SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-1(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-01	Matrix:	SOIL
Analytical Method:	8015B DRO	% Moisture:	5 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017067.D	1	07/11/16 11:59	07/12/16 21:02	PB92026

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
DRO	DRO	4586		875	875	1750	ug/kg
SURROGATES							
16416-32-3	Tetracosane-d50	16		37 - 130		80%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-2(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-02	Matrix:	SOIL
Analytical Method:	8015B DRO	% Moisture:	12.6 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017070.D	1	07/11/16 11:59	07/12/16 22:40	PB92026

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
DRO	DRO	3046		952	952	1900	ug/kg
SURROGATES							
16416-32-3	Tetracosane-d50	20.2		37 - 130		101%	SPK: 20

Comments:

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-3(5-6)	SDG No.:	H3936
Lab Sample ID:	H3936-03	Matrix:	SOIL
Analytical Method:	8015B DRO	% Moisture:	10.8 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017071.D	1	07/11/16 11:59	07/12/16 23:13	PB92026

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
DRO	DRO	2465		934	935	1870	ug/kg
SURROGATES							
16416-32-3	Tetracosane-d50	19.8		37 - 130		99%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

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B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-4(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-04	Matrix:	SOIL
Analytical Method:	8015B DRO	% Moisture:	9.1 Decanted:
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017073.D	2	07/11/16 11:59	07/13/16 0:18	PB92026

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
DRO	DRO	28079		1830	1830	3660	ug/kg
SURROGATES							
16416-32-3	Tetracosane-d50	7.48		37 - 130		75%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(1-2)	SDG No.:	H3936
Lab Sample ID:	H3936-05	Matrix:	SOIL
Analytical Method:	8015B DRO	% Moisture:	7.6 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017074.D	1	07/11/16 11:59	07/13/16 0:51	PB92026

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
DRO	DRO	2303		900	900	1800	ug/kg
SURROGATES							
16416-32-3	Tetracosane-d50	15.8		37 - 130		79%	SPK: 20

Comments:

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LOD = Limit of Detection
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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

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B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-06	Matrix:	SOIL
Analytical Method:	8015B DRO	% Moisture:	12.6 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017075.D	1	07/11/16 11:59	07/13/16 1:24	PB92026

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
DRO	DRO	2439		953	955	1910	ug/kg
SURROGATES							
16416-32-3	Tetracosane-d50	20.2		37 - 130		101%	SPK: 20

Comments:

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LOD = Limit of Detection
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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-6(11-12)	SDG No.:	H3936
Lab Sample ID:	H3936-09	Matrix:	SOIL
Analytical Method:	8015B DRO	% Moisture:	19.4 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017076.D	1	07/11/16 11:59	07/13/16 1:56	PB92026

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
DRO	DRO	2434		1030	1030	2060	ug/kg
SURROGATES							
16416-32-3	Tetracosane-d50	19		37 - 130		95%	SPK: 20

Comments:

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QC SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: AKRF Engineering, P.C.

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
SB-1(9-10)	80				0
SB-1(9-10)MS	78				0
SB-1(9-10)MSD	76				0
SB-2(9-10)	101				0
SB-3(5-6)	99				0
SB-4(4-5)	75				0
SB-5(1-2)	79				0
SB-5(4-5)	101				0
SB-6(11-12)	95				0
PIBLK-FE017062.D	101				0
PIBLK-FE017077.D	105				0
PB92026BL	80				0
PB92026BS	88				0

	QC LIMITS
TETRACOSANE-d50	For Water : 29-130 For Soil : 37-130

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

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SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** AKRF Engineering, P.C.

Lab Code: CHEM **Cas No:** H3936 **SAS No :** H3936 **SDG No:** H3936

Client SampleID : SB-1(9-10)MS **Datafile:** FE017068.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7001	4586	6896	33%	*	68-131

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SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** AKRF Engineering, P.C.

Lab Code: CHEM **Cas No:** H3936 **SAS No :** H3936 **SDG No:** H3936

Client SampleID : SB-1(9-10)MSD **Datafile:** FE017069.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7001	4586	6826	32%	*	68-131

MS/MSD % Recovery RPD : 3.1

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SOIL DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RI

Lab Name: Chemtech **Client:** AKRF Engineering, P.C.

Lab Code: CHEM **Cas No:** H3936 **SAS No :** H3936 **SDG No:** H3936

Matrix Spike - EPA Sample No : PB92026BS **Datafile:** FE017066.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
DRO	6664	0	5665	85	68-131

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4B

METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB92026BL

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

Lab File ID: FE017065.D Lab Sample ID: PB92026BL

Instrument ID: fe Date Extracted: 07/12/2016

Matrix: (soil/water) Soil Date Analyzed: 07/12/16

Level: (low/med) low Time Analyzed: 19:56

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB92026BS	PB92026BS	FE017066.D	07/12/16
SB-1(9-10)	H3936-01	FE017067.D	07/12/16
SB-1(9-10)MS	H3936-01MS	FE017068.D	07/12/16
SB-1(9-10)MSD	H3936-01MSD	FE017069.D	07/12/16
SB-2(9-10)	H3936-02	FE017070.D	07/12/16
SB-3(5-6)	H3936-03	FE017071.D	07/12/16
SB-4(4-5)	H3936-04	FE017073.D	07/13/16
SB-5(1-2)	H3936-05	FE017074.D	07/13/16
SB-5(4-5)	H3936-06	FE017075.D	07/13/16
SB-6(11-12)	H3936-09	FE017076.D	07/13/16

COMMENTS:

Form IV

QC SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB92026BL	SDG No.:	H3936
Lab Sample ID:	PB92026BL	Matrix:	SOIL
Analytical Method:	8015B DRO	% Moisture:	0 Decanted:
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017065.D	1	07/11/16 11:59	07/12/16 19:56	PB92026

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
DRO	DRO	835	U	833	835	1670	ug/kg
SURROGATES							
16416-32-3	Tetracosane-d50	16		37 - 130		80%	SPK: 20

Comments:

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() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/12/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/12/16
Client Sample ID:	PIBLK-FE017062.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-FE017062.D	Matrix:	Water
Analytical Method:	8015B DRO	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017062.D	1		07/12/16	FE071216

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	25	U	25	25	50	ug/L
SURROGATES							
16416-32-3	Tetracosane-d50	20.2		29 - 130		101%	SPK: 20

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/13/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/13/16
Client Sample ID:	PIBLK-FE017077.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-FE017077.D	Matrix:	Water
Analytical Method:	8015B DRO	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017077.D	1		07/13/16	FE071216

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	25	U	25	25	50	ug/L
SURROGATES							
16416-32-3	Tetracosane-d50	21.1		29 - 130		105%	SPK: 20

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() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB92026BS	SDG No.:	H3936
Lab Sample ID:	PB92026BS	Matrix:	SOIL
Analytical Method:	8015B DRO	% Moisture:	0 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017066.D	1	07/11/16 11:59	07/12/16 20:29	PB92026

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
DRO	DRO	5665		833	835	1670	ug/kg
SURROGATES							
16416-32-3	Tetracosane-d50	17.6		37 - 130		88%	SPK: 20

Comments:

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-1(9-10)MS	SDG No.:	H3936
Lab Sample ID:	H3936-01MS	Matrix:	SOIL
Analytical Method:	8015B DRO	% Moisture:	5 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017068.D	1	07/11/16 11:59	07/12/16 21:34	PB92026

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
DRO	DRO	6896		875	875	1750	ug/kg
SURROGATES							
16416-32-3	Tetracosane-d50	15.5		37 - 130		78%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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J = Estimated Value
B = Analyte Found in Associated Method Blank
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CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-1(9-10)MSD	SDG No.:	H3936
Lab Sample ID:	H3936-01MSD	Matrix:	SOIL
Analytical Method:	8015B DRO	% Moisture:	5 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE017069.D	1	07/11/16 11:59	07/12/16 22:07	PB92026

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
DRO	DRO	6826		875	875	1750	ug/kg
SURROGATES							
16416-32-3	Tetracosane-d50	15.3		37 - 130		76%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: AKRF02

ProjectID: NYCSCA - PS 97X Addition

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Calibration Sequence : FE063016		Test : Diesel Range Organics	
Concentration (PPM)	Area Count	Reference Factor	File ID
1000	326889307	326889	FE016904.D
500	163439248	326878	FE016905.D
200	64573532	322868	FE016906.D
100	32670801	326708	FE016907.D
50	16012247	320245	FE016908.D
AVG RF : 324718	% RSD : 0.934		AVG RT : 14.6198

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: AKRF02

ProjectID: NYCSCA - PS 97X Addition

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

DataFile: FE017063.D Analyst Name: UA/NP Analyst Date: 07-12-2016

Conc. (PPM)	Area Count	RF	Average RF	%D
500	165773898	331548	324718	2.103

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DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: AKRF02

ProjectID: NYCSCA - PS 97X Addition

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

DataFile: FE017078.D Analyst Name: UA/NP Analyst Date: 07-13-2016

Conc. (PPM)	Area Count	RF	Average RF	%D
500	164664476	329329	324718	1.42

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Analytical Sequence

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition **Instrument ID:** FID_E

GC Column: RXI-1MS **ID:** 0.18 **(mm)**

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SUROGATE RT FROM INITIAL CALIBRATION 14.6198

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	I.BLK01	12 Jul 2016 18:17	FE017062.D	14.604	
50 PPM TRPH STD	50 PPM TRPH STD	12 Jul 2016 18:50	FE017063.D	14.610	
PB92026BL	PB92026BL	12 Jul 2016 19:56	FE017065.D	14.602	
PB92026BS	PB92026BS	12 Jul 2016 20:29	FE017066.D	14.602	
SB-1(9-10)	H3936-01	12 Jul 2016 21:02	FE017067.D	14.601	
SB-1(9-10)MS	H3936-01MS	12 Jul 2016 21:34	FE017068.D	14.601	
SB-1(9-10)MSD	H3936-01MSD	12 Jul 2016 22:07	FE017069.D	14.602	
SB-2(9-10)	H3936-02	12 Jul 2016 22:40	FE017070.D	14.603	
SB-3(5-6)	H3936-03	12 Jul 2016 23:13	FE017071.D	14.601	
SB-4(4-5)	H3936-04	13 Jul 2016 00:18	FE017073.D	14.606	
SB-5(1-2)	H3936-05	13 Jul 2016 00:51	FE017074.D	14.606	
SB-5(4-5)	H3936-06	13 Jul 2016 1:24	FE017075.D	14.606	
SB-6(11-12)	H3936-09	13 Jul 2016 1:56	FE017076.D	14.606	
PIBLK02	I.BLK02	13 Jul 2016 2:29	FE017077.D	14.605	
50 PPM TRPH STD	50 PPM TRPH STD	13 Jul 2016 3:02	FE017078.D	14.612	

Column used to flag RT values with an * values outside of QC limits

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	14.5198	14.7198

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LAB CHRONICLE

OrderID:	H3936	**OrderDate:**	7/6/2016 5:13:22 PM
Client:	AKRF Engineering, P.C.	**Project:**	NYCSCA - PS 97X Addition
Contact:	Rebecca Kinal, PE	**Location:**	P63

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
H3936-01	**SB-1(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			Mercury	7471A		07/09/16	07/10/16	
			Metals ICP-TAL	6010B		07/08/16	07/09/16	
H3936-02	**SB-2(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			Mercury	7471A		07/09/16	07/10/16	
			Metals ICP-TAL	6010B		07/08/16	07/09/16	
H3936-03	**SB-3(5-6)**	**SOIL**			**07/06/16**			**07/06/16**
			Mercury	7471A		07/09/16	07/10/16	
			Metals ICP-TAL	6010B		07/08/16	07/09/16	
H3936-04	**SB-4(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			Mercury	7471A		07/09/16	07/10/16	
			Metals ICP-TAL	6010B		07/08/16	07/09/16	
H3936-05	**SB-5(1-2)**	**SOIL**			**07/06/16**			**07/06/16**
			Mercury	7471A		07/09/16	07/10/16	
			Metals ICP-TAL	6010B		07/08/16	07/09/16	
H3936-06	**SB-5(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			Mercury	7471A		07/09/16	07/10/16	
			Metals ICP-TAL	6010B		07/08/16	07/09/16	
H3936-07	**TW-4**	**WATER**			**07/06/16**			**07/06/16**
			Mercury	7470A		07/08/16	07/09/16	
			Metals ICP-TAL	6010C		07/08/16	07/11/16	
H3936-08	**TW-4-DEP**	**WATER**			**07/06/16**			**07/06/16**
			Mercury	245.1		07/08/16	07/09/16	
			Metals ICP-Group	200.7		07/08/16	07/09/16	
H3936-09	**SB-6(11-12)**	**SOIL**			**07/06/16**			**07/06/16**
			Mercury	7471A		07/09/16	07/10/16	

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LAB CHRONICLE

			Metals ICP-TAL	6010B		07/08/16	07/09/16	
H3936-11	**TW-4**	**WATER**			**07/06/16**			**07/06/16**
			Dissolved ICP-TAL Metals	6010C		07/08/16	07/11/16	
			Dissolved Mercury	7470A		07/08/16	07/09/16	

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Hit Summary Sheet
SW-846

SDG No.: H3936 **Order ID:** H3936

Client: AKRF Engineering, P.C. **Project ID:** NYCSCA - PS 97X Addition

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : SB-1(9-10)									
H3936-01	SB-1(9-10)	SOIL	Aluminum	39,100.000		0.722	1.07	4.3	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Antimony	0.933	J	0.481	0.537	2.15	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Barium	386.000		0.344	1.07	4.3	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Beryllium	0.739		0.052	0.064	0.258	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Cadmium	5.340		0.052	0.064	0.258	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Calcium	3,590.000		0.919	21.5	85.9	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Chromium	35.800		0.107	0.107	0.43	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Cobalt	37.900		0.322	0.322	1.29	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Copper	142.000		0.215	0.215	0.859	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Iron	18,600.000		1.07	1.07	4.3	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Lead	6.360		0.103	0.215	0.516	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Magnesium	31,500.000		3.94	21.5	85.9	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Manganese	345.000		0.163	0.215	0.859	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Mercury	0.008	J	0.007	0.007	0.014	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Nickel	32.100		0.395	0.43	1.72	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Potassium	16,000.000		3.01	21.5	85.9	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Sodium	978.000		2.17	21.5	85.9	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Vanadium	155.000		0.43	0.43	1.72	mg/Kg
H3936-01	SB-1(9-10)	SOIL	Zinc	120.000		0.43	0.43	1.72	mg/Kg
Client ID : SB-2(9-10)									
H3936-02	SB-2(9-10)	SOIL	Aluminum	10,300.000		0.814	1.21	4.85	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Arsenic	1.650		0.242	0.242	0.97	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Barium	66.400		0.388	1.21	4.85	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Beryllium	0.561		0.058	0.073	0.291	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Cadmium	1.060		0.058	0.073	0.291	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Calcium	1,410.000		1.04	24.2	97	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Chromium	21.800		0.121	0.121	0.485	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Cobalt	11.900		0.364	0.364	1.45	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Copper	23.400		0.242	0.242	0.97	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Iron	10,500.000		1.21	1.21	4.85	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Lead	14.300		0.116	0.242	0.582	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Magnesium	3,330.000		4.44	24.2	97	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Manganese	332.000		0.184	0.242	0.97	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Mercury	0.024		0.008	0.008	0.016	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Nickel	20.200		0.446	0.485	1.94	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Potassium	2,100.000		3.39	24.2	97	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Sodium	81.800	J	2.44	24.2	97	mg/Kg
H3936-02	SB-2(9-10)	SOIL	Vanadium	30.700		0.485	0.485	1.94	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: H3936 **Order ID:** H3936

Client: AKRF Engineering, P.C. **Project ID:** NYCSCA - PS 97X Addition

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
H3936-02	SB-2(9-10)	SOIL	Zinc	58.800		0.485	0.485	1.94	mg/Kg
Client ID :	**SB-3(5-6)**								
H3936-03	SB-3(5-6)	SOIL	Aluminum	8,590.000		0.763	1.13	4.54	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Arsenic	0.886	J	0.227	0.227	0.908	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Barium	56.900		0.363	1.13	4.54	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Beryllium	0.480		0.054	0.068	0.272	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Cadmium	0.881		0.054	0.068	0.272	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Calcium	1,280.000		0.971	22.7	90.8	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Chromium	21.100		0.113	0.113	0.454	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Cobalt	10.200		0.34	0.34	1.36	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Copper	20.100		0.227	0.227	0.908	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Iron	9,260.000		1.13	1.13	4.54	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Lead	4.640		0.109	0.227	0.545	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Magnesium	3,070.000		4.16	22.7	90.8	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Manganese	255.000		0.172	0.227	0.908	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Mercury	0.010	J	0.008	0.008	0.015	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Nickel	17.900		0.418	0.454	1.82	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Potassium	1,930.000		3.18	22.7	90.8	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Sodium	244.000		2.29	22.7	90.8	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Vanadium	28.100		0.454	0.454	1.82	mg/Kg
H3936-03	SB-3(5-6)	SOIL	Zinc	42.900		0.454	0.454	1.82	mg/Kg
Client ID :	**SB-4(4-5)**								
H3936-04	SB-4(4-5)	SOIL	Aluminum	11,700.000		0.8	1.19	4.76	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Arsenic	3.340		0.238	0.238	0.952	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Barium	81.500		0.381	1.19	4.76	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Beryllium	0.578		0.057	0.071	0.286	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Cadmium	1.230		0.057	0.071	0.286	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Calcium	13,100.000		1.02	23.8	95.2	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Chromium	23.100		0.119	0.119	0.476	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Cobalt	10.600		0.357	0.357	1.43	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Copper	24.800		0.238	0.238	0.952	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Iron	10,100.000		1.19	1.19	4.76	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Lead	74.900		0.114	0.238	0.571	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Magnesium	4,160.000		4.36	23.8	95.2	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Manganese	284.000		0.181	0.238	0.952	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Mercury	0.140		0.007	0.007	0.014	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Nickel	19.700		0.438	0.476	1.9	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Potassium	2,330.000		3.33	23.8	95.2	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Sodium	439.000		2.4	23.8	95.2	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Vanadium	30.900		0.476	0.476	1.9	mg/Kg
H3936-04	SB-4(4-5)	SOIL	Zinc	136.000		0.476	0.476	1.9	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: H3936 **Order ID:** H3936

Client: AKRF Engineering, P.C. **Project ID:** NYCSCA - PS 97X Addition

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : SB-5(1-2)									
H3936-05	SB-5(1-2)	SOIL	Aluminum	8,530.000		0.774	1.15	4.61	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Arsenic	1.710		0.23	0.23	0.921	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Barium	47.100		0.368	1.15	4.61	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Beryllium	0.414		0.055	0.069	0.276	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Cadmium	0.746		0.055	0.069	0.276	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Calcium	2,690.000		0.986	23.0	92.1	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Chromium	22.200		0.115	0.115	0.461	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Cobalt	7.970		0.345	0.345	1.38	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Copper	19.800		0.23	0.23	0.921	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Iron	8,020.000		1.15	1.15	4.61	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Lead	18.900		0.111	0.23	0.553	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Magnesium	2,360.000		4.22	23.0	92.1	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Manganese	297.000		0.175	0.23	0.921	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Mercury	0.047		0.007	0.007	0.015	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Nickel	17.900		0.424	0.461	1.84	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Potassium	947.000		3.22	23.0	92.1	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Sodium	257.000		2.32	23.0	92.1	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Vanadium	20.800		0.461	0.461	1.84	mg/Kg
H3936-05	SB-5(1-2)	SOIL	Zinc	43.800		0.461	0.461	1.84	mg/Kg
Client ID : SB-5(4-5)									
H3936-06	SB-5(4-5)	SOIL	Aluminum	15,900.000		0.791	1.18	4.71	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Arsenic	2.070		0.235	0.235	0.942	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Barium	53.500		0.377	1.18	4.71	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Beryllium	0.701		0.057	0.071	0.283	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Cadmium	1.300		0.057	0.071	0.283	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Calcium	1,390.000		1.01	23.5	94.2	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Chromium	28.700		0.118	0.118	0.471	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Cobalt	12.200		0.353	0.353	1.41	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Copper	25.300		0.235	0.235	0.942	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Iron	11,100.000		1.18	1.18	4.71	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Lead	9.870		0.113	0.235	0.565	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Magnesium	3,470.000		4.31	23.5	94.2	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Manganese	215.000		0.179	0.235	0.942	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Mercury	0.046		0.007	0.007	0.015	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Nickel	22.000		0.433	0.471	1.88	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Potassium	693.000		3.3	23.5	94.2	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Sodium	337.000		2.37	23.5	94.2	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Vanadium	35.700		0.471	0.471	1.88	mg/Kg
H3936-06	SB-5(4-5)	SOIL	Zinc	41.000		0.471	0.471	1.88	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: H3936 **Order ID:** H3936

Client: AKRF Engineering, P.C. **Project ID:** NYCSCA - PS 97X Addition

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	**TW-4**								
H3936-07	TW-4	WATER	Aluminum	489.000		6.5	12.5	50	ug/L
H3936-07	TW-4	WATER	Arsenic	2.650	J	2.5	2.5	10	ug/L
H3936-07	TW-4	WATER	Barium	224.000		4	12.5	50	ug/L
H3936-07	TW-4	WATER	Calcium	136,000.000		31.8	250	1000	ug/L
H3936-07	TW-4	WATER	Chromium	2.900	J	1.1	1.25	5	ug/L
H3936-07	TW-4	WATER	Cobalt	6.650	J	3.75	3.75	15	ug/L
H3936-07	TW-4	WATER	Copper	2.990	J	2	2.5	10	ug/L
H3936-07	TW-4	WATER	Iron	602.000		12.5	12.5	50	ug/L
H3936-07	TW-4	WATER	Magnesium	31,300.000		32.5	250	1000	ug/L
H3936-07	TW-4	WATER	Manganese	2,200.000		1.7	2.5	10	ug/L
H3936-07	TW-4	WATER	Nickel	18.500	J	4.2	5.0	20	ug/L
H3936-07	TW-4	WATER	Potassium	13,000.000		38.8	250	1000	ug/L
H3936-07	TW-4	WATER	Selenium	5.160	J	4.8	5.0	10	ug/L
H3936-07	TW-4	WATER	Sodium	232,000.000		13.9	250	1000	ug/L
H3936-07	TW-4	WATER	Zinc	8.140	J	5	5.0	20	ug/L
Client ID :	**TW-4-DEP**								
H3936-08	TW-4-DEP	WATER	Copper	5.000	J	2.6	5.0	10	ug/L
H3936-08	TW-4-DEP	WATER	Nickel	20.900		3.7	10.0	20	ug/L
H3936-08	TW-4-DEP	WATER	Zinc	8.660	J	5.6	10.0	20	ug/L
Client ID :	**SB-6(11-12)**								
H3936-09	SB-6(11-12)	SOIL	Aluminum	8,840.000		0.865	1.29	5.15	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Arsenic	2.190		0.257	0.257	1.03	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Barium	80.800		0.412	1.29	5.15	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Beryllium	0.382		0.062	0.077	0.309	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Cadmium	0.772		0.062	0.077	0.309	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Calcium	3,580.000		1.1	25.7	103	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Chromium	23.200		0.129	0.129	0.515	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Cobalt	8.990		0.386	0.386	1.54	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Copper	23.700		0.257	0.257	1.03	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Iron	9,460.000		1.29	1.29	5.15	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Lead	30.600		0.124	0.257	0.618	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Magnesium	3,740.000		4.72	25.7	103	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Manganese	349.000		0.196	0.257	1.03	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Mercury	0.032		0.007	0.007	0.015	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Nickel	23.100		0.474	0.515	2.06	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Potassium	1,570.000		3.6	25.7	103	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Sodium	100.000	J	2.59	25.7	103	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Vanadium	26.100		0.515	0.515	2.06	mg/Kg
H3936-09	SB-6(11-12)	SOIL	Zinc	77.400		0.515	0.515	2.06	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: H3936 **Order ID:** H3936

Client: AKRF Engineering, P.C. **Project ID:** NYCSCA - PS 97X Addition

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : TW-4									
H3936-11	TW-4	WATER	Aluminum	172.000		6.5	12.5	50	ug/L
H3936-11	TW-4	WATER	Arsenic	3.160	J	2.5	2.5	10	ug/L
H3936-11	TW-4	WATER	Barium	211.000		4	12.5	50	ug/L
H3936-11	TW-4	WATER	Calcium	130,000.000		31.8	250	1000	ug/L
H3936-11	TW-4	WATER	Cobalt	5.800	J	3.75	3.75	15	ug/L
H3936-11	TW-4	WATER	Copper	2.710	J	2	2.5	10	ug/L
H3936-11	TW-4	WATER	Magnesium	30,000.000		32.5	250	1000	ug/L
H3936-11	TW-4	WATER	Manganese	2,080.000		1.7	2.5	10	ug/L
H3936-11	TW-4	WATER	Nickel	16.400	J	4.2	5.0	20	ug/L
H3936-11	TW-4	WATER	Potassium	12,200.000		38.8	250	1000	ug/L
H3936-11	TW-4	WATER	Sodium	225,000.000		13.9	250	1000	ug/L
H3936-11	TW-4	WATER	Zinc	7.500	J	5	5.0	20	ug/L

SAMPLE DATA

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-1(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-01	Matrix:	SOIL
Level (low/med):	low	% Solid:	95

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	39100		1	0.722	1.07	4.3	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-36-0	Antimony	0.933	JN	1	0.481	0.537	2.15	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-38-2	Arsenic	0.215	U	1	0.215	0.215	0.859	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-39-3	Barium	386		1	0.344	1.07	4.3	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-41-7	Beryllium	0.739		1	0.052	0.064	0.258	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-43-9	Cadmium	5.34		1	0.052	0.064	0.258	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-70-2	Calcium	3590		1	0.919	21.5	85.9	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-47-3	Chromium	35.8		1	0.107	0.107	0.43	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-48-4	Cobalt	37.9		1	0.322	0.322	1.29	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-50-8	Copper	142		1	0.215	0.215	0.859	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7439-89-6	Iron	18600		1	1.07	1.07	4.3	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7439-92-1	Lead	6.36		1	0.103	0.215	0.516	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7439-95-4	Magnesium	31500		1	3.94	21.5	85.9	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7439-96-5	Manganese	345		1	0.163	0.215	0.859	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7439-97-6	Mercury	0.008	J	1	0.007	0.007	0.014	mg/Kg	07/09/16 11:07	07/10/16 13:43	SW7471A
7440-02-0	Nickel	32.1		1	0.395	0.43	1.72	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-09-7	Potassium	16000		1	3.01	21.5	85.9	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7782-49-2	Selenium	0.215	U	1	0.215	0.215	0.859	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-22-4	Silver	0.107	UN	1	0.107	0.107	0.43	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-23-5	Sodium	978		1	2.17	21.5	85.9	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-28-0	Thallium	0.43	U	1	0.232	0.43	1.72	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-62-2	Vanadium	155		1	0.43	0.43	1.72	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010
7440-66-6	Zinc	120		1	0.43	0.43	1.72	mg/Kg	07/08/16 10:00	07/09/16 00:19	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-2(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-02	Matrix:	SOIL
Level (low/med):	low	% Solid:	87.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	10300		1	0.814	1.21	4.85	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-36-0	Antimony	0.606	UN	1	0.543	0.606	2.42	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-38-2	Arsenic	1.65		1	0.242	0.242	0.97	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-39-3	Barium	66.4		1	0.388	1.21	4.85	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-41-7	Beryllium	0.561		1	0.058	0.073	0.291	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-43-9	Cadmium	1.06		1	0.058	0.073	0.291	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-70-2	Calcium	1410		1	1.04	24.2	97	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-47-3	Chromium	21.8		1	0.121	0.121	0.485	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-48-4	Cobalt	11.9		1	0.364	0.364	1.45	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-50-8	Copper	23.4		1	0.242	0.242	0.97	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7439-89-6	Iron	10500		1	1.21	1.21	4.85	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7439-92-1	Lead	14.3		1	0.116	0.242	0.582	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7439-95-4	Magnesium	3330		1	4.44	24.2	97	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7439-96-5	Manganese	332		1	0.184	0.242	0.97	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7439-97-6	Mercury	0.024		1	0.008	0.008	0.016	mg/Kg	07/09/16 11:07	07/10/16 13:45	SW7471A
7440-02-0	Nickel	20.2		1	0.446	0.485	1.94	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-09-7	Potassium	2100		1	3.39	24.2	97	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7782-49-2	Selenium	0.242	U	1	0.242	0.242	0.97	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-22-4	Silver	0.121	UN	1	0.121	0.121	0.485	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-23-5	Sodium	81.8	J	1	2.44	24.2	97	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-28-0	Thallium	0.485	U	1	0.262	0.485	1.94	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-62-2	Vanadium	30.7		1	0.485	0.485	1.94	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010
7440-66-6	Zinc	58.8		1	0.485	0.485	1.94	mg/Kg	07/08/16 10:00	07/09/16 00:23	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-3(5-6)	SDG No.:	H3936
Lab Sample ID:	H3936-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	89.2

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	8590		1	0.763	1.13	4.54	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-36-0	Antimony	0.567	UN	1	0.508	0.567	2.27	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-38-2	Arsenic	0.886	J	1	0.227	0.227	0.908	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-39-3	Barium	56.9		1	0.363	1.13	4.54	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-41-7	Beryllium	0.48		1	0.054	0.068	0.272	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-43-9	Cadmium	0.881		1	0.054	0.068	0.272	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-70-2	Calcium	1280		1	0.971	22.7	90.8	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-47-3	Chromium	21.1		1	0.113	0.113	0.454	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-48-4	Cobalt	10.2		1	0.34	0.34	1.36	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-50-8	Copper	20.1		1	0.227	0.227	0.908	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7439-89-6	Iron	9260		1	1.13	1.13	4.54	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7439-92-1	Lead	4.64		1	0.109	0.227	0.545	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7439-95-4	Magnesium	3070		1	4.16	22.7	90.8	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7439-96-5	Manganese	255		1	0.172	0.227	0.908	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7439-97-6	Mercury	0.01	J	1	0.008	0.008	0.015	mg/Kg	07/09/16 11:07	07/10/16 13:47	SW7471A
7440-02-0	Nickel	17.9		1	0.418	0.454	1.82	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-09-7	Potassium	1930		1	3.18	22.7	90.8	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7782-49-2	Selenium	0.227	U	1	0.227	0.227	0.908	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-22-4	Silver	0.113	UN	1	0.113	0.113	0.454	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-23-5	Sodium	244		1	2.29	22.7	90.8	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-28-0	Thallium	0.454	U	1	0.245	0.454	1.82	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-62-2	Vanadium	28.1		1	0.454	0.454	1.82	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010
7440-66-6	Zinc	42.9		1	0.454	0.454	1.82	mg/Kg	07/08/16 10:00	07/09/16 00:40	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-4(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-04	Matrix:	SOIL
Level (low/med):	low	% Solid:	90.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	11700		1	0.8	1.19	4.76	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-36-0	Antimony	0.595	UN	1	0.533	0.595	2.38	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-38-2	Arsenic	3.34		1	0.238	0.238	0.952	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-39-3	Barium	81.5		1	0.381	1.19	4.76	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-41-7	Beryllium	0.578		1	0.057	0.071	0.286	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-43-9	Cadmium	1.23		1	0.057	0.071	0.286	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-70-2	Calcium	13100		1	1.02	23.8	95.2	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-47-3	Chromium	23.1		1	0.119	0.119	0.476	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-48-4	Cobalt	10.6		1	0.357	0.357	1.43	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-50-8	Copper	24.8		1	0.238	0.238	0.952	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7439-89-6	Iron	10100		1	1.19	1.19	4.76	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7439-92-1	Lead	74.9		1	0.114	0.238	0.571	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7439-95-4	Magnesium	4160		1	4.36	23.8	95.2	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7439-96-5	Manganese	284		1	0.181	0.238	0.952	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7439-97-6	Mercury	0.14		1	0.007	0.007	0.014	mg/Kg	07/09/16 11:07	07/10/16 13:50	SW7471A
7440-02-0	Nickel	19.7		1	0.438	0.476	1.9	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-09-7	Potassium	2330		1	3.33	23.8	95.2	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7782-49-2	Selenium	0.238	U	1	0.238	0.238	0.952	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-22-4	Silver	0.119	UN	1	0.119	0.119	0.476	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-23-5	Sodium	439		1	2.4	23.8	95.2	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-28-0	Thallium	0.476	U	1	0.257	0.476	1.9	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-62-2	Vanadium	30.9		1	0.476	0.476	1.9	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010
7440-66-6	Zinc	136		1	0.476	0.476	1.9	mg/Kg	07/08/16 10:00	07/09/16 00:44	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(1-2)	SDG No.:	H3936
Lab Sample ID:	H3936-05	Matrix:	SOIL
Level (low/med):	low	% Solid:	92.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	8530		1	0.774	1.15	4.61	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-36-0	Antimony	0.576	UN	1	0.516	0.576	2.3	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-38-2	Arsenic	1.71		1	0.23	0.23	0.921	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-39-3	Barium	47.1		1	0.368	1.15	4.61	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-41-7	Beryllium	0.414		1	0.055	0.069	0.276	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-43-9	Cadmium	0.746		1	0.055	0.069	0.276	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-70-2	Calcium	2690		1	0.986	23.0	92.1	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-47-3	Chromium	22.2		1	0.115	0.115	0.461	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-48-4	Cobalt	7.97		1	0.345	0.345	1.38	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-50-8	Copper	19.8		1	0.23	0.23	0.921	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7439-89-6	Iron	8020		1	1.15	1.15	4.61	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7439-92-1	Lead	18.9		1	0.111	0.23	0.553	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7439-95-4	Magnesium	2360		1	4.22	23.0	92.1	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7439-96-5	Manganese	297		1	0.175	0.23	0.921	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7439-97-6	Mercury	0.047		1	0.007	0.007	0.015	mg/Kg	07/09/16 11:07	07/10/16 13:56	SW7471A
7440-02-0	Nickel	17.9		1	0.424	0.461	1.84	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-09-7	Potassium	947		1	3.22	23.0	92.1	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7782-49-2	Selenium	0.23	U	1	0.23	0.23	0.921	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-22-4	Silver	0.115	UN	1	0.115	0.115	0.461	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-23-5	Sodium	257		1	2.32	23.0	92.1	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-28-0	Thallium	0.461	U	1	0.249	0.461	1.84	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-62-2	Vanadium	20.8		1	0.461	0.461	1.84	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010
7440-66-6	Zinc	43.8		1	0.461	0.461	1.84	mg/Kg	07/08/16 10:00	07/09/16 00:48	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
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J = Estimated Value
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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-06	Matrix:	SOIL
Level (low/med):	low	% Solid:	87.4

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	15900		1	0.791	1.18	4.71	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-36-0	Antimony	0.589	UN	1	0.527	0.589	2.35	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-38-2	Arsenic	2.07		1	0.235	0.235	0.942	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-39-3	Barium	53.5		1	0.377	1.18	4.71	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-41-7	Beryllium	0.701		1	0.057	0.071	0.283	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-43-9	Cadmium	1.3		1	0.057	0.071	0.283	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-70-2	Calcium	1390		1	1.01	23.5	94.2	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-47-3	Chromium	28.7		1	0.118	0.118	0.471	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-48-4	Cobalt	12.2		1	0.353	0.353	1.41	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-50-8	Copper	25.3		1	0.235	0.235	0.942	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7439-89-6	Iron	11100		1	1.18	1.18	4.71	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7439-92-1	Lead	9.87		1	0.113	0.235	0.565	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7439-95-4	Magnesium	3470		1	4.31	23.5	94.2	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7439-96-5	Manganese	215		1	0.179	0.235	0.942	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7439-97-6	Mercury	0.046		1	0.007	0.007	0.015	mg/Kg	07/09/16 11:07	07/10/16 13:59	SW7471A
7440-02-0	Nickel	22		1	0.433	0.471	1.88	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-09-7	Potassium	693		1	3.3	23.5	94.2	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7782-49-2	Selenium	0.235	U	1	0.235	0.235	0.942	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-22-4	Silver	0.118	UN	1	0.118	0.118	0.471	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-23-5	Sodium	337		1	2.37	23.5	94.2	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-28-0	Thallium	0.471	U	1	0.254	0.471	1.88	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-62-2	Vanadium	35.7		1	0.471	0.471	1.88	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010
7440-66-6	Zinc	41		1	0.471	0.471	1.88	mg/Kg	07/08/16 10:00	07/09/16 00:53	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	TW-4	SDG No.:	H3936
Lab Sample ID:	H3936-07	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	489		1	6.5	12.5	50	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-36-0	Antimony	6.25	U	1	6.25	6.25	25	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-38-2	Arsenic	2.65	J	1	2.5	2.5	10	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-39-3	Barium	224		1	4	12.5	50	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-41-7	Beryllium	0.75	U	1	0.7	0.75	3	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-43-9	Cadmium	0.75	U	1	0.5	0.75	3	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-70-2	Calcium	136000		1	31.8	250	1000	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-47-3	Chromium	2.9	J	1	1.1	1.25	5	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-48-4	Cobalt	6.65	J	1	3.75	3.75	15	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-50-8	Copper	2.99	J	1	2	2.5	10	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7439-89-6	Iron	602		1	12.5	12.5	50	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7439-92-1	Lead	1.5	U	1	1.5	1.5	6	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7439-95-4	Magnesium	31300		1	32.5	250	1000	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7439-96-5	Manganese	2200		1	1.7	2.5	10	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7439-97-6	Mercury	0.1	U	1	0.1	0.1	0.2	ug/L	07/08/16 17:05	07/09/16 13:17	SW7470A
7440-02-0	Nickel	18.5	J	1	4.2	5.0	20	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-09-7	Potassium	13000		1	38.8	250	1000	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7782-49-2	Selenium	5.16	J	1	4.8	5.0	10	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-22-4	Silver	1.25	U	1	1.25	1.25	5	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-23-5	Sodium	232000		1	13.9	250	1000	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-28-0	Thallium	5	U	1	2.4	5.0	20	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-62-2	Vanadium	5	U	1	5	5.0	20	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010
7440-66-6	Zinc	8.14	J	1	5	5.0	20	ug/L	07/08/16 09:00	07/11/16 17:20	SW6010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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Q = indicates LCS control criteria did not meet requirements

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	TW-4-DEP	SDG No.:	H3936
Lab Sample ID:	H3936-08	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7440-43-9	Cadmium	1.5	U	1	0.4	1.5	3	ug/L	07/08/16 09:45	07/09/16 06:26	EPA 200.7
7440-50-8	Copper	5	J	1	2.6	5.0	10	ug/L	07/08/16 09:45	07/09/16 06:26	EPA 200.7
7439-92-1	Lead	3	U	1	1.8	3.0	6	ug/L	07/08/16 09:45	07/09/16 06:26	EPA 200.7
7439-97-6	Mercury	0.1	U	1	0.034	0.1	0.2	ug/L	07/08/16 17:04	07/09/16 15:19	E245.1
7440-02-0	Nickel	20.9		1	3.7	10.0	20	ug/L	07/08/16 09:45	07/09/16 06:26	EPA 200.7
7440-66-6	Zinc	8.66	J	1	5.6	10.0	20	ug/L	07/08/16 09:45	07/09/16 06:26	EPA 200.7

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	Metals Group2				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-6(11-12)	SDG No.:	H3936
Lab Sample ID:	H3936-09	Matrix:	SOIL
Level (low/med):	low	% Solid:	80.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	8840		1	0.865	1.29	5.15	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-36-0	Antimony	0.644	UN	1	0.577	0.644	2.57	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-38-2	Arsenic	2.19		1	0.257	0.257	1.03	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-39-3	Barium	80.8		1	0.412	1.29	5.15	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-41-7	Beryllium	0.382		1	0.062	0.077	0.309	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-43-9	Cadmium	0.772		1	0.062	0.077	0.309	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-70-2	Calcium	3580		1	1.1	25.7	103	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-47-3	Chromium	23.2		1	0.129	0.129	0.515	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-48-4	Cobalt	8.99		1	0.386	0.386	1.54	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-50-8	Copper	23.7		1	0.257	0.257	1.03	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7439-89-6	Iron	9460		1	1.29	1.29	5.15	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7439-92-1	Lead	30.6		1	0.124	0.257	0.618	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7439-95-4	Magnesium	3740		1	4.72	25.7	103	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7439-96-5	Manganese	349		1	0.196	0.257	1.03	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7439-97-6	Mercury	0.032		1	0.007	0.007	0.015	mg/Kg	07/09/16 11:07	07/10/16 14:01	SW7471A
7440-02-0	Nickel	23.1		1	0.474	0.515	2.06	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-09-7	Potassium	1570		1	3.6	25.7	103	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7782-49-2	Selenium	0.257	U	1	0.257	0.257	1.03	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-22-4	Silver	0.129	UN	1	0.129	0.129	0.515	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-23-5	Sodium	100	J	1	2.59	25.7	103	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-28-0	Thallium	0.515	U	1	0.278	0.515	2.06	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-62-2	Vanadium	26.1		1	0.515	0.515	2.06	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010
7440-66-6	Zinc	77.4		1	0.515	0.515	2.06	mg/Kg	07/08/16 10:00	07/09/16 00:57	SW6010

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	TW-4	SDG No.:	H3936
Lab Sample ID:	H3936-11	Matrix:	WATER
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
7429-90-5	Aluminum	172		1	6.5	12.5	50	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-36-0	Antimony	6.25	U	1	6.25	6.25	25	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-38-2	Arsenic	3.16	J	1	2.5	2.5	10	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-39-3	Barium	211		1	4	12.5	50	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-41-7	Beryllium	0.75	U	1	0.7	0.75	3	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-43-9	Cadmium	0.75	U	1	0.5	0.75	3	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-70-2	Calcium	130000		1	31.8	250	1000	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-47-3	Chromium	1.25	U	1	1.1	1.25	5	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-48-4	Cobalt	5.8	J	1	3.75	3.75	15	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-50-8	Copper	2.71	J	1	2	2.5	10	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7439-89-6	Iron	12.5	U	1	12.5	12.5	50	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7439-92-1	Lead	1.5	U	1	1.5	1.5	6	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7439-95-4	Magnesium	30000		1	32.5	250	1000	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7439-96-5	Manganese	2080		1	1.7	2.5	10	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7439-97-6	Mercury	0.1	U	1	0.1	0.1	0.2	ug/L	07/08/16 17:05	07/09/16 13:30	SW7470A
7440-02-0	Nickel	16.4	J	1	4.2	5.0	20	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-09-7	Potassium	12200		1	38.8	250	1000	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7782-49-2	Selenium	5	U	1	4.8	5.0	10	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-22-4	Silver	1.25	U	1	1.25	1.25	5	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-23-5	Sodium	225000		1	13.9	250	1000	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-28-0	Thallium	5	U	1	2.4	5.0	20	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-62-2	Vanadium	5	U	1	5	5.0	20	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010
7440-66-6	Zinc	7.5	J	1	5	5.0	20	ug/L	07/08/16 09:00	07/11/16 17:24	SW6010

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	DISSOLVED METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

METAL CALIBRATION DATA

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV05	Mercury	3.8151	4.0	95.4	90 - 110	CV	07/09/2016	12:46	LB82478

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Mercury	5.0111	5.0	100.2	90 - 110	CV	07/09/2016	12:53	LB82478
CCV02	Mercury	5.0937	5.0	101.9	90 - 110	CV	07/09/2016	13:23	LB82478
CCV03	Mercury	5.0184	5.0	100.4	90 - 110	CV	07/09/2016	13:52	LB82478
CCV04	Mercury	4.8925	5.0	97.9	90 - 110	CV	07/09/2016	14:15	LB82478

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV06	Mercury	4.0208	4.0	100.5	90 - 110	CV	07/09/2016	14:49	LB82479

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Mercury	5.2063	5.0	104.1	90 - 110	CV	07/09/2016	14:55	LB82479
CCV06	Mercury	5.0117	5.0	100.2	90 - 110	CV	07/09/2016	15:26	LB82479
CCV07	Mercury	5.0851	5.0	101.7	90 - 110	CV	07/09/2016	15:41	LB82479

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV07	Mercury	3.9174	4.0	97.9	90 - 110	CV	07/10/2016	11:44	LB82485

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10	Mercury	5.2043	5.0	104.1	90 - 110	CV	07/10/2016	11:49	LB82485
CCV11	Mercury	4.903	5.0	98.1	90 - 110	CV	07/10/2016	12:27	LB82485
CCV12	Mercury	4.9869	5.0	99.7	90 - 110	CV	07/10/2016	12:54	LB82485
CCV13	Mercury	4.625	5.0	92.5	90 - 110	CV	07/10/2016	13:24	LB82485
CCV14	Mercury	4.9508	5.0	99	90 - 110	CV	07/10/2016	13:52	LB82485
CCV15	Mercury	5.0276	5.0	100.6	90 - 110	CV	07/10/2016	14:17	LB82485

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2475.4	2521	98.2	90 - 110	P	07/08/2016	14:03	LB82471
	Antimony	967.53	994	97.3	90 - 110	P	07/08/2016	14:03	LB82471
	Arsenic	984.2	999	98.5	90 - 110	P	07/08/2016	14:03	LB82471
	Barium	500.89	503	99.6	90 - 110	P	07/08/2016	14:03	LB82471
	Beryllium	478.43	495	96.7	90 - 110	P	07/08/2016	14:03	LB82471
	Cadmium	476.8	496	96.1	90 - 110	P	07/08/2016	14:03	LB82471
	Calcium	9980.1	10026	99.5	90 - 110	P	07/08/2016	14:03	LB82471
	Chromium	490.64	490	100.1	90 - 110	P	07/08/2016	14:03	LB82471
	Cobalt	484.74	499	97.1	90 - 110	P	07/08/2016	14:03	LB82471
	Copper	500.61	492	101.8	90 - 110	P	07/08/2016	14:03	LB82471
	Iron	4846	5082	95.4	90 - 110	P	07/08/2016	14:03	LB82471
	Lead	964.81	1002	96.3	90 - 110	P	07/08/2016	14:03	LB82471
	Magnesium	5966.1	6074	98.2	90 - 110	P	07/08/2016	14:03	LB82471
	Manganese	504.64	499	101.1	90 - 110	P	07/08/2016	14:03	LB82471
	Nickel	488.45	503	97.1	90 - 110	P	07/08/2016	14:03	LB82471
	Potassium	9795.9	10021	97.8	90 - 110	P	07/08/2016	14:03	LB82471
	Selenium	995.69	1029	96.8	90 - 110	P	07/08/2016	14:03	LB82471
	Silver	517.37	501	103.3	90 - 110	P	07/08/2016	14:03	LB82471
	Sodium	9856.4	10097	97.6	90 - 110	P	07/08/2016	14:03	LB82471
	Thallium	995.15	1028	96.8	90 - 110	P	07/08/2016	14:03	LB82471
	Vanadium	488.17	501	97.4	90 - 110	P	07/08/2016	14:03	LB82471
	Zinc	989.11	1025	96.5	90 - 110	P	07/08/2016	14:03	LB82471

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	92.89	100	92.9	70 - 130	P	07/08/2016	14:16	LB82471
	Antimony	47.13	50.0	94.3	70 - 130	P	07/08/2016	14:16	LB82471
	Arsenic	18.67	20.0	93.4	70 - 130	P	07/08/2016	14:16	LB82471
	Barium	98.89	100	98.9	70 - 130	P	07/08/2016	14:16	LB82471
	Beryllium	5.77	6.0	96.2	70 - 130	P	07/08/2016	14:16	LB82471
	Cadmium	5.82	6.0	97	70 - 130	P	07/08/2016	14:16	LB82471
	Calcium	1977.3	2000	98.9	70 - 130	P	07/08/2016	14:16	LB82471
	Chromium	9.89	10.0	98.9	70 - 130	P	07/08/2016	14:16	LB82471
	Cobalt	28.27	30.0	94.2	70 - 130	P	07/08/2016	14:16	LB82471
	Copper	19.39	20.0	97	70 - 130	P	07/08/2016	14:16	LB82471
	Iron	109.23	100	109.2	70 - 130	P	07/08/2016	14:16	LB82471
	Lead	10.02	12.0	83.5	70 - 130	P	07/08/2016	14:16	LB82471
	Magnesium	1982.7	2000	99.1	70 - 130	P	07/08/2016	14:16	LB82471
	Manganese	20.17	20.0	100.9	70 - 130	P	07/08/2016	14:16	LB82471
	Nickel	38.02	40.0	95.1	70 - 130	P	07/08/2016	14:16	LB82471
	Potassium	1949.3	2000	97.5	70 - 130	P	07/08/2016	14:16	LB82471
	Selenium	20.55	20.0	102.8	70 - 130	P	07/08/2016	14:16	LB82471
	Silver	10.07	10.0	100.7	70 - 130	P	07/08/2016	14:16	LB82471
	Sodium	1965.8	2000	98.3	70 - 130	P	07/08/2016	14:16	LB82471
	Thallium	37.6	40.0	94	70 - 130	P	07/08/2016	14:16	LB82471
	Vanadium	37.71	40.0	94.3	70 - 130	P	07/08/2016	14:16	LB82471
	Zinc	40.62	40.0	101.6	70 - 130	P	07/08/2016	14:16	LB82471

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9804.6	10000	98	90 - 110	P	07/08/2016	14:48	LB82471
	Antimony	5001.9	5000	100	90 - 110	P	07/08/2016	14:48	LB82471
	Arsenic	4938.6	5000	98.8	90 - 110	P	07/08/2016	14:48	LB82471
	Barium	9798.3	10000	98	90 - 110	P	07/08/2016	14:48	LB82471
	Beryllium	249.12	250	99.6	90 - 110	P	07/08/2016	14:48	LB82471
	Cadmium	2462.1	2500	98.5	90 - 110	P	07/08/2016	14:48	LB82471
	Calcium	24628	25000	98.5	90 - 110	P	07/08/2016	14:48	LB82471
	Chromium	999.63	1000	100	90 - 110	P	07/08/2016	14:48	LB82471
	Cobalt	2464.3	2500	98.6	90 - 110	P	07/08/2016	14:48	LB82471
	Copper	1242.3	1250	99.4	90 - 110	P	07/08/2016	14:48	LB82471
	Iron	5008.4	5000	100.2	90 - 110	P	07/08/2016	14:48	LB82471
	Lead	4912.1	5000	98.2	90 - 110	P	07/08/2016	14:48	LB82471
	Magnesium	24606	25000	98.4	90 - 110	P	07/08/2016	14:48	LB82471
	Manganese	2509.1	2500	100.4	90 - 110	P	07/08/2016	14:48	LB82471
	Nickel	2463.1	2500	98.5	90 - 110	P	07/08/2016	14:48	LB82471
	Potassium	24687	25000	98.7	90 - 110	P	07/08/2016	14:48	LB82471
	Selenium	4985.5	5000	99.7	90 - 110	P	07/08/2016	14:48	LB82471
	Silver	1227.2	1250	98.2	90 - 110	P	07/08/2016	14:48	LB82471
	Sodium	24480	25000	97.9	90 - 110	P	07/08/2016	14:48	LB82471
	Thallium	4928.7	5000	98.6	90 - 110	P	07/08/2016	14:48	LB82471
	Vanadium	2454.8	2500	98.2	90 - 110	P	07/08/2016	14:48	LB82471
	Zinc	2492.5	2500	99.7	90 - 110	P	07/08/2016	14:48	LB82471

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV01	Aluminum	100.24	100	100.2	70 - 130	P	07/08/2016	14:52	LB82471
	Antimony	47.66	50.0	95.3	70 - 130	P	07/08/2016	14:52	LB82471
	Arsenic	19.96	20.0	99.8	70 - 130	P	07/08/2016	14:52	LB82471
	Barium	100.81	100	100.8	70 - 130	P	07/08/2016	14:52	LB82471
	Beryllium	5.92	6.0	98.7	70 - 130	P	07/08/2016	14:52	LB82471
	Cadmium	5.9	6.0	98.3	70 - 130	P	07/08/2016	14:52	LB82471
	Calcium	2026.3	2000	101.3	70 - 130	P	07/08/2016	14:52	LB82471
	Chromium	9.8	10.0	98	70 - 130	P	07/08/2016	14:52	LB82471
	Cobalt	28.45	30.0	94.8	70 - 130	P	07/08/2016	14:52	LB82471
	Copper	19.85	20.0	99.3	70 - 130	P	07/08/2016	14:52	LB82471
	Iron	111.54	100	111.5	70 - 130	P	07/08/2016	14:52	LB82471
	Lead	10.75	12.0	89.6	70 - 130	P	07/08/2016	14:52	LB82471
	Magnesium	2027.6	2000	101.4	70 - 130	P	07/08/2016	14:52	LB82471
	Manganese	20.59	20.0	103	70 - 130	P	07/08/2016	14:52	LB82471
	Nickel	38.82	40.0	97.1	70 - 130	P	07/08/2016	14:52	LB82471
	Potassium	2000.1	2000	100	70 - 130	P	07/08/2016	14:52	LB82471
	Selenium	21.3	20.0	106.5	70 - 130	P	07/08/2016	14:52	LB82471
	Silver	10.02	10.0	100.2	70 - 130	P	07/08/2016	14:52	LB82471
	Sodium	1978.3	2000	98.9	70 - 130	P	07/08/2016	14:52	LB82471
	Thallium	36.34	40.0	90.9	70 - 130	P	07/08/2016	14:52	LB82471
	Vanadium	38.05	40.0	95.1	70 - 130	P	07/08/2016	14:52	LB82471
	Zinc	42.22	40.0	105.6	70 - 130	P	07/08/2016	14:52	LB82471

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Aluminum	9775.8	10000	97.8	90 - 110	P	07/08/2016	15:41	LB82471
	Antimony	5019.8	5000	100.4	90 - 110	P	07/08/2016	15:41	LB82471
	Arsenic	4960.6	5000	99.2	90 - 110	P	07/08/2016	15:41	LB82471
	Barium	9918.6	10000	99.2	90 - 110	P	07/08/2016	15:41	LB82471
	Beryllium	251.09	250	100.4	90 - 110	P	07/08/2016	15:41	LB82471
	Cadmium	2477.5	2500	99.1	90 - 110	P	07/08/2016	15:41	LB82471
	Calcium	24954	25000	99.8	90 - 110	P	07/08/2016	15:41	LB82471
	Chromium	994.42	1000	99.4	90 - 110	P	07/08/2016	15:41	LB82471
	Cobalt	2480.3	2500	99.2	90 - 110	P	07/08/2016	15:41	LB82471
	Copper	1246.2	1250	99.7	90 - 110	P	07/08/2016	15:41	LB82471
	Iron	5015.7	5000	100.3	90 - 110	P	07/08/2016	15:41	LB82471
	Lead	4929.8	5000	98.6	90 - 110	P	07/08/2016	15:41	LB82471
	Magnesium	24856	25000	99.4	90 - 110	P	07/08/2016	15:41	LB82471
	Manganese	2543.6	2500	101.7	90 - 110	P	07/08/2016	15:41	LB82471
	Nickel	2463.5	2500	98.5	90 - 110	P	07/08/2016	15:41	LB82471
	Potassium	24933	25000	99.7	90 - 110	P	07/08/2016	15:41	LB82471
	Selenium	4986.5	5000	99.7	90 - 110	P	07/08/2016	15:41	LB82471
	Silver	1235.8	1250	98.9	90 - 110	P	07/08/2016	15:41	LB82471
	Sodium	24673	25000	98.7	90 - 110	P	07/08/2016	15:41	LB82471
	Thallium	4945.1	5000	98.9	90 - 110	P	07/08/2016	15:41	LB82471
	Vanadium	2481.5	2500	99.3	90 - 110	P	07/08/2016	15:41	LB82471
	Zinc	2540.7	2500	101.6	90 - 110	P	07/08/2016	15:41	LB82471
CCV03	Aluminum	9538.9	10000	95.4	90 - 110	P	07/08/2016	16:40	LB82471
	Antimony	4873.5	5000	97.5	90 - 110	P	07/08/2016	16:40	LB82471
	Arsenic	4843.2	5000	96.9	90 - 110	P	07/08/2016	16:40	LB82471
	Barium	9637.5	10000	96.4	90 - 110	P	07/08/2016	16:40	LB82471
	Beryllium	245.76	250	98.3	90 - 110	P	07/08/2016	16:40	LB82471
	Cadmium	2427.7	2500	97.1	90 - 110	P	07/08/2016	16:40	LB82471
	Calcium	24548	25000	98.2	90 - 110	P	07/08/2016	16:40	LB82471
	Chromium	984.02	1000	98.4	90 - 110	P	07/08/2016	16:40	LB82471
	Cobalt	2426.7	2500	97.1	90 - 110	P	07/08/2016	16:40	LB82471
	Copper	1219	1250	97.5	90 - 110	P	07/08/2016	16:40	LB82471
	Iron	4949	5000	99	90 - 110	P	07/08/2016	16:40	LB82471
	Lead	4847.8	5000	97	90 - 110	P	07/08/2016	16:40	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Magnesium	24394	25000	97.6	90 - 110	P	07/08/2016	16:40	LB82471
	Manganese	2481.3	2500	99.3	90 - 110	P	07/08/2016	16:40	LB82471
	Nickel	2410.4	2500	96.4	90 - 110	P	07/08/2016	16:40	LB82471
	Potassium	24398	25000	97.6	90 - 110	P	07/08/2016	16:40	LB82471
	Selenium	4846.6	5000	96.9	90 - 110	P	07/08/2016	16:40	LB82471
	Silver	1213.1	1250	97	90 - 110	P	07/08/2016	16:40	LB82471
	Sodium	24234	25000	96.9	90 - 110	P	07/08/2016	16:40	LB82471
	Thallium	4847.2	5000	96.9	90 - 110	P	07/08/2016	16:40	LB82471
	Vanadium	2428.2	2500	97.1	90 - 110	P	07/08/2016	16:40	LB82471
	Zinc	2507.3	2500	100.3	90 - 110	P	07/08/2016	16:40	LB82471
CCV04	Aluminum	9761.5	10000	97.6	90 - 110	P	07/08/2016	17:29	LB82471
	Antimony	4969.3	5000	99.4	90 - 110	P	07/08/2016	17:29	LB82471
	Arsenic	4938.1	5000	98.8	90 - 110	P	07/08/2016	17:29	LB82471
	Barium	9830.2	10000	98.3	90 - 110	P	07/08/2016	17:29	LB82471
	Beryllium	250.71	250	100.3	90 - 110	P	07/08/2016	17:29	LB82471
	Cadmium	2487.1	2500	99.5	90 - 110	P	07/08/2016	17:29	LB82471
	Calcium	25063	25000	100.3	90 - 110	P	07/08/2016	17:29	LB82471
	Chromium	1007.3	1000	100.7	90 - 110	P	07/08/2016	17:29	LB82471
	Cobalt	2491.2	2500	99.6	90 - 110	P	07/08/2016	17:29	LB82471
	Copper	1240.4	1250	99.2	90 - 110	P	07/08/2016	17:29	LB82471
	Iron	4942	5000	98.8	90 - 110	P	07/08/2016	17:29	LB82471
	Lead	4964	5000	99.3	90 - 110	P	07/08/2016	17:29	LB82471
	Magnesium	25036	25000	100.1	90 - 110	P	07/08/2016	17:29	LB82471
	Manganese	2537	2500	101.5	90 - 110	P	07/08/2016	17:29	LB82471
	Nickel	2468.3	2500	98.7	90 - 110	P	07/08/2016	17:29	LB82471
	Potassium	24888	25000	99.6	90 - 110	P	07/08/2016	17:29	LB82471
	Selenium	4930.8	5000	98.6	90 - 110	P	07/08/2016	17:29	LB82471
	Silver	1237.5	1250	99	90 - 110	P	07/08/2016	17:29	LB82471
	Sodium	24677	25000	98.7	90 - 110	P	07/08/2016	17:29	LB82471
	Thallium	4957.1	5000	99.1	90 - 110	P	07/08/2016	17:29	LB82471
	Vanadium	2479.5	2500	99.2	90 - 110	P	07/08/2016	17:29	LB82471
	Zinc	2498.7	2500	99.9	90 - 110	P	07/08/2016	17:29	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV02	Aluminum	114.18	100	114.2	70 - 130	P	07/08/2016	17:34	LB82471
	Antimony	48.03	50.0	96.1	70 - 130	P	07/08/2016	17:34	LB82471
	Arsenic	21.24	20.0	106.2	70 - 130	P	07/08/2016	17:34	LB82471
	Barium	99.75	100	99.8	70 - 130	P	07/08/2016	17:34	LB82471
	Beryllium	5.85	6.0	97.5	70 - 130	P	07/08/2016	17:34	LB82471
	Cadmium	5.79	6.0	96.5	70 - 130	P	07/08/2016	17:34	LB82471
	Calcium	2006.5	2000	100.3	70 - 130	P	07/08/2016	17:34	LB82471
	Chromium	10.32	10.0	103.2	70 - 130	P	07/08/2016	17:34	LB82471
	Cobalt	28.64	30.0	95.5	70 - 130	P	07/08/2016	17:34	LB82471
	Copper	19.31	20.0	96.6	70 - 130	P	07/08/2016	17:34	LB82471
	Iron	113.49	100	113.5	70 - 130	P	07/08/2016	17:34	LB82471
	Lead	11.12	12.0	92.7	70 - 130	P	07/08/2016	17:34	LB82471
	Magnesium	2030.6	2000	101.5	70 - 130	P	07/08/2016	17:34	LB82471
	Manganese	20.27	20.0	101.4	70 - 130	P	07/08/2016	17:34	LB82471
	Nickel	38.44	40.0	96.1	70 - 130	P	07/08/2016	17:34	LB82471
	Potassium	1973.4	2000	98.7	70 - 130	P	07/08/2016	17:34	LB82471
	Selenium	17.75	20.0	88.8	70 - 130	P	07/08/2016	17:34	LB82471
	Silver	9.87	10.0	98.7	70 - 130	P	07/08/2016	17:34	LB82471
	Sodium	1972.3	2000	98.6	70 - 130	P	07/08/2016	17:34	LB82471
	Thallium	38.31	40.0	95.8	70 - 130	P	07/08/2016	17:34	LB82471
	Vanadium	37.5	40.0	93.8	70 - 130	P	07/08/2016	17:34	LB82471
	Zinc	43.71	40.0	109.3	70 - 130	P	07/08/2016	17:34	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Aluminum	9384.5	10000	93.8	90 - 110	P	07/08/2016	18:26	LB82471
	Antimony	4840.5	5000	96.8	90 - 110	P	07/08/2016	18:26	LB82471
	Arsenic	4802	5000	96	90 - 110	P	07/08/2016	18:26	LB82471
	Barium	9664	10000	96.6	90 - 110	P	07/08/2016	18:26	LB82471
	Beryllium	243.81	250	97.5	90 - 110	P	07/08/2016	18:26	LB82471
	Cadmium	2428.4	2500	97.1	90 - 110	P	07/08/2016	18:26	LB82471
	Calcium	24640	25000	98.6	90 - 110	P	07/08/2016	18:26	LB82471
	Chromium	985.04	1000	98.5	90 - 110	P	07/08/2016	18:26	LB82471
	Cobalt	2427.6	2500	97.1	90 - 110	P	07/08/2016	18:26	LB82471
	Copper	1209	1250	96.7	90 - 110	P	07/08/2016	18:26	LB82471
	Iron	4916.5	5000	98.3	90 - 110	P	07/08/2016	18:26	LB82471
	Lead	4842.9	5000	96.9	90 - 110	P	07/08/2016	18:26	LB82471
	Magnesium	24679	25000	98.7	90 - 110	P	07/08/2016	18:26	LB82471
	Manganese	2476.7	2500	99.1	90 - 110	P	07/08/2016	18:26	LB82471
	Nickel	2412.7	2500	96.5	90 - 110	P	07/08/2016	18:26	LB82471
	Potassium	24294	25000	97.2	90 - 110	P	07/08/2016	18:26	LB82471
	Selenium	4799	5000	96	90 - 110	P	07/08/2016	18:26	LB82471
	Silver	1206.9	1250	96.6	90 - 110	P	07/08/2016	18:26	LB82471
	Sodium	24180	25000	96.7	90 - 110	P	07/08/2016	18:26	LB82471
	Thallium	4838.6	5000	96.8	90 - 110	P	07/08/2016	18:26	LB82471
	Vanadium	2423.5	2500	96.9	90 - 110	P	07/08/2016	18:26	LB82471
	Zinc	2521.8	2500	100.9	90 - 110	P	07/08/2016	18:26	LB82471
CCV06	Aluminum	9315.5	10000	93.2	90 - 110	P	07/08/2016	19:17	LB82471
	Antimony	4817.3	5000	96.3	90 - 110	P	07/08/2016	19:17	LB82471
	Arsenic	4770.9	5000	95.4	90 - 110	P	07/08/2016	19:17	LB82471
	Barium	9662	10000	96.6	90 - 110	P	07/08/2016	19:17	LB82471
	Beryllium	243.77	250	97.5	90 - 110	P	07/08/2016	19:17	LB82471
	Cadmium	2416.8	2500	96.7	90 - 110	P	07/08/2016	19:17	LB82471
	Calcium	24471	25000	97.9	90 - 110	P	07/08/2016	19:17	LB82471
	Chromium	975.92	1000	97.6	90 - 110	P	07/08/2016	19:17	LB82471
	Cobalt	2411.1	2500	96.4	90 - 110	P	07/08/2016	19:17	LB82471
	Copper	1204	1250	96.3	90 - 110	P	07/08/2016	19:17	LB82471
	Iron	4904.4	5000	98.1	90 - 110	P	07/08/2016	19:17	LB82471
	Lead	4817.9	5000	96.4	90 - 110	P	07/08/2016	19:17	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV06	Magnesium	24512	25000	98	90 - 110	P	07/08/2016	19:17	LB82471
	Manganese	2470.6	2500	98.8	90 - 110	P	07/08/2016	19:17	LB82471
	Nickel	2400.3	2500	96	90 - 110	P	07/08/2016	19:17	LB82471
	Potassium	24318	25000	97.3	90 - 110	P	07/08/2016	19:17	LB82471
	Selenium	4776.3	5000	95.5	90 - 110	P	07/08/2016	19:17	LB82471
	Silver	1199	1250	95.9	90 - 110	P	07/08/2016	19:17	LB82471
	Sodium	24061	25000	96.2	90 - 110	P	07/08/2016	19:17	LB82471
	Thallium	4804.3	5000	96.1	90 - 110	P	07/08/2016	19:17	LB82471
	Vanadium	2412.1	2500	96.5	90 - 110	P	07/08/2016	19:17	LB82471
	Zinc	2522.4	2500	100.9	90 - 110	P	07/08/2016	19:17	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV03	Aluminum	86.58	100	86.6	70 - 130	P	07/08/2016	19:21	LB82471
	Antimony	47.92	50.0	95.8	70 - 130	P	07/08/2016	19:21	LB82471
	Arsenic	22.45	20.0	112.3	70 - 130	P	07/08/2016	19:21	LB82471
	Barium	99.57	100	99.6	70 - 130	P	07/08/2016	19:21	LB82471
	Beryllium	5.74	6.0	95.7	70 - 130	P	07/08/2016	19:21	LB82471
	Cadmium	5.85	6.0	97.5	70 - 130	P	07/08/2016	19:21	LB82471
	Calcium	1989.9	2000	99.5	70 - 130	P	07/08/2016	19:21	LB82471
	Chromium	10.63	10.0	106.3	70 - 130	P	07/08/2016	19:21	LB82471
	Cobalt	28.01	30.0	93.4	70 - 130	P	07/08/2016	19:21	LB82471
	Copper	19.07	20.0	95.4	70 - 130	P	07/08/2016	19:21	LB82471
	Iron	105.78	100	105.8	70 - 130	P	07/08/2016	19:21	LB82471
	Lead	11.48	12.0	95.7	70 - 130	P	07/08/2016	19:21	LB82471
	Magnesium	2005.4	2000	100.3	70 - 130	P	07/08/2016	19:21	LB82471
	Manganese	20.07	20.0	100.4	70 - 130	P	07/08/2016	19:21	LB82471
	Nickel	38.09	40.0	95.2	70 - 130	P	07/08/2016	19:21	LB82471
	Potassium	1969.4	2000	98.5	70 - 130	P	07/08/2016	19:21	LB82471
	Selenium	20.91	20.0	104.6	70 - 130	P	07/08/2016	19:21	LB82471
	Silver	9.38	10.0	93.8	70 - 130	P	07/08/2016	19:21	LB82471
	Sodium	1947.4	2000	97.4	70 - 130	P	07/08/2016	19:21	LB82471
	Thallium	35.12	40.0	87.8	70 - 130	P	07/08/2016	19:21	LB82471
	Vanadium	37.88	40.0	94.7	70 - 130	P	07/08/2016	19:21	LB82471
	Zinc	43.62	40.0	109.1	70 - 130	P	07/08/2016	19:21	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Aluminum	9416.6	10000	94.2	90 - 110	P	07/08/2016	20:10	LB82471
	Antimony	4868.1	5000	97.4	90 - 110	P	07/08/2016	20:10	LB82471
	Arsenic	4834.9	5000	96.7	90 - 110	P	07/08/2016	20:10	LB82471
	Barium	9723.8	10000	97.2	90 - 110	P	07/08/2016	20:10	LB82471
	Beryllium	245.66	250	98.3	90 - 110	P	07/08/2016	20:10	LB82471
	Cadmium	2453.7	2500	98.1	90 - 110	P	07/08/2016	20:10	LB82471
	Calcium	24506	25000	98	90 - 110	P	07/08/2016	20:10	LB82471
	Chromium	987.59	1000	98.8	90 - 110	P	07/08/2016	20:10	LB82471
	Cobalt	2447.4	2500	97.9	90 - 110	P	07/08/2016	20:10	LB82471
	Copper	1219.7	1250	97.6	90 - 110	P	07/08/2016	20:10	LB82471
	Iron	4893.4	5000	97.9	90 - 110	P	07/08/2016	20:10	LB82471
	Lead	4900.3	5000	98	90 - 110	P	07/08/2016	20:10	LB82471
	Magnesium	24625	25000	98.5	90 - 110	P	07/08/2016	20:10	LB82471
	Manganese	2488.8	2500	99.6	90 - 110	P	07/08/2016	20:10	LB82471
	Nickel	2442	2500	97.7	90 - 110	P	07/08/2016	20:10	LB82471
	Potassium	24241	25000	97	90 - 110	P	07/08/2016	20:10	LB82471
	Selenium	4849.7	5000	97	90 - 110	P	07/08/2016	20:10	LB82471
	Silver	1212.4	1250	97	90 - 110	P	07/08/2016	20:10	LB82471
	Sodium	24093	25000	96.4	90 - 110	P	07/08/2016	20:10	LB82471
	Thallium	4873.8	5000	97.5	90 - 110	P	07/08/2016	20:10	LB82471
	Vanadium	2446.3	2500	97.9	90 - 110	P	07/08/2016	20:10	LB82471
	Zinc	2530.7	2500	101.2	90 - 110	P	07/08/2016	20:10	LB82471
CCV08	Aluminum	9496.9	10000	95	90 - 110	P	07/08/2016	20:59	LB82471
	Antimony	4886.7	5000	97.7	90 - 110	P	07/08/2016	20:59	LB82471
	Arsenic	4857	5000	97.1	90 - 110	P	07/08/2016	20:59	LB82471
	Barium	9919.5	10000	99.2	90 - 110	P	07/08/2016	20:59	LB82471
	Beryllium	246.77	250	98.7	90 - 110	P	07/08/2016	20:59	LB82471
	Cadmium	2464.3	2500	98.6	90 - 110	P	07/08/2016	20:59	LB82471
	Calcium	25112	25000	100.4	90 - 110	P	07/08/2016	20:59	LB82471
	Chromium	992.26	1000	99.2	90 - 110	P	07/08/2016	20:59	LB82471
	Cobalt	2463	2500	98.5	90 - 110	P	07/08/2016	20:59	LB82471
	Copper	1222.2	1250	97.8	90 - 110	P	07/08/2016	20:59	LB82471
	Iron	4901.9	5000	98	90 - 110	P	07/08/2016	20:59	LB82471
	Lead	4927.8	5000	98.6	90 - 110	P	07/08/2016	20:59	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV08	Magnesium	25135	25000	100.5	90 - 110	P	07/08/2016	20:59	LB82471
	Manganese	2497.8	2500	99.9	90 - 110	P	07/08/2016	20:59	LB82471
	Nickel	2452.1	2500	98.1	90 - 110	P	07/08/2016	20:59	LB82471
	Potassium	24846	25000	99.4	90 - 110	P	07/08/2016	20:59	LB82471
	Selenium	4846.7	5000	96.9	90 - 110	P	07/08/2016	20:59	LB82471
	Silver	1216.2	1250	97.3	90 - 110	P	07/08/2016	20:59	LB82471
	Sodium	24701	25000	98.8	90 - 110	P	07/08/2016	20:59	LB82471
	Thallium	4909.5	5000	98.2	90 - 110	P	07/08/2016	20:59	LB82471
	Vanadium	2452	2500	98.1	90 - 110	P	07/08/2016	20:59	LB82471
	Zinc	2551.2	2500	102	90 - 110	P	07/08/2016	20:59	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV04	Aluminum	97.66	100	97.7	70 - 130	P	07/08/2016	21:03	LB82471
	Antimony	47.48	50.0	95	70 - 130	P	07/08/2016	21:03	LB82471
	Arsenic	19.48	20.0	97.4	70 - 130	P	07/08/2016	21:03	LB82471
	Barium	100.34	100	100.3	70 - 130	P	07/08/2016	21:03	LB82471
	Beryllium	5.83	6.0	97.2	70 - 130	P	07/08/2016	21:03	LB82471
	Cadmium	5.69	6.0	94.8	70 - 130	P	07/08/2016	21:03	LB82471
	Calcium	2008.5	2000	100.4	70 - 130	P	07/08/2016	21:03	LB82471
	Chromium	10.24	10.0	102.4	70 - 130	P	07/08/2016	21:03	LB82471
	Cobalt	28.11	30.0	93.7	70 - 130	P	07/08/2016	21:03	LB82471
	Copper	19.49	20.0	97.5	70 - 130	P	07/08/2016	21:03	LB82471
	Iron	106.9	100	106.9	70 - 130	P	07/08/2016	21:03	LB82471
	Lead	11.85	12.0	98.8	70 - 130	P	07/08/2016	21:03	LB82471
	Magnesium	2046.4	2000	102.3	70 - 130	P	07/08/2016	21:03	LB82471
	Manganese	20.24	20.0	101.2	70 - 130	P	07/08/2016	21:03	LB82471
	Nickel	38.36	40.0	95.9	70 - 130	P	07/08/2016	21:03	LB82471
	Potassium	1964.6	2000	98.2	70 - 130	P	07/08/2016	21:03	LB82471
	Selenium	19.56	20.0	97.8	70 - 130	P	07/08/2016	21:03	LB82471
	Silver	9.41	10.0	94.1	70 - 130	P	07/08/2016	21:03	LB82471
	Sodium	2002.1	2000	100.1	70 - 130	P	07/08/2016	21:03	LB82471
	Thallium	35.92	40.0	89.8	70 - 130	P	07/08/2016	21:03	LB82471
	Vanadium	37.99	40.0	95	70 - 130	P	07/08/2016	21:03	LB82471
	Zinc	44.14	40.0	110.4	70 - 130	P	07/08/2016	21:03	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV09	Aluminum	9229.7	10000	92.3	90 - 110	P	07/08/2016	21:54	LB82471
	Antimony	4694.5	5000	93.9	90 - 110	P	07/08/2016	21:54	LB82471
	Arsenic	4672.5	5000	93.5	90 - 110	P	07/08/2016	21:54	LB82471
	Barium	9651.7	10000	96.5	90 - 110	P	07/08/2016	21:54	LB82471
	Beryllium	237.43	250	95	90 - 110	P	07/08/2016	21:54	LB82471
	Cadmium	2375.9	2500	95	90 - 110	P	07/08/2016	21:54	LB82471
	Calcium	24509	25000	98	90 - 110	P	07/08/2016	21:54	LB82471
	Chromium	975.14	1000	97.5	90 - 110	P	07/08/2016	21:54	LB82471
	Cobalt	2354.4	2500	94.2	90 - 110	P	07/08/2016	21:54	LB82471
	Copper	1184.1	1250	94.7	90 - 110	P	07/08/2016	21:54	LB82471
	Iron	4900	5000	98	90 - 110	P	07/08/2016	21:54	LB82471
	Lead	4773.7	5000	95.5	90 - 110	P	07/08/2016	21:54	LB82471
	Magnesium	24555	25000	98.2	90 - 110	P	07/08/2016	21:54	LB82471
	Manganese	2410.6	2500	96.4	90 - 110	P	07/08/2016	21:54	LB82471
	Nickel	2377.3	2500	95.1	90 - 110	P	07/08/2016	21:54	LB82471
	Potassium	24122	25000	96.5	90 - 110	P	07/08/2016	21:54	LB82471
	Selenium	4693.4	5000	93.9	90 - 110	P	07/08/2016	21:54	LB82471
	Silver	1192.1	1250	95.4	90 - 110	P	07/08/2016	21:54	LB82471
	Sodium	24157	25000	96.6	90 - 110	P	07/08/2016	21:54	LB82471
	Thallium	4749.5	5000	95	90 - 110	P	07/08/2016	21:54	LB82471
	Vanadium	2412	2500	96.5	90 - 110	P	07/08/2016	21:54	LB82471
	Zinc	2526.6	2500	101.1	90 - 110	P	07/08/2016	21:54	LB82471
CCV10	Aluminum	9347.2	10000	93.5	90 - 110	P	07/08/2016	22:42	LB82471
	Antimony	4787.8	5000	95.8	90 - 110	P	07/08/2016	22:42	LB82471
	Arsenic	4758.5	5000	95.2	90 - 110	P	07/08/2016	22:42	LB82471
	Barium	9666.7	10000	96.7	90 - 110	P	07/08/2016	22:42	LB82471
	Beryllium	241.75	250	96.7	90 - 110	P	07/08/2016	22:42	LB82471
	Cadmium	2428.9	2500	97.2	90 - 110	P	07/08/2016	22:42	LB82471
	Calcium	24730	25000	98.9	90 - 110	P	07/08/2016	22:42	LB82471
	Chromium	994.04	1000	99.4	90 - 110	P	07/08/2016	22:42	LB82471
	Cobalt	2412.1	2500	96.5	90 - 110	P	07/08/2016	22:42	LB82471
	Copper	1209.5	1250	96.8	90 - 110	P	07/08/2016	22:42	LB82471
	Iron	4863.3	5000	97.3	90 - 110	P	07/08/2016	22:42	LB82471
	Lead	4885	5000	97.7	90 - 110	P	07/08/2016	22:42	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10	Magnesium	24754	25000	99	90 - 110	P	07/08/2016	22:42	LB82471
	Manganese	2448	2500	97.9	90 - 110	P	07/08/2016	22:42	LB82471
	Nickel	2433.8	2500	97.4	90 - 110	P	07/08/2016	22:42	LB82471
	Potassium	24318	25000	97.3	90 - 110	P	07/08/2016	22:42	LB82471
	Selenium	4788	5000	95.8	90 - 110	P	07/08/2016	22:42	LB82471
	Silver	1212.6	1250	97	90 - 110	P	07/08/2016	22:42	LB82471
	Sodium	24299	25000	97.2	90 - 110	P	07/08/2016	22:42	LB82471
	Thallium	4856.5	5000	97.1	90 - 110	P	07/08/2016	22:42	LB82471
	Vanadium	2453.3	2500	98.1	90 - 110	P	07/08/2016	22:42	LB82471
	Zinc	2517.7	2500	100.7	90 - 110	P	07/08/2016	22:42	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV05	Aluminum	99.22	100	99.2	70 - 130	P	07/08/2016	22:47	LB82471
	Antimony	47.99	50.0	96	70 - 130	P	07/08/2016	22:47	LB82471
	Arsenic	20.51	20.0	102.6	70 - 130	P	07/08/2016	22:47	LB82471
	Barium	102.38	100	102.4	70 - 130	P	07/08/2016	22:47	LB82471
	Beryllium	5.96	6.0	99.3	70 - 130	P	07/08/2016	22:47	LB82471
	Cadmium	5.87	6.0	97.8	70 - 130	P	07/08/2016	22:47	LB82471
	Calcium	2072.8	2000	103.6	70 - 130	P	07/08/2016	22:47	LB82471
	Chromium	9.58	10.0	95.8	70 - 130	P	07/08/2016	22:47	LB82471
	Cobalt	28.59	30.0	95.3	70 - 130	P	07/08/2016	22:47	LB82471
	Copper	19.8	20.0	99	70 - 130	P	07/08/2016	22:47	LB82471
	Iron	112.59	100	112.6	70 - 130	P	07/08/2016	22:47	LB82471
	Lead	10.2	12.0	85	70 - 130	P	07/08/2016	22:47	LB82471
	Magnesium	2089.3	2000	104.5	70 - 130	P	07/08/2016	22:47	LB82471
	Manganese	20.21	20.0	101.1	70 - 130	P	07/08/2016	22:47	LB82471
	Nickel	39.22	40.0	98.1	70 - 130	P	07/08/2016	22:47	LB82471
	Potassium	1995.1	2000	99.8	70 - 130	P	07/08/2016	22:47	LB82471
	Selenium	18.93	20.0	94.7	70 - 130	P	07/08/2016	22:47	LB82471
	Silver	9.89	10.0	98.9	70 - 130	P	07/08/2016	22:47	LB82471
	Sodium	2047.2	2000	102.4	70 - 130	P	07/08/2016	22:47	LB82471
	Thallium	37.24	40.0	93.1	70 - 130	P	07/08/2016	22:47	LB82471
	Vanadium	39.58	40.0	99	70 - 130	P	07/08/2016	22:47	LB82471
	Zinc	45.12	40.0	112.8	70 - 130	P	07/08/2016	22:47	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV11	Aluminum	9354.5	10000	93.5	90 - 110	P	07/08/2016	23:36	LB82471
	Antimony	4875.1	5000	97.5	90 - 110	P	07/08/2016	23:36	LB82471
	Arsenic	4846.1	5000	96.9	90 - 110	P	07/08/2016	23:36	LB82471
	Barium	9587.4	10000	95.9	90 - 110	P	07/08/2016	23:36	LB82471
	Beryllium	240.83	250	96.3	90 - 110	P	07/08/2016	23:36	LB82471
	Cadmium	2471.5	2500	98.9	90 - 110	P	07/08/2016	23:36	LB82471
	Calcium	24303	25000	97.2	90 - 110	P	07/08/2016	23:36	LB82471
	Chromium	979.6	1000	98	90 - 110	P	07/08/2016	23:36	LB82471
	Cobalt	2454	2500	98.2	90 - 110	P	07/08/2016	23:36	LB82471
	Copper	1233.2	1250	98.7	90 - 110	P	07/08/2016	23:36	LB82471
	Iron	4743.9	5000	94.9	90 - 110	P	07/08/2016	23:36	LB82471
	Lead	4972.1	5000	99.4	90 - 110	P	07/08/2016	23:36	LB82471
	Magnesium	24413	25000	97.7	90 - 110	P	07/08/2016	23:36	LB82471
	Manganese	2430.5	2500	97.2	90 - 110	P	07/08/2016	23:36	LB82471
	Nickel	2472.8	2500	98.9	90 - 110	P	07/08/2016	23:36	LB82471
	Potassium	23982	25000	95.9	90 - 110	P	07/08/2016	23:36	LB82471
	Selenium	4884.4	5000	97.7	90 - 110	P	07/08/2016	23:36	LB82471
	Silver	1209	1250	96.7	90 - 110	P	07/08/2016	23:36	LB82471
	Sodium	24057	25000	96.2	90 - 110	P	07/08/2016	23:36	LB82471
	Thallium	4950.7	5000	99	90 - 110	P	07/08/2016	23:36	LB82471
	Vanadium	2442	2500	97.7	90 - 110	P	07/08/2016	23:36	LB82471
	Zinc	2480	2500	99.2	90 - 110	P	07/08/2016	23:36	LB82471
CCV12	Aluminum	9212.1	10000	92.1	90 - 110	P	07/09/2016	00:28	LB82471
	Antimony	4749.3	5000	95	90 - 110	P	07/09/2016	00:28	LB82471
	Arsenic	4724.4	5000	94.5	90 - 110	P	07/09/2016	00:28	LB82471
	Barium	9687.6	10000	96.9	90 - 110	P	07/09/2016	00:28	LB82471
	Beryllium	235.69	250	94.3	90 - 110	P	07/09/2016	00:28	LB82471
	Cadmium	2398.5	2500	95.9	90 - 110	P	07/09/2016	00:28	LB82471
	Calcium	24505	25000	98	90 - 110	P	07/09/2016	00:28	LB82471
	Chromium	959.51	1000	96	90 - 110	P	07/09/2016	00:28	LB82471
	Cobalt	2377.7	2500	95.1	90 - 110	P	07/09/2016	00:28	LB82471
	Copper	1201.4	1250	96.1	90 - 110	P	07/09/2016	00:28	LB82471
	Iron	4799	5000	96	90 - 110	P	07/09/2016	00:28	LB82471
	Lead	4840.5	5000	96.8	90 - 110	P	07/09/2016	00:28	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12	Magnesium	24659	25000	98.6	90 - 110	P	07/09/2016	00:28	LB82471
	Manganese	2381.9	2500	95.3	90 - 110	P	07/09/2016	00:28	LB82471
	Nickel	2406.2	2500	96.2	90 - 110	P	07/09/2016	00:28	LB82471
	Potassium	24152	25000	96.6	90 - 110	P	07/09/2016	00:28	LB82471
	Selenium	4758	5000	95.2	90 - 110	P	07/09/2016	00:28	LB82471
	Silver	1189.7	1250	95.2	90 - 110	P	07/09/2016	00:28	LB82471
	Sodium	24325	25000	97.3	90 - 110	P	07/09/2016	00:28	LB82471
	Thallium	4818.9	5000	96.4	90 - 110	P	07/09/2016	00:28	LB82471
	Vanadium	2407.6	2500	96.3	90 - 110	P	07/09/2016	00:28	LB82471
	Zinc	2491.3	2500	99.7	90 - 110	P	07/09/2016	00:28	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV06	Aluminum	90.12	100	90.1	70 - 130	P	07/09/2016	00:32	LB82471
	Antimony	47.46	50.0	94.9	70 - 130	P	07/09/2016	00:32	LB82471
	Arsenic	18.88	20.0	94.4	70 - 130	P	07/09/2016	00:32	LB82471
	Barium	102.92	100	102.9	70 - 130	P	07/09/2016	00:32	LB82471
	Beryllium	5.78	6.0	96.3	70 - 130	P	07/09/2016	00:32	LB82471
	Cadmium	5.82	6.0	97	70 - 130	P	07/09/2016	00:32	LB82471
	Calcium	2043.7	2000	102.2	70 - 130	P	07/09/2016	00:32	LB82471
	Chromium	10.38	10.0	103.8	70 - 130	P	07/09/2016	00:32	LB82471
	Cobalt	28.23	30.0	94.1	70 - 130	P	07/09/2016	00:32	LB82471
	Copper	19.93	20.0	99.7	70 - 130	P	07/09/2016	00:32	LB82471
	Iron	116.28	100	116.3	70 - 130	P	07/09/2016	00:32	LB82471
	Lead	10.7	12.0	89.2	70 - 130	P	07/09/2016	00:32	LB82471
	Magnesium	2079.5	2000	104	70 - 130	P	07/09/2016	00:32	LB82471
	Manganese	20.2	20.0	101	70 - 130	P	07/09/2016	00:32	LB82471
	Nickel	39.2	40.0	98	70 - 130	P	07/09/2016	00:32	LB82471
	Potassium	2022.1	2000	101.1	70 - 130	P	07/09/2016	00:32	LB82471
	Selenium	17.28	20.0	86.4	70 - 130	P	07/09/2016	00:32	LB82471
	Silver	9.38	10.0	93.8	70 - 130	P	07/09/2016	00:32	LB82471
	Sodium	2027.2	2000	101.4	70 - 130	P	07/09/2016	00:32	LB82471
	Thallium	37.11	40.0	92.8	70 - 130	P	07/09/2016	00:32	LB82471
	Vanadium	39.24	40.0	98.1	70 - 130	P	07/09/2016	00:32	LB82471
	Zinc	44.7	40.0	111.8	70 - 130	P	07/09/2016	00:32	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV13	Aluminum	9634.9	10000	96.3	90 - 110	P	07/09/2016	01:22	LB82471
	Antimony	4918.8	5000	98.4	90 - 110	P	07/09/2016	01:22	LB82471
	Arsenic	4881.2	5000	97.6	90 - 110	P	07/09/2016	01:22	LB82471
	Barium	9983.3	10000	99.8	90 - 110	P	07/09/2016	01:22	LB82471
	Beryllium	247.48	250	99	90 - 110	P	07/09/2016	01:22	LB82471
	Cadmium	2503.3	2500	100.1	90 - 110	P	07/09/2016	01:22	LB82471
	Calcium	25544	25000	102.2	90 - 110	P	07/09/2016	01:22	LB82471
	Chromium	1012.5	1000	101.3	90 - 110	P	07/09/2016	01:22	LB82471
	Cobalt	2484.6	2500	99.4	90 - 110	P	07/09/2016	01:22	LB82471
	Copper	1246	1250	99.7	90 - 110	P	07/09/2016	01:22	LB82471
	Iron	4948.6	5000	99	90 - 110	P	07/09/2016	01:22	LB82471
	Lead	5047.3	5000	100.9	90 - 110	P	07/09/2016	01:22	LB82471
	Magnesium	25745	25000	103	90 - 110	P	07/09/2016	01:22	LB82471
	Manganese	2500.7	2500	100	90 - 110	P	07/09/2016	01:22	LB82471
	Nickel	2510.9	2500	100.4	90 - 110	P	07/09/2016	01:22	LB82471
	Potassium	25066	25000	100.3	90 - 110	P	07/09/2016	01:22	LB82471
	Selenium	4902.1	5000	98	90 - 110	P	07/09/2016	01:22	LB82471
	Silver	1244.7	1250	99.6	90 - 110	P	07/09/2016	01:22	LB82471
	Sodium	25189	25000	100.8	90 - 110	P	07/09/2016	01:22	LB82471
	Thallium	5020	5000	100.4	90 - 110	P	07/09/2016	01:22	LB82471
	Vanadium	2523.6	2500	100.9	90 - 110	P	07/09/2016	01:22	LB82471
	Zinc	2582.5	2500	103.3	90 - 110	P	07/09/2016	01:22	LB82471
CCV14	Aluminum	9337.9	10000	93.4	90 - 110	P	07/09/2016	02:11	LB82471
	Antimony	4771.3	5000	95.4	90 - 110	P	07/09/2016	02:11	LB82471
	Arsenic	4758.2	5000	95.2	90 - 110	P	07/09/2016	02:11	LB82471
	Barium	9748.8	10000	97.5	90 - 110	P	07/09/2016	02:11	LB82471
	Beryllium	239.51	250	95.8	90 - 110	P	07/09/2016	02:11	LB82471
	Cadmium	2424	2500	97	90 - 110	P	07/09/2016	02:11	LB82471
	Calcium	24762	25000	99	90 - 110	P	07/09/2016	02:11	LB82471
	Chromium	980.57	1000	98.1	90 - 110	P	07/09/2016	02:11	LB82471
	Cobalt	2404.3	2500	96.2	90 - 110	P	07/09/2016	02:11	LB82471
	Copper	1212.2	1250	97	90 - 110	P	07/09/2016	02:11	LB82471
	Iron	4820	5000	96.4	90 - 110	P	07/09/2016	02:11	LB82471
	Lead	4897.8	5000	98	90 - 110	P	07/09/2016	02:11	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV14	Magnesium	24781	25000	99.1	90 - 110	P	07/09/2016	02:11	LB82471
	Manganese	2418.7	2500	96.7	90 - 110	P	07/09/2016	02:11	LB82471
	Nickel	2434.5	2500	97.4	90 - 110	P	07/09/2016	02:11	LB82471
	Potassium	24434	25000	97.7	90 - 110	P	07/09/2016	02:11	LB82471
	Selenium	4790.9	5000	95.8	90 - 110	P	07/09/2016	02:11	LB82471
	Silver	1208.7	1250	96.7	90 - 110	P	07/09/2016	02:11	LB82471
	Sodium	24544	25000	98.2	90 - 110	P	07/09/2016	02:11	LB82471
	Thallium	4866.8	5000	97.3	90 - 110	P	07/09/2016	02:11	LB82471
	Vanadium	2450.6	2500	98	90 - 110	P	07/09/2016	02:11	LB82471
	Zinc	2502.2	2500	100.1	90 - 110	P	07/09/2016	02:11	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV07	Aluminum	86.93	100	86.9	70 - 130	P	07/09/2016	02:16	LB82471
	Antimony	44.88	50.0	89.8	70 - 130	P	07/09/2016	02:16	LB82471
	Arsenic	19.38	20.0	96.9	70 - 130	P	07/09/2016	02:16	LB82471
	Barium	98.94	100	98.9	70 - 130	P	07/09/2016	02:16	LB82471
	Beryllium	5.66	6.0	94.3	70 - 130	P	07/09/2016	02:16	LB82471
	Cadmium	5.69	6.0	94.8	70 - 130	P	07/09/2016	02:16	LB82471
	Calcium	1980.9	2000	99	70 - 130	P	07/09/2016	02:16	LB82471
	Chromium	9.99	10.0	99.9	70 - 130	P	07/09/2016	02:16	LB82471
	Cobalt	27.93	30.0	93.1	70 - 130	P	07/09/2016	02:16	LB82471
	Copper	19.05	20.0	95.3	70 - 130	P	07/09/2016	02:16	LB82471
	Iron	111.06	100	111.1	70 - 130	P	07/09/2016	02:16	LB82471
	Lead	10.71	12.0	89.3	70 - 130	P	07/09/2016	02:16	LB82471
	Magnesium	2014.7	2000	100.7	70 - 130	P	07/09/2016	02:16	LB82471
	Manganese	19.57	20.0	97.9	70 - 130	P	07/09/2016	02:16	LB82471
	Nickel	38.53	40.0	96.3	70 - 130	P	07/09/2016	02:16	LB82471
	Potassium	1907.6	2000	95.4	70 - 130	P	07/09/2016	02:16	LB82471
	Selenium	16.62	20.0	83.1	70 - 130	P	07/09/2016	02:16	LB82471
	Silver	9.5	10.0	95	70 - 130	P	07/09/2016	02:16	LB82471
	Sodium	1938.7	2000	96.9	70 - 130	P	07/09/2016	02:16	LB82471
	Thallium	38.08	40.0	95.2	70 - 130	P	07/09/2016	02:16	LB82471
	Vanadium	38.11	40.0	95.3	70 - 130	P	07/09/2016	02:16	LB82471
	Zinc	43.63	40.0	109.1	70 - 130	P	07/09/2016	02:16	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV15	Aluminum	9312.8	10000	93.1	90 - 110	P	07/09/2016	03:16	LB82471
	Antimony	4776.8	5000	95.5	90 - 110	P	07/09/2016	03:16	LB82471
	Arsenic	4733	5000	94.7	90 - 110	P	07/09/2016	03:16	LB82471
	Barium	9665.1	10000	96.7	90 - 110	P	07/09/2016	03:16	LB82471
	Beryllium	237.21	250	94.9	90 - 110	P	07/09/2016	03:16	LB82471
	Cadmium	2407.2	2500	96.3	90 - 110	P	07/09/2016	03:16	LB82471
	Calcium	24437	25000	97.7	90 - 110	P	07/09/2016	03:16	LB82471
	Chromium	968.98	1000	96.9	90 - 110	P	07/09/2016	03:16	LB82471
	Cobalt	2391.7	2500	95.7	90 - 110	P	07/09/2016	03:16	LB82471
	Copper	1208.8	1250	96.7	90 - 110	P	07/09/2016	03:16	LB82471
	Iron	4822.1	5000	96.4	90 - 110	P	07/09/2016	03:16	LB82471
	Lead	4864.8	5000	97.3	90 - 110	P	07/09/2016	03:16	LB82471
	Magnesium	24509	25000	98	90 - 110	P	07/09/2016	03:16	LB82471
	Manganese	2398.4	2500	95.9	90 - 110	P	07/09/2016	03:16	LB82471
	Nickel	2420.8	2500	96.8	90 - 110	P	07/09/2016	03:16	LB82471
	Potassium	24141	25000	96.6	90 - 110	P	07/09/2016	03:16	LB82471
	Selenium	4785	5000	95.7	90 - 110	P	07/09/2016	03:16	LB82471
	Silver	1201.4	1250	96.1	90 - 110	P	07/09/2016	03:16	LB82471
	Sodium	24290	25000	97.2	90 - 110	P	07/09/2016	03:16	LB82471
	Thallium	4843.8	5000	96.9	90 - 110	P	07/09/2016	03:16	LB82471
	Vanadium	2430.6	2500	97.2	90 - 110	P	07/09/2016	03:16	LB82471
	Zinc	2499.4	2500	100	90 - 110	P	07/09/2016	03:16	LB82471
CCV16	Aluminum	9400.8	10000	94	90 - 110	P	07/09/2016	04:24	LB82471
	Antimony	4739.5	5000	94.8	90 - 110	P	07/09/2016	04:24	LB82471
	Arsenic	4706.1	5000	94.1	90 - 110	P	07/09/2016	04:24	LB82471
	Barium	9502	10000	95	90 - 110	P	07/09/2016	04:24	LB82471
	Beryllium	240.56	250	96.2	90 - 110	P	07/09/2016	04:24	LB82471
	Cadmium	2397.1	2500	95.9	90 - 110	P	07/09/2016	04:24	LB82471
	Calcium	23921	25000	95.7	90 - 110	P	07/09/2016	04:24	LB82471
	Chromium	969.96	1000	97	90 - 110	P	07/09/2016	04:24	LB82471
	Cobalt	2378.2	2500	95.1	90 - 110	P	07/09/2016	04:24	LB82471
	Copper	1205	1250	96.4	90 - 110	P	07/09/2016	04:24	LB82471
	Iron	4581.7	5000	91.6	90 - 110	P	07/09/2016	04:24	LB82471
	Lead	4853.2	5000	97.1	90 - 110	P	07/09/2016	04:24	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV16	Magnesium	23982	25000	95.9	90 - 110	P	07/09/2016	04:24	LB82471
	Manganese	2421.4	2500	96.9	90 - 110	P	07/09/2016	04:24	LB82471
	Nickel	2406.5	2500	96.3	90 - 110	P	07/09/2016	04:24	LB82471
	Potassium	23707	25000	94.8	90 - 110	P	07/09/2016	04:24	LB82471
	Selenium	4768.2	5000	95.4	90 - 110	P	07/09/2016	04:24	LB82471
	Silver	1221.7	1250	97.7	90 - 110	P	07/09/2016	04:24	LB82471
	Sodium	23859	25000	95.4	90 - 110	P	07/09/2016	04:24	LB82471
	Thallium	4832.1	5000	96.6	90 - 110	P	07/09/2016	04:24	LB82471
	Vanadium	2467	2500	98.7	90 - 110	P	07/09/2016	04:24	LB82471
	Zinc	2403.8	2500	96.2	90 - 110	P	07/09/2016	04:24	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV08	Aluminum	94.51	100	94.5	70 - 130	P	07/09/2016	04:30	LB82471
	Antimony	47.87	50.0	95.7	70 - 130	P	07/09/2016	04:30	LB82471
	Arsenic	21.22	20.0	106.1	70 - 130	P	07/09/2016	04:30	LB82471
	Barium	100.32	100	100.3	70 - 130	P	07/09/2016	04:30	LB82471
	Beryllium	5.69	6.0	94.8	70 - 130	P	07/09/2016	04:30	LB82471
	Cadmium	5.68	6.0	94.7	70 - 130	P	07/09/2016	04:30	LB82471
	Calcium	1987.1	2000	99.4	70 - 130	P	07/09/2016	04:30	LB82471
	Chromium	10.07	10.0	100.7	70 - 130	P	07/09/2016	04:30	LB82471
	Cobalt	28.15	30.0	93.8	70 - 130	P	07/09/2016	04:30	LB82471
	Copper	19.3	20.0	96.5	70 - 130	P	07/09/2016	04:30	LB82471
	Iron	105.84	100	105.8	70 - 130	P	07/09/2016	04:30	LB82471
	Lead	11.51	12.0	95.9	70 - 130	P	07/09/2016	04:30	LB82471
	Magnesium	2030.1	2000	101.5	70 - 130	P	07/09/2016	04:30	LB82471
	Manganese	19.58	20.0	97.9	70 - 130	P	07/09/2016	04:30	LB82471
	Nickel	38.58	40.0	96.5	70 - 130	P	07/09/2016	04:30	LB82471
	Potassium	1937.2	2000	96.9	70 - 130	P	07/09/2016	04:30	LB82471
	Selenium	16.06	20.0	80.3	70 - 130	P	07/09/2016	04:30	LB82471
	Silver	9.35	10.0	93.5	70 - 130	P	07/09/2016	04:30	LB82471
	Sodium	1964.7	2000	98.2	70 - 130	P	07/09/2016	04:30	LB82471
	Thallium	36.98	40.0	92.5	70 - 130	P	07/09/2016	04:30	LB82471
	Vanadium	38.83	40.0	97.1	70 - 130	P	07/09/2016	04:30	LB82471
	Zinc	41.52	40.0	103.8	70 - 130	P	07/09/2016	04:30	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV17	Aluminum	9342.6	10000	93.4	90 - 110	P	07/09/2016	05:21	LB82471
	Antimony	4794.7	5000	95.9	90 - 110	P	07/09/2016	05:21	LB82471
	Arsenic	4768.8	5000	95.4	90 - 110	P	07/09/2016	05:21	LB82471
	Barium	9432.6	10000	94.3	90 - 110	P	07/09/2016	05:21	LB82471
	Beryllium	239.37	250	95.7	90 - 110	P	07/09/2016	05:21	LB82471
	Cadmium	2426.8	2500	97.1	90 - 110	P	07/09/2016	05:21	LB82471
	Calcium	23664	25000	94.7	90 - 110	P	07/09/2016	05:21	LB82471
	Chromium	968.49	1000	96.8	90 - 110	P	07/09/2016	05:21	LB82471
	Cobalt	2410.6	2500	96.4	90 - 110	P	07/09/2016	05:21	LB82471
	Copper	1218.8	1250	97.5	90 - 110	P	07/09/2016	05:21	LB82471
	Iron	4550.4	5000	91	90 - 110	P	07/09/2016	05:21	LB82471
	Lead	4906.1	5000	98.1	90 - 110	P	07/09/2016	05:21	LB82471
	Magnesium	23787	25000	95.1	90 - 110	P	07/09/2016	05:21	LB82471
	Manganese	2416.4	2500	96.7	90 - 110	P	07/09/2016	05:21	LB82471
	Nickel	2437.9	2500	97.5	90 - 110	P	07/09/2016	05:21	LB82471
	Potassium	23444	25000	93.8	90 - 110	P	07/09/2016	05:21	LB82471
	Selenium	4805.2	5000	96.1	90 - 110	P	07/09/2016	05:21	LB82471
	Silver	1218.8	1250	97.5	90 - 110	P	07/09/2016	05:21	LB82471
	Sodium	23574	25000	94.3	90 - 110	P	07/09/2016	05:21	LB82471
	Thallium	4892.6	5000	97.9	90 - 110	P	07/09/2016	05:21	LB82471
	Vanadium	2466.2	2500	98.6	90 - 110	P	07/09/2016	05:21	LB82471
	Zinc	2398.2	2500	95.9	90 - 110	P	07/09/2016	05:21	LB82471
CCV18	Aluminum	9491.8	10000	94.9	90 - 110	P	07/09/2016	06:11	LB82471
	Antimony	4840.3	5000	96.8	90 - 110	P	07/09/2016	06:11	LB82471
	Arsenic	4801.8	5000	96	90 - 110	P	07/09/2016	06:11	LB82471
	Barium	9921	10000	99.2	90 - 110	P	07/09/2016	06:11	LB82471
	Beryllium	240.47	250	96.2	90 - 110	P	07/09/2016	06:11	LB82471
	Cadmium	2433.8	2500	97.4	90 - 110	P	07/09/2016	06:11	LB82471
	Calcium	24794	25000	99.2	90 - 110	P	07/09/2016	06:11	LB82471
	Chromium	968.61	1000	96.9	90 - 110	P	07/09/2016	06:11	LB82471
	Cobalt	2417	2500	96.7	90 - 110	P	07/09/2016	06:11	LB82471
	Copper	1224.4	1250	98	90 - 110	P	07/09/2016	06:11	LB82471
	Iron	4845.7	5000	96.9	90 - 110	P	07/09/2016	06:11	LB82471
	Lead	4919.5	5000	98.4	90 - 110	P	07/09/2016	06:11	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV18	Magnesium	24941	25000	99.8	90 - 110	P	07/09/2016	06:11	LB82471
	Manganese	2423.3	2500	96.9	90 - 110	P	07/09/2016	06:11	LB82471
	Nickel	2441.8	2500	97.7	90 - 110	P	07/09/2016	06:11	LB82471
	Potassium	24670	25000	98.7	90 - 110	P	07/09/2016	06:11	LB82471
	Selenium	4849.4	5000	97	90 - 110	P	07/09/2016	06:11	LB82471
	Silver	1221.6	1250	97.7	90 - 110	P	07/09/2016	06:11	LB82471
	Sodium	24760	25000	99	90 - 110	P	07/09/2016	06:11	LB82471
	Thallium	4892.2	5000	97.8	90 - 110	P	07/09/2016	06:11	LB82471
	Vanadium	2471.1	2500	98.8	90 - 110	P	07/09/2016	06:11	LB82471
	Zinc	2531.1	2500	101.2	90 - 110	P	07/09/2016	06:11	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV09	Aluminum	99.68	100	99.7	70 - 130	P	07/09/2016	06:16	LB82471
	Antimony	47.54	50.0	95.1	70 - 130	P	07/09/2016	06:16	LB82471
	Arsenic	19.83	20.0	99.2	70 - 130	P	07/09/2016	06:16	LB82471
	Barium	102.04	100	102	70 - 130	P	07/09/2016	06:16	LB82471
	Beryllium	5.78	6.0	96.3	70 - 130	P	07/09/2016	06:16	LB82471
	Cadmium	5.83	6.0	97.2	70 - 130	P	07/09/2016	06:16	LB82471
	Calcium	2055.1	2000	102.8	70 - 130	P	07/09/2016	06:16	LB82471
	Chromium	9.47	10.0	94.7	70 - 130	P	07/09/2016	06:16	LB82471
	Cobalt	28.37	30.0	94.6	70 - 130	P	07/09/2016	06:16	LB82471
	Copper	19.36	20.0	96.8	70 - 130	P	07/09/2016	06:16	LB82471
	Iron	95.08	100	95.1	70 - 130	P	07/09/2016	06:16	LB82471
	Lead	12.09	12.0	100.8	70 - 130	P	07/09/2016	06:16	LB82471
	Magnesium	2041.9	2000	102.1	70 - 130	P	07/09/2016	06:16	LB82471
	Manganese	20.12	20.0	100.6	70 - 130	P	07/09/2016	06:16	LB82471
	Nickel	38.75	40.0	96.9	70 - 130	P	07/09/2016	06:16	LB82471
	Potassium	2027.9	2000	101.4	70 - 130	P	07/09/2016	06:16	LB82471
	Selenium	19.37	20.0	96.9	70 - 130	P	07/09/2016	06:16	LB82471
	Silver	9.45	10.0	94.5	70 - 130	P	07/09/2016	06:16	LB82471
	Sodium	2024.7	2000	101.2	70 - 130	P	07/09/2016	06:16	LB82471
	Thallium	37.52	40.0	93.8	70 - 130	P	07/09/2016	06:16	LB82471
	Vanadium	38.51	40.0	96.3	70 - 130	P	07/09/2016	06:16	LB82471
	Zinc	42.96	40.0	107.4	70 - 130	P	07/09/2016	06:16	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV19	Aluminum	9411.7	10000	94.1	90 - 110	P	07/09/2016	07:22	LB82471
	Antimony	4856.9	5000	97.1	90 - 110	P	07/09/2016	07:22	LB82471
	Arsenic	4809.2	5000	96.2	90 - 110	P	07/09/2016	07:22	LB82471
	Barium	9798.6	10000	98	90 - 110	P	07/09/2016	07:22	LB82471
	Beryllium	243.23	250	97.3	90 - 110	P	07/09/2016	07:22	LB82471
	Cadmium	2438.1	2500	97.5	90 - 110	P	07/09/2016	07:22	LB82471
	Calcium	24805	25000	99.2	90 - 110	P	07/09/2016	07:22	LB82471
	Chromium	967	1000	96.7	90 - 110	P	07/09/2016	07:22	LB82471
	Cobalt	2426.8	2500	97.1	90 - 110	P	07/09/2016	07:22	LB82471
	Copper	1220.6	1250	97.6	90 - 110	P	07/09/2016	07:22	LB82471
	Iron	4930.8	5000	98.6	90 - 110	P	07/09/2016	07:22	LB82471
	Lead	4901.5	5000	98	90 - 110	P	07/09/2016	07:22	LB82471
	Magnesium	24786	25000	99.1	90 - 110	P	07/09/2016	07:22	LB82471
	Manganese	2448.2	2500	97.9	90 - 110	P	07/09/2016	07:22	LB82471
	Nickel	2430.2	2500	97.2	90 - 110	P	07/09/2016	07:22	LB82471
	Potassium	24667	25000	98.7	90 - 110	P	07/09/2016	07:22	LB82471
	Selenium	4838.2	5000	96.8	90 - 110	P	07/09/2016	07:22	LB82471
	Silver	1220.6	1250	97.6	90 - 110	P	07/09/2016	07:22	LB82471
	Sodium	24700	25000	98.8	90 - 110	P	07/09/2016	07:22	LB82471
	Thallium	4884.5	5000	97.7	90 - 110	P	07/09/2016	07:22	LB82471
	Vanadium	2456.7	2500	98.3	90 - 110	P	07/09/2016	07:22	LB82471
	Zinc	2563.2	2500	102.5	90 - 110	P	07/09/2016	07:22	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV10	Aluminum	95.19	100	95.2	70 - 130	P	07/09/2016	07:27	LB82471
	Antimony	47.16	50.0	94.3	70 - 130	P	07/09/2016	07:27	LB82471
	Arsenic	23.07	20.0	115.4	70 - 130	P	07/09/2016	07:27	LB82471
	Barium	101.21	100	101.2	70 - 130	P	07/09/2016	07:27	LB82471
	Beryllium	5.7	6.0	95	70 - 130	P	07/09/2016	07:27	LB82471
	Cadmium	5.8	6.0	96.7	70 - 130	P	07/09/2016	07:27	LB82471
	Calcium	2012	2000	100.6	70 - 130	P	07/09/2016	07:27	LB82471
	Chromium	10.07	10.0	100.7	70 - 130	P	07/09/2016	07:27	LB82471
	Cobalt	27.82	30.0	92.7	70 - 130	P	07/09/2016	07:27	LB82471
	Copper	19.11	20.0	95.6	70 - 130	P	07/09/2016	07:27	LB82471
	Iron	106.18	100	106.2	70 - 130	P	07/09/2016	07:27	LB82471
	Lead	10.81	12.0	90.1	70 - 130	P	07/09/2016	07:27	LB82471
	Magnesium	2061.6	2000	103.1	70 - 130	P	07/09/2016	07:27	LB82471
	Manganese	19.97	20.0	99.9	70 - 130	P	07/09/2016	07:27	LB82471
	Nickel	38.94	40.0	97.4	70 - 130	P	07/09/2016	07:27	LB82471
	Potassium	2091.7	2000	104.6	70 - 130	P	07/09/2016	07:27	LB82471
	Selenium	19.91	20.0	99.6	70 - 130	P	07/09/2016	07:27	LB82471
	Silver	9.96	10.0	99.6	70 - 130	P	07/09/2016	07:27	LB82471
	Sodium	2068.6	2000	103.4	70 - 130	P	07/09/2016	07:27	LB82471
	Thallium	38.02	40.0	95.1	70 - 130	P	07/09/2016	07:27	LB82471
	Vanadium	37.65	40.0	94.1	70 - 130	P	07/09/2016	07:27	LB82471
	Zinc	44	40.0	110	70 - 130	P	07/09/2016	07:27	LB82471

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Aluminum	2545	2521	101	90 - 110	P	07/11/2016	12:46	LB82512
	Antimony	988.94	994	99.5	90 - 110	P	07/11/2016	12:46	LB82512
	Arsenic	1035.5	999	103.7	90 - 110	P	07/11/2016	12:46	LB82512
	Barium	528.59	503	105.1	90 - 110	P	07/11/2016	12:46	LB82512
	Beryllium	508.02	495	102.6	90 - 110	P	07/11/2016	12:46	LB82512
	Cadmium	492.38	496	99.3	90 - 110	P	07/11/2016	12:46	LB82512
	Calcium	10599	10026	105.7	90 - 110	P	07/11/2016	12:46	LB82512
	Chromium	488.69	490	99.7	90 - 110	P	07/11/2016	12:46	LB82512
	Cobalt	502.71	499	100.7	90 - 110	P	07/11/2016	12:46	LB82512
	Copper	523.09	492	106.3	90 - 110	P	07/11/2016	12:46	LB82512
	Iron	4892.8	5082	96.3	90 - 110	P	07/11/2016	12:46	LB82512
	Lead	993.96	1002	99.2	90 - 110	P	07/11/2016	12:46	LB82512
	Magnesium	6292.7	6074	103.6	90 - 110	P	07/11/2016	12:46	LB82512
	Manganese	531.75	499	106.6	90 - 110	P	07/11/2016	12:46	LB82512
	Nickel	496.32	503	98.7	90 - 110	P	07/11/2016	12:46	LB82512
	Potassium	10579	10021	105.6	90 - 110	P	07/11/2016	12:46	LB82512
	Selenium	1031.3	1029	100.2	90 - 110	P	07/11/2016	12:46	LB82512
	Silver	508.82	501	101.6	90 - 110	P	07/11/2016	12:46	LB82512
	Sodium	10332	10097	102.3	90 - 110	P	07/11/2016	12:46	LB82512
	Thallium	1024.1	1028	99.6	90 - 110	P	07/11/2016	12:46	LB82512
	Vanadium	512.42	501	102.3	90 - 110	P	07/11/2016	12:46	LB82512
	Zinc	1033.2	1025	100.8	90 - 110	P	07/11/2016	12:46	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Aluminum	102.52	100	102.5	70 - 130	P	07/11/2016	12:50	LB82512
	Antimony	46.37	50.0	92.7	70 - 130	P	07/11/2016	12:50	LB82512
	Arsenic	20.77	20.0	103.9	70 - 130	P	07/11/2016	12:50	LB82512
	Barium	105.22	100	105.2	70 - 130	P	07/11/2016	12:50	LB82512
	Beryllium	6.03	6.0	100.5	70 - 130	P	07/11/2016	12:50	LB82512
	Cadmium	5.89	6.0	98.2	70 - 130	P	07/11/2016	12:50	LB82512
	Calcium	2090.3	2000	104.5	70 - 130	P	07/11/2016	12:50	LB82512
	Chromium	9.76	10.0	97.6	70 - 130	P	07/11/2016	12:50	LB82512
	Cobalt	29.01	30.0	96.7	70 - 130	P	07/11/2016	12:50	LB82512
	Copper	20.67	20.0	103.4	70 - 130	P	07/11/2016	12:50	LB82512
	Iron	116.39	100	116.4	70 - 130	P	07/11/2016	12:50	LB82512
	Lead	12.18	12.0	101.5	70 - 130	P	07/11/2016	12:50	LB82512
	Magnesium	2035.9	2000	101.8	70 - 130	P	07/11/2016	12:50	LB82512
	Manganese	20.93	20.0	104.7	70 - 130	P	07/11/2016	12:50	LB82512
	Nickel	38.69	40.0	96.7	70 - 130	P	07/11/2016	12:50	LB82512
	Potassium	2104.6	2000	105.2	70 - 130	P	07/11/2016	12:50	LB82512
	Selenium	22.19	20.0	111	70 - 130	P	07/11/2016	12:50	LB82512
	Silver	10.53	10.0	105.3	70 - 130	P	07/11/2016	12:50	LB82512
	Sodium	2005	2000	100.3	70 - 130	P	07/11/2016	12:50	LB82512
	Thallium	37.74	40.0	94.4	70 - 130	P	07/11/2016	12:50	LB82512
	Vanadium	39.99	40.0	100	70 - 130	P	07/11/2016	12:50	LB82512
	Zinc	43.49	40.0	108.7	70 - 130	P	07/11/2016	12:50	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Aluminum	9788.2	10000	97.9	90 - 110	P	07/11/2016	13:14	LB82512
	Antimony	4987.9	5000	99.8	90 - 110	P	07/11/2016	13:14	LB82512
	Arsenic	4966.7	5000	99.3	90 - 110	P	07/11/2016	13:14	LB82512
	Barium	10020	10000	100.2	90 - 110	P	07/11/2016	13:14	LB82512
	Beryllium	250.55	250	100.2	90 - 110	P	07/11/2016	13:14	LB82512
	Cadmium	2440	2500	97.6	90 - 110	P	07/11/2016	13:14	LB82512
	Calcium	25011	25000	100	90 - 110	P	07/11/2016	13:14	LB82512
	Chromium	953.72	1000	95.4	90 - 110	P	07/11/2016	13:14	LB82512
	Cobalt	2443.7	2500	97.7	90 - 110	P	07/11/2016	13:14	LB82512
	Copper	1250.7	1250	100.1	90 - 110	P	07/11/2016	13:14	LB82512
	Iron	4740.7	5000	94.8	90 - 110	P	07/11/2016	13:14	LB82512
	Lead	4870	5000	97.4	90 - 110	P	07/11/2016	13:14	LB82512
	Magnesium	24737	25000	98.9	90 - 110	P	07/11/2016	13:14	LB82512
	Manganese	2520.5	2500	100.8	90 - 110	P	07/11/2016	13:14	LB82512
	Nickel	2431	2500	97.2	90 - 110	P	07/11/2016	13:14	LB82512
	Potassium	25261	25000	101	90 - 110	P	07/11/2016	13:14	LB82512
	Selenium	5027.9	5000	100.6	90 - 110	P	07/11/2016	13:14	LB82512
	Silver	1237.3	1250	99	90 - 110	P	07/11/2016	13:14	LB82512
	Sodium	24865	25000	99.5	90 - 110	P	07/11/2016	13:14	LB82512
	Thallium	4908.6	5000	98.2	90 - 110	P	07/11/2016	13:14	LB82512
	Vanadium	2484.3	2500	99.4	90 - 110	P	07/11/2016	13:14	LB82512
	Zinc	2439.8	2500	97.6	90 - 110	P	07/11/2016	13:14	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV01	Aluminum	113.81	100	113.8	70 - 130	P	07/11/2016	13:18	LB82512
	Antimony	47.07	50.0	94.1	70 - 130	P	07/11/2016	13:18	LB82512
	Arsenic	19.7	20.0	98.5	70 - 130	P	07/11/2016	13:18	LB82512
	Barium	103.67	100	103.7	70 - 130	P	07/11/2016	13:18	LB82512
	Beryllium	5.94	6.0	99	70 - 130	P	07/11/2016	13:18	LB82512
	Cadmium	5.94	6.0	99	70 - 130	P	07/11/2016	13:18	LB82512
	Calcium	2059.7	2000	103	70 - 130	P	07/11/2016	13:18	LB82512
	Chromium	9.69	10.0	96.9	70 - 130	P	07/11/2016	13:18	LB82512
	Cobalt	28.33	30.0	94.4	70 - 130	P	07/11/2016	13:18	LB82512
	Copper	20.35	20.0	101.8	70 - 130	P	07/11/2016	13:18	LB82512
	Iron	119.51	100	119.5	70 - 130	P	07/11/2016	13:18	LB82512
	Lead	11.73	12.0	97.8	70 - 130	P	07/11/2016	13:18	LB82512
	Magnesium	2041.9	2000	102.1	70 - 130	P	07/11/2016	13:18	LB82512
	Manganese	20.89	20.0	104.5	70 - 130	P	07/11/2016	13:18	LB82512
	Nickel	38.36	40.0	95.9	70 - 130	P	07/11/2016	13:18	LB82512
	Potassium	2108.2	2000	105.4	70 - 130	P	07/11/2016	13:18	LB82512
	Selenium	20.61	20.0	103.1	70 - 130	P	07/11/2016	13:18	LB82512
	Silver	10.06	10.0	100.6	70 - 130	P	07/11/2016	13:18	LB82512
	Sodium	1984.5	2000	99.2	70 - 130	P	07/11/2016	13:18	LB82512
	Thallium	38.38	40.0	96	70 - 130	P	07/11/2016	13:18	LB82512
	Vanadium	39.5	40.0	98.8	70 - 130	P	07/11/2016	13:18	LB82512
	Zinc	43.31	40.0	108.3	70 - 130	P	07/11/2016	13:18	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV02	Aluminum	10228	10000	102.3	90 - 110	P	07/11/2016	14:14	LB82512
	Antimony	5116.3	5000	102.3	90 - 110	P	07/11/2016	14:14	LB82512
	Arsenic	5058.7	5000	101.2	90 - 110	P	07/11/2016	14:14	LB82512
	Barium	10132	10000	101.3	90 - 110	P	07/11/2016	14:14	LB82512
	Beryllium	250.26	250	100.1	90 - 110	P	07/11/2016	14:14	LB82512
	Cadmium	2445.1	2500	97.8	90 - 110	P	07/11/2016	14:14	LB82512
	Calcium	24868	25000	99.5	90 - 110	P	07/11/2016	14:14	LB82512
	Chromium	948.78	1000	94.9	90 - 110	P	07/11/2016	14:14	LB82512
	Cobalt	2463.1	2500	98.5	90 - 110	P	07/11/2016	14:14	LB82512
	Copper	1271.1	1250	101.7	90 - 110	P	07/11/2016	14:14	LB82512
	Iron	4764	5000	95.3	90 - 110	P	07/11/2016	14:14	LB82512
	Lead	4882.4	5000	97.6	90 - 110	P	07/11/2016	14:14	LB82512
	Magnesium	24214	25000	96.9	90 - 110	P	07/11/2016	14:14	LB82512
	Manganese	2492.8	2500	99.7	90 - 110	P	07/11/2016	14:14	LB82512
	Nickel	2454.1	2500	98.2	90 - 110	P	07/11/2016	14:14	LB82512
	Potassium	25315	25000	101.3	90 - 110	P	07/11/2016	14:14	LB82512
	Selenium	5181.5	5000	103.6	90 - 110	P	07/11/2016	14:14	LB82512
	Silver	1249.9	1250	100	90 - 110	P	07/11/2016	14:14	LB82512
	Sodium	25206	25000	100.8	90 - 110	P	07/11/2016	14:14	LB82512
	Thallium	4972	5000	99.4	90 - 110	P	07/11/2016	14:14	LB82512
	Vanadium	2490.3	2500	99.6	90 - 110	P	07/11/2016	14:14	LB82512
	Zinc	2363.2	2500	94.5	90 - 110	P	07/11/2016	14:14	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV02	Aluminum	111.12	100	111.1	70 - 130	P	07/11/2016	14:18	LB82512
	Antimony	47.82	50.0	95.6	70 - 130	P	07/11/2016	14:18	LB82512
	Arsenic	22.11	20.0	110.6	70 - 130	P	07/11/2016	14:18	LB82512
	Barium	101.98	100	102	70 - 130	P	07/11/2016	14:18	LB82512
	Beryllium	5.79	6.0	96.5	70 - 130	P	07/11/2016	14:18	LB82512
	Cadmium	5.72	6.0	95.3	70 - 130	P	07/11/2016	14:18	LB82512
	Calcium	2001.6	2000	100.1	70 - 130	P	07/11/2016	14:18	LB82512
	Chromium	9.55	10.0	95.5	70 - 130	P	07/11/2016	14:18	LB82512
	Cobalt	27.92	30.0	93.1	70 - 130	P	07/11/2016	14:18	LB82512
	Copper	20.56	20.0	102.8	70 - 130	P	07/11/2016	14:18	LB82512
	Iron	108.57	100	108.6	70 - 130	P	07/11/2016	14:18	LB82512
	Lead	10.71	12.0	89.3	70 - 130	P	07/11/2016	14:18	LB82512
	Magnesium	1971.9	2000	98.6	70 - 130	P	07/11/2016	14:18	LB82512
	Manganese	20.1	20.0	100.5	70 - 130	P	07/11/2016	14:18	LB82512
	Nickel	38.15	40.0	95.4	70 - 130	P	07/11/2016	14:18	LB82512
	Potassium	2119.3	2000	106	70 - 130	P	07/11/2016	14:18	LB82512
	Selenium	23.5	20.0	117.5	70 - 130	P	07/11/2016	14:18	LB82512
	Silver	10.23	10.0	102.3	70 - 130	P	07/11/2016	14:18	LB82512
	Sodium	2276.2	2000	113.8	70 - 130	P	07/11/2016	14:18	LB82512
	Thallium	37.53	40.0	93.8	70 - 130	P	07/11/2016	14:18	LB82512
	Vanadium	38.97	40.0	97.4	70 - 130	P	07/11/2016	14:18	LB82512
	Zinc	40.49	40.0	101.2	70 - 130	P	07/11/2016	14:18	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV03	Aluminum	9991.5	10000	99.9	90 - 110	P	07/11/2016	15:07	LB82512
	Antimony	5014.3	5000	100.3	90 - 110	P	07/11/2016	15:07	LB82512
	Arsenic	4986.7	5000	99.7	90 - 110	P	07/11/2016	15:07	LB82512
	Barium	9854.8	10000	98.5	90 - 110	P	07/11/2016	15:07	LB82512
	Beryllium	250.98	250	100.4	90 - 110	P	07/11/2016	15:07	LB82512
	Cadmium	2415.7	2500	96.6	90 - 110	P	07/11/2016	15:07	LB82512
	Calcium	24467	25000	97.9	90 - 110	P	07/11/2016	15:07	LB82512
	Chromium	946.11	1000	94.6	90 - 110	P	07/11/2016	15:07	LB82512
	Cobalt	2431.7	2500	97.3	90 - 110	P	07/11/2016	15:07	LB82512
	Copper	1247.8	1250	99.8	90 - 110	P	07/11/2016	15:07	LB82512
	Iron	4708.1	5000	94.2	90 - 110	P	07/11/2016	15:07	LB82512
	Lead	4851.2	5000	97	90 - 110	P	07/11/2016	15:07	LB82512
	Magnesium	23995	25000	96	90 - 110	P	07/11/2016	15:07	LB82512
	Manganese	2486.5	2500	99.5	90 - 110	P	07/11/2016	15:07	LB82512
	Nickel	2411	2500	96.4	90 - 110	P	07/11/2016	15:07	LB82512
	Potassium	24741	25000	99	90 - 110	P	07/11/2016	15:07	LB82512
	Selenium	5041.3	5000	100.8	90 - 110	P	07/11/2016	15:07	LB82512
	Silver	1240	1250	99.2	90 - 110	P	07/11/2016	15:07	LB82512
	Sodium	24566	25000	98.3	90 - 110	P	07/11/2016	15:07	LB82512
	Thallium	4904.8	5000	98.1	90 - 110	P	07/11/2016	15:07	LB82512
	Vanadium	2456.6	2500	98.3	90 - 110	P	07/11/2016	15:07	LB82512
	Zinc	2389.8	2500	95.6	90 - 110	P	07/11/2016	15:07	LB82512
CCV04	Aluminum	10071	10000	100.7	90 - 110	P	07/11/2016	15:57	LB82512
	Antimony	5046.1	5000	100.9	90 - 110	P	07/11/2016	15:57	LB82512
	Arsenic	5045.3	5000	100.9	90 - 110	P	07/11/2016	15:57	LB82512
	Barium	10139	10000	101.4	90 - 110	P	07/11/2016	15:57	LB82512
	Beryllium	256.05	250	102.4	90 - 110	P	07/11/2016	15:57	LB82512
	Cadmium	2476.3	2500	99.1	90 - 110	P	07/11/2016	15:57	LB82512
	Calcium	25664	25000	102.7	90 - 110	P	07/11/2016	15:57	LB82512
	Chromium	970.62	1000	97.1	90 - 110	P	07/11/2016	15:57	LB82512
	Cobalt	2478	2500	99.1	90 - 110	P	07/11/2016	15:57	LB82512
	Copper	1261.8	1250	100.9	90 - 110	P	07/11/2016	15:57	LB82512
	Iron	4910.5	5000	98.2	90 - 110	P	07/11/2016	15:57	LB82512
	Lead	4943.9	5000	98.9	90 - 110	P	07/11/2016	15:57	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Magnesium	25401	25000	101.6	90 - 110	P	07/11/2016	15:57	LB82512
	Manganese	2555	2500	102.2	90 - 110	P	07/11/2016	15:57	LB82512
	Nickel	2463.4	2500	98.5	90 - 110	P	07/11/2016	15:57	LB82512
	Potassium	25800	25000	103.2	90 - 110	P	07/11/2016	15:57	LB82512
	Selenium	5093.1	5000	101.9	90 - 110	P	07/11/2016	15:57	LB82512
	Silver	1258.3	1250	100.7	90 - 110	P	07/11/2016	15:57	LB82512
	Sodium	25555	25000	102.2	90 - 110	P	07/11/2016	15:57	LB82512
	Thallium	4977.6	5000	99.6	90 - 110	P	07/11/2016	15:57	LB82512
	Vanadium	2524.2	2500	101	90 - 110	P	07/11/2016	15:57	LB82512
	Zinc	2505.1	2500	100.2	90 - 110	P	07/11/2016	15:57	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV03	Aluminum	116.88	100	116.9	70 - 130	P	07/11/2016	16:01	LB82512
	Antimony	50	50.0	100	70 - 130	P	07/11/2016	16:01	LB82512
	Arsenic	23.34	20.0	116.7	70 - 130	P	07/11/2016	16:01	LB82512
	Barium	104.21	100	104.2	70 - 130	P	07/11/2016	16:01	LB82512
	Beryllium	6.07	6.0	101.2	70 - 130	P	07/11/2016	16:01	LB82512
	Cadmium	5.86	6.0	97.7	70 - 130	P	07/11/2016	16:01	LB82512
	Calcium	2089.8	2000	104.5	70 - 130	P	07/11/2016	16:01	LB82512
	Chromium	9.92	10.0	99.2	70 - 130	P	07/11/2016	16:01	LB82512
	Cobalt	28.76	30.0	95.9	70 - 130	P	07/11/2016	16:01	LB82512
	Copper	20.96	20.0	104.8	70 - 130	P	07/11/2016	16:01	LB82512
	Iron	116.15	100	116.2	70 - 130	P	07/11/2016	16:01	LB82512
	Lead	10.59	12.0	88.3	70 - 130	P	07/11/2016	16:01	LB82512
	Magnesium	2060.5	2000	103	70 - 130	P	07/11/2016	16:01	LB82512
	Manganese	20.99	20.0	105	70 - 130	P	07/11/2016	16:01	LB82512
	Nickel	38.34	40.0	95.9	70 - 130	P	07/11/2016	16:01	LB82512
	Potassium	2116.1	2000	105.8	70 - 130	P	07/11/2016	16:01	LB82512
	Selenium	22.28	20.0	111.4	70 - 130	P	07/11/2016	16:01	LB82512
	Silver	10.13	10.0	101.3	70 - 130	P	07/11/2016	16:01	LB82512
	Sodium	2092.6	2000	104.6	70 - 130	P	07/11/2016	16:01	LB82512
	Thallium	36.84	40.0	92.1	70 - 130	P	07/11/2016	16:01	LB82512
	Vanadium	40.08	40.0	100.2	70 - 130	P	07/11/2016	16:01	LB82512
	Zinc	44.83	40.0	112.1	70 - 130	P	07/11/2016	16:01	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Aluminum	9775.7	10000	97.8	90 - 110	P	07/11/2016	16:54	LB82512
	Antimony	4979.1	5000	99.6	90 - 110	P	07/11/2016	16:54	LB82512
	Arsenic	4962.4	5000	99.2	90 - 110	P	07/11/2016	16:54	LB82512
	Barium	10060	10000	100.6	90 - 110	P	07/11/2016	16:54	LB82512
	Beryllium	251.46	250	100.6	90 - 110	P	07/11/2016	16:54	LB82512
	Cadmium	2429.7	2500	97.2	90 - 110	P	07/11/2016	16:54	LB82512
	Calcium	24775	25000	99.1	90 - 110	P	07/11/2016	16:54	LB82512
	Chromium	947.94	1000	94.8	90 - 110	P	07/11/2016	16:54	LB82512
	Cobalt	2437	2500	97.5	90 - 110	P	07/11/2016	16:54	LB82512
	Copper	1240.1	1250	99.2	90 - 110	P	07/11/2016	16:54	LB82512
	Iron	4689	5000	93.8	90 - 110	P	07/11/2016	16:54	LB82512
	Lead	4859.6	5000	97.2	90 - 110	P	07/11/2016	16:54	LB82512
	Magnesium	24464	25000	97.9	90 - 110	P	07/11/2016	16:54	LB82512
	Manganese	2507.7	2500	100.3	90 - 110	P	07/11/2016	16:54	LB82512
	Nickel	2409.7	2500	96.4	90 - 110	P	07/11/2016	16:54	LB82512
	Potassium	25163	25000	100.7	90 - 110	P	07/11/2016	16:54	LB82512
	Selenium	5018.6	5000	100.4	90 - 110	P	07/11/2016	16:54	LB82512
	Silver	1232.7	1250	98.6	90 - 110	P	07/11/2016	16:54	LB82512
	Sodium	24650	25000	98.6	90 - 110	P	07/11/2016	16:54	LB82512
	Thallium	4877.9	5000	97.6	90 - 110	P	07/11/2016	16:54	LB82512
	Vanadium	2455.6	2500	98.2	90 - 110	P	07/11/2016	16:54	LB82512
	Zinc	2414.1	2500	96.6	90 - 110	P	07/11/2016	16:54	LB82512
CCV06	Aluminum	9753.6	10000	97.5	90 - 110	P	07/11/2016	17:45	LB82512
	Antimony	4976.6	5000	99.5	90 - 110	P	07/11/2016	17:45	LB82512
	Arsenic	4951.5	5000	99	90 - 110	P	07/11/2016	17:45	LB82512
	Barium	10069	10000	100.7	90 - 110	P	07/11/2016	17:45	LB82512
	Beryllium	249.44	250	99.8	90 - 110	P	07/11/2016	17:45	LB82512
	Cadmium	2433.3	2500	97.3	90 - 110	P	07/11/2016	17:45	LB82512
	Calcium	24815	25000	99.3	90 - 110	P	07/11/2016	17:45	LB82512
	Chromium	948.32	1000	94.8	90 - 110	P	07/11/2016	17:45	LB82512
	Cobalt	2444.1	2500	97.8	90 - 110	P	07/11/2016	17:45	LB82512
	Copper	1245.4	1250	99.6	90 - 110	P	07/11/2016	17:45	LB82512
	Iron	4788.3	5000	95.8	90 - 110	P	07/11/2016	17:45	LB82512
	Lead	4871.4	5000	97.4	90 - 110	P	07/11/2016	17:45	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV06	Magnesium	24462	25000	97.8	90 - 110	P	07/11/2016	17:45	LB82512
	Manganese	2504.4	2500	100.2	90 - 110	P	07/11/2016	17:45	LB82512
	Nickel	2421	2500	96.8	90 - 110	P	07/11/2016	17:45	LB82512
	Potassium	25160	25000	100.6	90 - 110	P	07/11/2016	17:45	LB82512
	Selenium	5015.7	5000	100.3	90 - 110	P	07/11/2016	17:45	LB82512
	Silver	1232.5	1250	98.6	90 - 110	P	07/11/2016	17:45	LB82512
	Sodium	24673	25000	98.7	90 - 110	P	07/11/2016	17:45	LB82512
	Thallium	4903.8	5000	98.1	90 - 110	P	07/11/2016	17:45	LB82512
	Vanadium	2458.2	2500	98.3	90 - 110	P	07/11/2016	17:45	LB82512
	Zinc	2466.4	2500	98.7	90 - 110	P	07/11/2016	17:45	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV04	Aluminum	115.1	100	115.1	70 - 130	P	07/11/2016	17:49	LB82512
	Antimony	48.49	50.0	97	70 - 130	P	07/11/2016	17:49	LB82512
	Arsenic	21.48	20.0	107.4	70 - 130	P	07/11/2016	17:49	LB82512
	Barium	104.07	100	104.1	70 - 130	P	07/11/2016	17:49	LB82512
	Beryllium	5.88	6.0	98	70 - 130	P	07/11/2016	17:49	LB82512
	Cadmium	5.95	6.0	99.2	70 - 130	P	07/11/2016	17:49	LB82512
	Calcium	2093.6	2000	104.7	70 - 130	P	07/11/2016	17:49	LB82512
	Chromium	10.18	10.0	101.8	70 - 130	P	07/11/2016	17:49	LB82512
	Cobalt	28.47	30.0	94.9	70 - 130	P	07/11/2016	17:49	LB82512
	Copper	20.78	20.0	103.9	70 - 130	P	07/11/2016	17:49	LB82512
	Iron	121.62	100	121.6	70 - 130	P	07/11/2016	17:49	LB82512
	Lead	13.57	12.0	113.1	70 - 130	P	07/11/2016	17:49	LB82512
	Magnesium	2056.2	2000	102.8	70 - 130	P	07/11/2016	17:49	LB82512
	Manganese	20.79	20.0	104	70 - 130	P	07/11/2016	17:49	LB82512
	Nickel	38.31	40.0	95.8	70 - 130	P	07/11/2016	17:49	LB82512
	Potassium	2120.1	2000	106	70 - 130	P	07/11/2016	17:49	LB82512
	Selenium	24.61	20.0	123.1	70 - 130	P	07/11/2016	17:49	LB82512
	Silver	10.53	10.0	105.3	70 - 130	P	07/11/2016	17:49	LB82512
	Sodium	2066.2	2000	103.3	70 - 130	P	07/11/2016	17:49	LB82512
	Thallium	36.84	40.0	92.1	70 - 130	P	07/11/2016	17:49	LB82512
	Vanadium	39.78	40.0	99.5	70 - 130	P	07/11/2016	17:49	LB82512
	Zinc	43.86	40.0	109.7	70 - 130	P	07/11/2016	17:49	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Aluminum	9829.8	10000	98.3	90 - 110	P	07/11/2016	18:38	LB82512
	Antimony	4979.5	5000	99.6	90 - 110	P	07/11/2016	18:38	LB82512
	Arsenic	4963.1	5000	99.3	90 - 110	P	07/11/2016	18:38	LB82512
	Barium	10084	10000	100.8	90 - 110	P	07/11/2016	18:38	LB82512
	Beryllium	249.02	250	99.6	90 - 110	P	07/11/2016	18:38	LB82512
	Cadmium	2427.7	2500	97.1	90 - 110	P	07/11/2016	18:38	LB82512
	Calcium	24756	25000	99	90 - 110	P	07/11/2016	18:38	LB82512
	Chromium	943.08	1000	94.3	90 - 110	P	07/11/2016	18:38	LB82512
	Cobalt	2440	2500	97.6	90 - 110	P	07/11/2016	18:38	LB82512
	Copper	1241.5	1250	99.3	90 - 110	P	07/11/2016	18:38	LB82512
	Iron	4765.8	5000	95.3	90 - 110	P	07/11/2016	18:38	LB82512
	Lead	4850.2	5000	97	90 - 110	P	07/11/2016	18:38	LB82512
	Magnesium	24381	25000	97.5	90 - 110	P	07/11/2016	18:38	LB82512
	Manganese	2510.7	2500	100.4	90 - 110	P	07/11/2016	18:38	LB82512
	Nickel	2413	2500	96.5	90 - 110	P	07/11/2016	18:38	LB82512
	Potassium	25138	25000	100.6	90 - 110	P	07/11/2016	18:38	LB82512
	Selenium	5016.1	5000	100.3	90 - 110	P	07/11/2016	18:38	LB82512
	Silver	1228.6	1250	98.3	90 - 110	P	07/11/2016	18:38	LB82512
	Sodium	24720	25000	98.9	90 - 110	P	07/11/2016	18:38	LB82512
	Thallium	4875.3	5000	97.5	90 - 110	P	07/11/2016	18:38	LB82512
	Vanadium	2455.2	2500	98.2	90 - 110	P	07/11/2016	18:38	LB82512
	Zinc	2448.5	2500	97.9	90 - 110	P	07/11/2016	18:38	LB82512
CCV08	Aluminum	9701.2	10000	97	90 - 110	P	07/11/2016	19:28	LB82512
	Antimony	4997.2	5000	99.9	90 - 110	P	07/11/2016	19:28	LB82512
	Arsenic	4983	5000	99.7	90 - 110	P	07/11/2016	19:28	LB82512
	Barium	10062	10000	100.6	90 - 110	P	07/11/2016	19:28	LB82512
	Beryllium	251.11	250	100.4	90 - 110	P	07/11/2016	19:28	LB82512
	Cadmium	2448	2500	97.9	90 - 110	P	07/11/2016	19:28	LB82512
	Calcium	24908	25000	99.6	90 - 110	P	07/11/2016	19:28	LB82512
	Chromium	951.05	1000	95.1	90 - 110	P	07/11/2016	19:28	LB82512
	Cobalt	2456.5	2500	98.3	90 - 110	P	07/11/2016	19:28	LB82512
	Copper	1244.3	1250	99.5	90 - 110	P	07/11/2016	19:28	LB82512
	Iron	4712.4	5000	94.2	90 - 110	P	07/11/2016	19:28	LB82512
	Lead	4905.3	5000	98.1	90 - 110	P	07/11/2016	19:28	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV08	Magnesium	24573	25000	98.3	90 - 110	P	07/11/2016	19:28	LB82512
	Manganese	2519.2	2500	100.8	90 - 110	P	07/11/2016	19:28	LB82512
	Nickel	2427.1	2500	97.1	90 - 110	P	07/11/2016	19:28	LB82512
	Potassium	25184	25000	100.7	90 - 110	P	07/11/2016	19:28	LB82512
	Selenium	5019.6	5000	100.4	90 - 110	P	07/11/2016	19:28	LB82512
	Silver	1233.3	1250	98.7	90 - 110	P	07/11/2016	19:28	LB82512
	Sodium	24717	25000	98.9	90 - 110	P	07/11/2016	19:28	LB82512
	Thallium	4906.3	5000	98.1	90 - 110	P	07/11/2016	19:28	LB82512
	Vanadium	2456.5	2500	98.3	90 - 110	P	07/11/2016	19:28	LB82512
	Zinc	2451.9	2500	98.1	90 - 110	P	07/11/2016	19:28	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV05	Aluminum	112.97	100	113	70 - 130	P	07/11/2016	19:32	LB82512
	Antimony	44.96	50.0	89.9	70 - 130	P	07/11/2016	19:32	LB82512
	Arsenic	21.96	20.0	109.8	70 - 130	P	07/11/2016	19:32	LB82512
	Barium	103.68	100	103.7	70 - 130	P	07/11/2016	19:32	LB82512
	Beryllium	5.89	6.0	98.2	70 - 130	P	07/11/2016	19:32	LB82512
	Cadmium	5.85	6.0	97.5	70 - 130	P	07/11/2016	19:32	LB82512
	Calcium	2058.4	2000	102.9	70 - 130	P	07/11/2016	19:32	LB82512
	Chromium	9.6	10.0	96	70 - 130	P	07/11/2016	19:32	LB82512
	Cobalt	28.23	30.0	94.1	70 - 130	P	07/11/2016	19:32	LB82512
	Copper	20.68	20.0	103.4	70 - 130	P	07/11/2016	19:32	LB82512
	Iron	109.19	100	109.2	70 - 130	P	07/11/2016	19:32	LB82512
	Lead	11.96	12.0	99.7	70 - 130	P	07/11/2016	19:32	LB82512
	Magnesium	2023.6	2000	101.2	70 - 130	P	07/11/2016	19:32	LB82512
	Manganese	20.82	20.0	104.1	70 - 130	P	07/11/2016	19:32	LB82512
	Nickel	38.41	40.0	96	70 - 130	P	07/11/2016	19:32	LB82512
	Potassium	2103.4	2000	105.2	70 - 130	P	07/11/2016	19:32	LB82512
	Selenium	20.27	20.0	101.4	70 - 130	P	07/11/2016	19:32	LB82512
	Silver	9.93	10.0	99.3	70 - 130	P	07/11/2016	19:32	LB82512
	Sodium	2050.1	2000	102.5	70 - 130	P	07/11/2016	19:32	LB82512
	Thallium	35.46	40.0	88.7	70 - 130	P	07/11/2016	19:32	LB82512
	Vanadium	39.5	40.0	98.8	70 - 130	P	07/11/2016	19:32	LB82512
	Zinc	44.04	40.0	110.1	70 - 130	P	07/11/2016	19:32	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV09	Aluminum	9313.5	10000	93.1	90 - 110	P	07/11/2016	20:23	LB82512
	Antimony	4791.9	5000	95.8	90 - 110	P	07/11/2016	20:23	LB82512
	Arsenic	4795.2	5000	95.9	90 - 110	P	07/11/2016	20:23	LB82512
	Barium	9795.3	10000	98	90 - 110	P	07/11/2016	20:23	LB82512
	Beryllium	245.22	250	98.1	90 - 110	P	07/11/2016	20:23	LB82512
	Cadmium	2378.5	2500	95.1	90 - 110	P	07/11/2016	20:23	LB82512
	Calcium	24503	25000	98	90 - 110	P	07/11/2016	20:23	LB82512
	Chromium	930.3	1000	93	90 - 110	P	07/11/2016	20:23	LB82512
	Cobalt	2368.9	2500	94.8	90 - 110	P	07/11/2016	20:23	LB82512
	Copper	1206.8	1250	96.5	90 - 110	P	07/11/2016	20:23	LB82512
	Iron	4656.8	5000	93.1	90 - 110	P	07/11/2016	20:23	LB82512
	Lead	4718.1	5000	94.4	90 - 110	P	07/11/2016	20:23	LB82512
	Magnesium	24166	25000	96.7	90 - 110	P	07/11/2016	20:23	LB82512
	Manganese	2469.3	2500	98.8	90 - 110	P	07/11/2016	20:23	LB82512
	Nickel	2368.8	2500	94.8	90 - 110	P	07/11/2016	20:23	LB82512
	Potassium	24667	25000	98.7	90 - 110	P	07/11/2016	20:23	LB82512
	Selenium	4859.4	5000	97.2	90 - 110	P	07/11/2016	20:23	LB82512
	Silver	1197.5	1250	95.8	90 - 110	P	07/11/2016	20:23	LB82512
	Sodium	24188	25000	96.8	90 - 110	P	07/11/2016	20:23	LB82512
	Thallium	4769.5	5000	95.4	90 - 110	P	07/11/2016	20:23	LB82512
	Vanadium	2427.6	2500	97.1	90 - 110	P	07/11/2016	20:23	LB82512
	Zinc	2429.8	2500	97.2	90 - 110	P	07/11/2016	20:23	LB82512
CCV10	Aluminum	9436.2	10000	94.4	90 - 110	P	07/11/2016	21:12	LB82512
	Antimony	4814.8	5000	96.3	90 - 110	P	07/11/2016	21:12	LB82512
	Arsenic	4818.7	5000	96.4	90 - 110	P	07/11/2016	21:12	LB82512
	Barium	9831.5	10000	98.3	90 - 110	P	07/11/2016	21:12	LB82512
	Beryllium	244.08	250	97.6	90 - 110	P	07/11/2016	21:12	LB82512
	Cadmium	2388.3	2500	95.5	90 - 110	P	07/11/2016	21:12	LB82512
	Calcium	24412	25000	97.6	90 - 110	P	07/11/2016	21:12	LB82512
	Chromium	970.89	1000	97.1	90 - 110	P	07/11/2016	21:12	LB82512
	Cobalt	2379.4	2500	95.2	90 - 110	P	07/11/2016	21:12	LB82512
	Copper	1216.5	1250	97.3	90 - 110	P	07/11/2016	21:12	LB82512
	Iron	4820.8	5000	96.4	90 - 110	P	07/11/2016	21:12	LB82512
	Lead	4732.5	5000	94.7	90 - 110	P	07/11/2016	21:12	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV10	Magnesium	24006	25000	96	90 - 110	P	07/11/2016	21:12	LB82512
	Manganese	2461.1	2500	98.4	90 - 110	P	07/11/2016	21:12	LB82512
	Nickel	2405.7	2500	96.2	90 - 110	P	07/11/2016	21:12	LB82512
	Potassium	24589	25000	98.4	90 - 110	P	07/11/2016	21:12	LB82512
	Selenium	4898.4	5000	98	90 - 110	P	07/11/2016	21:12	LB82512
	Silver	1206.9	1250	96.6	90 - 110	P	07/11/2016	21:12	LB82512
	Sodium	24286	25000	97.1	90 - 110	P	07/11/2016	21:12	LB82512
	Thallium	4800.1	5000	96	90 - 110	P	07/11/2016	21:12	LB82512
	Vanadium	2430.7	2500	97.2	90 - 110	P	07/11/2016	21:12	LB82512
	Zinc	2431.7	2500	97.3	90 - 110	P	07/11/2016	21:12	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV06	Aluminum	108.85	100	108.9	70 - 130	P	07/11/2016	21:16	LB82512
	Antimony	44.27	50.0	88.5	70 - 130	P	07/11/2016	21:16	LB82512
	Arsenic	21.71	20.0	108.6	70 - 130	P	07/11/2016	21:16	LB82512
	Barium	101.94	100	101.9	70 - 130	P	07/11/2016	21:16	LB82512
	Beryllium	5.78	6.0	96.3	70 - 130	P	07/11/2016	21:16	LB82512
	Cadmium	5.72	6.0	95.3	70 - 130	P	07/11/2016	21:16	LB82512
	Calcium	2012.6	2000	100.6	70 - 130	P	07/11/2016	21:16	LB82512
	Chromium	9.77	10.0	97.7	70 - 130	P	07/11/2016	21:16	LB82512
	Cobalt	27.79	30.0	92.6	70 - 130	P	07/11/2016	21:16	LB82512
	Copper	19.97	20.0	99.9	70 - 130	P	07/11/2016	21:16	LB82512
	Iron	93.15	100	93.2	70 - 130	P	07/11/2016	21:16	LB82512
	Lead	11.84	12.0	98.7	70 - 130	P	07/11/2016	21:16	LB82512
	Magnesium	2001.9	2000	100.1	70 - 130	P	07/11/2016	21:16	LB82512
	Manganese	20.07	20.0	100.4	70 - 130	P	07/11/2016	21:16	LB82512
	Nickel	37.59	40.0	94	70 - 130	P	07/11/2016	21:16	LB82512
	Potassium	2021.1	2000	101.1	70 - 130	P	07/11/2016	21:16	LB82512
	Selenium	20.91	20.0	104.6	70 - 130	P	07/11/2016	21:16	LB82512
	Silver	10.53	10.0	105.3	70 - 130	P	07/11/2016	21:16	LB82512
	Sodium	1966.1	2000	98.3	70 - 130	P	07/11/2016	21:16	LB82512
	Thallium	36.2	40.0	90.5	70 - 130	P	07/11/2016	21:16	LB82512
	Vanadium	38.26	40.0	95.7	70 - 130	P	07/11/2016	21:16	LB82512
	Zinc	40.61	40.0	101.5	70 - 130	P	07/11/2016	21:16	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV11	Aluminum	9344.9	10000	93.4	90 - 110	P	07/11/2016	22:05	LB82512
	Antimony	4834.7	5000	96.7	90 - 110	P	07/11/2016	22:05	LB82512
	Arsenic	4837.7	5000	96.8	90 - 110	P	07/11/2016	22:05	LB82512
	Barium	9875.3	10000	98.8	90 - 110	P	07/11/2016	22:05	LB82512
	Beryllium	242.51	250	97	90 - 110	P	07/11/2016	22:05	LB82512
	Cadmium	2401.8	2500	96.1	90 - 110	P	07/11/2016	22:05	LB82512
	Calcium	24475	25000	97.9	90 - 110	P	07/11/2016	22:05	LB82512
	Chromium	967.45	1000	96.7	90 - 110	P	07/11/2016	22:05	LB82512
	Cobalt	2389.9	2500	95.6	90 - 110	P	07/11/2016	22:05	LB82512
	Copper	1223.8	1250	97.9	90 - 110	P	07/11/2016	22:05	LB82512
	Iron	4821.4	5000	96.4	90 - 110	P	07/11/2016	22:05	LB82512
	Lead	4755.6	5000	95.1	90 - 110	P	07/11/2016	22:05	LB82512
	Magnesium	24119	25000	96.5	90 - 110	P	07/11/2016	22:05	LB82512
	Manganese	2441.8	2500	97.7	90 - 110	P	07/11/2016	22:05	LB82512
	Nickel	2419.1	2500	96.8	90 - 110	P	07/11/2016	22:05	LB82512
	Potassium	24722	25000	98.9	90 - 110	P	07/11/2016	22:05	LB82512
	Selenium	4910.6	5000	98.2	90 - 110	P	07/11/2016	22:05	LB82512
	Silver	1195.5	1250	95.6	90 - 110	P	07/11/2016	22:05	LB82512
	Sodium	24408	25000	97.6	90 - 110	P	07/11/2016	22:05	LB82512
	Thallium	4817.4	5000	96.3	90 - 110	P	07/11/2016	22:05	LB82512
	Vanadium	2419.9	2500	96.8	90 - 110	P	07/11/2016	22:05	LB82512
	Zinc	2452.5	2500	98.1	90 - 110	P	07/11/2016	22:05	LB82512
CCV12	Aluminum	9443.6	10000	94.4	90 - 110	P	07/11/2016	22:54	LB82512
	Antimony	4834.8	5000	96.7	90 - 110	P	07/11/2016	22:54	LB82512
	Arsenic	4839.8	5000	96.8	90 - 110	P	07/11/2016	22:54	LB82512
	Barium	9909.9	10000	99.1	90 - 110	P	07/11/2016	22:54	LB82512
	Beryllium	246.03	250	98.4	90 - 110	P	07/11/2016	22:54	LB82512
	Cadmium	2404.7	2500	96.2	90 - 110	P	07/11/2016	22:54	LB82512
	Calcium	24614	25000	98.5	90 - 110	P	07/11/2016	22:54	LB82512
	Chromium	978.6	1000	97.9	90 - 110	P	07/11/2016	22:54	LB82512
	Cobalt	2391.5	2500	95.7	90 - 110	P	07/11/2016	22:54	LB82512
	Copper	1222	1250	97.8	90 - 110	P	07/11/2016	22:54	LB82512
	Iron	4798.9	5000	96	90 - 110	P	07/11/2016	22:54	LB82512
	Lead	4756.3	5000	95.1	90 - 110	P	07/11/2016	22:54	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV12	Magnesium	24312	25000	97.2	90 - 110	P	07/11/2016	22:54	LB82512
	Manganese	2479.3	2500	99.2	90 - 110	P	07/11/2016	22:54	LB82512
	Nickel	2419.5	2500	96.8	90 - 110	P	07/11/2016	22:54	LB82512
	Potassium	24892	25000	99.6	90 - 110	P	07/11/2016	22:54	LB82512
	Selenium	4912	5000	98.2	90 - 110	P	07/11/2016	22:54	LB82512
	Silver	1207.4	1250	96.6	90 - 110	P	07/11/2016	22:54	LB82512
	Sodium	24452	25000	97.8	90 - 110	P	07/11/2016	22:54	LB82512
	Thallium	4821.7	5000	96.4	90 - 110	P	07/11/2016	22:54	LB82512
	Vanadium	2447.6	2500	97.9	90 - 110	P	07/11/2016	22:54	LB82512
	Zinc	2410.5	2500	96.4	90 - 110	P	07/11/2016	22:54	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV07	Aluminum	100.7	100	100.7	70 - 130	P	07/11/2016	22:58	LB82512
	Antimony	45.24	50.0	90.5	70 - 130	P	07/11/2016	22:58	LB82512
	Arsenic	23.52	20.0	117.6	70 - 130	P	07/11/2016	22:58	LB82512
	Barium	103.18	100	103.2	70 - 130	P	07/11/2016	22:58	LB82512
	Beryllium	5.82	6.0	97	70 - 130	P	07/11/2016	22:58	LB82512
	Cadmium	5.72	6.0	95.3	70 - 130	P	07/11/2016	22:58	LB82512
	Calcium	2025.7	2000	101.3	70 - 130	P	07/11/2016	22:58	LB82512
	Chromium	9.45	10.0	94.5	70 - 130	P	07/11/2016	22:58	LB82512
	Cobalt	27.88	30.0	92.9	70 - 130	P	07/11/2016	22:58	LB82512
	Copper	20.24	20.0	101.2	70 - 130	P	07/11/2016	22:58	LB82512
	Iron	102.01	100	102	70 - 130	P	07/11/2016	22:58	LB82512
	Lead	13.03	12.0	108.6	70 - 130	P	07/11/2016	22:58	LB82512
	Magnesium	2046.6	2000	102.3	70 - 130	P	07/11/2016	22:58	LB82512
	Manganese	20.44	20.0	102.2	70 - 130	P	07/11/2016	22:58	LB82512
	Nickel	38.35	40.0	95.9	70 - 130	P	07/11/2016	22:58	LB82512
	Potassium	2083.7	2000	104.2	70 - 130	P	07/11/2016	22:58	LB82512
	Selenium	21.07	20.0	105.4	70 - 130	P	07/11/2016	22:58	LB82512
	Silver	10.44	10.0	104.4	70 - 130	P	07/11/2016	22:58	LB82512
	Sodium	1961.7	2000	98.1	70 - 130	P	07/11/2016	22:58	LB82512
	Thallium	37.9	40.0	94.8	70 - 130	P	07/11/2016	22:58	LB82512
	Vanadium	39.6	40.0	99	70 - 130	P	07/11/2016	22:58	LB82512
	Zinc	41.28	40.0	103.2	70 - 130	P	07/11/2016	22:58	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV13	Aluminum	9495.2	10000	95	90 - 110	P	07/11/2016	23:48	LB82512
	Antimony	4848.2	5000	97	90 - 110	P	07/11/2016	23:48	LB82512
	Arsenic	4825.8	5000	96.5	90 - 110	P	07/11/2016	23:48	LB82512
	Barium	9861.8	10000	98.6	90 - 110	P	07/11/2016	23:48	LB82512
	Beryllium	244.56	250	97.8	90 - 110	P	07/11/2016	23:48	LB82512
	Cadmium	2390.4	2500	95.6	90 - 110	P	07/11/2016	23:48	LB82512
	Calcium	24387	25000	97.5	90 - 110	P	07/11/2016	23:48	LB82512
	Chromium	973.02	1000	97.3	90 - 110	P	07/11/2016	23:48	LB82512
	Cobalt	2388.4	2500	95.5	90 - 110	P	07/11/2016	23:48	LB82512
	Copper	1218.9	1250	97.5	90 - 110	P	07/11/2016	23:48	LB82512
	Iron	4806.7	5000	96.1	90 - 110	P	07/11/2016	23:48	LB82512
	Lead	4759.1	5000	95.2	90 - 110	P	07/11/2016	23:48	LB82512
	Magnesium	23954	25000	95.8	90 - 110	P	07/11/2016	23:48	LB82512
	Manganese	2455.3	2500	98.2	90 - 110	P	07/11/2016	23:48	LB82512
	Nickel	2408.5	2500	96.3	90 - 110	P	07/11/2016	23:48	LB82512
	Potassium	24637	25000	98.5	90 - 110	P	07/11/2016	23:48	LB82512
	Selenium	4907.9	5000	98.2	90 - 110	P	07/11/2016	23:48	LB82512
	Silver	1205	1250	96.4	90 - 110	P	07/11/2016	23:48	LB82512
	Sodium	24274	25000	97.1	90 - 110	P	07/11/2016	23:48	LB82512
	Thallium	4801	5000	96	90 - 110	P	07/11/2016	23:48	LB82512
	Vanadium	2422.5	2500	96.9	90 - 110	P	07/11/2016	23:48	LB82512
	Zinc	2409.3	2500	96.4	90 - 110	P	07/11/2016	23:48	LB82512
CCV14	Aluminum	9443.4	10000	94.4	90 - 110	P	07/12/2016	00:33	LB82512
	Antimony	4826	5000	96.5	90 - 110	P	07/12/2016	00:33	LB82512
	Arsenic	4830.9	5000	96.6	90 - 110	P	07/12/2016	00:33	LB82512
	Barium	10200	10000	102	90 - 110	P	07/12/2016	00:33	LB82512
	Beryllium	244.38	250	97.8	90 - 110	P	07/12/2016	00:33	LB82512
	Cadmium	2380.8	2500	95.2	90 - 110	P	07/12/2016	00:33	LB82512
	Calcium	25304	25000	101.2	90 - 110	P	07/12/2016	00:33	LB82512
	Chromium	970.72	1000	97.1	90 - 110	P	07/12/2016	00:33	LB82512
	Cobalt	2381.7	2500	95.3	90 - 110	P	07/12/2016	00:33	LB82512
	Copper	1212	1250	97	90 - 110	P	07/12/2016	00:33	LB82512
	Iron	4987	5000	99.7	90 - 110	P	07/12/2016	00:33	LB82512
	Lead	4737.4	5000	94.7	90 - 110	P	07/12/2016	00:33	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV14	Magnesium	24855	25000	99.4	90 - 110	P	07/12/2016	00:33	LB82512
	Manganese	2448.4	2500	97.9	90 - 110	P	07/12/2016	00:33	LB82512
	Nickel	2395.7	2500	95.8	90 - 110	P	07/12/2016	00:33	LB82512
	Potassium	25436	25000	101.7	90 - 110	P	07/12/2016	00:33	LB82512
	Selenium	4881.6	5000	97.6	90 - 110	P	07/12/2016	00:33	LB82512
	Silver	1199.8	1250	96	90 - 110	P	07/12/2016	00:33	LB82512
	Sodium	25099	25000	100.4	90 - 110	P	07/12/2016	00:33	LB82512
	Thallium	4795.3	5000	95.9	90 - 110	P	07/12/2016	00:33	LB82512
	Vanadium	2414	2500	96.6	90 - 110	P	07/12/2016	00:33	LB82512
	Zinc	2499.6	2500	100	90 - 110	P	07/12/2016	00:33	LB82512

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLCCV08	Aluminum	113.3	100	113.3	70 - 130	P	07/12/2016	00:37	LB82512
	Antimony	47.29	50.0	94.6	70 - 130	P	07/12/2016	00:37	LB82512
	Arsenic	23.17	20.0	115.9	70 - 130	P	07/12/2016	00:37	LB82512
	Barium	104.83	100	104.8	70 - 130	P	07/12/2016	00:37	LB82512
	Beryllium	5.96	6.0	99.3	70 - 130	P	07/12/2016	00:37	LB82512
	Cadmium	5.74	6.0	95.7	70 - 130	P	07/12/2016	00:37	LB82512
	Calcium	2072.1	2000	103.6	70 - 130	P	07/12/2016	00:37	LB82512
	Chromium	9.34	10.0	93.4	70 - 130	P	07/12/2016	00:37	LB82512
	Cobalt	28.52	30.0	95.1	70 - 130	P	07/12/2016	00:37	LB82512
	Copper	20	20.0	100	70 - 130	P	07/12/2016	00:37	LB82512
	Iron	116.16	100	116.2	70 - 130	P	07/12/2016	00:37	LB82512
	Lead	11.13	12.0	92.8	70 - 130	P	07/12/2016	00:37	LB82512
	Magnesium	2012.3	2000	100.6	70 - 130	P	07/12/2016	00:37	LB82512
	Manganese	20.44	20.0	102.2	70 - 130	P	07/12/2016	00:37	LB82512
	Nickel	38.86	40.0	97.2	70 - 130	P	07/12/2016	00:37	LB82512
	Potassium	2114	2000	105.7	70 - 130	P	07/12/2016	00:37	LB82512
	Selenium	17.28	20.0	86.4	70 - 130	P	07/12/2016	00:37	LB82512
	Silver	9.87	10.0	98.7	70 - 130	P	07/12/2016	00:37	LB82512
	Sodium	1995.9	2000	99.8	70 - 130	P	07/12/2016	00:37	LB82512
	Thallium	38.75	40.0	96.9	70 - 130	P	07/12/2016	00:37	LB82512
	Vanadium	39.28	40.0	98.2	70 - 130	P	07/12/2016	00:37	LB82512
	Zinc	41.39	40.0	103.5	70 - 130	P	07/12/2016	00:37	LB82512

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Metals

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CRDL STANDARD FOR AA & ICP

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Aluminum	104.27	100	104.3	40 - 160	P	07/08/2016	14:24	LB82471
	Antimony	47.53	50.0	95.1	40 - 160	P	07/08/2016	14:24	LB82471
	Arsenic	20.4	20.0	102	40 - 160	P	07/08/2016	14:24	LB82471
	Barium	100.68	100	100.7	40 - 160	P	07/08/2016	14:24	LB82471
	Beryllium	5.79	6.0	96.5	40 - 160	P	07/08/2016	14:24	LB82471
	Cadmium	5.79	6.0	96.5	40 - 160	P	07/08/2016	14:24	LB82471
	Calcium	2014	2000	100.7	40 - 160	P	07/08/2016	14:24	LB82471
	Chromium	10.08	10.0	100.8	40 - 160	P	07/08/2016	14:24	LB82471
	Cobalt	28.42	30.0	94.7	40 - 160	P	07/08/2016	14:24	LB82471
	Copper	19.25	20.0	96.3	40 - 160	P	07/08/2016	14:24	LB82471
	Iron	110.66	100	110.7	40 - 160	P	07/08/2016	14:24	LB82471
	Lead	10.91	12.0	90.9	40 - 160	P	07/08/2016	14:24	LB82471
	Magnesium	2006.6	2000	100.3	40 - 160	P	07/08/2016	14:24	LB82471
	Manganese	20.43	20.0	102.2	40 - 160	P	07/08/2016	14:24	LB82471
	Nickel	38.3	40.0	95.8	40 - 160	P	07/08/2016	14:24	LB82471
	Potassium	1972.9	2000	98.6	40 - 160	P	07/08/2016	14:24	LB82471
	Selenium	20.01	20.0	100.1	40 - 160	P	07/08/2016	14:24	LB82471
	Silver	9.79	10.0	97.9	40 - 160	P	07/08/2016	14:24	LB82471
	Sodium	1959.6	2000	98	40 - 160	P	07/08/2016	14:24	LB82471
	Thallium	37.86	40.0	94.7	40 - 160	P	07/08/2016	14:24	LB82471
	Vanadium	38.45	40.0	96.1	40 - 160	P	07/08/2016	14:24	LB82471
	Zinc	41.21	40.0	103	40 - 160	P	07/08/2016	14:24	LB82471
CRA	Mercury	0.2157	0.2	107.9	40 - 160	CV	07/09/2016	13:00	LB82478
CRA	Mercury	0.1755	0.2	87.8	40 - 160	CV	07/09/2016	15:02	LB82479
CRA	Mercury	0.2258	0.2	112.9	40 - 160	CV	07/10/2016	11:53	LB82485
CRI01	Aluminum	112.71	100	112.7	40 - 160	P	07/11/2016	12:58	LB82512
	Antimony	47.26	50.0	94.5	40 - 160	P	07/11/2016	12:58	LB82512
	Arsenic	21.6	20.0	108	40 - 160	P	07/11/2016	12:58	LB82512
	Barium	104.94	100	104.9	40 - 160	P	07/11/2016	12:58	LB82512
	Beryllium	5.99	6.0	99.8	40 - 160	P	07/11/2016	12:58	LB82512
	Cadmium	5.86	6.0	97.7	40 - 160	P	07/11/2016	12:58	LB82512
	Calcium	2077.1	2000	103.9	40 - 160	P	07/11/2016	12:58	LB82512
	Chromium	10.06	10.0	100.6	40 - 160	P	07/11/2016	12:58	LB82512
	Cobalt	28.47	30.0	94.9	40 - 160	P	07/11/2016	12:58	LB82512

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Metals

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CRDL STANDARD FOR AA & ICP

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Copper	20.03	20.0	100.2	40 - 160	P	07/11/2016	12:58	LB82512
	Iron	112.95	100	113	40 - 160	P	07/11/2016	12:58	LB82512
	Lead	11.58	12.0	96.5	40 - 160	P	07/11/2016	12:58	LB82512
	Magnesium	2041.9	2000	102.1	40 - 160	P	07/11/2016	12:58	LB82512
	Manganese	20.97	20.0	104.9	40 - 160	P	07/11/2016	12:58	LB82512
	Nickel	38.5	40.0	96.3	40 - 160	P	07/11/2016	12:58	LB82512
	Potassium	2104.2	2000	105.2	40 - 160	P	07/11/2016	12:58	LB82512
	Selenium	23.29	20.0	116.5	40 - 160	P	07/11/2016	12:58	LB82512
	Silver	9.94	10.0	99.4	40 - 160	P	07/11/2016	12:58	LB82512
	Sodium	1990.1	2000	99.5	40 - 160	P	07/11/2016	12:58	LB82512
	Thallium	35.58	40.0	89	40 - 160	P	07/11/2016	12:58	LB82512
	Vanadium	40.23	40.0	100.6	40 - 160	P	07/11/2016	12:58	LB82512
	Zinc	43.29	40.0	108.2	40 - 160	P	07/11/2016	12:58	LB82512

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB05	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/09/2016	12:51	LB82478

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/09/2016	12:57	LB82478
CCB02	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/09/2016	13:25	LB82478
CCB03	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/09/2016	13:54	LB82478
CCB04	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/09/2016	14:20	LB82478

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB06	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/09/2016	14:53	LB82479

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB05	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/09/2016	15:00	LB82479
CCB06	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/09/2016	15:30	LB82479
CCB07	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/09/2016	15:43	LB82479

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB07	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/10/2016	11:46	LB82485

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB10	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/10/2016	11:51	LB82485
CCB11	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/10/2016	12:29	LB82485
CCB12	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/10/2016	12:56	LB82485
CCB13	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/10/2016	13:27	LB82485
CCB14	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/10/2016	13:54	LB82485
CCB15	Mercury	0.2	+/-0.2	U	0.1	0.2	CV	07/10/2016	14:19	LB82485

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	14:20	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	14:20	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	14:20	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	14:20	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	14:20	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	14:20	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	14:20	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	14:20	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	14:20	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	14:20	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/08/2016	14:20	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	14:20	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	14:20	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	14:20	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	14:20	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	14:20	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	14:20	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	14:20	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/08/2016	14:20	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	14:20	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	14:20	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	14:20	LB82471

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	14:56	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	14:56	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	14:56	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	14:56	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	14:56	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	14:56	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	14:56	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	14:56	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	14:56	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	14:56	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/08/2016	14:56	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	14:56	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	14:56	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	14:56	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	14:56	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	14:56	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	14:56	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	14:56	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/08/2016	14:56	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	14:56	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	14:56	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	14:56	LB82471
CCB02	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	15:45	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	15:45	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	15:45	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	15:45	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	15:45	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	15:45	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	15:45	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	15:45	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	15:45	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	15:45	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/08/2016	15:45	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	15:45	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	15:45	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	15:45	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	15:45	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	15:45	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	15:45	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	15:45	LB82471

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Sodium	2000	+/-2000	U	500	2000	P	07/08/2016	15:45	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	15:45	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	15:45	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	15:45	LB82471
CCB03	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	16:44	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	16:44	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	16:44	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	16:44	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	16:44	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	16:44	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	16:44	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	16:44	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	16:44	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	16:44	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/08/2016	16:44	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	16:44	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	16:44	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	16:44	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	16:44	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	16:44	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	16:44	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	16:44	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/08/2016	16:44	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	16:44	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	16:44	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	16:44	LB82471
CCB04	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	17:38	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	17:38	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	17:38	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	17:38	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	17:38	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	17:38	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	17:38	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	17:38	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	17:38	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	17:38	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/08/2016	17:38	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	17:38	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	17:38	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	17:38	LB82471

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	17:38	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	17:38	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	17:38	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	17:38	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/08/2016	17:38	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	17:38	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	17:38	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	17:38	LB82471
CCB05	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	18:32	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	18:32	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	18:32	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	18:32	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	18:32	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	18:32	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	18:32	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	18:32	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	18:32	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	18:32	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/08/2016	18:32	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	18:32	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	18:32	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	18:32	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	18:32	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	18:32	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	18:32	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	18:32	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/08/2016	18:32	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	18:32	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	18:32	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	18:32	LB82471
CCB06	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	19:25	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	19:25	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	19:25	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	19:25	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	19:25	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	19:25	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	19:25	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	19:25	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	19:25	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	19:25	LB82471

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Iron	100	+/-100	U	25.0	100	P	07/08/2016	19:25	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	19:25	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	19:25	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	19:25	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	19:25	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	19:25	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	19:25	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	19:25	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/08/2016	19:25	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	19:25	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	19:25	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	19:25	LB82471
CCB07	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	20:14	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	20:14	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	20:14	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	20:14	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	20:14	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	20:14	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	20:14	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	20:14	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	20:14	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	20:14	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/08/2016	20:14	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	20:14	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	20:14	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	20:14	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	20:14	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	20:14	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	20:14	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	20:14	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/08/2016	20:14	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	20:14	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	20:14	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	20:14	LB82471
CCB08	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	21:07	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	21:07	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	21:07	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	21:07	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	21:07	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	21:07	LB82471

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	21:07	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	21:07	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	21:07	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	21:07	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/08/2016	21:07	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	21:07	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	21:07	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	21:07	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	21:07	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	21:07	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	21:07	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	21:07	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/08/2016	21:07	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	21:07	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	21:07	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	21:07	LB82471
CCB09	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	21:58	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	21:58	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	21:58	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	21:58	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	21:58	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	21:58	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	21:58	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	21:58	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	21:58	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	21:58	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/08/2016	21:58	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	21:58	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	21:58	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	21:58	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	21:58	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	21:58	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	21:58	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	21:58	LB82471
	Sodium	44.96	+/-2000	J	500	2000	P	07/08/2016	21:58	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	21:58	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	21:58	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	21:58	LB82471
CCB10	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	22:51	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	22:51	LB82471

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB10	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	22:51	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	22:51	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	22:51	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	22:51	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	22:51	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	22:51	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	22:51	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	22:51	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/08/2016	22:51	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	22:51	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	22:51	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	22:51	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	22:51	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	22:51	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	22:51	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	22:51	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/08/2016	22:51	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	22:51	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	22:51	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	22:51	LB82471
CCB11	Aluminum	100	+/-100	U	25.0	100	P	07/08/2016	23:41	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/08/2016	23:41	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	23:41	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/08/2016	23:41	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	23:41	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/08/2016	23:41	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/08/2016	23:41	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	23:41	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/08/2016	23:41	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	23:41	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/08/2016	23:41	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/08/2016	23:41	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/08/2016	23:41	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/08/2016	23:41	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	23:41	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/08/2016	23:41	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/08/2016	23:41	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/08/2016	23:41	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/08/2016	23:41	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	23:41	LB82471

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB11	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	23:41	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/08/2016	23:41	LB82471
CCB12	Aluminum	100	+/-100	U	25.0	100	P	07/09/2016	00:36	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/09/2016	00:36	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	00:36	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/09/2016	00:36	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	00:36	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	00:36	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/09/2016	00:36	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	00:36	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/09/2016	00:36	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	00:36	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/09/2016	00:36	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/09/2016	00:36	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/09/2016	00:36	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	00:36	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	00:36	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/09/2016	00:36	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/09/2016	00:36	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	00:36	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/09/2016	00:36	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	00:36	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	00:36	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	00:36	LB82471
CCB13	Aluminum	100	+/-100	U	25.0	100	P	07/09/2016	01:26	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/09/2016	01:26	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	01:26	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/09/2016	01:26	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	01:26	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	01:26	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/09/2016	01:26	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	01:26	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/09/2016	01:26	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	01:26	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/09/2016	01:26	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/09/2016	01:26	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/09/2016	01:26	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	01:26	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	01:26	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/09/2016	01:26	LB82471

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB13	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/09/2016	01:26	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	01:26	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/09/2016	01:26	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	01:26	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	01:26	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	01:26	LB82471
CCB14	Aluminum	100	+/-100	U	25.0	100	P	07/09/2016	02:20	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/09/2016	02:20	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	02:20	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/09/2016	02:20	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	02:20	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	02:20	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/09/2016	02:20	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	02:20	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/09/2016	02:20	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	02:20	LB82471
	Iron	26.2	+/-100	J	25.0	100	P	07/09/2016	02:20	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/09/2016	02:20	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/09/2016	02:20	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	02:20	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	02:20	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/09/2016	02:20	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/09/2016	02:20	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	02:20	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/09/2016	02:20	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	02:20	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	02:20	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	02:20	LB82471
CCB15	Aluminum	100	+/-100	U	25.0	100	P	07/09/2016	03:21	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/09/2016	03:21	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	03:21	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/09/2016	03:21	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	03:21	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	03:21	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/09/2016	03:21	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	03:21	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/09/2016	03:21	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	03:21	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/09/2016	03:21	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/09/2016	03:21	LB82471

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB15	Magnesium	2000	+/-2000	U	500	2000	P	07/09/2016	03:21	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	03:21	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	03:21	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/09/2016	03:21	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/09/2016	03:21	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	03:21	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/09/2016	03:21	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	03:21	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	03:21	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	03:21	LB82471
CCB16	Aluminum	100	+/-100	U	25.0	100	P	07/09/2016	04:35	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/09/2016	04:35	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	04:35	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/09/2016	04:35	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	04:35	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	04:35	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/09/2016	04:35	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	04:35	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/09/2016	04:35	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	04:35	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/09/2016	04:35	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/09/2016	04:35	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/09/2016	04:35	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	04:35	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	04:35	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/09/2016	04:35	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/09/2016	04:35	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	04:35	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/09/2016	04:35	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	04:35	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	04:35	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	04:35	LB82471
CCB17	Aluminum	100	+/-100	U	25.0	100	P	07/09/2016	05:25	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/09/2016	05:25	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	05:25	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/09/2016	05:25	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	05:25	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	05:25	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/09/2016	05:25	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	05:25	LB82471

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB17	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/09/2016	05:25	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	05:25	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/09/2016	05:25	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/09/2016	05:25	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/09/2016	05:25	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	05:25	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	05:25	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/09/2016	05:25	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/09/2016	05:25	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	05:25	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/09/2016	05:25	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	05:25	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	05:25	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	05:25	LB82471
CCB18	Aluminum	100	+/-100	U	25.0	100	P	07/09/2016	06:21	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/09/2016	06:21	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	06:21	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/09/2016	06:21	LB82471
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	06:21	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	06:21	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/09/2016	06:21	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	06:21	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/09/2016	06:21	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	06:21	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/09/2016	06:21	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/09/2016	06:21	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/09/2016	06:21	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	06:21	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	06:21	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/09/2016	06:21	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/09/2016	06:21	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	06:21	LB82471
	Sodium	2000	+/-2000	U	500	2000	P	07/09/2016	06:21	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	06:21	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	06:21	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	06:21	LB82471
CCB19	Aluminum	100	+/-100	U	25.0	100	P	07/09/2016	07:31	LB82471
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/09/2016	07:31	LB82471
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	07:31	LB82471
	Barium	100	+/-100	U	25.0	100	P	07/09/2016	07:31	LB82471

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB19	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	07:31	LB82471
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/09/2016	07:31	LB82471
	Calcium	2000	+/-2000	U	500	2000	P	07/09/2016	07:31	LB82471
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	07:31	LB82471
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/09/2016	07:31	LB82471
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	07:31	LB82471
	Iron	100	+/-100	U	25.0	100	P	07/09/2016	07:31	LB82471
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/09/2016	07:31	LB82471
	Magnesium	2000	+/-2000	U	500	2000	P	07/09/2016	07:31	LB82471
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/09/2016	07:31	LB82471
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	07:31	LB82471
	Potassium	2000	+/-2000	U	500	2000	P	07/09/2016	07:31	LB82471
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/09/2016	07:31	LB82471
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/09/2016	07:31	LB82471
	Sodium	30.25	+/-2000	J	500	2000	P	07/09/2016	07:31	LB82471
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	07:31	LB82471
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	07:31	LB82471
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/09/2016	07:31	LB82471

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	12:54	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	12:54	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	12:54	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	12:54	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	12:54	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	12:54	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	12:54	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	12:54	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	12:54	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	12:54	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	12:54	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	12:54	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	12:54	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	12:54	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	12:54	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	12:54	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	12:54	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	12:54	LB82512
	Sodium	2000	+/-2000	U	500	2000	P	07/11/2016	12:54	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	12:54	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	12:54	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	12:54	LB82512

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	13:23	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	13:23	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	13:23	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	13:23	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	13:23	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	13:23	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	13:23	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	13:23	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	13:23	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	13:23	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	13:23	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	13:23	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	13:23	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	13:23	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	13:23	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	13:23	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	13:23	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	13:23	LB82512
	Sodium	2000	+/-2000	U	500	2000	P	07/11/2016	13:23	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	13:23	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	13:23	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	13:23	LB82512
CCB02	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	14:22	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	14:22	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	14:22	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	14:22	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	14:22	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	14:22	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	14:22	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	14:22	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	14:22	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	14:22	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	14:22	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	14:22	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	14:22	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	14:22	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	14:22	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	14:22	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	14:22	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	14:22	LB82512

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Sodium	218.28	+/-2000	J	500	2000	P	07/11/2016	14:22	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	14:22	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	14:22	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	14:22	LB82512
CCB03	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	15:11	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	15:11	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	15:11	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	15:11	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	15:11	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	15:11	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	15:11	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	15:11	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	15:11	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	15:11	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	15:11	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	15:11	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	15:11	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	15:11	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	15:11	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	15:11	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	15:11	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	15:11	LB82512
	Sodium	57.5	+/-2000	J	500	2000	P	07/11/2016	15:11	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	15:11	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	15:11	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	15:11	LB82512
CCB04	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	16:05	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	16:05	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	16:05	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	16:05	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	16:05	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	16:05	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	16:05	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	16:05	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	16:05	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	16:05	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	16:05	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	16:05	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	16:05	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	16:05	LB82512

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	16:05	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	16:05	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	16:05	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	16:05	LB82512
	Sodium	2000	+/-2000	U	500	2000	P	07/11/2016	16:05	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	16:05	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	16:05	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	16:05	LB82512
CCB05	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	16:58	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	16:58	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	16:58	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	16:58	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	16:58	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	16:58	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	16:58	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	16:58	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	16:58	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	16:58	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	16:58	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	16:58	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	16:58	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	16:58	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	16:58	LB82512
	Potassium	81.71	+/-2000	J	500	2000	P	07/11/2016	16:58	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	16:58	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	16:58	LB82512
	Sodium	68.43	+/-2000	J	500	2000	P	07/11/2016	16:58	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	16:58	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	16:58	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	16:58	LB82512
CCB06	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	17:53	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	17:53	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	17:53	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	17:53	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	17:53	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	17:53	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	17:53	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	17:53	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	17:53	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	17:53	LB82512

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Iron	100	+/-100	U	25.0	100	P	07/11/2016	17:53	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	17:53	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	17:53	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	17:53	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	17:53	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	17:53	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	17:53	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	17:53	LB82512
	Sodium	2000	+/-2000	U	500	2000	P	07/11/2016	17:53	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	17:53	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	17:53	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	17:53	LB82512
CCB07	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	18:42	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	18:42	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	18:42	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	18:42	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	18:42	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	18:42	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	18:42	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	18:42	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	18:42	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	18:42	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	18:42	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	18:42	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	18:42	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	18:42	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	18:42	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	18:42	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	18:42	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	18:42	LB82512
	Sodium	2000	+/-2000	U	500	2000	P	07/11/2016	18:42	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	18:42	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	18:42	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	18:42	LB82512
CCB08	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	19:36	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	19:36	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	19:36	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	19:36	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	19:36	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	19:36	LB82512

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	19:36	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	19:36	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	19:36	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	19:36	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	19:36	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	19:36	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	19:36	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	19:36	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	19:36	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	19:36	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	19:36	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	19:36	LB82512
	Sodium	2000	+/-2000	U	500	2000	P	07/11/2016	19:36	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	19:36	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	19:36	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	19:36	LB82512
CCB09	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	20:27	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	20:27	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	20:27	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	20:27	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	20:27	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	20:27	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	20:27	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	20:27	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	20:27	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	20:27	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	20:27	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	20:27	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	20:27	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	20:27	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	20:27	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	20:27	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	20:27	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	20:27	LB82512
	Sodium	40.18	+/-2000	J	500	2000	P	07/11/2016	20:27	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	20:27	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	20:27	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	20:27	LB82512
CCB10	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	21:20	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	21:20	LB82512

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB10	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	21:20	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	21:20	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	21:20	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	21:20	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	21:20	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	21:20	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	21:20	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	21:20	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	21:20	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	21:20	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	21:20	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	21:20	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	21:20	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	21:20	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	21:20	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	21:20	LB82512
	Sodium	2000	+/-2000	U	500	2000	P	07/11/2016	21:20	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	21:20	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	21:20	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	21:20	LB82512
CCB11	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	22:09	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	22:09	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	22:09	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	22:09	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	22:09	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	22:09	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	22:09	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	22:09	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	22:09	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	22:09	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	22:09	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	22:09	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	22:09	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	22:09	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	22:09	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	22:09	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	22:09	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	22:09	LB82512
	Sodium	2000	+/-2000	U	500	2000	P	07/11/2016	22:09	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	22:09	LB82512

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB11	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	22:09	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	22:09	LB82512
CCB12	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	23:02	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	23:02	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	23:02	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	23:02	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	23:02	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	23:02	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	23:02	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	23:02	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	23:02	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	23:02	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	23:02	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	23:02	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	23:02	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	23:02	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	23:02	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	23:02	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	23:02	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	23:02	LB82512
	Sodium	2000	+/-2000	U	500	2000	P	07/11/2016	23:02	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	23:02	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	23:02	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	23:02	LB82512
CCB13	Aluminum	100	+/-100	U	25.0	100	P	07/11/2016	23:52	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/11/2016	23:52	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	23:52	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/11/2016	23:52	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	23:52	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/11/2016	23:52	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/11/2016	23:52	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	23:52	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/11/2016	23:52	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	23:52	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/11/2016	23:52	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/11/2016	23:52	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/11/2016	23:52	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/11/2016	23:52	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	23:52	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/11/2016	23:52	LB82512

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB13	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/11/2016	23:52	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/11/2016	23:52	LB82512
	Sodium	2000	+/-2000	U	500	2000	P	07/11/2016	23:52	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	23:52	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	23:52	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/11/2016	23:52	LB82512
CCB14	Aluminum	100	+/-100	U	25.0	100	P	07/12/2016	00:41	LB82512
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	07/12/2016	00:41	LB82512
	Arsenic	20.0	+/-20.0	U	5.0	20.0	P	07/12/2016	00:41	LB82512
	Barium	100	+/-100	U	25.0	100	P	07/12/2016	00:41	LB82512
	Beryllium	6.0	+/-6.0	U	1.5	6.0	P	07/12/2016	00:41	LB82512
	Cadmium	6.0	+/-6.0	U	1.5	6.0	P	07/12/2016	00:41	LB82512
	Calcium	2000	+/-2000	U	500	2000	P	07/12/2016	00:41	LB82512
	Chromium	10.0	+/-10.0	U	2.5	10.0	P	07/12/2016	00:41	LB82512
	Cobalt	30.0	+/-30.0	U	7.5	30.0	P	07/12/2016	00:41	LB82512
	Copper	20.0	+/-20.0	U	5.0	20.0	P	07/12/2016	00:41	LB82512
	Iron	100	+/-100	U	25.0	100	P	07/12/2016	00:41	LB82512
	Lead	12.0	+/-12.0	U	3.0	12.0	P	07/12/2016	00:41	LB82512
	Magnesium	2000	+/-2000	U	500	2000	P	07/12/2016	00:41	LB82512
	Manganese	20.0	+/-20.0	U	5.0	20.0	P	07/12/2016	00:41	LB82512
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	07/12/2016	00:41	LB82512
	Potassium	2000	+/-2000	U	500	2000	P	07/12/2016	00:41	LB82512
	Selenium	20.0	+/-20.0	U	10.0	20.0	P	07/12/2016	00:41	LB82512
	Silver	10.0	+/-10.0	U	2.5	10.0	P	07/12/2016	00:41	LB82512
	Sodium	2000	+/-2000	U	500	2000	P	07/12/2016	00:41	LB82512
	Thallium	40.0	+/-40.0	U	10.0	40.0	P	07/12/2016	00:41	LB82512
	Vanadium	40.0	+/-40.0	U	10.0	40.0	P	07/12/2016	00:41	LB82512
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	07/12/2016	00:41	LB82512

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number

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PREPARATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB91989BL		**WATER**		**Batch Number:**		**PB91989**		**Prep Date:**	**07/08/2016**	
	Mercury	0.2	<0.2	U	0.1	0.2	CV	07/09/2016	15:11	LB82479

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB91990BL		**WATER**		**Batch Number:**		**PB91990**		**Prep Date:**	**07/08/2016**	
	Mercury	0.2	<0.2	U	0.1	0.2	CV	07/09/2016	13:08	LB82478

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB91998BL		**SOLID**		**Batch Number:**		**PB91998**		**Prep Date:**	**07/09/2016**	
	Mercury	0.013	<0.013	U	0.007	0.013	CV	07/10/2016	12:50	LB82485

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PREPARATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB91971BL		**WATER**		**Batch Number:**		**PB91971**		**Prep Date:**	**07/08/2016**	
	Aluminum	50.0	<50.0	U	12.5	50.0	P	07/11/2016	15:44	LB82512
	Antimony	25.0	<25.0	U	6.25	25.0	P	07/11/2016	15:44	LB82512
	Arsenic	10.0	<10.0	U	2.5	10.0	P	07/11/2016	15:44	LB82512
	Barium	50.0	<50.0	U	12.5	50.0	P	07/11/2016	15:44	LB82512
	Beryllium	3.0	<3.0	U	0.75	3.0	P	07/11/2016	15:44	LB82512
	Cadmium	3.0	<3.0	U	0.75	3.0	P	07/11/2016	15:44	LB82512
	Calcium	1000	<1000	U	250	1000	P	07/11/2016	15:44	LB82512
	Chromium	5.0	<5.0	U	1.25	5.0	P	07/11/2016	15:44	LB82512
	Cobalt	15.0	<15.0	U	3.75	15.0	P	07/11/2016	15:44	LB82512
	Copper	10.0	<10.0	U	2.5	10.0	P	07/11/2016	15:44	LB82512
	Iron	50.0	<50.0	U	12.5	50.0	P	07/11/2016	15:44	LB82512
	Lead	6.0	<6.0	U	1.5	6.0	P	07/11/2016	15:44	LB82512
	Magnesium	1000	<1000	U	250	1000	P	07/11/2016	15:44	LB82512
	Manganese	10.0	<10.0	U	2.5	10.0	P	07/11/2016	15:44	LB82512
	Nickel	20.0	<20.0	U	5.0	20.0	P	07/11/2016	15:44	LB82512
	Potassium	1000	<1000	U	250	1000	P	07/11/2016	15:44	LB82512
	Selenium	10.0	<10.0	U	5.0	10.0	P	07/11/2016	15:44	LB82512
	Silver	5.0	<5.0	U	1.25	5.0	P	07/11/2016	15:44	LB82512
	Sodium	1000	<1000	U	250	1000	P	07/11/2016	15:44	LB82512
	Thallium	20.0	<20.0	U	5.0	20.0	P	07/11/2016	15:44	LB82512
	Vanadium	20.0	<20.0	U	5.0	20.0	P	07/11/2016	15:44	LB82512
	Zinc	20.0	<20.0	U	5.0	20.0	P	07/11/2016	15:44	LB82512

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	LOD ug/L	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB91972BL		**WATER**		**Batch Number:**		**PB91972**		**Prep Date:**	**07/08/2016**	
	Aluminum	50.0	<50.0	U	25.0	50.0	P	07/08/2016	15:00	LB82471
	Antimony	25.0	<25.0	U	12.5	25.0	P	07/08/2016	15:00	LB82471
	Arsenic	10.0	<10.0	U	5.0	10.0	P	07/08/2016	15:00	LB82471
	Barium	50.0	<50.0	U	25.0	50.0	P	07/08/2016	15:00	LB82471
	Beryllium	3.0	<3.0	U	1.5	3.0	P	07/08/2016	15:00	LB82471
	Cadmium	3.0	<3.0	U	1.5	3.0	P	07/08/2016	15:00	LB82471
	Calcium	1000	<1000	U	500	1000	P	07/08/2016	15:00	LB82471
	Chromium	5.0	<5.0	U	2.5	5.0	P	07/08/2016	15:00	LB82471
	Cobalt	15.0	<15.0	U	7.5	15.0	P	07/08/2016	15:00	LB82471
	Copper	10.0	<10.0	U	5.0	10.0	P	07/08/2016	15:00	LB82471
	Iron	50.0	<50.0	U	25.0	50.0	P	07/08/2016	15:00	LB82471
	Lead	6.0	<6.0	U	3.0	6.0	P	07/08/2016	15:00	LB82471
	Magnesium	1000	<1000	U	500	1000	P	07/08/2016	15:00	LB82471
	Manganese	10.0	<10.0	U	5.0	10.0	P	07/08/2016	15:00	LB82471
	Nickel	20.0	<20.0	U	10.0	20.0	P	07/08/2016	15:00	LB82471
	Potassium	1000	<1000	U	500	1000	P	07/08/2016	15:00	LB82471

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PREPARATION BLANK SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
	Selenium	10.0	<10.0	U	5.0	10.0	P	07/08/2016	15:00	LB82471
	Silver	5.0	<5.0	U	2.5	5.0	P	07/08/2016	15:00	LB82471
	Sodium	1000	<1000	U	500	1000	P	07/08/2016	15:00	LB82471
	Thallium	20.0	<20.0	U	10.0	20.0	P	07/08/2016	15:00	LB82471
	Vanadium	20.0	<20.0	U	10.0	20.0	P	07/08/2016	15:00	LB82471
	Zinc	20.0	<20.0	U	10.0	20.0	P	07/08/2016	15:00	LB82471
PB91975BL		**SOLID**		**Batch Number:**	**PB91975**			**Prep Date:**	**07/08/2016**	
	Aluminum	4.95	<4.95	U	1.24	4.95	P	07/08/2016	15:37	LB82471
	Antimony	2.48	<2.48	U	0.619	2.48	P	07/08/2016	15:37	LB82471
	Arsenic	0.99	<0.99	U	0.248	0.99	P	07/08/2016	15:37	LB82471
	Barium	4.95	<4.95	U	1.24	4.95	P	07/08/2016	15:37	LB82471
	Beryllium	0.297	<0.297	U	0.074	0.297	P	07/08/2016	15:37	LB82471
	Cadmium	0.297	<0.297	U	0.074	0.297	P	07/08/2016	15:37	LB82471
	Calcium	99.0	<99.0	U	24.8	99.0	P	07/08/2016	15:37	LB82471
	Chromium	0.495	<0.495	U	0.124	0.495	P	07/08/2016	15:37	LB82471
	Cobalt	1.49	<1.49	U	0.371	1.49	P	07/08/2016	15:37	LB82471
	Copper	0.99	<0.99	U	0.248	0.99	P	07/08/2016	15:37	LB82471
	Iron	4.95	<4.95	U	1.24	4.95	P	07/08/2016	15:37	LB82471
	Lead	0.594	<0.594	U	0.248	0.594	P	07/08/2016	15:37	LB82471
	Magnesium	99.0	<99.0	U	24.8	99.0	P	07/08/2016	15:37	LB82471
	Manganese	0.99	<0.99	U	0.248	0.99	P	07/08/2016	15:37	LB82471
	Nickel	1.98	<1.98	U	0.495	1.98	P	07/08/2016	15:37	LB82471
	Potassium	99.0	<99.0	U	24.8	99.0	P	07/08/2016	15:37	LB82471
	Selenium	0.99	<0.99	U	0.248	0.99	P	07/08/2016	15:37	LB82471
	Silver	0.495	<0.495	U	0.124	0.495	P	07/08/2016	15:37	LB82471
	Sodium	99.0	<99.0	U	24.8	99.0	P	07/08/2016	15:37	LB82471
	Thallium	1.98	<1.98	U	0.495	1.98	P	07/08/2016	15:37	LB82471
	Vanadium	1.98	<1.98	U	0.495	1.98	P	07/08/2016	15:37	LB82471
	Zinc	1.98	<1.98	U	0.495	1.98	P	07/08/2016	15:37	LB82471

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INTERFERENCE CHECK SAMPLE

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Aluminum	275000	254900	107.9	203920	305880	07/08/2016	14:28	LB82471
	Antimony	-5.11			-50	50	07/08/2016	14:28	LB82471
	Arsenic	4.84			-20	20	07/08/2016	14:28	LB82471
	Barium	7.95	6.0	132.5	-94	106	07/08/2016	14:28	LB82471
	Beryllium	0.81			-6	6	07/08/2016	14:28	LB82471
	Cadmium	0.93	1.0	93	-5	7	07/08/2016	14:28	LB82471
	Calcium	245000	244500	100.2	195600	293400	07/08/2016	14:28	LB82471
	Chromium	59.5	52.0	114.4	42	62	07/08/2016	14:28	LB82471
	Cobalt	-0.38			-30	30	07/08/2016	14:28	LB82471
	Copper	16.4	2.0	820	-18	22	07/08/2016	14:28	LB82471
	Iron	98900	100700	98.2	80560	120840	07/08/2016	14:28	LB82471
	Lead	-0.73			-12	12	07/08/2016	14:28	LB82471
	Magnesium	264000	2.5544e+006	10.3	204320	306480	07/08/2016	14:28	LB82471
	Manganese	19.1	7.0	272.9	-13	27	07/08/2016	14:28	LB82471
	Nickel	5.36	2.0	268	-38	42	07/08/2016	14:28	LB82471
	Potassium	-6.58			0	0	07/08/2016	14:28	LB82471
	Selenium	-2.27			-20	20	07/08/2016	14:28	LB82471
	Silver	-1			-10	10	07/08/2016	14:28	LB82471
	Sodium	38.9			0	0	07/08/2016	14:28	LB82471
	Thallium	-5.1			-40	40	07/08/2016	14:28	LB82471
	Vanadium	1.03			-40	40	07/08/2016	14:28	LB82471
	Zinc	2.71			-40	40	07/08/2016	14:28	LB82471
ICSAB01	Aluminum	269000	246800	109	197440	296160	07/08/2016	14:44	LB82471
	Antimony	619	618	100.2	494	742	07/08/2016	14:44	LB82471
	Arsenic	111	104	106.7	83	125	07/08/2016	14:44	LB82471
	Barium	519	537	96.6	337	737	07/08/2016	14:44	LB82471
	Beryllium	536	495	108.3	396	594	07/08/2016	14:44	LB82471
	Cadmium	1010	972	103.9	778	1166	07/08/2016	14:44	LB82471
	Calcium	242000	234900	103	187920	281880	07/08/2016	14:44	LB82471
	Chromium	581	542	107.2	434	650	07/08/2016	14:44	LB82471
	Cobalt	507	476	106.5	381	571	07/08/2016	14:44	LB82471
	Copper	509	511	99.6	409	613	07/08/2016	14:44	LB82471
	Iron	97300	99320	98	79456	119184	07/08/2016	14:44	LB82471
	Lead	48.5	49.0	99	39	59	07/08/2016	14:44	LB82471
	Magnesium	261000	248000	105.2	198400	297600	07/08/2016	14:44	LB82471
	Manganese	536	507	105.7	406	608	07/08/2016	14:44	LB82471
	Nickel	1020	954	106.9	763	1145	07/08/2016	14:44	LB82471
	Potassium	5.37			0	0	07/08/2016	14:44	LB82471
	Selenium	35.1	46.0	76.3	11	81	07/08/2016	14:44	LB82471
	Silver	202	201	100.5	161	241	07/08/2016	14:44	LB82471
	Sodium	40.8			0	0	07/08/2016	14:44	LB82471
	Thallium	101	108	93.5	83	133	07/08/2016	14:44	LB82471
	Vanadium	506	491	103.1	393	589	07/08/2016	14:44	LB82471
	Zinc	1050	952	110.3	762	1142	07/08/2016	14:44	LB82471
ICSA01	Aluminum	268000	254900	105.1	203920	305880	07/11/2016	13:07	LB82512

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INTERFERENCE CHECK SAMPLE

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Antimony	-5.7			-50	50	07/11/2016	13:07	LB82512
	Arsenic	6.45			-20	20	07/11/2016	13:07	LB82512
	Barium	6.69	6.0	111.5	-94	106	07/11/2016	13:07	LB82512
	Beryllium	0.63			-6	6	07/11/2016	13:07	LB82512
	Cadmium	1.63	1.0	163	-5	7	07/11/2016	13:07	LB82512
	Calcium	242000	244500	99	195600	293400	07/11/2016	13:07	LB82512
	Chromium	54	52.0	103.8	42	62	07/11/2016	13:07	LB82512
	Cobalt	0.41			-30	30	07/11/2016	13:07	LB82512
	Copper	17.5	2.0	875	-18	22	07/11/2016	13:07	LB82512
	Iron	92200	100700	91.6	80560	120840	07/11/2016	13:07	LB82512
	Lead	5.92			-12	12	07/11/2016	13:07	LB82512
	Magnesium	261000	2.5544e+006	10.2	204320	306480	07/11/2016	13:07	LB82512
	Manganese	22.1	7.0	315.7	-13	27	07/11/2016	13:07	LB82512
	Nickel	27.4	2.0	1370	-38	42	07/11/2016	13:07	LB82512
	Potassium	30			0	0	07/11/2016	13:07	LB82512
	Selenium	1.64			-20	20	07/11/2016	13:07	LB82512
	Silver	-4.74			-10	10	07/11/2016	13:07	LB82512
	Sodium	-25.4			0	0	07/11/2016	13:07	LB82512
	Thallium	-5.47			-40	40	07/11/2016	13:07	LB82512
	Vanadium	0.9			-40	40	07/11/2016	13:07	LB82512
	Zinc	0.94			-40	40	07/11/2016	13:07	LB82512
ICSAB01	Aluminum	270000	246800	109.4	197440	296160	07/11/2016	13:10	LB82512
	Antimony	604	618	97.7	494	742	07/11/2016	13:10	LB82512
	Arsenic	109	104	104.8	83	125	07/11/2016	13:10	LB82512
	Barium	524	537	97.6	337	737	07/11/2016	13:10	LB82512
	Beryllium	540	495	109.1	396	594	07/11/2016	13:10	LB82512
	Cadmium	996	972	102.5	778	1166	07/11/2016	13:10	LB82512
	Calcium	244000	234900	103.9	187920	281880	07/11/2016	13:10	LB82512
	Chromium	568	542	104.8	434	650	07/11/2016	13:10	LB82512
	Cobalt	503	476	105.7	381	571	07/11/2016	13:10	LB82512
	Copper	510	511	99.8	409	613	07/11/2016	13:10	LB82512
	Iron	93100	99320	93.7	79456	119184	07/11/2016	13:10	LB82512
	Lead	57.3	49.0	116.9	39	59	07/11/2016	13:10	LB82512
	Magnesium	262000	248000	105.6	198400	297600	07/11/2016	13:10	LB82512
	Manganese	539	507	106.3	406	608	07/11/2016	13:10	LB82512
	Nickel	1010	954	105.9	763	1145	07/11/2016	13:10	LB82512
	Potassium	45.6			0	0	07/11/2016	13:10	LB82512
	Selenium	53.4	46.0	116.1	11	81	07/11/2016	13:10	LB82512
	Silver	210	201	104.5	161	241	07/11/2016	13:10	LB82512
	Sodium	25.4			0	0	07/11/2016	13:10	LB82512
	Thallium	99.8	108	92.4	83	133	07/11/2016	13:10	LB82512
	Vanadium	509	491	103.7	393	589	07/11/2016	13:10	LB82512
	Zinc	995	952	104.5	762	1142	07/11/2016	13:10	LB82512

METAL QC DATA

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MATRIX SPIKE SUMMARY

client: AKRF Engineering, P.C. **level:** low **sdg no.:** H3936

contract: AKRF02 **lab code:** CHEM **case no.:** H3936 **sas no.:** H3936

matrix: WATER **sample id:** H3893-01 **client id:** MW-1MS

Percent Solids for Sample: NA **Spiked ID:** H3893-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	1140		102		1000	104		P
Antimony	ug/L	75 - 125	416		25.0	U	400	104		P
Arsenic	ug/L	75 - 125	421		10.0	U	400	105.3		P
Barium	ug/L	75 - 125	176		68.9		100	107		P
Beryllium	ug/L	75 - 125	104		3.0	U	100	104		P
Cadmium	ug/L	75 - 125	100		0.83	J	100	99		P
Calcium	ug/L	75 - 125	28600		28800		500	-40		P
Chromium	ug/L	75 - 125	199		4.22	J	200	97		P
Cobalt	ug/L	75 - 125	106		15.0	U	100	106		P
Copper	ug/L	75 - 125	161		7.96	J	150	102		P
Iron	ug/L	75 - 125	3400		1960		1500	96		P
Lead	ug/L	75 - 125	491		6.0	U	500	98.2		P
Magnesium	ug/L	75 - 125	6130		5220		1000	91		P
Manganese	ug/L	75 - 125	829		740		100	89		P
Nickel	ug/L	75 - 125	261		9.88	J	250	100		P
Potassium	ug/L	75 - 125	9550		4250		5000	106		P
Selenium	ug/L	75 - 125	1010		10.0	U	1000	101		P
Silver	ug/L	75 - 125	37.4		5.0	U	37.5	99.7		P
Sodium	ug/L	75 - 125	151000		153000		1500	-133		P
Thallium	ug/L	75 - 125	954		20.0	U	1000	95.4		P
Vanadium	ug/L	75 - 125	161		20.0	U	150	107.3		P
Zinc	ug/L	75 - 125	219		122		100	97		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: AKRF Engineering, P.C. **level:** low **sdg no.:** H3936

contract: AKRF02 **lab code:** CHEM **case no.:** H3936 **sas no.:** H3936

matrix: WATER **sample id:** H3893-01 **client id:** MW-1MSD

Percent Solids for Sample: NA **Spiked ID:** H3893-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	1140		102		1000	104		P
Antimony	ug/L	75 - 125	414		25.0	U	400	103.5		P
Arsenic	ug/L	75 - 125	418		10.0	U	400	104.5		P
Barium	ug/L	75 - 125	176		68.9		100	107		P
Beryllium	ug/L	75 - 125	104		3.0	U	100	104		P
Cadmium	ug/L	75 - 125	100		0.83	J	100	99		P
Calcium	ug/L	75 - 125	28600		28800		500	-40		P
Chromium	ug/L	75 - 125	200		4.22	J	200	98		P
Cobalt	ug/L	75 - 125	106		15.0	U	100	106		P
Copper	ug/L	75 - 125	161		7.96	J	150	102		P
Iron	ug/L	75 - 125	3370		1960		1500	94		P
Lead	ug/L	75 - 125	490		6.0	U	500	98		P
Magnesium	ug/L	75 - 125	6040		5220		1000	82		P
Manganese	ug/L	75 - 125	828		740		100	88		P
Nickel	ug/L	75 - 125	261		9.88	J	250	100		P
Potassium	ug/L	75 - 125	9530		4250		5000	106		P
Selenium	ug/L	75 - 125	1000		10.0	U	1000	100		P
Silver	ug/L	75 - 125	37.7		5.0	U	37.5	100.5		P
Sodium	ug/L	75 - 125	150000		153000		1500	-200		P
Thallium	ug/L	75 - 125	956		20.0	U	1000	95.6		P
Vanadium	ug/L	75 - 125	161		20.0	U	150	107.3		P
Zinc	ug/L	75 - 125	216		122		100	94		P

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metals
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MATRIX SPIKE SUMMARY

client: AKRF Engineering, P.C. **level:** low **sdg no.:** H3936

contract: AKRF02 **lab code:** CHEM **case no.:** H3936 **sas no.:** H3936

matrix: WATER **sample id:** H3928-01 **client id:** 001MW-PB(JULY)MS

Percent Solids for Sample: NA **Spiked ID:** H3928-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	1400		297		1000	110		P
Antimony	ug/L	75 - 125	449		25.0	U	400	112.3		P
Arsenic	ug/L	75 - 125	439		10.0	U	400	109.8		P
Barium	ug/L	75 - 125	138		28.3	J	100	110		P
Beryllium	ug/L	75 - 125	113		3.0	U	100	113		P
Cadmium	ug/L	75 - 125	104		3.0	U	100	104		P
Calcium	ug/L	75 - 125	72100		71500		500	120		P
Chromium	ug/L	75 - 125	209		3.04	J	200	103		P
Cobalt	ug/L	75 - 125	106		15.0	U	100	106		P
Copper	ug/L	75 - 125	168		5.53	J	150	108		P
Iron	ug/L	75 - 125	2130		519		1500	107		P
Lead	ug/L	75 - 125	528		6.18		500	104		P
Magnesium	ug/L	75 - 125	5360		4240		1000	112		P
Manganese	ug/L	75 - 125	162		53.6		100	108		P
Nickel	ug/L	75 - 125	266		5.01	J	250	104		P
Potassium	ug/L	75 - 125	18900		13400		5000	110		P
Selenium	ug/L	75 - 125	1080		10.0	U	1000	108		P
Silver	ug/L	75 - 125	38.9		5.0	U	37.5	103.7		P
Sodium	ug/L	75 - 125	44600		43000		1500	107		P
Thallium	ug/L	75 - 125	1030		20.0	U	1000	103		P
Vanadium	ug/L	75 - 125	163		20.0	U	150	108.7		P
Zinc	ug/L	75 - 125	141		39.8		100	101		P

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MATRIX SPIKE DUPLICATE SUMMARY

client: AKRF Engineering, P.C. **level:** low **sdg no.:** H3936

contract: AKRF02 **lab code:** CHEM **case no.:** H3936 **sas no.:** H3936

matrix: WATER **sample id:** H3928-01 **client id:** 001MW-PB(JULY)MSD

Percent Solids for Sample: NA **Spiked ID:** H3928-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	1370		297		1000	107		P
Antimony	ug/L	75 - 125	435		25.0	U	400	108.8		P
Arsenic	ug/L	75 - 125	424		10.0	U	400	106		P
Barium	ug/L	75 - 125	137		28.3	J	100	109		P
Beryllium	ug/L	75 - 125	111		3.0	U	100	111		P
Cadmium	ug/L	75 - 125	101		3.0	U	100	101		P
Calcium	ug/L	75 - 125	71900		71500		500	80		P
Chromium	ug/L	75 - 125	206		3.04	J	200	101		P
Cobalt	ug/L	75 - 125	103		15.0	U	100	103		P
Copper	ug/L	75 - 125	163		5.53	J	150	105		P
Iron	ug/L	75 - 125	2120		519		1500	107		P
Lead	ug/L	75 - 125	511		6.18		500	101		P
Magnesium	ug/L	75 - 125	5340		4240		1000	110		P
Manganese	ug/L	75 - 125	161		53.6		100	107		P
Nickel	ug/L	75 - 125	258		5.01	J	250	101		P
Potassium	ug/L	75 - 125	18800		13400		5000	108		P
Selenium	ug/L	75 - 125	1050		10.0	U	1000	105		P
Silver	ug/L	75 - 125	38.5		5.0	U	37.5	102.7		P
Sodium	ug/L	75 - 125	44500		43000		1500	100		P
Thallium	ug/L	75 - 125	998		20.0	U	1000	99.8		P
Vanadium	ug/L	75 - 125	161		20.0	U	150	107.3		P
Zinc	ug/L	75 - 125	140		39.8		100	100		P

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metals
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MATRIX SPIKE SUMMARY

client: AKRF Engineering, P.C. **level:** low **sdg no.:** H3936

contract: AKRF02 **lab code:** CHEM **case no.:** H3936 **sas no.:** H3936

matrix: Solid **sample id:** H3934-03 **client id:** C2.2-01MS

Percent Solids for Sample: 95.8 **Spiked ID:** H3934-03MS **Percent Solids for Spike Sample:** 95.8

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	4130		4170		87.4	-46		P
Antimony	mg/Kg	75 - 125	12.3		2.17	U	34.9	35.2	N	P
Arsenic	mg/Kg	75 - 125	35		1.6		34.9	96		P
Barium	mg/Kg	75 - 125	17.8		8.39		8.7	108		P
Beryllium	mg/Kg	75 - 125	8.9		0.184	J	8.7	100		P
Cadmium	mg/Kg	75 - 125	9.15		0.106	J	8.7	104		P
Calcium	mg/Kg	75 - 125	183		137		43.7	105		P
Chromium	mg/Kg	75 - 125	22.6		5.78		17.5	96		P
Cobalt	mg/Kg	75 - 125	11.1		1.73		8.7	108		P
Copper	mg/Kg	75 - 125	17.2		4.04		13.1	100		P
Iron	mg/Kg	75 - 125	3800		4020		130	-169		P
Lead	mg/Kg	75 - 125	49.1		3.82		43.7	104		P
Magnesium	mg/Kg	75 - 125	652		511		87.4	161		P
Manganese	mg/Kg	75 - 125	62.3		45.4		8.7	194		P
Mercury	mg/Kg	75 - 125	0.249		0.01	J	0.26	92		CV
Nickel	mg/Kg	75 - 125	26.4		3.09		21.8	107		P
Potassium	mg/Kg	75 - 125	581		127		440	103		P
Selenium	mg/Kg	75 - 125	80.4		0.866	U	87.4	92		P
Silver	mg/Kg	75 - 125	2.52		0.433	U	3.3	76.4		P
Sodium	mg/Kg	75 - 125	146		10.69	J	130	104		P
Thallium	mg/Kg	75 - 125	89.6		1.73	U	87.4	102.5		P
Vanadium	mg/Kg	75 - 125	21.1		8.07		13.1	99		P
Zinc	mg/Kg	75 - 125	17.6		8.04		8.7	110		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: AKRF Engineering, P.C. **level:** low **sdg no.:** H3936

contract: AKRF02 **lab code:** CHEM **case no.:** H3936 **sas no.:** H3936

matrix: Solid **sample id:** H3934-03 **client id:** C2.2-01MSD

Percent Solids for Sample: 95.8 **Spiked ID:** H3934-03MSD **Percent Solids for Spike Sample:** 95.8

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	75 - 125	3940		4170		88.1	-261		P
Antimony	mg/Kg	75 - 125	11.8		2.17	U	35.2	33.5	N	P
Arsenic	mg/Kg	75 - 125	33.6		1.6		35.2	91		P
Barium	mg/Kg	75 - 125	17.1		8.39		8.8	99		P
Beryllium	mg/Kg	75 - 125	8.54		0.184	J	8.8	95		P
Cadmium	mg/Kg	75 - 125	8.73		0.106	J	8.8	98		P
Calcium	mg/Kg	75 - 125	177		137		44.0	91		P
Chromium	mg/Kg	75 - 125	21.6		5.78		17.6	90		P
Cobalt	mg/Kg	75 - 125	10.61		1.73		8.8	101		P
Copper	mg/Kg	75 - 125	16.5		4.04		13.2	94		P
Iron	mg/Kg	75 - 125	3740		4020		130	-215		P
Lead	mg/Kg	75 - 125	46.6		3.82		44.0	97		P
Magnesium	mg/Kg	75 - 125	623		511		88.1	127		P
Manganese	mg/Kg	75 - 125	59.6		45.4		8.8	161		P
Mercury	mg/Kg	75 - 125	0.24		0.01	J	0.25	92		CV
Nickel	mg/Kg	75 - 125	25.2		3.09		22.0	101		P
Potassium	mg/Kg	75 - 125	556		127		440	98		P
Selenium	mg/Kg	75 - 125	77		0.866	U	88.1	87.4		P
Silver	mg/Kg	75 - 125	2.45		0.433	U	3.3	74.2	N	P
Sodium	mg/Kg	75 - 125	139		10.69	J	130	99		P
Thallium	mg/Kg	75 - 125	85.5		1.73	U	88.1	97		P
Vanadium	mg/Kg	75 - 125	20.3		8.07		13.2	93		P
Zinc	mg/Kg	75 - 125	17.2		8.04		8.8	104		P

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metals
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MATRIX SPIKE SUMMARY

client: AKRF Engineering, P.C. **level:** low **sdg no.:** H3936

contract: AKRF02 **lab code:** CHEM **case no.:** H3936 **sas no.:** H3936

matrix: WATER **sample id:** H3936-07 **client id:** TW-4MS

Percent Solids for Sample: NA **Spiked ID:** H3936-07MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75 - 125	4.42		0.2	U	4.0	110.5		CV

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: AKRF Engineering, P.C. **level:** low **sdg no.:** H3936

contract: AKRF02 **lab code:** CHEM **case no.:** H3936 **sas no.:** H3936

matrix: WATER **sample id:** H3936-07 **client id:** TW-4MSD

Percent Solids for Sample: NA **Spiked ID:** H3936-07MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75 - 125	4.38		0.2	U	4.0	109.5		CV

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metals
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MATRIX SPIKE SUMMARY

client: AKRF Engineering, P.C. **level:** low **sdg no.:** H3936

contract: AKRF02 **lab code:** CHEM **case no.:** H3936 **sas no.:** H3936

matrix: WATER **sample id:** H3949-01 **client id:** 32220008-3MS

Percent Solids for Sample: NA **Spiked ID:** H3949-01MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75 - 125	3.93		0.2	U	4.0	98.3		CV

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: AKRF Engineering, P.C. **level:** low **sdg no.:** H3936

contract: AKRF02 **lab code:** CHEM **case no.:** H3936 **sas no.:** H3936

matrix: WATER **sample id:** H3949-01 **client id:** 32220008-3MSD

Percent Solids for Sample: NA **Spiked ID:** H3949-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75 - 125	4.07		0.2	U	4.0	101.8		CV

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Metals
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POST DIGEST SPIKE SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Matrix: Solid **Level:** LOW **Client ID:** C2.2-01A

Sample ID: H3934-03 **Spiked ID:** H3934-03A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	mg/Kg	75 - 125	29.3		2.17	U	34.7	84.4		P
Silver	mg/Kg	75 - 125	1.98		0.433	U	3.2	61.9		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **Level:** LOW **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Matrix: WATER **Sample ID:** H3893-01 **Client ID:** MW-1DUP

Percent Solids for Sample: NA **Duplicate ID** H3893-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	102		98.8		3		P
Antimony	ug/L	20	25.0	U	25.0	U			P
Arsenic	ug/L	20	10.0	U	10.0	U			P
Barium	ug/L	20	68.9		67.1		3		P
Beryllium	ug/L	20	3.0	U	3.0	U			P
Cadmium	ug/L	20	0.83	J	0.835	J	1		P
Calcium	ug/L	20	28800		28200		2		P
Chromium	ug/L	20	4.22	J	4.03	J	5		P
Cobalt	ug/L	20	15.0	U	15.0	U			P
Copper	ug/L	20	7.96	J	7.92	J	1		P
Iron	ug/L	20	1960		1960		0		P
Lead	ug/L	20	6.0	U	6.0	U			P
Magnesium	ug/L	20	5220		5080		3		P
Manganese	ug/L	20	740		733		1		P
Nickel	ug/L	20	9.88	J	9.6	J	3		P
Potassium	ug/L	20	4250		4180		2		P
Selenium	ug/L	20	10.0	U	10.0	U			P
Silver	ug/L	20	5.0	U	5.0	U			P
Sodium	ug/L	20	153000		150000		2		P
Thallium	ug/L	20	20.0	U	20.0	U			P
Vanadium	ug/L	20	20.0	U	20.0	U			P
Zinc	ug/L	20	122		120		2		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **Level:** LOW **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Matrix: WATER **Sample ID:** H3893-01MS **Client ID:** MW-1MSD

Percent Solids for Sample: NA **Duplicate ID** H3893-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	1140		1140		0		P
Antimony	ug/L	20	416		414		0		P
Arsenic	ug/L	20	421		418		1		P
Barium	ug/L	20	176		176		0		P
Beryllium	ug/L	20	104		104		0		P
Cadmium	ug/L	20	100		100		0		P
Calcium	ug/L	20	28600		28600		0		P
Chromium	ug/L	20	199		200		1		P
Cobalt	ug/L	20	106		106		0		P
Copper	ug/L	20	161		161		0		P
Iron	ug/L	20	3400		3370		1		P
Lead	ug/L	20	491		490		0		P
Magnesium	ug/L	20	6130		6040		1		P
Manganese	ug/L	20	829		828		0		P
Nickel	ug/L	20	261		261		0		P
Potassium	ug/L	20	9550		9530		0		P
Selenium	ug/L	20	1010		1000		1		P
Silver	ug/L	20	37.4		37.7		1		P
Sodium	ug/L	20	151000		150000		1		P
Thallium	ug/L	20	954		956		0		P
Vanadium	ug/L	20	161		161		0		P
Zinc	ug/L	20	219		216		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **Level:** LOW **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Matrix: WATER **Sample ID:** H3928-01 **Client ID:** 001MW-PB(JULY)DUP

Percent Solids for Sample: NA **Duplicate ID** H3928-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	297		300		1		P
Antimony	ug/L	20	25.0	U	25.0	U			P
Arsenic	ug/L	20	10.0	U	10.0	U			P
Barium	ug/L	20	28.3	J	28.5	J	1		P
Beryllium	ug/L	20	3.0	U	3.0	U			P
Cadmium	ug/L	20	3.0	U	3.0	U			P
Calcium	ug/L	20	71500		71300		0		P
Chromium	ug/L	20	3.04	J	3.16	J	4		P
Cobalt	ug/L	20	15.0	U	15.0	U			P
Copper	ug/L	20	5.53	J	5.02	J	10		P
Iron	ug/L	20	519		519		0		P
Lead	ug/L	20	6.18		6.84		10		P
Magnesium	ug/L	20	4240		4260		0		P
Manganese	ug/L	20	53.6		53.3		1		P
Nickel	ug/L	20	5.01	J	5	J	0		P
Potassium	ug/L	20	13400		13400		0		P
Selenium	ug/L	20	10.0	U	10.0	U			P
Silver	ug/L	20	5.0	U	5.0	U			P
Sodium	ug/L	20	43000		42900		0		P
Thallium	ug/L	20	20.0	U	20.0	U			P
Vanadium	ug/L	20	20.0	U	20.0	U			P
Zinc	ug/L	20	39.8		39.6		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **Level:** LOW **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Matrix: WATER **Sample ID:** H3928-01MS **Client ID:** 001MW-PB(JULY)MSD

Percent Solids for Sample: NA **Duplicate ID** H3928-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	1400		1370		2		P
Antimony	ug/L	20	449		435		3		P
Arsenic	ug/L	20	439		424		3		P
Barium	ug/L	20	138		137		1		P
Beryllium	ug/L	20	113		111		2		P
Cadmium	ug/L	20	104		101		3		P
Calcium	ug/L	20	72100		71900		0		P
Chromium	ug/L	20	209		206		1		P
Cobalt	ug/L	20	106		103		3		P
Copper	ug/L	20	168		163		3		P
Iron	ug/L	20	2130		2120		0		P
Lead	ug/L	20	528		511		3		P
Magnesium	ug/L	20	5360		5340		0		P
Manganese	ug/L	20	162		161		1		P
Nickel	ug/L	20	266		258		3		P
Potassium	ug/L	20	18900		18800		1		P
Selenium	ug/L	20	1080		1050		3		P
Silver	ug/L	20	38.9		38.5		1		P
Sodium	ug/L	20	44600		44500		0		P
Thallium	ug/L	20	1030		998		3		P
Vanadium	ug/L	20	163		161		1		P
Zinc	ug/L	20	141		140		1		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **Level:** LOW **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Matrix: Solid **Sample ID:** H3934-03 **Client ID:** C2.2-01DUP

Percent Solids for Sample: 95.8 **Duplicate ID** H3934-03DUP **Percent Solids for Spike Sample:** 95.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	4170		4300		3		P
Antimony	mg/Kg	20	2.17	U	2.17	U			P
Arsenic	mg/Kg	20	1.6		1.68		5		P
Barium	mg/Kg	20	8.39		8.75		4		P
Beryllium	mg/Kg	20	0.184	J	0.183	J	1		P
Cadmium	mg/Kg	20	0.106	J	0.083	J	24		P
Calcium	mg/Kg	20	137		143		4		P
Chromium	mg/Kg	20	5.78		5.96		3		P
Cobalt	mg/Kg	20	1.73		1.71		1		P
Copper	mg/Kg	20	4.04		3.99		1		P
Iron	mg/Kg	20	4020		4160		3		P
Lead	mg/Kg	20	3.82		3.79		1		P
Magnesium	mg/Kg	20	511		528		3		P
Manganese	mg/Kg	20	45.4		46.8		3		P
Mercury	mg/Kg	20	0.01	J	0.009	J	11		CV
Nickel	mg/Kg	20	3.09		3.04		2		P
Potassium	mg/Kg	20	127		131		3		P
Selenium	mg/Kg	20	0.866	U	0.87	U			P
Silver	mg/Kg	20	0.433	U	0.435	U			P
Sodium	mg/Kg	20	10.69	J	10.9	J	2		P
Thallium	mg/Kg	20	1.73	U	1.74	U			P
Vanadium	mg/Kg	20	8.07		8.34		3		P
Zinc	mg/Kg	20	8.04		8.33		4		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **Level:** LOW **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Matrix: Solid **Sample ID:** H3934-03MS **Client ID:** C2.2-01MSD

Percent Solids for Sample: 95.8 **Duplicate ID** H3934-03MSD **Percent Solids for Spike Sample:** 95.8

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	4130		3940		5		P
Antimony	mg/Kg	20	12.3		11.8		4		P
Arsenic	mg/Kg	20	35		33.6		4		P
Barium	mg/Kg	20	17.8		17.1		4		P
Beryllium	mg/Kg	20	8.9		8.54		4		P
Cadmium	mg/Kg	20	9.15		8.73		5		P
Calcium	mg/Kg	20	183		177		3		P
Chromium	mg/Kg	20	22.6		21.6		5		P
Cobalt	mg/Kg	20	11.1		10.61		5		P
Copper	mg/Kg	20	17.2		16.5		4		P
Iron	mg/Kg	20	3800		3740		2		P
Lead	mg/Kg	20	49.1		46.6		5		P
Magnesium	mg/Kg	20	652		623		5		P
Manganese	mg/Kg	20	62.3		59.6		4		P
Mercury	mg/Kg	20	0.249		0.24		4		CV
Nickel	mg/Kg	20	26.4		25.2		5		P
Potassium	mg/Kg	20	581		556		4		P
Selenium	mg/Kg	20	80.4		77		4		P
Silver	mg/Kg	20	2.52		2.45		3		P
Sodium	mg/Kg	20	146		139		5		P
Thallium	mg/Kg	20	89.6		85.5		5		P
Vanadium	mg/Kg	20	21.1		20.3		4		P
Zinc	mg/Kg	20	17.6		17.2		2		P

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **Level:** LOW **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Matrix: WATER **Sample ID:** H3936-07 **Client ID:** TW-4DUP

Percent Solids for Sample: NA **Duplicate ID** H3936-07DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	0.2	U	0.2	U			CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **Level:** LOW **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Matrix: WATER **Sample ID:** H3936-07MS **Client ID:** TW-4MSD

Percent Solids for Sample: NA **Duplicate ID** H3936-07MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	4.42		4.38		1		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **Level:** LOW **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Matrix: WATER **Sample ID:** H3949-01 **Client ID:** 32220008-3DUP

Percent Solids for Sample: NA **Duplicate ID** H3949-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	0.2	U	0.2	U			CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **Level:** LOW **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Matrix: WATER **Sample ID:** H3949-01MS **Client ID:** 32220008-3MSD

Percent Solids for Sample: NA **Duplicate ID** H3949-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L	20	3.93		4.07		4		CV

"A control limit of ±20% RPD for each matrix applies for sample values greater than 10 times Detection Limit"

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB91971BS							
Aluminum	ug/L	1000	1010		101	80 - 120	P
Antimony	ug/L	400	401		100.3	80 - 120	P
Arsenic	ug/L	400	390		97.5	80 - 120	P
Barium	ug/L	100	106		106	80 - 120	P
Beryllium	ug/L	100	98.9		98.9	80 - 120	P
Cadmium	ug/L	100	94.2		94.2	80 - 120	P
Calcium	ug/L	500	595	J	119	80 - 120	P
Chromium	ug/L	200	196		98	80 - 120	P
Cobalt	ug/L	100	97.3		97.3	80 - 120	P
Copper	ug/L	150	157		104.7	80 - 120	P
Iron	ug/L	1500	1470		98	80 - 120	P
Lead	ug/L	500	474		94.8	80 - 120	P
Magnesium	ug/L	1000	1040		104	80 - 120	P
Manganese	ug/L	100	106		106	80 - 120	P
Nickel	ug/L	250	242		96.8	80 - 120	P
Potassium	ug/L	5000	5240		104.8	80 - 120	P
Selenium	ug/L	1000	950		95	80 - 120	P
Silver	ug/L	37.5	37		98.7	80 - 120	P
Sodium	ug/L	1500	1550		103.3	80 - 120	P
Thallium	ug/L	1000	959		95.9	80 - 120	P
Vanadium	ug/L	150	155		103.3	80 - 120	P
Zinc	ug/L	100	100		100	80 - 120	P

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB91972BS							
Aluminum	ug/L	1000	976		97.6	85 - 115	P
Antimony	ug/L	400	413		103.3	85 - 115	P
Arsenic	ug/L	400	382		95.5	85 - 115	P
Barium	ug/L	100	105		105	85 - 115	P
Beryllium	ug/L	100	95.8		95.8	85 - 115	P
Cadmium	ug/L	100	93.3		93.3	85 - 115	P
Calcium	ug/L	500	543	J	108.6	85 - 115	P
Chromium	ug/L	200	198		99	85 - 115	P
Cobalt	ug/L	100	97		97	85 - 115	P
Copper	ug/L	150	153		102	85 - 115	P
Iron	ug/L	1500	1460		97.3	85 - 115	P
Lead	ug/L	500	468		93.6	85 - 115	P
Magnesium	ug/L	1000	1010		101	85 - 115	P
Manganese	ug/L	100	105		105	85 - 115	P
Nickel	ug/L	250	239		95.6	85 - 115	P
Potassium	ug/L	5000	5140		102.8	85 - 115	P
Selenium	ug/L	1000	933		93.3	85 - 115	P
Silver	ug/L	37.5	35.6		94.9	85 - 115	P
Sodium	ug/L	1500	1540		102.7	85 - 115	P
Thallium	ug/L	1000	939		93.9	85 - 115	P
Vanadium	ug/L	150	152		101.3	85 - 115	P
Zinc	ug/L	100	97.8		97.8	85 - 115	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB91975BS							
Aluminum	mg/Kg	99.5	97.9		98.4	70 - 130	P
Antimony	mg/Kg	39.8	41.6		104.5	70 - 130	P
Arsenic	mg/Kg	39.8	38.6		97	70 - 130	P
Barium	mg/Kg	10.0	10.51		105.1	70 - 130	P
Beryllium	mg/Kg	10.0	9.68		96.8	70 - 130	P
Cadmium	mg/Kg	10.0	9.43		94.3	70 - 130	P
Calcium	mg/Kg	49.8	54.7	J	109.8	70 - 130	P
Chromium	mg/Kg	19.9	20.2		101.5	70 - 130	P
Cobalt	mg/Kg	10.0	9.84		98.4	70 - 130	P
Copper	mg/Kg	14.9	15.5		104	70 - 130	P
Iron	mg/Kg	150	151		100.7	70 - 130	P
Lead	mg/Kg	49.8	47.6		95.6	70 - 130	P
Magnesium	mg/Kg	99.5	102		102.5	70 - 130	P
Manganese	mg/Kg	10.0	10.65		106.5	70 - 130	P
Nickel	mg/Kg	24.9	24.3		97.6	70 - 130	P
Potassium	mg/Kg	500	514		102.8	70 - 130	P
Selenium	mg/Kg	99.5	93.6		94.1	70 - 130	P
Silver	mg/Kg	3.7	3.58		96.8	70 - 130	P
Sodium	mg/Kg	150	156		104	70 - 130	P
Thallium	mg/Kg	99.5	94.8		95.3	70 - 130	P
Vanadium	mg/Kg	14.9	15.4		103.4	70 - 130	P
Zinc	mg/Kg	10.0	10.24		102.4	70 - 130	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB91989BS							
Mercury	ug/L	4.0	4.04		101	85 - 115	CV

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB91990BS							
Mercury	ug/L	4.0	3.8		95	82 - 119	CV

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Metals

LABORATORY CONTROL SAMPLE SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB91998BS							
Mercury	mg/Kg	0.26	0.245		94.2	70 - 130	CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

MW-1L

Lab Name: Chemtech Consulting Group **Contract:** AKRF02

Lab Code: CHEM **Lb No.:** lb82512 **Lab Sample ID :** H3893-01L **SDG No.:** H3936

Matrix (soil/water): WATER **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	102		102	J	0		P
Antimony	25.0	U	125	U			P
Arsenic	10.0	U	14	J	100.0		P
Barium	68.9		69.1	J	0		P
Beryllium	3.0	U	15.0	U			P
Cadmium	0.83	J	15.0	U	100.0		P
Calcium	28800		29100		1		P
Chromium	4.22	J	25.0	U	100.0		P
Cobalt	15.0	U	75.0	U			P
Copper	7.96	J	50.0	U	100.0		P
Iron	1960		1980		1		P
Lead	6.0	U	30.0	U			P
Magnesium	5220		5220		0		P
Manganese	740		768		4		P
Nickel	9.88	J	100	U	100.0		P
Potassium	4250		4370	J	3		P
Selenium	10.0	U	50.0	U			P
Silver	5.0	U	25.0	U			P
Sodium	153000		158000		3		P
Thallium	20.0	U	100	U			P
Vanadium	20.0	U	100	U			P
Zinc	122		128		5		P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

001MW-PB(JULY)L

Lab Name: Chemtech Consulting Group **Contract:** AKRF02

Lab Code: CHEM **Lb No.:** lb82471 **Lab Sample ID :** H3928-01L **SDG No.:** H3936

Matrix (soil/water): WATER **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	297		322		8		P
Antimony	25.0	U	125	U			P
Arsenic	10.0	U	50.0	U			P
Barium	28.3	J	27.5	J	3		P
Beryllium	3.0	U	15.0	U			P
Cadmium	3.0	U	15.0	U			P
Calcium	71500		72500		1		P
Chromium	3.04	J	25.0	U	100.0		P
Cobalt	15.0	U	75.0	U			P
Copper	5.53	J	50.0	U	100.0		P
Iron	519		530		2		P
Lead	6.18		30.0	U	100.0		P
Magnesium	4240		4290	J	1		P
Manganese	53.6		55		3		P
Nickel	5.01	J	100	U	100.0		P
Potassium	13400		13200		1		P
Selenium	10.0	U	50.0	U			P
Silver	5.0	U	25.0	U			P
Sodium	43000		42600		1		P
Thallium	20.0	U	100	U			P
Vanadium	20.0	U	100	U			P
Zinc	39.8		42.5	J	7		P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

C2.2-01L

Lab Name: Chemtech Consulting Group **Contract:** AKRF02

Lab Code: CHEM **Lb No.:** lb82471 **Lab Sample ID :** H3934-03L **SDG No.:** H3936

Matrix (soil/water): Solid **Level (low/med):** LOW

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	4170		4290		3		P
Antimony	2.17	U	10.83	U			P
Arsenic	1.6		1.94	J	21		P
Barium	8.39		8.96	J	7		P
Beryllium	0.184	J	1.3	U	100.0		P
Cadmium	0.106	J	1.3	U	100.0		P
Calcium	137		148	J	8		P
Chromium	5.78		6.27		8		P
Cobalt	1.73		1.74	J	1		P
Copper	4.04		4.19	J	4		P
Iron	4020		5460		36		P
Lead	3.82		3.67		4		P
Magnesium	511		550		8		P
Manganese	45.4		48.8		7		P
Mercury	0.01	J	0.063	U	100.0		CV
Nickel	3.09		3.06	J	1		P
Potassium	127		127	J	0		P
Selenium	0.866	U	4.33	U			P
Silver	0.433	U	2.17	U			P
Sodium	10.69	J	433	U	100.0		P
Thallium	1.73	U	8.66	U			P
Vanadium	8.07		8.47	J	5		P
Zinc	8.04		8.5	J	6		P

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

TW-4L

Lab Name: Chemtech Consulting Group **Contract:** AKRF02

Lab Code: CHEM **Lb No.:** lb82478 **Lab Sample ID :** H3936-07L **SDG No.:** H3936

Matrix (soil/water): WATER **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.2	U	1.0	U			CV

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ICP SERIAL DILUTIONS

SAMPLE NO.

32220008-3L

Lab Name: Chemtech Consulting Group **Contract:** AKRF02

Lab Code: CHEM **Lb No.:** lb82479 **Lab Sample ID :** H3949-01L **SDG No.:** H3936

Matrix (soil/water): WATER **Level (low/med):** LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.2	U	1.0	U			CV

METAL PREPARATION & INSTRUMENT DATA

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Metals

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Instrument ID: P4 **Preparation Method:**

Analyte	Wave- length (nm)	MDL	LOD	PQL	Date:
SOLIDS					
Method:	**6010B**				
Lead	220.35	0.12	0.25	0.6	
Magnesium	279.08	4.58	25.0	100	
Manganese	257.61	0.19	0.25	1	
Nickel	231.60	0.46	0.5	2	
Potassium	766.49	3.5	25.0	100	
Selenium	196.02	0.25	0.25	1	
Silver	328.07	0.125	0.125	0.5	
Sodium	589.59	2.52	25.0	100	
Thallium	190.86	0.27	0.5	2	
Vanadium	292.40	0.50	0.5	2	
Zinc	213.8	0.50	0.5	2	
Mercury	253.70	0.10	0.1	0.2	
Mercury	253.70	0.0050	0.005	0.01	
Aluminum	396.10	4.8	25.0	50	
Antimony	206.83	5.5	12.5	25	
Arsenic	189.04	4	5.0	10	
Barium	493.41	3.7	25.0	50	
Beryllium	234.86	0.30	1.5	3	
Cadmium	226.50	0.40	1.5	3	
Calcium	373.69	21.7	500	1000	
Chromium	267.72	1.7	2.5	5	
Cobalt	228.62	4.9	7.5	15	

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Metals

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Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Instrument ID: P4 **Preparation Method:**

Analyte	Wave- length (nm)	MDL	LOD	PQL	Date:
LIQUID					
Method:	**200.7**				
Copper	224.70	2.6	5.0	10	

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Metals

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Instrument ID: P4 **Preparation Method:**

Analyte	Wave- length (nm)	MDL	LOD	PQL	Date:
LIQUID					
Method:	**200.7**				
Iron	240.48	10.1	25.0	50	
Lead	220.35	1.8	3.0	6	
Magnesium	279.08	23.8	500	1000	
Manganese	257.61	1.3	5.0	10	
Nickel	231.60	3.7	10.0	20	
Potassium	766.49	17.4	500	1000	
Selenium	196.02	4.9	5.0	10	
Silver	328.07	1.3	2.5	5	
Sodium	589.59	10.9	500	1000	
Thallium	190.86	2.2	10.0	20	
Vanadium	292.40	4	10.0	20	
Zinc	213.8	5.6	10.0	20	
Mercury	253.70	0.034	0.1	0.2	
Aluminum	396.10	6.5	12.5	50	
Antimony	206.83	6.25	6.25	25	
Arsenic	189.04	2.5	2.5	10	
Barium	493.41	4	12.5	50	
Beryllium	234.86	0.70	0.75	3	
Cadmium	226.50	0.50	0.75	3	
Calcium	373.69	31.8	250	1000	
Chromium	267.72	1.1	1.25	5	
Cobalt	228.62	3.75	3.75	15	
LIQUID					
Method:	**6010B**				
Copper	224.70	2	2.5	10	
Iron	240.48	12.5	12.5	50	
Lead	220.35	1.5	1.5	6	
Magnesium	279.08	32.5	250	1000	
Manganese	257.61	1.7	2.5	10	
Nickel	231.60	4.2	5.0	20	
Potassium	766.49	38.8	250	1000	
Selenium	196.02	4.8	5.0	10	
Silver	328.07	1.25	1.25	5	
Sodium	589.59	13.9	250	1000	
Thallium	190.86	2.4	5.0	20	
Vanadium	292.40	5	5.0	20	
Zinc	213.8	5	5.0	20	
Aluminum	396.10	0.84	1.25	5	
Antimony	206.83	0.56	0.625	2.5	
Arsenic	189.04	0.25	0.25	1	
Barium	493.41	0.40	1.25	5	
Beryllium	234.86	0.060	0.075	0.3	

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Metals

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Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Instrument ID: P4 **Preparation Method:**

Analyte	Wave- length (nm)	MDL	LOD	PQL	Date:
Cadmium	226.50	0.060	0.075	0.3	
Calcium	373.69	1.07	25.0	100	
Chromium	267.72	0.125	0.125	0.5	
Cobalt	228.62	0.375	0.375	1.5	

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Metals

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Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Instrument ID: P4 **Preparation Method:**

Analyte	Wave- length (nm)	MDL	LOD	PQL	Date:
SOLIDS					
Method: **6010B**					
Copper	224.70	0.25	0.25	1	
SOLIDS					
Method: **6010B**					
Iron	240.48	1.25	1.25	5	

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ICP INTERELEMENT CORRECTION FACTORS

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	-0.0001030	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000090	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000840	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0001620	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0001070	0.0000000	0.0000280	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000200	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001280	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001170	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001900	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Instrument ID: _____ **Date:** _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0001570
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0004170
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0002660
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0018500
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Instrument ID: _____ **Date:** _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0308240
Antimony	206.833	0.0013816	0.0000000	0.0000000	0.0000000	0.0000000
Arsenic	193.759	-0.0011220	0.0000000	0.0000000	0.0000000	0.0015300
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000740	-0.0003180
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000600
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0002280	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0011900
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0014660
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0003060	0.0000000	0.0000000	0.0001250	-0.0013650
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	-0.0137700
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0020550
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0006680	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0002250	0.0000000	0.0000000	0.0011640	0.0000000
Vanadium	292.402	-0.0032600	0.0000000	0.0000000	-0.0220050	-0.0003720
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	-0.0004160	0.0000000	0.0000000	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	-0.0000930	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0001600	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0049290	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0002444	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0057000	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Instrument ID: _____ **Date:** _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	-0.0018200	0.0000000
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	-0.0040370	0.0000000
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	-0.0346560	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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LINEAR RANGES

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Case No.:** H3936 **SAS No.:** H3936

Instrument ID: P4 **Date:** 02/20/2015

Analyte	Integration Time (sec)	LDR ug/L
Aluminum	10	1700000
Antimony	10	100000
Arsenic	10	90000
Barium	10	100000
Beryllium	10	9000
Cadmium	10	10000
Calcium	10	2750000
Chromium	10	85000
Cobalt	10	50000
Copper	10	300000
Iron	10	900000
Lead	10	280000
Magnesium	10	3750000
Manganese	10	65000
Nickel	10	70000
Potassium	10	2000000
Selenium	10	45000
Silver	10	8500
Sodium	10	2700000
Thallium	10	90000
Vanadium	10	90000
Zinc	10	40000

METAL PREPARATION & ANALYICAL SUMMARY

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SAMPLE PREPARATION SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Method:**

Case No.: H3936 **SAS No.:** H3936

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB91971**						
H3893-01DUP	MW-1DUP	DUP	WATER	07/08/2016	50.0	25.0	
H3893-01MS	MW-1MS	MS	WATER	07/08/2016	50.0	25.0	
H3893-01MSD	MW-1MSD	MSD	WATER	07/08/2016	50.0	25.0	
H3936-07	TW-4	SAM	WATER	07/08/2016	50.0	25.0	
H3936-11	TW-4	SAM	WATER	07/08/2016	50.0	25.0	
PB91971BL	PB91971BL	MB	WATER	07/08/2016	50.0	25.0	
PB91971BS	PB91971BS	LCS	WATER	07/08/2016	50.0	25.0	

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SAMPLE PREPARATION SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Method:**

Case No.: H3936 **SAS No.:** H3936

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB91972**						
H3928-01DUP	001MW-PB(JULY)DUP	DUP	WATER	07/08/2016	50.0	25.0	
H3928-01MS	001MW-PB(JULY)MS	MS	WATER	07/08/2016	50.0	25.0	
H3928-01MSD	001MW-PB(JULY)MSD	MSD	WATER	07/08/2016	50.0	25.0	
H3936-08	TW-4-DEP	SAM	WATER	07/08/2016	50.0	25.0	
PB91972BL	PB91972BL	MB	WATER	07/08/2016	50.0	25.0	
PB91972BS	PB91972BS	LCS	WATER	07/08/2016	50.0	25.0	

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SAMPLE PREPARATION SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Method:**

Case No.: H3936 **SAS No.:** H3936

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB91975**						
H3934-03DUP	C2.2-01DUP	DUP	SOLID	07/08/2016	2.40	100.0	95.80
H3934-03MS	C2.2-01MS	MS	SOLID	07/08/2016	2.39	100.0	95.80
H3934-03MSD	C2.2-01MSD	MSD	SOLID	07/08/2016	2.37	100.0	95.80
H3936-01	SB-1(9-10)	SAM	SOLID	07/08/2016	2.45	100.0	95.00
H3936-02	SB-2(9-10)	SAM	SOLID	07/08/2016	2.36	100.0	87.40
H3936-03	SB-3(5-6)	SAM	SOLID	07/08/2016	2.47	100.0	89.20
H3936-04	SB-4(4-5)	SAM	SOLID	07/08/2016	2.31	100.0	90.90
H3936-05	SB-5(1-2)	SAM	SOLID	07/08/2016	2.35	100.0	92.40
H3936-06	SB-5(4-5)	SAM	SOLID	07/08/2016	2.43	100.0	87.40
H3936-09	SB-6(11-12)	SAM	SOLID	07/08/2016	2.41	100.0	80.60
PB91975BL	PB91975BL	MB	SOLID	07/08/2016	2.02	100.0	100.00
PB91975BS	PB91975BS	LCS	SOLID	07/08/2016	2.01	100.0	100.00

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SAMPLE PREPARATION SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Method:**

Case No.: H3936 **SAS No.:** H3936

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB91989**						
H3936-08	TW-4-DEP	SAM	WATER	07/08/2016	30.0	30.0	
H3949-01DUP	32220008-3DUP	DUP	WATER	07/08/2016	30.0	30.0	
H3949-01MS	32220008-3MS	MS	WATER	07/08/2016	30.0	30.0	
H3949-01MSD	32220008-3MSD	MSD	WATER	07/08/2016	30.0	30.0	
PB91989BL	PB91989BL	MB	WATER	07/08/2016	30.0	30.0	
PB91989BS	PB91989BS	LCS	WATER	07/08/2016	30.0	30.0	

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SAMPLE PREPARATION SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Method:**

Case No.: H3936 **SAS No.:** H3936

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB91990**						
H3936-07	TW-4	SAM	WATER	07/08/2016	30.0	30.0	
H3936-07DUP	TW-4DUP	DUP	WATER	07/08/2016	30.0	30.0	
H3936-07MS	TW-4MS	MS	WATER	07/08/2016	30.0	30.0	
H3936-07MSD	TW-4MSD	MSD	WATER	07/08/2016	30.0	30.0	
H3936-11	TW-4	SAM	WATER	07/08/2016	30.0	30.0	
PB91990BL	PB91990BL	MB	WATER	07/08/2016	30.0	30.0	
PB91990BS	PB91990BS	LCS	WATER	07/08/2016	30.0	30.0	

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SAMPLE PREPARATION SUMMARY

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Contract: AKRF02 **Lab Code:** CHEM **Method:**

Case No.: H3936 **SAS No.:** H3936

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB91998**						
H3934-03DUP	C2.2-01DUP	DUP	SOLID	07/09/2016	0.59	35.0	95.80
H3934-03MS	C2.2-01MS	MS	SOLID	07/09/2016	0.57	35.0	95.80
H3934-03MSD	C2.2-01MSD	MSD	SOLID	07/09/2016	0.59	35.0	95.80
H3936-01	SB-1(9-10)	SAM	SOLID	07/09/2016	0.51	35.0	95.00
H3936-02	SB-2(9-10)	SAM	SOLID	07/09/2016	0.51	35.0	87.40
H3936-03	SB-3(5-6)	SAM	SOLID	07/09/2016	0.52	35.0	89.20
H3936-04	SB-4(4-5)	SAM	SOLID	07/09/2016	0.56	35.0	90.90
H3936-05	SB-5(1-2)	SAM	SOLID	07/09/2016	0.51	35.0	92.40
H3936-06	SB-5(4-5)	SAM	SOLID	07/09/2016	0.54	35.0	87.40
H3936-09	SB-6(11-12)	SAM	SOLID	07/09/2016	0.58	35.0	80.60
PB91998BL	PB91998BL	MB	SOLID	07/09/2016	0.52	35.0	100.00
PB91998BS	PB91998BS	LCS	SOLID	07/09/2016	0.54	35.0	100.00

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ANALYSIS RUN LOG

Client: AKRF Engineering, P.C. **Contract:** AKRF02

Lab code: CHEM **Case no.:** H3936 **Sas no.:** H3936 **Sdg no.:** H3936

Instrument id number: **Method:** **Run number:** LB82471

Start date: 07/08/2016 **End date:** 07/08/2016

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1338	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1342	Ag,Al,As,Ba,Be,Cd,Co,Cr,Cu,Fe,Mn,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1346	Ca,K,Mg,Na
S3	S3	1	1350	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1354	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1358	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1403	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1416	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1420	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1424	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1428	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1444	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1448	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV01	LLCCV01	1	1452	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1456	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB91972BL	PB91972BL	1	1500	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB91972BS	PB91972BS	1	1505	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3928-01DUP	001MW-PB(JULY)DUP	1	1513	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3928-01L	001MW-PB(JULY)L	5	1517	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3928-01MS	001MW-PB(JULY)MS	1	1521	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3928-01MSD	001MW-PB(JULY)MSD	1	1525	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB91975BL	PB91975BL	1	1537	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1541	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1545	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB91975BS	PB91975BS	1	1550	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1640	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1644	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1729	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV02	LLCCV02	1	1734	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1738	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1826	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1832	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV06	CCV06	1	1917	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV03	LLCCV03	1	1921	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1925	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV07	CCV07	1	2010	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB07	CCB07	1	2014	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV08	CCV08	1	2059	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV04	LLCCV04	1	2103	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB08	CCB08	1	2107	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV09	CCV09	1	2154	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB09	CCB09	1	2158	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV10	CCV10	1	2242	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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ANALYSIS RUN LOG

Client: AKRF Engineering, P.C. **Contract:** AKRF02

Lab code: CHEM **Case no.:** H3936 **Sas no.:** H3936 **Sdg no.:** H3936

Instrument id number: **Method:** **Run number:** LB82471

Start date: 07/08/2016 **End date:** 07/08/2016

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
LLCCV05	LLCCV05	1	2247	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB10	CCB10	1	2251	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3934-03DUP	C2.2-01DUP	1	2332	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV11	CCV11	1	2336	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB11	CCB11	1	2341	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3934-03L	C2.2-01L	5	2345	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3934-03MS	C2.2-01MS	1	2350	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3934-03MSD	C2.2-01MSD	1	2355	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3934-03A	C2.2-01A	1	2359	Ag,Sb
H3936-01	SB-1(9-10)	1	0019	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3936-02	SB-2(9-10)	1	0023	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV12	CCV12	1	0028	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV06	LLCCV06	1	0032	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB12	CCB12	1	0036	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3936-03	SB-3(5-6)	1	0040	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3936-04	SB-4(4-5)	1	0044	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3936-05	SB-5(1-2)	1	0048	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3936-06	SB-5(4-5)	1	0053	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3936-09	SB-6(11-12)	1	0057	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV13	CCV13	1	0122	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB13	CCB13	1	0126	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV14	CCV14	1	0211	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV07	LLCCV07	1	0216	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB14	CCB14	1	0220	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV15	CCV15	1	0316	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB15	CCB15	1	0321	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV16	CCV16	1	0424	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV08	LLCCV08	1	0430	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB16	CCB16	1	0435	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV17	CCV17	1	0521	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB17	CCB17	1	0525	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV18	CCV18	1	0611	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV09	LLCCV09	1	0616	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB18	CCB18	1	0621	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3936-08	TW-4-DEP	1	0626	Cd,Cu,Ni,Pb,Zn
CCV19	CCV19	1	0722	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV10	LLCCV10	1	0727	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB19	CCB19	1	0731	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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ANALYSIS RUN LOG

Client: AKRF Engineering, P.C. **Contract:** AKRF02

Lab code: CHEM **Case no.:** H3936 **Sas no.:** H3936 **Sdg no.:** H3936

Instrument id number: **Method:** **Run number:** LB82478

Start date: 07/09/2016 **End date:** 07/09/2016

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1228	HG
S0.2	S0.2	1	1235	HG
S2.5	S2.5	1	1237	HG
S5	S5	1	1239	HG
S7.5	S7.5	1	1241	HG
S10	S10	1	1243	HG
ICV05	ICV05	1	1246	HG
ICB05	ICB05	1	1251	HG
CCV01	CCV01	1	1253	HG
CCB01	CCB01	1	1257	HG
CRA	CRA	1	1300	HG
PB91990BL	PB91990BL	1	1308	HG
PB91990BS	PB91990BS	1	1310	HG
H3936-07	TW-4	1	1317	HG
H3936-07DUP	TW-4DUP	1	1319	HG
H3936-07MS	TW-4MS	1	1321	HG
CCV02	CCV02	1	1323	HG
CCB02	CCB02	1	1325	HG
H3936-07MSD	TW-4MSD	1	1327	HG
H3936-11	TW-4	1	1330	HG
CCV03	CCV03	1	1352	HG
CCB03	CCB03	1	1354	HG
H3936-07L	TW-4L	5	1407	HG
CCV04	CCV04	1	1415	HG
CCB04	CCB04	1	1420	HG

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ANALYSIS RUN LOG

Client: AKRF Engineering, P.C. **Contract:** AKRF02

Lab code: CHEM **Case no.:** H3936 **Sas no.:** H3936 **Sdg no.:** H3936

Instrument id number: **Method:** **Run number:** LB82479

Start date: 07/09/2016 **End date:** 07/09/2016

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1435	HG
S0.2	S0.2	1	1437	HG
S2.5	S2.5	1	1440	HG
S5	S5	1	1442	HG
S7.5	S7.5	1	1444	HG
S10	S10	1	1446	HG
ICV06	ICV06	1	1449	HG
ICB06	ICB06	1	1453	HG
CCV05	CCV05	1	1455	HG
CCB05	CCB05	1	1500	HG
CRA	CRA	1	1502	HG
PB91989BL	PB91989BL	1	1511	HG
PB91989BS	PB91989BS	1	1513	HG
H3936-08	TW-4-DEP	1	1519	HG
H3949-01DUP	32220008-3DUP	1	1524	HG
CCV06	CCV06	1	1526	HG
CCB06	CCB06	1	1530	HG
H3949-01MS	32220008-3MS	1	1532	HG
H3949-01MSD	32220008-3MSD	1	1534	HG
H3949-01L	32220008-3L	5	1537	HG
CCV07	CCV07	1	1541	HG
CCB07	CCB07	1	1543	HG

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ANALYSIS RUN LOG

Client: AKRF Engineering, P.C. **Contract:** AKRF02

Lab code: CHEM **Case no.:** H3936 **Sas no.:** H3936 **Sdg no.:** H3936

Instrument id number: **Method:** **Run number:** LB82485

Start date: 07/10/2016 **End date:** 07/10/2016

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1130	HG
S0.2	S0.2	1	1132	HG
S2.5	S2.5	1	1134	HG
S5	S5	1	1137	HG
S7.5	S7.5	1	1139	HG
S10	S10	1	1141	HG
ICV07	ICV07	1	1144	HG
ICB07	ICB07	1	1146	HG
CCV10	CCV10	1	1149	HG
CCB10	CCB10	1	1151	HG
CRA	CRA	1	1153	HG
CCV11	CCV11	1	1227	HG
CCB11	CCB11	1	1229	HG
PB91998BL	PB91998BL	1	1250	HG
CCV12	CCV12	1	1254	HG
CCB12	CCB12	1	1256	HG
H3934-03DUP	C2.2-01DUP	1	1301	HG
H3934-03MS	C2.2-01MS	1	1306	HG
H3934-03MSD	C2.2-01MSD	1	1308	HG
CCV13	CCV13	1	1324	HG
CCB13	CCB13	1	1327	HG
H3936-01	SB-1(9-10)	1	1343	HG
H3936-02	SB-2(9-10)	1	1345	HG
H3936-03	SB-3(5-6)	1	1347	HG
H3936-04	SB-4(4-5)	1	1350	HG
CCV14	CCV14	1	1352	HG
CCB14	CCB14	1	1354	HG
H3936-05	SB-5(1-2)	1	1356	HG
H3936-06	SB-5(4-5)	1	1359	HG
H3936-09	SB-6(11-12)	1	1401	HG
PB91998BS	PB91998BS	1	1403	HG
H3934-03L	C2.2-01L	5	1410	HG
CCV15	CCV15	1	1417	HG
CCB15	CCB15	1	1419	HG

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ANALYSIS RUN LOG

Client: AKRF Engineering, P.C. **Contract:** AKRF02

Lab code: CHEM **Case no.:** H3936 **Sas no.:** H3936 **Sdg no.:** H3936

Instrument id number: **Method:** **Run number:** LB82512

Start date: 07/11/2016 **End date:** 07/11/2016

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1137	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S1	S1	1	1141	Ag,Al,As,Ba,Be,Cd,Co,Cr,Cu,Fe,Mn,Ni,Pb,Sb,Se,Tl,V,Zn
S2	S2	1	1147	Ca,K,Mg,Na
S3	S3	1	1151	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S4	S4	1	1155	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
S5	S5	1	1159	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICV01	ICV01	1	1246	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLICV01	LLICV01	1	1250	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICB01	ICB01	1	1254	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CRI01	CRI01	1	1258	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSA01	ICSA01	1	1307	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
ICSAB01	ICSAB01	1	1310	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV01	CCV01	1	1314	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV01	LLCCV01	1	1318	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB01	CCB01	1	1323	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV02	CCV02	1	1414	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV02	LLCCV02	1	1418	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB02	CCB02	1	1422	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1507	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB03	CCB03	1	1511	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB91971BL	PB91971BL	1	1544	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB91971BS	PB91971BS	1	1549	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1557	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV03	LLCCV03	1	1601	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB04	CCB04	1	1605	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3893-01DUP	MW-1DUP	1	1609	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3893-01L	MW-1L	5	1614	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3893-01MS	MW-1MS	1	1618	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3893-01MSD	MW-1MSD	1	1622	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV05	CCV05	1	1654	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB05	CCB05	1	1658	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3936-07	TW-4	1	1720	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
H3936-11	TW-4	1	1724	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV06	CCV06	1	1745	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV04	LLCCV04	1	1749	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB06	CCB06	1	1753	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV07	CCV07	1	1838	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB07	CCB07	1	1842	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV08	CCV08	1	1928	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV05	LLCCV05	1	1932	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB08	CCB08	1	1936	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV09	CCV09	1	2023	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB09	CCB09	1	2027	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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metals
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ANALYSIS RUN LOG

Client: AKRF Engineering, P.C. **Contract:** AKRF02

Lab code: CHEM **Case no.:** H3936 **Sas no.:** H3936 **Sdg no.:** H3936

Instrument id number: **Method:** **Run number:** LB82512

Start date: 07/11/2016 **End date:** 07/11/2016

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
CCV10	CCV10	1	2112	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV06	LLCCV06	1	2116	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB10	CCB10	1	2120	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV11	CCV11	1	2205	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB11	CCB11	1	2209	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV12	CCV12	1	2254	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV07	LLCCV07	1	2258	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB12	CCB12	1	2302	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV13	CCV13	1	2348	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB13	CCB13	1	2352	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV14	CCV14	1	0033	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
LLCCV08	LLCCV08	1	0037	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCB14	CCB14	1	0041	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn

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LAB CHRONICLE

OrderID:	H3936	**OrderDate:**	7/6/2016 5:13:22 PM
Client:	AKRF Engineering, P.C.	**Project:**	NYCSCA - PS 97X Addition
Contact:	Rebecca Kinal, PE	**Location:**	P63

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
H3936-01	**SB-1(9-10)**	**SOIL**			**07/06/16 13:10**			**07/06/16**
			Cyanide	9012B		07/11/16	07/11/16 16:51	
			Hexavalent Chromium	7196A		07/07/16	07/07/16 18:45	
H3936-02	**SB-2(9-10)**	**SOIL**			**07/06/16 12:30**			**07/06/16**
			Cyanide	9012B		07/11/16	07/11/16 16:51	
			Hexavalent Chromium	7196A		07/07/16	07/07/16 18:45	
H3936-03	**SB-3(5-6)**	**SOIL**			**07/06/16 09:25**			**07/06/16**
			Cyanide	9012B		07/11/16	07/11/16 16:51	
			Hexavalent Chromium	7196A		07/07/16	07/07/16 18:46	
H3936-04	**SB-4(4-5)**	**SOIL**			**07/06/16 11:50**			**07/06/16**
			Cyanide	9012B		07/11/16	07/11/16 16:56	
			Hexavalent Chromium	7196A		07/07/16	07/07/16 18:46	
H3936-05	**SB-5(1-2)**	**SOIL**			**07/06/16 09:00**			**07/06/16**
			Cyanide	9012B		07/11/16	07/11/16 16:56	
			Hexavalent Chromium	7196A		07/07/16	07/07/16 18:48	

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LAB CHRONICLE

H3936-06	**SB-5(4-5)**	**SOIL**			**07/06/16 09:10**			**07/06/16**
			Cyanide	9012B		07/11/16	07/11/16 16:56	
			Hexavalent Chromium	7196A		07/07/16	07/07/16 18:48	
H3936-08	**TW-4-DEP**	**WATER**			**07/06/16 14:00**			**07/06/16**
			CBOD5	SM5210 B			07/07/16 13:25	
			Chloride	SM4500-CL C			07/08/16 13:00	
			Flash Point	1010A			07/12/16 09:00	
			Hexavalent Chromium	SM3500-Cr B			07/07/16 10:37	
			Nitrate+Nitrite	300			07/07/16 12:27	
			Non-Polar Material	1664A			07/12/16 10:30	
			Phenolics	420.1		07/12/16	07/13/16 11:41	
			TKN	SM4500 N Org B or C		07/12/16	07/13/16 08:55	
			Total Nitrogen	Cal			07/13/16 00:00	
			TSS	SM2540 D			07/07/16 10:30	
			TS	SM2540 B			07/11/16 16:30	
H3936-09	**SB-6(11-12)**	**SOIL**			**07/06/16 10:20**			**07/06/16**
			Cyanide	9012B		07/11/16	07/11/16 16:56	
			Hexavalent Chromium	7196A		07/07/16	07/07/16 18:49	

SAMPLE DATA

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16 13:10
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-1(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-01	Matrix:	SOIL
		% Solid:	95

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.126	U	1	0.033	0.126	0.251	mg/Kg	07/11/16 08:30	07/11/16 16:51	9012B
Hexavalent Chromium	0.168	J	1	0.084	0.211	0.421	mg/Kg	07/07/16 13:10	07/07/16 18:45	7196A

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16 12:30
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-2(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-02	Matrix:	SOIL
		% Solid:	87.4

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.13	U	1	0.034	0.13	0.26	mg/Kg	07/11/16 08:30	07/11/16 16:51	9012B
Hexavalent Chromium	0.181	J	1	0.09	0.226	0.452	mg/Kg	07/07/16 13:10	07/07/16 18:45	7196A

Comments:

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LOQ = Limit of Quantitation
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LOD = Limit of Detection
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Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

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B = Analyte Found in Associated Method Blank
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OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16 09:25
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-3(5-6)	SDG No.:	H3936
Lab Sample ID:	H3936-03	Matrix:	SOIL
		% Solid:	89.2

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.139	U	1	0.037	0.139	0.277	mg/Kg	07/11/16 08:30	07/11/16 16:51	9012B
Hexavalent Chromium	0.177	J	1	0.088	0.221	0.441	mg/Kg	07/07/16 13:10	07/07/16 18:46	7196A

Comments:

U = Not Detected
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LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16 11:50
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-4(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-04	Matrix:	SOIL
		% Solid:	90.9

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.108	J	1	0.036	0.136	0.272	mg/Kg	07/11/16 08:30	07/11/16 16:56	9012B
Hexavalent Chromium	0.217	U	1	0.087	0.217	0.433	mg/Kg	07/07/16 13:10	07/07/16 18:46	7196A

Comments:

U = Not Detected
LOQ = Limit of Quantitation
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LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
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E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16 09:00
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(1-2)	SDG No.:	H3936
Lab Sample ID:	H3936-05	Matrix:	SOIL
		% Solid:	92.4

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.035	J	1	0.034	0.128	0.255	mg/Kg	07/11/16 08:30	07/11/16 16:56	9012B
Hexavalent Chromium	0.17	J	1	0.085	0.212	0.424	mg/Kg	07/07/16 13:10	07/07/16 18:48	7196A

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16 09:10
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-06	Matrix:	SOIL
		% Solid:	87.4

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.134	U	1	0.035	0.134	0.267	mg/Kg	07/11/16 08:30	07/11/16 16:56	9012B
Hexavalent Chromium	0.179	J	1	0.089	0.224	0.447	mg/Kg	07/07/16 13:10	07/07/16 18:48	7196A

Comments:

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LOD = Limit of Detection
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H = Sample Analysis Out Of Hold Time

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B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16 14:00
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	TW-4-DEP	SDG No.:	H3936
Lab Sample ID:	H3936-08	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
CBOD5	2	U	1	2	2	2	mg/L		07/07/16 13:25	SM5210 B
Chloride	570		1	0.4	2.5	5	mg/L		07/08/16 13:00	SM4500-CL C
Flashpoint	>212		1	0	0	0	o F		07/12/16 09:00	1010A
Hexavalent Chromium	0.003	J	1	0.002	0.005	0.01	mg/L		07/07/16 10:37	SM3500-Cr-B
Nitrate+Nitrite	1.51		1	0.25	0.25	0.25	mg/L		07/07/16 12:27	300
Non-Polar Material	2.5	U	1	0.679	2.5	5	mg/L		07/12/16 10:30	1664A
Phenolics	0.006	J	1	0.002	0.025	0.05	mg/L	07/12/16 13:00	07/13/16 11:41	420.1
TKN	0.344	J	1	0.096	0.25	0.5	mg/L	07/12/16 12:30	07/13/16 08:55	SM4500-N Org B or C
Total Nitrogen	1.85		1	0.75	0.75	0.75	mg/L		07/13/16 00:00	CAL
TS	1605		1	10	10	10	mg/L		07/11/16 16:30	SM2540B
TSS	4.4		1	4	4	4	mg/L		07/07/16 10:30	SM2540D

Comments:

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MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16 10:20
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-6(11-12)	SDG No.:	H3936
Lab Sample ID:	H3936-09	Matrix:	SOIL
		% Solid:	80.6

Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.
Cyanide	0.041	J	1	0.038	0.145	0.29	mg/Kg	07/11/16 08:30	07/11/16 16:56	9012B
Hexavalent Chromium	0.098	J	1	0.098	0.245	0.49	mg/Kg	07/07/16 13:10	07/07/16 18:49	7196A

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
D = Dilution
Q = indicates LCS control criteria did not meet requirements
H = Sample Analysis Out Of Hold Time

J = Estimated Value
B = Analyte Found in Associated Method Blank
* = indicates the duplicate analysis is not within control limits.
E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

QC RESULT SUMMARY

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Initial and Continuing Calibration Verification

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition **RunNo.:** LB82458

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV						
Hexavalent Chromium	mg/L	0.499	0.5	99.8	90-110	07/07/2016
Sample ID: CCV1						
Hexavalent Chromium	mg/L	0.490	0.5	98.0	90-110	07/07/2016
Sample ID: CCV2						
Hexavalent Chromium	mg/L	0.489	0.5	97.8	90-110	07/07/2016

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Initial and Continuing Calibration Verification

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition **RunNo.:** LB82477

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV						
Hexavalent Chromium	mg/L	0.479	0.5	95.8	90-110	07/07/2016
Sample ID: CCV1						
Hexavalent Chromium	mg/L	0.504	0.5	101	90-110	07/07/2016
Sample ID: CCV2						
Hexavalent Chromium	mg/L	0.502	0.5	100	90-110	07/07/2016
Sample ID: CCV3						
Hexavalent Chromium	mg/L	0.505	0.5	101	90-110	07/07/2016
Sample ID: CCV4						
Hexavalent Chromium	mg/L	0.504	0.5	101	90-110	07/07/2016
Sample ID: CCV5						
Hexavalent Chromium	mg/L	0.505	0.5	101	90-110	07/07/2016
Sample ID: CCV6						
Hexavalent Chromium	mg/L	0.505	0.5	101	90-110	07/07/2016

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Initial and Continuing Calibration Verification

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**RunNo.:**	LB82515

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	ICV1						
Cyanide		mg/L	0.10	0.10	100	90-110	07/11/2016
Sample ID:	CCV1						
Cyanide		mg/L	0.24	0.25	96	90-110	07/11/2016
Sample ID:	CCV2						
Cyanide		mg/L	0.24	0.25	96	90-110	07/11/2016
Sample ID:	CCV3						
Cyanide		mg/L	0.25	0.25	100	90-110	07/11/2016
Sample ID:	CCV4						
Cyanide		mg/L	0.25	0.25	100	90-110	07/11/2016
Sample ID:	CCV5						
Cyanide		mg/L	0.25	0.25	100	90-110	07/11/2016
Sample ID:	CCV6						
Cyanide		mg/L	0.26	0.25	104	90-110	07/11/2016
Sample ID:	CCV7						
Cyanide		mg/L	0.26	0.25	104	90-110	07/11/2016

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Initial and Continuing Calibration Verification

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**RunNo.:**	LB82528

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Flashpoint	o F	80.00	81.50	98	90-110	07/12/2016

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Initial and Continuing Calibration Verification

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**RunNo.:**	LB82533A

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1						
Nitrate+Nitrite	mg/L	13.10	13.80	95	90-110	06/13/2016
Sample ID: CCV1						
Nitrate+Nitrite	mg/L	12.40	13.20	94	90-110	07/07/2016
Sample ID: CCV2						
Nitrate+Nitrite	mg/L	12.50	13.20	95	90-110	07/07/2016

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Initial and Continuing Calibration Verification

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**RunNo.:**	LB82545

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**CCV1**						
TKN		mg/L	4.63	5.00	93	80-120	07/13/2016
Sample ID:	**CCV2**						
TKN		mg/L	4.56	5.00	91	80-120	07/13/2016
Sample ID:	**ICV1**						
TKN		mg/L	4.57	5.00	91	80-120	07/13/2016
Sample ID:	**CCV3**						
TKN		mg/L	4.71	5.00	94	80-120	07/13/2016

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Initial and Continuing Calibration Verification

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**RunNo.:**	LB82551

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID:	**CCV1**						
Phenolics		mg/L	1.01	1.00	101.0	90-110	07/13/2016
Sample ID:	**ICV1**						
Phenolics		mg/L	1.01	1.00	101.0	90-110	07/13/2016
Sample ID:	**CCV2**						
Phenolics		mg/L	1.01	1.00	101.0	90-110	07/13/2016

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Initial and Continuing Calibration Verification

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**RunNo.:**	LB82551

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Initial and Continuing Calibration Blank Summary

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition **RunNo.:** LB82458

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: ICB						
Hexavalent Chromium	mg/L	< 0.01	+/-0.01	0.002	0.01	07/07/2016
Sample ID: CCB1						
Hexavalent Chromium	mg/L	< 0.01	+/-0.01	0.002	0.01	07/07/2016
Sample ID: CCB2						
Hexavalent Chromium	mg/L	< 0.01	+/-0.01	0.002	0.01	07/07/2016

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Initial and Continuing Calibration Blank Summary

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition **RunNo.:** LB82477

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: ICB						
Hexavalent Chromium	mg/L	< 0.01	+/-0.01	0.002	0.01	07/07/2016
Sample ID: CCB1						
Hexavalent Chromium	mg/L	< 0.01	+/-0.01	0.002	0.01	07/07/2016
Sample ID: CCB2						
Hexavalent Chromium	mg/L	< 0.01	+/-0.01	0.002	0.01	07/07/2016
Sample ID: CCB3						
Hexavalent Chromium	mg/L	< 0.01	+/-0.01	0.002	0.01	07/07/2016
Sample ID: CCB4						
Hexavalent Chromium	mg/L	< 0.01	+/-0.01	0.002	0.01	07/07/2016
Sample ID: CCB5						
Hexavalent Chromium	mg/L	< 0.01	+/-0.01	0.002	0.01	07/07/2016
Sample ID: CCB6						
Hexavalent Chromium	mg/L	< 0.01	+/-0.01	0.002	0.01	07/07/2016

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Initial and Continuing Calibration Blank Summary

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition **RunNo.:** LB82515

Analyte		Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID:	ICB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/11/2016
Sample ID:	CCB1						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/11/2016
Sample ID:	CCB2						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/11/2016
Sample ID:	CCB3						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/11/2016
Sample ID:	CCB4						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/11/2016
Sample ID:	CCB5						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/11/2016
Sample ID:	CCB6						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/11/2016
Sample ID:	CCB7						
Cyanide		mg/L	< 0.005	+/-0.005	0.003	0.005	07/11/2016

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Initial and Continuing Calibration Blank Summary

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition **RunNo.:** LB82533A

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: ICB1						
Nitrate+Nitrite	mg/L	< 0.250	+/-0.250	0.250	0.250	06/13/2016
Sample ID: CCB1						
Nitrate+Nitrite	mg/L	< 0.250	+/-0.250	0.250	0.250	07/07/2016
Sample ID: CCB2						
Nitrate+Nitrite	mg/L	< 0.250	+/-0.250	0.250	0.250	07/07/2016

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Initial and Continuing Calibration Blank Summary

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition **RunNo.:** LB82545

Analyte		Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID:	CCB1						
TKN		mg/L	< 0.500	+/-0.500	0.096	0.500	07/13/2016
Sample ID:	ICB1						
TKN		mg/L	< 0.500	+/-0.500	0.096	0.500	07/13/2016
Sample ID:	CCB2						
TKN		mg/L	< 0.500	+/-0.500	0.096	0.500	07/13/2016
Sample ID:	CCB3						
TKN		mg/L	< 0.500	+/-0.500	0.096	0.500	07/13/2016

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Initial and Continuing Calibration Blank Summary

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition **RunNo.:** LB82551

Analyte		Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID:	CCB1						
Phenolics		mg/L	< 0.050	+/-0.050	0.002	0.050	07/13/2016
Sample ID:	ICB1						
Phenolics		mg/L	< 0.050	+/-0.050	0.002	0.050	07/13/2016
Sample ID:	CCB2						
Phenolics		mg/L	< 0.050	+/-0.050	0.002	0.050	07/13/2016

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Initial and Continuing Calibration Blank Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**RunNo.:**	LB82551

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date

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Preparation Blank Summary

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition

Analyte	Units	Result	Acceptance Limits	MDL	RDL	Analysis Date
Sample ID: LB82449BL						
TSS	mg/L	< 4	+/-4	4	4	07/07/2016
Sample ID: LB82458BL						
Hexavalent Chromium	mg/L	< 0.01	+/-0.01	0.002	0.01	07/07/2016
Sample ID: LB82465BL						
CBOD5	mg/L	< 2	+/-2	2	2	07/07/2016
Sample ID: LB82470BLW						
Chloride	mg/L	< 5.00	+/-5.00	0.40	5.00	07/08/2016
Sample ID: LB82498BL						
TS	mg/L	< 10	+/-10	10	10	07/11/2016
Sample ID: LB82520BL						
Non-Polar Material	mg/L	< 5.0	+/-5.0	0.679	5.0	07/12/2016
Sample ID: LB82533BLW						
Nitrate+Nitrite	mg/L	< 0.250	+/-0.250	0.250	0.250	07/07/2016
Sample ID: PB91958BLW						
Phenolics	mg/L	< 0.050	+/-0.050	0.002	0.050	07/13/2016
Sample ID: PB91962BL						
Hexavalent Chromium	mg/Kg	< 0.397	+/-0.397	0.079	0.397	07/07/2016
Sample ID: PB92019BLS						
Cyanide	mg/Kg	< 0.250	+/-0.250	0.033	0.250	07/11/2016
Sample ID: PB92032BLW						
TKN	mg/L	< 0.500	+/-0.500	0.096	0.500	07/13/2016

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Matrix Spike Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3935-05
Client ID: C3-8S
Percent Solids for Spike Sample: 89.5

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	1.450		0.034	J	1.94	1	73		07/11/2016

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Matrix Spike Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3935-05
Client ID: C3-8SD
Percent Solids for Spike Sample: 89.5

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Cyanide	mg/Kg	75-125	1.530		0.034	J	2.03	1	74		07/11/2016

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Matrix Spike Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-08
Client ID: TW-4-DEPMS
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/L	90-111	0.98		0.003	J	1.0	2	97.7		07/07/2016

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Matrix Spike Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-08
Client ID: TW-4-DEPMSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/L	90-111	0.986		0.003	J	1.0	2	98.3		07/07/2016

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Matrix Spike Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-08
Client ID: TW-4-DEPS
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Chloride	mg/L	90-110	590		570		100	1	20.0		07/08/2016
Nitrate+Nitrite	mg/L	80-120	12.70		1.51		13.20	1	85		07/07/2016
TKN	mg/L	75-125	4.950		0.344	J	5.00	1	92		07/13/2016
Phenolics	mg/L	75-125	0.765		0.006	J	1.00	1	76.0		07/13/2016

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Matrix Spike Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-08
Client ID: TW-4-DEPSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Chloride	mg/L	90-110	600		570		100	1	30.0		07/08/2016
TKN	mg/L	75-125	4.940		0.344	J	5.00	1	92		07/13/2016
Phenolics	mg/L	75-125	0.765		0.006	J	1.00	1	76.0		07/13/2016

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Matrix Spike Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-09
Client ID: SB-6(11-12)MS
Percent Solids for Spike Sample: 80.6

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	84-110	1440		0.098	J	1590	40	90.6		07/07/2016

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Matrix Spike Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-09
Client ID: SB-6(11-12)MS
Percent Solids for Spike Sample: 80.6

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	85-115	47.3		0.098	J	49.6	2	95.2		07/07/2016

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Matrix Spike Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-09
Client ID: SB-6(11-12)MS
Percent Solids for Spike Sample: 80.6

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	84-110	46.6		0.098	J	49.6	2	93.8		07/07/2016

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Duplicate Sample Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3935-05
Client ID: C3-8D
Percent Solids for Spike Sample: 89.5

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifie	Duplicate Result	Conc. Qualifie	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	0.034	J	0.033	U	1	200		07/11/2016

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Duplicate Sample Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3935-05
Client ID: C3-8SD
Percent Solids for Spike Sample: 89.5

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifie	Duplicate Result	Conc. Qualifie	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/Kg	+/-20	1.450		1.530		1	5.4		07/11/2016

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Duplicate Sample Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-08
Client ID: TW-4-DEPD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifie	Duplicate Result	Conc. Qualifie	Dilution Factor	RPD/ AD	Qual	Analysis Date
Flashpoint	o F	+/-20	>212		>212		1	0		07/12/2016
Nitrate+Nitrite	mg/L	+/-20	1.51		1.55		1	2.6		07/07/2016
Chloride	mg/L	+/-20	570		560.0		1	1.8		07/08/2016
TKN	mg/L	+/-20	0.344	J	0.350	J	1	2.9		07/13/2016
Phenolics	mg/L	+/-20	0.006	J	0.004	J	1	40.0		07/13/2016

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Duplicate Sample Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-08
Client ID: TW-4-DEPDUP
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifie	Duplicate Result	Conc. Qualifie	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/L	+/-20	0.003	J	0.003	J	1	0		07/07/2016
CBOD5	mg/L	+/-20	2	U	2	U	1	0		07/07/2016
TS	mg/L	+/-5	1605		1607		1	0.12		07/11/2016

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Duplicate Sample Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-08
Client ID: TW-4-DEPMSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifie	Duplicate Result	Conc. Qualifie	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	**mg/L**	**+/-20**	**0.98**		**0.986**		**2**	**0.61**		**07/07/2016**

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Duplicate Sample Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-08
Client ID: TW-4-DEPSD
Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifie	Duplicate Result	Conc. Qualifie	Dilution Factor	RPD/ AD	Qual	Analysis Date
Chloride	mg/L	+/-20	590		600		1	1.7		07/08/2016
TKN	mg/L	+/-20	4.950		4.940		1	0.2		07/13/2016
Phenolics	mg/L	+/-20	0.765		0.765		1	0		07/13/2016

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Duplicate Sample Summary

Client: AKRF Engineering, P.C.
SDG No.: H3936
Project: NYCSCA - PS 97X Addition
Sample ID: H3936-09
Client ID: SB-6(11-12)DUP
Percent Solids for Spike Sample: 80.6

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifie	Duplicate Result	Conc. Qualifie	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.098	J	0.098	J	1	0		07/07/2016

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Laboratory Control Sample Summary

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition **Run No.:** LB82515

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID DOC-1								
Cyanide	mg/Kg	5.00	4.85		97	1	85-115	07/11/2016
TKN	mg/L	5.00	4.71		94	1	80-120	07/13/2016
Phenolics	mg/L	1.00	0.90		90.0	1	80-120	07/13/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82515

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID DOC-2								
Cyanide	mg/Kg	5.00	4.84		97	1	85-115	07/11/2016
TKN	mg/L	5.00	4.73		95	1	80-120	07/13/2016
Phenolics	mg/L	1.00	1.01		101.0	1	80-120	07/13/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82515

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID DOC-3								
Cyanide	mg/Kg	5.00	4.86		97	1	85-115	07/11/2016
TKN	mg/L	5.00	4.81		96	1	80-120	07/13/2016
Phenolics	mg/L	1.00	1.00		100.0	1	80-120	07/13/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82515

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID DOC-4								
Cyanide	mg/Kg	5.00	4.87		97	1	85-115	07/11/2016
TKN	mg/L	5.00	4.75		95	1	80-120	07/13/2016
Phenolics	mg/L	1.00	1.01		101.0	1	80-120	07/13/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82449

Analyte		Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	**LB82449BS**								
TSS		**mg/L**	**550**	**542**		**98.5**	**1**	**90-110**	**07/07/2016**

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82458

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB82458BS								
Hexavalent Chromium	mg/L	0.5	0.49		98.0	1	90-111	07/07/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82465

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB82465BS								
CBOD5	mg/L	200	182.5		91.3	1	84.6-115.4	07/07/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82465

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB82465BSD1								
CBOD5	mg/L	200	181.5		90.8	1	84.6-115.4	07/07/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82465

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB82465BSD2								
CBOD5	mg/L	200	179.5		89.8	1	84.6-115.4	07/07/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82470

Analyte		Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	**LB82470BSW**								
Chloride		**mg/L**	**100.00**	**98.00**		**98.0**	**1**	**90-110**	**07/08/2016**

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82520

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB82520BS								
Non-Polar Material	mg/L	20.0	19.1		95.5	1	78-114	07/12/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82520

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB82520BSD								
Non-Polar Material	mg/L	20.0	19.3		96.5	1	78-114	07/12/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82533A

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID LB82533BSW								
Nitrate+Nitrite	mg/L	13.80	12.90		93	1	90-110	07/07/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82551

Analyte		Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	**PB91958BSW**								
Phenolics		**mg/L**	**1.00**	**1.01**		**101.0**	**1**	**80-120**	**07/13/2016**

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82477

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID PB91962BS								
Hexavalent Chromium	mg/Kg	20	19.2		96.0	1	84-110	07/07/2016

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82515

Analyte		Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	**PB92019BSS**								
Cyanide		**mg/Kg**	**5.00**	**4.95**		**99**	**1**	**85-115**	**07/11/2016**

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Laboratory Control Sample Summary

Client:	AKRF Engineering, P.C.	**SDG No.:**	H3936
Project:	NYCSCA - PS 97X Addition	**Run No.:**	LB82545

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID PB92032BSW								
TKN	mg/L	5.00	4.59		92	1	80-120	07/13/2016

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Method Detection Limits

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition

Analyte	Units	MDL	RDL
Method: 1010A Flashpoint		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
Flashpoint	o F	0.00	0.00
Method: 1664A Nonpolar Material		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
Non-Polar Material	mg/L	0.679	5
Method: 300 Nitrate+Nitrite		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
Nitrate+Nitrite	mg/L	0.250	0.250
Method: 420.1 Phenolics		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
Phenolics	mg/L	0.002	0.050
Method: 7196A Hexavalent Chromium		**MDL Date:**	01/15/2006
Matrix Category: SOLID			
Hexavalent Chromium	mg/Kg	0.08	0.4
Method: 9012B Cyanide		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
Cyanide	mg/L	0.003	0.005
Matrix Category: SOLIDS			
Cyanide	mg/Kg	0.033	0.025
Method: SM2540 D TSS		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
TSS	mg/L	4	4
Method: SM2540B TS		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
TS	mg/L	10	10
Method: SM3500-Cr-B		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
Hexavalent Chromium	mg/L	0.002	0.01
Method: SM4500-Cl-C Chloride		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
Chloride	mg/L	0.40	5.00
Method: SM4500-N Org B or C TKN		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
TKN	mg/L	0.096	0.500
Method: SM5210B BOD5		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
CBOD5	mg/L	2	2
Method: Total Nitrogen		**MDL Date:**	01/15/2006
Matrix Category: LIQUID			
Total Nitrogen	mg/L	0.750	0.750

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO. H3936
QUOTE NO.
COC Number 033847

15.1

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: AKRF
ADDRESS: 440 PARK AVE SOUTH 7TH FLR
CITY: NEW YORK STATE: NY ZIP: 10016
ATTENTION: REBECCA KINAL
PHONE: 914-922-2362 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: PS97X ADDITION
PROJECT NO.: 89153 LOCATION: BRONX, NY
PROJECT MANAGER: REBECCA KINAL
e-mail: RKINAL@AKRF.COM
PHONE: 914-922-2362 FAX:

CLIENT BILLING INFORMATION

BILL TO: SAME AS CLIENT PO#:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EDD: AB ~~X~~ 5 DAYS *
PREAPPROVED TAT: ☒ YES ☐ NO
* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ LEVEL 1: Results only ☐ Others _____
☐ LEVEL 2: Results + QC
☐ LEVEL 3: Results (plus results raw data) + QC
☐ LEVEL 4: Results + QC (all raw data)
☒ EDD Format: EMAIL

ANALYSIS

1 TCL+CP51 VOCs+TICs
2 TCL+CP51 SVOCs+TICs
3 TAL metals
4 PCBs
5 TPH DRO/GRO
6 Hex Chromium
7 Cyanide
8 NYSDEP DISCHARGE
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	SB-1 (9-10)	S		X	7/6/16	1310	5	X	X	X	X						For GW samples - TAL metals (unfiltered/filtered) lab to do.
2.	SB-2 (9-10)	S		X	7/6/16	1230	5	X	X	X	X						
3.	SB-3 (5-6)	S		X	7/6/16	925	5	X	X	X	X						
4.	SB-4 (4-5)	S		X	7/6/16	150	5	X	X	X	X						
5.	SB-5 (1-2)	S		X	7/6/16	900	9	X	X	X	X	X	X	X			
6.	SB-5 (4-5)	S		X	7/6/16	910	5	X	X	X	X						
7.	TW-4	GW			7/6/16	1245	6	X	X	X	X						
8.	TW-4-DEP	GW			7/6/16	1400	7								X		
9.	SB-6 (11-12)	S		X	7/6/16	1020	5	X	X	X	X						
10.	TRIP BLANK	AQ			7/6		2	X									

← Specify Preservatives
A-HCl B-HNO_3
C-H_2SO_4 D-NaOH
E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	7/6/16 16:15	
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2.		2.
RELINQUISHED BY:	DATE/TIME: 1800 7-6-16	RECEIVED FOR LAB BY: Sneha Mehta
3.		3.

Conditions of bottles or coolers at receipt: ☒ Compliant ☐ Non Compliant
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:

Cooler Temp. 5°C
Ice in Cooler?: YES

Page _____ of _____

SHIPPED VIA: CLIENT: ☐ HAND DELIVERED ☐ OVERNIGHT
CHEMTECH: ☒ PICKED UP ☐ OVERNIGHT

Shipment Complete: ☒ YES ☐ NO

Revision 8/2007

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

From: Adrianna Bosco <abosco@akrf.com>
Sent: Thursday, July 07, 2016 12:04 PM
To: Snehal Mehta
Subject: Re: 89153 Chain of Custody

Yes that is fine, they may proceed.

Adrianna Bosco

.....

AKRF, INC.
Environmental, Planning, and Engineering Consultants

440 Park Ave South , 7th Floor | New York , NY 10016
P) 646.388.9576 | C) 914.874.3358 | F) 212.726.0942

www.akrf.com

On Thu, Jul 7, 2016 at 12:03 PM, Snehal Mehta <Snehal@chemtech.net> wrote:

Adrianna,

Lab will need your permission to use 4-Oz for **GRO** as only 3-encore were provided for SB-1, SB-2, SB-3, SB-4, SB-5(4-5) & SB-6(11-12)

Regards,

Snehal Mehta

Tel. 908 728 3149

Fax: 908-789-8514

From: Adrianna Bosco [mailto:abosco@akrf.com]
Sent: Thursday, July 07, 2016 9:21 AM
To: Snehal Mehta
Subject: Re: 89153 Chain of Custody

Yes, that looks correct.

Thank you,

Adrianna Bosco

.....

AKRF, INC.
Environmental, Planning, and Engineering Consultants

440 Park Ave South , 7th Floor | New York , NY 10016
P) 646.388.9576 | C) 914.874.3358 | F) 212.726.0942

www.akrf.com

On Thu, Jul 7, 2016 at 9:18 AM, Snehal Mehta <Snehal@chemtech.net> wrote:

Good Morning Adrianna,

Here is the screen shot of the updated COC per your request please confirm if this looks ok to proceed further.

CHAIN OF CUSTODY RECORD

www.chemtech.net

CLIENT INFORMATION (REPORT TO BE SENT TO:)

COMPANY: AKRF
ADDRESS: 440 PARK AVE SOUTH 7TH FLR
CITY: NEW YORK STATE: NY ZIP: 10016
ATTENTION: REBECCA KINAL
PHONE: 914-922-2362 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: PS97X ADDITION
PROJECT NO.: 89153 LOCATION: BRONX, NY
PROJECT MANAGER: REBECCA KINAL
e-mail: RKINAL@AKRF.COM
PHONE: 914-922-2362 FAX:

BILL
ADD
CITY
ATTI

DATA TURNAROUND INFORMATION

FAX: _____ DAYS *
HARD COPY: _____ DAYS *
EDD: AB ~~X~~ 5 DAYS *
PREAPPROVED TAT: ☒ YES ☐ NO
* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ LEVEL 1: Results only ☐ Others _____
☐ LEVEL 2: Results + QC
☐ LEVEL 3: Results (plus results raw data) + QC
☐ LEVEL 4: Results + QC (all raw data)
☒ EDD Format: EMAIL

1 TCL+CP51 VD
2 TCL+CP51
3 TPH

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PR 1	2	3	4
1.	SB-1 (9-10)	S		X	7/6/16	1310	5	X	X	X	X
2.	SB-2 (9-10)	S		X	7/6/16	1230	5	X	X	X	X
3.	SB-3 (5-6)	S		X	7/6/16	925	5	X	X	X	X
4.	SB-4 (4-5)	S		X	7/6/16	150	5	X	X	X	X
5.	SB-5 (1-2)	S		X	7/6/16	900	9	X	X	X	X
6.	SB-5 (4-5)	S		X	7/6/16	910	5	X	X	X	X
7.	TW-4	GW			7/6/16	1245	6	X	X	X	X
8.	TW-4-DEP	GW			7/6/16	1400	7				
9.	SB-6 (11-12)	S		X	7/6/16	1020	5	X	X	X	X
10.	TRIP BLANK	AQ			7/6		5	X			

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION IN

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	7/6/16 16:15	
RELINQUISHED BY: 2.	DATE/TIME:	RECEIVED BY: 2.
RELINQUISHED BY: 3.	DATE/TIME: 1800 7.6.16	RECEIVED FOR LAB BY: 3. Sneha Mehta

Conditions of bottles or coolers at receipt: ☒ Co
MeOH extraction requires an additional 4 oz jar fo
Comments:

Page _____ of _____

SHIPPED VIA:

Revision 8/2007

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Regards,

Snehal Mehta

Tel. 908 728 3149

Fax: 908-789-8514

From: Adrianna Bosco [mailto:abosco@akrf.com]
Sent: Wednesday, July 06, 2016 5:09 PM
To: snehal@chemtech.net
Subject: 89153 Chain of Custody

Hi,

We did not mark it on the chain of custody today, but if there is enough sample volume, can you please analyze all soil samples for TPH (DRO/GRO), cyanide, and hexavalent chromium?

Thank you,

Adrianna Bosco

.....

AKRF, INC.
Environmental, Planning, and Engineering Consultants

440 Park Ave South , 7th Floor | New York , NY 10016
P) 646.388.9576 | C) 914.874.3358 | F) 212.726.0942

www.akrf.com

CHEMTECH 284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	EP-W-14-030
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Florida	E87935
Maine	2012025
Maryland	296
New Hampshire	255413
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-13-00380
Texas	T104704488-13-5

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

15.4

Order ID:	H3936 AKRF02	**Order Date:**	7/6/2016	**Project Mgr:**	SNEHAL
Client Name:	AKRF Engineering, P.C.	**Project Name:**	NYCSCA - PS 97X Addition	**Report Type:**	Results+QC
Client Contact:	Rebecca Kinal, PE	**Rec DateTime**	7/6/2016 6:00:00 PM	**EDD:**	EXCEL NOCLEANUP
Invoice Name:	AKRF Engineering, P.C.	**Purchase Order:**		**Hard Copy Date:**	
Invoice Contact	Rebecca Kinal, PE	**Login Tech:**	nilesh	**Date Signoff:**	7/7/2016 12:56:02 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	QTY	TEST	TEST GROUP	METHOD	COMMENT	FAX DATE	Due Dates
H3936-01	SB-1(9-10)	Solid	7/6/2016	13:10	9						
						VOCMS Group1		8260C		5 Bus.	
H3936-02	SB-2(9-10)	Solid	7/6/2016	12:30	9						
						VOCMS Group1		8260C		5 Bus.	
H3936-03	SB-3(5-6)	Solid	7/6/2016	9:25	9						
						VOCMS Group1		8260C		5 Bus.	
H3936-04	SB-4(4-5)	Solid	7/6/2016	11:50	9						
						VOCMS Group1		8260C		5 Bus.	
H3936-05	SB-5(1-2)	Solid	7/6/2016	9:00	9						
						VOCMS Group1		8260C		5 Bus.	
H3936-06	SB-5(4-5)	Solid	7/6/2016	9:10	9						
						VOCMS Group1		8260C		5 Bus.	
H3936-07	TW-4	Water	7/6/2016	12:45	6						
						VOCMS Group1		8260-Low		5 Bus.	
H3936-08	TW-4-DEP	Water	7/6/2016	14:00	8						
						VOCMS Group2		624		5 Bus.	
H3936-09	SB-6(11-12)	Solid	7/6/2016	10:20	9						
						VOCMS Group1		8260C		5 Bus.	
H3936-10	TRIPBLANK	Water	7/6/2016	0:00	2						
						VOCMS Group1		8260-Low		5 Bus.	

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

15.4

Order ID:	H3936 AKRF02	**Order Date:**	7/6/2016	**Project Mgr:**	SNEHAL
Client Name:	AKRF Engineering, P.C.	**Project Name:**	NYCSCA - PS 97X Addition	**Report Type:**	Results+QC
Client Contact:	Rebecca Kinal, PE	**Rec DateTime**	7/6/2016 6:00:00 PM	**EDD:**	EXCEL NOCLEANUP
Invoice Name:	AKRF Engineering, P.C.	**Purchase Order:**		**Hard Copy Date:**	
Invoice Contact	Rebecca Kinal, PE	**Login Tech:**	nilesh	**Date Signoff:**	7/7/2016 12:56:02 PM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	QTY	TEST	TEST GROUP	METHOD	COMMENT	FAX DATE	Due Dates

SAMPLE CONDITION RECORD

Are samples submitted with a chain of custody?	Yes
Are the number of samples the same as stated on the chain of custody?	Yes
Are bottle caps tight and securely in place?	Yes
Were all containers intact when received?	Yes
Were samples submitted in an ice chest?	Yes
Were samples received cold?	Yes
Were samples within the holding time for the requested test(s)?	Yes
Is the volume of sample submitted sufficient for the requested test(s)?	Yes
Are all samples for volatile organic analyses free of headspace?	Yes

ORDER COMMENT

----VOCMS Group1= TCL+CP-51 compounds. SVOCMS Group1 = TCL+CP-51 compounds. VOCMS group2 = NYCDischarge compounds. SVOCMS Group2 = NYCDischarge compounds. Metals Group2 = NYCDischarge metals. PCB Group2 =

Relinguished By: LD

Date / Time: 7/7/16 1300

Received By: [signature]

Date / Time: 7/7/16 1300

Storage Area: VOA Refridgerator Room

ANALYTICAL REPORT

Lab Number:	L1620811
Client:	AKRF, Inc. 440 Park Avenue South 7th Floor New York, NY 10016
ATTN:	Becky Kinal
Phone:	(212) 696-0670
Project Name:	PS 97X ADDITION
Project Number:	89153
Report Date:	07/13/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: PS 97X ADDITION
Project Number: 89153

Lab Number: L1620811
Report Date: 07/13/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1620811-01	SV-1	SOIL_VAPOR	1375 MACE AVE, BRONX, NY	07/06/16 13:52	07/06/16
L1620811-02	SV-2	SOIL_VAPOR	1375 MACE AVE, BRONX, NY	07/06/16 14:54	07/06/16
L1620811-03	SV-3	SOIL_VAPOR	1375 MACE AVE, BRONX, NY	07/06/16 10:50	07/06/16
L1620811-04	SV-5	SOIL_VAPOR	1375 MACE AVE, BRONX, NY	07/06/16 10:22	07/06/16
L1620811-05	SV-6	SOIL_VAPOR	1375 MACE AVE, BRONX, NY	07/06/16 11:35	07/06/16

Project Name: PS 97X ADDITION **Lab Number:** L1620811
Project Number: 89153 **Report Date:** 07/13/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: PS 97X ADDITION **Lab Number:** L1620811
Project Number: 89153 **Report Date:** 07/13/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on July 5, 2016. The canister certification results are provided as an addendum.

Samples L1620811-01, -02, -03, -05 and WG912334-5 Duplicate: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

Samples L1620811-03 through -05: The samples were re-analyzed on dilution in order to quantify the results within the calibration range. The results should be considered estimated, and are qualified with an E flag, for any compounds that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compounds that exceeded the calibration range.

Methane in Air

Samples L1620811-01 through -05: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen in order to facilitate the transfer of sample to the Gas Chromatograph. The addition of Nitrogen resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 07/13/16

AIR

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID: L1620811-01 D
Client ID: SV-1
Sample Location: 1375 MACE AVE, BRONX, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/11/16 17:07
Analyst: MB

Date Collected: 07/06/16 13:52
Date Received: 07/06/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	9.52	0.400	--	19.7	0.826	--		2
Vinyl chloride	1.35	0.040	--	3.45	0.102	--		2
Chloroethane	2.11	0.040	--	5.57	0.106	--		2
1,1-Dichloroethene	ND	0.040	--	ND	0.159	--		2
Methylene chloride	ND	1.00	--	ND	3.47	--		2
trans-1,2-Dichloroethene	0.044	0.040	--	0.174	0.159	--		2
1,1-Dichloroethane	ND	0.040	--	ND	0.162	--		2
Methyl tert butyl ether	ND	0.400	--	ND	1.44	--		2
cis-1,2-Dichloroethene	ND	0.040	--	ND	0.159	--		2
1,2-Dichloroethane	ND	0.040	--	ND	0.162	--		2
1,1,1-Trichloroethane	0.070	0.040	--	0.382	0.218	--		2
Benzene	23.8	0.200	--	76.0	0.639	--		2
Carbon tetrachloride	0.064	0.040	--	0.403	0.252	--		2
1,2-Dichloropropane	ND	0.040	--	ND	0.185	--		2
Trichloroethene	0.376	0.040	--	2.02	0.215	--		2
Toluene	61.7	0.100	--	233	0.377	--		2
Tetrachloroethene	1.65	0.040	--	11.2	0.271	--		2
Chlorobenzene	ND	0.200	--	ND	0.921	--		2
Ethylbenzene	38.0	0.040	--	165	0.174	--		2
p/m-Xylene	198	0.080	--	860	0.347	--		2
o-Xylene	66.5	0.040	--	289	0.174	--		2
1,3,5-Trimethylbenzene	3.87	0.040	--	19.0	0.197	--		2
1,2,4-Trimethylbenzene	13.4	0.040	--	65.9	0.197	--		2
1,3-Dichlorobenzene	ND	0.040	--	ND	0.240	--		2

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID: L1620811-01 D
Client ID: SV-1
Sample Location: 1375 MACE AVE, BRONX, NY
Date Collected: 07/06/16 13:52
Date Received: 07/06/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.040	--	ND	0.240	--		2
Naphthalene	0.826	0.100	--	4.33	0.524	--		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	103		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	110		60-140

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID: L1620811-02 D
Client ID: SV-2
Sample Location: 1375 MACE AVE, BRONX, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/11/16 17:40
Analyst: MB

Date Collected: 07/06/16 14:54
Date Received: 07/06/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.922	0.400	--	1.90	0.826	--		2
Vinyl chloride	0.090	0.040	--	0.230	0.102	--		2
Chloroethane	0.130	0.040	--	0.343	0.106	--		2
1,1-Dichloroethene	ND	0.040	--	ND	0.159	--		2
Methylene chloride	ND	1.00	--	ND	3.47	--		2
trans-1,2-Dichloroethene	ND	0.040	--	ND	0.159	--		2
1,1-Dichloroethane	ND	0.040	--	ND	0.162	--		2
Methyl tert butyl ether	ND	0.400	--	ND	1.44	--		2
cis-1,2-Dichloroethene	ND	0.040	--	ND	0.159	--		2
1,2-Dichloroethane	ND	0.040	--	ND	0.162	--		2
1,1,1-Trichloroethane	ND	0.040	--	ND	0.218	--		2
Benzene	6.34	0.200	--	20.3	0.639	--		2
Carbon tetrachloride	ND	0.040	--	ND	0.252	--		2
1,2-Dichloropropane	ND	0.040	--	ND	0.185	--		2
Trichloroethene	ND	0.040	--	ND	0.215	--		2
Toluene	32.8	0.100	--	124	0.377	--		2
Tetrachloroethene	1.16	0.040	--	7.87	0.271	--		2
Chlorobenzene	ND	0.200	--	ND	0.921	--		2
Ethylbenzene	21.6	0.040	--	93.8	0.174	--		2
p/m-Xylene	111	0.080	--	482	0.347	--		2
o-Xylene	36.2	0.040	--	157	0.174	--		2
1,3,5-Trimethylbenzene	1.99	0.040	--	9.78	0.197	--		2
1,2,4-Trimethylbenzene	6.50	0.040	--	32.0	0.197	--		2
1,3-Dichlorobenzene	1.02	0.040	--	6.13	0.240	--		2

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID: L1620811-02 D
Client ID: SV-2
Sample Location: 1375 MACE AVE, BRONX, NY
Date Collected: 07/06/16 14:54
Date Received: 07/06/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichlorobenzene	0.102	0.040	--	0.613	0.240	--		2
Naphthalene	0.598	0.100	--	3.14	0.524	--		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	134		60-140
bromochloromethane	117		60-140
chlorobenzene-d5	122		60-140

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID: L1620811-03 D
Client ID: SV-3
Sample Location: 1375 MACE AVE, BRONX, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/11/16 18:46
Analyst: MB

Date Collected: 07/06/16 10:50
Date Received: 07/06/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	2.07	0.400	--	4.27	0.826	--		2
Vinyl chloride	0.122	0.040	--	0.312	0.102	--		2
Chloroethane	0.980	0.040	--	2.59	0.106	--		2
1,1-Dichloroethene	ND	0.040	--	ND	0.159	--		2
Methylene chloride	ND	1.00	--	ND	3.47	--		2
trans-1,2-Dichloroethene	0.042	0.040	--	0.167	0.159	--		2
1,1-Dichloroethane	0.154	0.040	--	0.623	0.162	--		2
Methyl tert butyl ether	ND	0.400	--	ND	1.44	--		2
cis-1,2-Dichloroethene	0.100	0.040	--	0.396	0.159	--		2
1,2-Dichloroethane	ND	0.040	--	ND	0.162	--		2
1,1,1-Trichloroethane	0.238	0.040	--	1.30	0.218	--		2
Benzene	19.3	0.200	--	61.7	0.639	--		2
Carbon tetrachloride	0.052	0.040	--	0.327	0.252	--		2
1,2-Dichloropropane	ND	0.040	--	ND	0.185	--		2
Trichloroethene	0.724	0.040	--	3.89	0.215	--		2
Toluene	77.9	0.100	--	294	0.377	--		2
Tetrachloroethene	2.22	0.040	--	15.1	0.271	--		2
Chlorobenzene	ND	0.200	--	ND	0.921	--		2
Ethylbenzene	42.2	0.040	--	183	0.174	--		2
p/m-Xylene	203	0.080	--	882	0.347	--	E	2
o-Xylene	69.5	0.040	--	302	0.174	--		2
1,3,5-Trimethylbenzene	3.50	0.040	--	17.2	0.197	--		2
1,2,4-Trimethylbenzene	11.8	0.040	--	58.0	0.197	--		2
1,3-Dichlorobenzene	ND	0.040	--	ND	0.240	--		2

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID: L1620811-03 D
Client ID: SV-3
Sample Location: 1375 MACE AVE, BRONX, NY
Date Collected: 07/06/16 10:50
Date Received: 07/06/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.040	--	ND	0.240	--		2
Naphthalene	0.558	0.100	--	2.93	0.524	--		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	135		60-140
bromochloromethane	122		60-140
chlorobenzene-d5	125		60-140

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID:	L1620811-03 D2	Date Collected:	07/06/16 10:50
Client ID:	SV-3	Date Received:	07/06/16
Sample Location:	1375 MACE AVE, BRONX, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	07/11/16 20:55		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
p/m-Xylene	205	0.200	--	890	0.869	--		5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	139		60-140
bromochloromethane	129		60-140
chlorobenzene-d5	132		60-140

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID: L1620811-04
Client ID: SV-5
Sample Location: 1375 MACE AVE, BRONX, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/11/16 21:30
Analyst: MB

Date Collected: 07/06/16 10:22
Date Received: 07/06/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	4.45	0.200	--	9.19	0.413	--		1
Vinyl chloride	0.510	0.020	--	1.30	0.051	--		1
Chloroethane	0.711	0.020	--	1.88	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.134	0.020	--	0.542	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
cis-1,2-Dichloroethene	0.020	0.020	--	0.079	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.099	0.020	--	0.540	0.109	--		1
Benzene	14.5	0.100	--	46.3	0.319	--		1
Carbon tetrachloride	0.054	0.020	--	0.340	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Trichloroethene	0.166	0.020	--	0.892	0.107	--		1
Toluene	54.0	0.050	--	203	0.188	--	E	1
Tetrachloroethene	1.38	0.020	--	9.36	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	33.4	0.020	--	145	0.087	--		1
p/m-Xylene	154	0.040	--	669	0.174	--	E	1
o-Xylene	57.9	0.020	--	251	0.087	--	E	1
1,3,5-Trimethylbenzene	3.01	0.020	--	14.8	0.098	--		1
1,2,4-Trimethylbenzene	10.9	0.020	--	53.6	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID: L1620811-04
Client ID: SV-5
Sample Location: 1375 MACE AVE, BRONX, NY
Date Collected: 07/06/16 10:22
Date Received: 07/06/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
Naphthalene	0.457	0.050	--	2.40	0.262	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	135		60-140
bromochloromethane	124		60-140
chlorobenzene-d5	133		60-140

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID:	L1620811-04 D	Date Collected:	07/06/16 10:22
Client ID:	SV-5	Date Received:	07/06/16
Sample Location:	1375 MACE AVE, BRONX, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	07/12/16 08:25		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Toluene	60.6	0.250	--	228	0.942	--		5
p/m-Xylene	194	0.200	--	843	0.869	--		5
o-Xylene	60.7	0.100	--	264	0.434	--		5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	128		60-140
bromochloromethane	105		60-140
chlorobenzene-d5	114		60-140

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID: L1620811-05 D
Client ID: SV-6
Sample Location: 1375 MACE AVE, BRONX, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/12/16 07:53
Analyst: MB

Date Collected: 07/06/16 11:35
Date Received: 07/06/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	ND	0.250	--	ND	0.516	--		1.25
Vinyl chloride	0.108	0.025	--	0.276	0.064	--		1.25
Chloroethane	0.292	0.025	--	0.771	0.066	--		1.25
1,1-Dichloroethene	ND	0.025	--	ND	0.099	--		1.25
Methylene chloride	ND	0.625	--	ND	2.17	--		1.25
trans-1,2-Dichloroethene	ND	0.025	--	ND	0.099	--		1.25
1,1-Dichloroethane	ND	0.025	--	ND	0.101	--		1.25
Methyl tert butyl ether	ND	0.250	--	ND	0.901	--		1.25
cis-1,2-Dichloroethene	ND	0.025	--	ND	0.099	--		1.25
1,2-Dichloroethane	ND	0.025	--	ND	0.101	--		1.25
1,1,1-Trichloroethane	0.056	0.025	--	0.307	0.136	--		1.25
Benzene	8.83	0.125	--	28.2	0.399	--		1.25
Carbon tetrachloride	0.102	0.025	--	0.642	0.157	--		1.25
1,2-Dichloropropane	ND	0.025	--	ND	0.116	--		1.25
Trichloroethene	0.038	0.025	--	0.202	0.134	--		1.25
Toluene	55.0	0.063	--	207	0.236	--		1.25
Tetrachloroethene	1.78	0.025	--	12.1	0.170	--		1.25
Chlorobenzene	ND	0.125	--	ND	0.576	--		1.25
Ethylbenzene	39.6	0.025	--	172	0.109	--		1.25
p/m-Xylene	206	0.050	--	895	0.217	--	E	1.25
o-Xylene	75.7	0.025	--	329	0.109	--	E	1.25
1,3,5-Trimethylbenzene	3.75	0.025	--	18.4	0.123	--		1.25
1,2,4-Trimethylbenzene	13.9	0.025	--	68.3	0.123	--		1.25
1,3-Dichlorobenzene	0.029	0.025	--	0.173	0.150	--		1.25

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID: L1620811-05 D
Client ID: SV-6
Sample Location: 1375 MACE AVE, BRONX, NY
Date Collected: 07/06/16 11:35
Date Received: 07/06/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.025	--	ND	0.150	--		1.25
Naphthalene	0.765	0.063	--	4.01	0.328	--		1.25

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	134		60-140
bromochloromethane	119		60-140
chlorobenzene-d5	125		60-140

Project Name: PS 97X ADDITION
Project Number: 89153
Lab Number: L1620811
Report Date: 07/13/16

SAMPLE RESULTS

Lab ID:	L1620811-05 D2	Date Collected:	07/06/16 11:35
Client ID:	SV-6	Date Received:	07/06/16
Sample Location:	1375 MACE AVE, BRONX, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	07/12/16 08:58		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
p/m-Xylene	237	0.133	--	1030	0.578	--		3.333
o-Xylene	73.8	0.067	--	321	0.290	--		3.333

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	126		60-140
bromochloromethane	105		60-140
chlorobenzene-d5	113		60-140

Project Name: PS 97X ADDITION **Lab Number:** L1620811

Project Number: 89153 **Report Date:** 07/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 07/11/16 15:12

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-05 Batch: WG912334-4								
Chloromethane	ND	0.200	--	ND	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: PS 97X ADDITION
Project Number: 89153

Lab Number: L1620811
Report Date: 07/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 07/11/16 15:12

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-05 Batch: WG912334-4								
Naphthalene	ND	0.050	--	ND	0.262	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: PS 97X ADDITION
Project Number: 89153

Lab Number: L1620811
Report Date: 07/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 Batch: WG912334-3								
Chloromethane	108		-		70-130	-		25
Vinyl chloride	106		-		70-130	-		25
Chloroethane	101		-		70-130	-		25
1,1-Dichloroethene	101		-		70-130	-		25
Methylene chloride	115		-		70-130	-		25
trans-1,2-Dichloroethene	79		-		70-130	-		25
1,1-Dichloroethane	90		-		70-130	-		25
Methyl tert butyl ether	79		-		70-130	-		25
cis-1,2-Dichloroethene	95		-		70-130	-		25
1,2-Dichloroethane	85		-		70-130	-		25
1,1,1-Trichloroethane	105		-		70-130	-		25
Benzene	104		-		70-130	-		25
Carbon tetrachloride	103		-		70-130	-		25
1,2-Dichloropropane	114		-		70-130	-		25
Trichloroethene	96		-		70-130	-		25
Toluene	84		-		70-130	-		25
Tetrachloroethene	79		-		70-130	-		25
Chlorobenzene	84		-		70-130	-		25
Ethylbenzene	88		-		70-130	-		25
p/m-Xylene	93		-		70-130	-		25
o-Xylene	94		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: PS 97X ADDITION
Project Number: 89153

Lab Number: L1620811
Report Date: 07/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 Batch: WG912334-3								
1,3,5-Trimethylbenzene	92		-		70-130	-		25
1,2,4-Trimethylbenzene	100		-		70-130	-		25
1,3-Dichlorobenzene	98		-		70-130	-		25
1,2-Dichlorobenzene	95		-		70-130	-		25
Naphthalene	101		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: PS 97X ADDITION
Project Number: 89153

Lab Number: L1620811
Report Date: 07/13/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG912334-5 QC Sample: L1620811-02 Client ID: SV-2						
Chloromethane	0.922	0.956	ppbV	4		25
Vinyl chloride	0.090	0.092	ppbV	2		25
Chloroethane	0.130	0.128	ppbV	2		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Benzene	6.34	6.39	ppbV	1		25
Carbon tetrachloride	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Trichloroethene	ND	ND	ppbV	NC		25
Toluene	32.8	32.7	ppbV	0		25
Tetrachloroethene	1.16	1.13	ppbV	3		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	21.6	21.4	ppbV	1		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: PS 97X ADDITION
Project Number: 89153

Lab Number: L1620811
Report Date: 07/13/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG912334-5 QC Sample: L1620811-02 Client ID: SV-2					
p/m-Xylene	111	111	ppbV	0	25
o-Xylene	36.2	36.1	ppbV	0	25
1,3,5-Trimethylbenzene	1.99	1.96	ppbV	2	25
1,2,4-Trimethylbenzene	6.50	6.47	ppbV	0	25
1,3-Dichlorobenzene	1.02	1.01	ppbV	1	25
1,2-Dichlorobenzene	0.102	0.100	ppbV	2	25
Naphthalene	0.598	0.604	ppbV	1	25

Project Name: PS 97X ADDITION **Lab Number:** L1620811

Project Number: 89153 **Report Date:** 07/13/16

SAMPLE RESULTS

Lab ID:	L1620811-01 D	Date Collected:	07/06/16 13:52
Client ID:	SV-1	Date Received:	07/06/16
Sample Location:	1375 MACE AVE, BRONX, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor	Extraction Method:	
Analytical Method:	51,3C(M)		
Analytical Date:	07/12/16 17:10		
Analyst:	MB		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Dissolved Gases in Air - Mansfield Lab						
Methane	34.9		ppmV	2.01	--	2.01

Project Name: PS 97X ADDITION **Lab Number:** L1620811

Project Number: 89153 **Report Date:** 07/13/16

SAMPLE RESULTS

Lab ID:	L1620811-02 D	Date Collected:	07/06/16 14:54
Client ID:	SV-2	Date Received:	07/06/16
Sample Location:	1375 MACE AVE, BRONX, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor	Extraction Method:	
Analytical Method:	51,3C(M)		
Analytical Date:	07/12/16 17:59		
Analyst:	MB		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Dissolved Gases in Air - Mansfield Lab						
Methane	4.29		ppmV	1.82	--	1.826

Project Name: PS 97X ADDITION **Lab Number:** L1620811

Project Number: 89153 **Report Date:** 07/13/16

SAMPLE RESULTS

Lab ID:	L1620811-03 D	Date Collected:	07/06/16 10:50
Client ID:	SV-3	Date Received:	07/06/16
Sample Location:	1375 MACE AVE, BRONX, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor	Extraction Method:	
Analytical Method:	51,3C(M)		
Analytical Date:	07/12/16 18:48		
Analyst:	MB		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Dissolved Gases in Air - Mansfield Lab						
Methane	49.0		ppmV	2.03	--	2.03

Project Name: PS 97X ADDITION **Lab Number:** L1620811

Project Number: 89153 **Report Date:** 07/13/16

SAMPLE RESULTS

Lab ID:	L1620811-04 D	Date Collected:	07/06/16 10:22
Client ID:	SV-5	Date Received:	07/06/16
Sample Location:	1375 MACE AVE, BRONX, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor	Extraction Method:	
Analytical Method:	51,3C(M)		
Analytical Date:	07/12/16 19:38		
Analyst:	MB		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Dissolved Gases in Air - Mansfield Lab						
Methane	9.85		ppmV	2.03	--	2.03

Project Name: PS 97X ADDITION **Lab Number:** L1620811

Project Number: 89153 **Report Date:** 07/13/16

SAMPLE RESULTS

Lab ID:	L1620811-05 D	Date Collected:	07/06/16 11:35
Client ID:	SV-6	Date Received:	07/06/16
Sample Location:	1375 MACE AVE, BRONX, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor	Extraction Method:	
Analytical Method:	51,3C(M)		
Analytical Date:	07/12/16 20:27		
Analyst:	MB		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Dissolved Gases in Air - Mansfield Lab						
Methane	4.01		ppmV	1.88	--	1.877

Project Name: PS 97X ADDITION **Lab Number:** L1620811

Project Number: 89153 **Report Date:** 07/13/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 51,3C(M)
Analytical Date: 07/12/16 16:41
Analyst: MB

Parameter	Result	Qualifier	Units	RL	MDL
Dissolved Gases in Air - Mansfield Lab for sample(s): 01-05 Batch: WG913036-2					
Methane	ND		ppmV	1.00	--

Lab Control Sample Analysis
Batch Quality Control

Project Name: PS 97X ADDITION
Project Number: 89153

Lab Number: L1620811
Report Date: 07/13/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Dissolved Gases in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG913036-1								
Methane	99		-		80-120	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: PS 97X ADDITION
Project Number: 89153

Lab Number: L1620811
Report Date: 07/13/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Gases in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG913036-3 QC Sample: L1620811-01 Client ID: SV-1						
Methane	34.9	34.3	ppmV	2		5
Dissolved Gases in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG913036-4 QC Sample: L1620811-02 Client ID: SV-2						
Methane	4.29	4.40	ppmV	3		5
Dissolved Gases in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG913036-5 QC Sample: L1620811-03 Client ID: SV-3						
Methane	49.0	49.8	ppmV	2		5
Dissolved Gases in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG913036-6 QC Sample: L1620811-04 Client ID: SV-5						
Methane	9.85	9.99	ppmV	1		5
Dissolved Gases in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG913036-7 QC Sample: L1620811-05 Client ID: SV-6						
Methane	4.01	3.86	ppmV	4		5

Project Name: PS 97X ADDITION

Lab Number: L1620811

Project Number: 89153

Report Date: 07/13/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1620811-01	SV-1	0449	#90 SV	07/05/16	224660		-	-	-	Pass	76	87	13
L1620811-01	SV-1	1821	6.0L Can	07/05/16	224660	L1619985-01	Pass	-29.7	-8.4	-	-	-	-
L1620811-02	SV-2	0438	#90 SV	07/05/16	224660		-	-	-	Pass	78	85	9
L1620811-02	SV-2	1981	6.0L Can	07/05/16	224660	L1619663-02	Pass	-29.8	-5.7	-	-	-	-
L1620811-03	SV-3	0211	#90 SV	07/05/16	224660		-	-	-	Pass	75	85	13
L1620811-03	SV-3	1565	6.0L Can	07/05/16	224660	L1619811-02	Pass	-29.5	-8.5	-	-	-	-
L1620811-04	SV-5	0083	#90 SV	07/05/16	224660		-	-	-	Pass	77	85	10
L1620811-04	SV-5	1705	6.0L Can	07/05/16	224660	L1618939-02	Pass	-29.9	-8.3	-	-	-	-
L1620811-05	SV-6	0479	#90 SV	07/05/16	224660		-	-	-	Pass	80	85	6
L1620811-05	SV-6	972	6.0L Can	07/05/16	224660	L1619811-01	Pass	-29.5	-6.4	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1618939

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID:	L1618939-02	Date Collected:	06/20/16 16:00
Client ID:	CAN 1705 SHELF 49	Date Received:	06/21/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/21/16 17:07		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1618939

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1618939-02 Date Collected: 06/20/16 16:00

Client ID: CAN 1705 SHELF 49 Date Received: 06/21/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1618939

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1618939-02 Date Collected: 06/20/16 16:00

Client ID: CAN 1705 SHELF 49 Date Received: 06/21/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1618939
Report Date: 07/13/16

Air Canister Certification Results

Lab ID: L1618939-02
Client ID: CAN 1705 SHELF 49
Sample Location:

Date Collected: 06/20/16 16:00
Date Received: 06/21/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	**Qualifier**	**Units**	**RDL**	**Dilution Factor**
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1618939

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1618939-02 Date Collected: 06/20/16 16:00

Client ID: CAN 1705 SHELF 49 Date Received: 06/21/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	78		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	76		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1618939

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID:	L1618939-02	Date Collected:	06/20/16 16:00
Client ID:	CAN 1705 SHELF 49	Date Received:	06/21/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/21/16 17:07		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1618939

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1618939-02 Date Collected: 06/20/16 16:00

Client ID: CAN 1705 SHELF 49 Date Received: 06/21/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1618939

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1618939-02 Date Collected: 06/20/16 16:00

Client ID: CAN 1705 SHELF 49 Date Received: 06/21/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	83		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619663

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID:	L1619663-02	Date Collected:	06/24/16 16:00
Client ID:	CAN 1981 SHELF 48	Date Received:	06/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/28/16 18:35		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619663

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619663-02 Date Collected: 06/24/16 16:00

Client ID: CAN 1981 SHELF 48 Date Received: 06/27/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619663

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619663-02 Date Collected: 06/24/16 16:00

Client ID: CAN 1981 SHELF 48 Date Received: 06/27/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619663

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619663-02 Date Collected: 06/24/16 16:00

Client ID: CAN 1981 SHELF 48 Date Received: 06/27/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	**Qualifier**	**Units**	**RDL**	**Dilution Factor**
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619663

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619663-02 Date Collected: 06/24/16 16:00

Client ID: CAN 1981 SHELF 48 Date Received: 06/27/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	84		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1619663
Report Date: 07/13/16

Air Canister Certification Results

Lab ID:	L1619663-02	Date Collected:	06/24/16 16:00
Client ID:	CAN 1981 SHELF 48	Date Received:	06/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/28/16 18:35		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619663

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619663-02 Date Collected: 06/24/16 16:00

Client ID: CAN 1981 SHELF 48 Date Received: 06/27/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1619663
Report Date: 07/13/16

Air Canister Certification Results

Lab ID: L1619663-02
Client ID: CAN 1981 SHELF 48
Sample Location:

Date Collected: 06/24/16 16:00
Date Received: 06/27/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	89		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID:	L1619811-01	Date Collected:	06/27/16 16:00
Client ID:	CAN 972 SHELF 41	Date Received:	06/28/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/28/16 16:25		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619811-01 Date Collected: 06/27/16 16:00

Client ID: CAN 972 SHELF 41 Date Received: 06/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619811-01 Date Collected: 06/27/16 16:00

Client ID: CAN 972 SHELF 41 Date Received: 06/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1619811
Report Date: 07/13/16

Air Canister Certification Results

Lab ID: L1619811-01
Client ID: CAN 972 SHELF 41
Sample Location:

Date Collected: 06/27/16 16:00
Date Received: 06/28/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619811-01 Date Collected: 06/27/16 16:00

Client ID: CAN 972 SHELF 41 Date Received: 06/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	84		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID:	L1619811-01	Date Collected:	06/27/16 16:00
Client ID:	CAN 972 SHELF 41	Date Received:	06/28/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/28/16 16:25		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619811-01 Date Collected: 06/27/16 16:00

Client ID: CAN 972 SHELF 41 Date Received: 06/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619811-01 Date Collected: 06/27/16 16:00

Client ID: CAN 972 SHELF 41 Date Received: 06/28/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	87		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID:	L1619811-02	Date Collected:	06/27/16 16:00
Client ID:	CAN 1565 SHELF 42	Date Received:	06/28/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/28/16 16:59		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619811-02 Date Collected: 06/27/16 16:00

Client ID: CAN 1565 SHELF 42 Date Received: 06/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619811-02 Date Collected: 06/27/16 16:00

Client ID: CAN 1565 SHELF 42 Date Received: 06/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619811-02 Date Collected: 06/27/16 16:00

Client ID: CAN 1565 SHELF 42 Date Received: 06/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619811-02 Date Collected: 06/27/16 16:00

Client ID: CAN 1565 SHELF 42 Date Received: 06/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	78		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID:	L1619811-02	Date Collected:	06/27/16 16:00
Client ID:	CAN 1565 SHELF 42	Date Received:	06/28/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/28/16 16:59		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619811-02 Date Collected: 06/27/16 16:00

Client ID: CAN 1565 SHELF 42 Date Received: 06/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619811

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619811-02 Date Collected: 06/27/16 16:00

Client ID: CAN 1565 SHELF 42 Date Received: 06/28/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	82		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619985

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID:	L1619985-01	Date Collected:	06/28/16 16:00
Client ID:	CAN 1821 SHELF 44	Date Received:	06/29/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	06/29/16 16:21		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619985

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619985-01 Date Collected: 06/28/16 16:00

Client ID: CAN 1821 SHELF 44 Date Received: 06/29/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619985

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619985-01 Date Collected: 06/28/16 16:00

Client ID: CAN 1821 SHELF 44 Date Received: 06/29/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1619985
Report Date: 07/13/16

Air Canister Certification Results

Lab ID: L1619985-01
Client ID: CAN 1821 SHELF 44
Sample Location:

Date Collected: 06/28/16 16:00
Date Received: 06/29/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619985

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID:	L1619985-01	Date Collected:	06/28/16 16:00
Client ID:	CAN 1821 SHELF 44	Date Received:	06/29/16
Sample Location:		Field Prep:	Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	92		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	86		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1619985
Report Date: 07/13/16

Air Canister Certification Results

Lab ID:	L1619985-01	Date Collected:	06/28/16 16:00
Client ID:	CAN 1821 SHELF 44	Date Received:	06/29/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/29/16 16:21		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1619985

Project Number: CANISTER QC BAT **Report Date:** 07/13/16

Air Canister Certification Results

Lab ID: L1619985-01 Date Collected: 06/28/16 16:00

Client ID: CAN 1821 SHELF 44 Date Received: 06/29/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1619985
Report Date: 07/13/16

Air Canister Certification Results

Lab ID: L1619985-01
Client ID: CAN 1821 SHELF 44
Sample Location:

Date Collected: 06/28/16 16:00
Date Received: 06/29/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: PS 97X ADDITION
Project Number: 89153

Lab Number: L1620811
Report Date: 07/13/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1620811-01A	Canister - 6 Liter	N/A	N/A		Y	Absent	DISSGAS-AIR(2),TO15-SIM(30)
L1620811-02A	Canister - 6 Liter	N/A	N/A		Y	Absent	DISSGAS-AIR(2),TO15-SIM(30)
L1620811-03A	Canister - 6 Liter	N/A	N/A		Y	Absent	DISSGAS-AIR(2),TO15-SIM(30)
L1620811-04A	Canister - 6 Liter	N/A	N/A		Y	Absent	DISSGAS-AIR(2),TO15-SIM(30)
L1620811-05A	Canister - 6 Liter	N/A	N/A		Y	Absent	DISSGAS-AIR(2),TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	PS 97X ADDITION	**Lab Number:**	L1620811
Project Number:	89153	**Report Date:**	07/13/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Project Name: PS 97X ADDITION **Lab Number:** L1620811

Project Number: 89153 **Report Date:** 07/13/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: PS 97X ADDITION **Lab Number:** L1620811
Project Number: 89153 **Report Date:** 07/13/16

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

51 Determination of Carbon Dioxide, Methane, Nitrogen and Oxygen from Stationary Sources. Method 3C. Appendix A, Part 60, 40 CFR (Code of Federal Regulations). June 20, 1996.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 7/7/16

ALPHA Job #: L1620811

Client Information

Client: AKRF
Address: 440 PARK AVE S. 7TH FLR NY, NY 10016
Phone: 914-922-2362
Fax:
Email: RKINAL@AKRF.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: PS 97X ADDITION
Project Location: 1375 MACE AVE BRONX, NY
Project #: 89153
Project Manager: REBECCA KINAL
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Other Project Specific Requirements/Comments:
Analyze for SCA's list of 26 VOCs associated with dry cleaning solvents, and EPA Method 3C for Methane. (Detection limit of 1 mg/m³ for all other compounds)

* Minimum detection limit of 0.25 µg/m³ for TCE, vinyl chloride + carbon tetrachloride

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
20811-01	SV-1	7/6/16	1243	1352	-30.70	-7.23	SV	AB	6L	1821	0449		X						
-02	SV-2	7/6/16	1350	1454	-29.96	-3.93	SV	AB	6L	198/	0438		X						
-03	SV-3	7/6/16	0938	~~2484~~ 1050	-29.84	-7.74	SV	AB	6L	1565	0211		X						
-04	SV-5	7/6/16	0922	1022	-30.58	-7.65	SV	AB	6L	1705	0083		X						
-05	SV-6	7/6/16	1024	1135	-29.92	-4.79	SV	AB	6L	972	0479		X						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type			CS				

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	7/6/16 15:40	AAL	7/6/16 15:40
[signature]	7/6/16 2325	Al Williams	7-6-16 2325
Al Williams	7-7-16 4:45	[signature]	7/7/16 4:45

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Appendix E
Remediation Cost Estimate

APPENDIX E
RECOMMENDED REMEDIATION AND COST ESTIMATES
Proposed P.S. 97X Addition at 1375 Mace Avenue, Bronx, NY

Due to TCE detected above the NYSDOH AGV in soil vapor, the proposed school building should be constructed with a vapor barrier and active sub-slab depressurization system (SSDS) to prevent potential soil vapor intrusion into the proposed building.

Remediation Measure #1: Vapor Barrier Installation

Assumptions:

-Vapor barrier installed on basement walls and under entire basement slab
-Overall building footprint area of 12,000 square feet
-Total subsurface wall face area of 5,000 square feet
-Unit rate based upon use of Grace Preprufe 300R or Liquid Boot

Activity	Quantity	Units	Unit Rate	Cost
Install Vapor Barrier	17,000	SF	$ 6.00	$ 102,000.00
			Engineering Design (10%)	$ 10,200.00
			Subtotal Project Costs	**$ 112,200.00**
			Contingency (15%)	$ 16,830.00
			Total Cost (rounded):	**$ 129,000.00**

Remediation Measure #2: Subslab Depressurization System (SSDS) Installation

Assumptions:

-SSDS installed under entire basement slab
-Overall building footprint area of 12,000 square feet
-SSDS includes12" gas permeable aggregate layer, 2 suction pits, 2 risers, and 2 blowers

Activity	Quantity	Units	Unit Rate	Cost
Gas permeable aggregate, filter fabric, suction pits, and subsurface piping	12,000	$ 4.00	SF	$ 48,000.00
Pipe Risers (6" Diameter Galvanized Steel)	2	$ 10,000.00	EA	$ 20,000.00
Roof-Mounted Suction Fans and Accessories	2	$ 20,000.00	EA	$ 40,000.00
Monitoring Points	4	$ 500.00	EA	$ 2,000.00
Testing	1	$ 7,500.00	LS	$ 7,500.00
			Activity Total Cost	**$ 117,500.00**
			Engineering Design (10%)	$ 11,750.00
			Subtotal Project Costs	**$ 129,250.00**
			Contingency (15%)	$ 19,387.50
			Total Cost (rounded):	**$ 148,600.00**

Total Engineering Controls and Remediation Cost Estimate

	Cost
1 - Vapor Barrier Installation	**$ 129,000.00**
2 - SSDS Installation	**$ 148,600.00**
Approximate Total Cost	**$ 277,600.00**

Notes:

Cost estimates **do not** include the following:
- Dewatering treatment
- Shoring or sheeting
- Stormwater or other permitting
- SSDS OM&M or effluent monitoring
- Inflationary escalator - prices based upon estimated costs as of April 2015
- Excavation and disposal of non-hazardous urban fill
-Regulatory interaction or reporting