detected in MB 480-378747/1-C above the MDL, below the reporting limit and is qualified as estimated. K was detected in CCB 480-379176/47 above the MDL, below the reporting limit and is qualified as estimated. Associated samples in which these target analytes were detected above the MDL and below the reporting

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limit should be reported with the reporting limit and 'undetected'. Associated samples in which these target analytes were detected above the reporting limit should be qualified as estimated high.

LABORATORY CONTROL SAMPLE

All criteria were met.

MS/MSD

All criteria were met.

FIELD DUPLICATE

No field duplicate was acquired.

SERIAL DILUTION

All criteria were met.

COMPOUND QUANTITATION

All criteria were met.

CALIBRATION

All criteria were met except the %Rec of As and Ba was outside ASP QC limits, high, in ICV 480-319176/7. The %Rec of Sb and Cd was outside ASP QC limits, high, in CCVL 480-319176/25. The %Rec of K was outside ASP QC limits, high, in CCVL 480-319176/48. The %Rec of Sb was outside ASP QC limits, high, in ICVL 480-379699/7. The %Rec of Ba and Se was outside ASP QC limits, high, in CCVL 480-379699/26. The %Rec of As was outside ASP QC limits, high, in CCVL 480-379699/37. Associated samples, blanks and spikes in which these target analytes were detected above the MDL should be qualified as estimated high.

The %Rec of Pb and Se was outside ASP QC limits, low, in ICVL 480-379176/7. The %Rec of Pb, As and Cr was outside ASP QC limits, low, in CCVL 480-379176/19. The %Rec of Cr was outside ASP QC limits, low, in CCVL 480-379176/25. The %Rec of Al, Pb and Se was outside ASP QC limits, low, in CCVL 480-379176/37. The %Rec of Cr, Fe, Se and Zn was outside ASP QC limits, low, in CCVL 480-379176/48. The %Rec of As was outside ASP QC limits, low, in ICVL 480-379390/7 and CCVL 480-379390/19, 30. The %Rec of K was outside ASP QC limits, low, in ICVL 480-379699/8. The %Rec of Al, As and Zn was outside ASP QC limits, low, in CCVL 480-379699/20. The %Rec of Se and Ag was outside ASP QC limits, low, in CCVL 480-379699/37. These target analytes should be qualified as estimate in the associated samples, blanks and spikes.

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Alkalinity
- Chloride/Sulfate

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below.

Sample, NS-OW14A-GW was diluted for Sulfate due to high target analyte concentration.

ALKALINITY

All criteria were met.

CHLORIDE/SULFATE

All criteria were met except Sulfate was detected above the MDL, below the reporting limit and is qualified as estimated in CCB14 in batch #379929 and #380391. Associated samples in which Sulfate was detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples, blanks and spikes in which Sulfate was detected above the reporting limit should be qualified as estimated high.