



1941 Reymet Road • Richmond, Virginia 23237 • Tel: (804)-358-8295 Fax: (804)-358-8297

## Certificate of Analysis

*Final Report*

Laboratory Order ID 1710044

Client Name: APEX Companies, LLC. -Manassas  
8854 Rixlew Lane  
Manassas, VA 20109

Date Received: September 1, 2017 13:00

Date Issued: September 7, 2017 14:16

Project Number: [none]

Submitted To: William Thomas

Purchase Order:

Client Site I.D.: Ferry Farms ES

Enclosed are the results of analyses for samples received by the laboratory on 09/01/2017 13:00. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads "Ted Soyars".

Ted Soyars  
Laboratory Manager

### End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

This report shall not be reproduced except in full without the expressed and written approval of an authorized representative of Air Water & Soil Laboratories, Inc.





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## Certificate of Analysis

### Final Report

Client Name: APEX Companies, LLC. -Manassas Date Issued: 9/7/2017 14:16  
8854 Rixlew Lane  
Manassas VA, 20109

Submitted To: William Thomas Project Number: [none]  
Client Site I.D.: Ferry Farms ES Purchase Order:

#### ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 1710044

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FFE2- Field Blank	1710044-01	Drinking Water	09/01/2017 07:37	09/01/2017 13:00
FFE2- CF - RM105	1710044-02	Drinking Water	09/01/2017 08:03	09/01/2017 13:00



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## Certificate of Analysis

### Final Report

Client Name:	APEX Companies, LLC. -Manassas 8854 Rixlew Lane Manassas VA, 20109	Date Issued:	9/7/2017 14:16
Submitted To:	William Thomas	Project Number:	[none]
Client Site I.D.:	Ferry Farms ES	Purchase Order:	

**Laboratory Order ID: 1710044**

**Analytical Results**

<b>Sample I.D.</b> FFE2- Field Blank	<b>Laboratory Sample ID:</b> 1710044-01
<b>Grab Date/Time:</b> 09/01/2017 07:37	

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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**Metals (Total) by EPA 200 Series Methods**

Lead	01	EPA200.8 R5.4	<1.00 ug/L	1.00	1	09/05/17 13:50	09/06/17 13:23	BG
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Submitted To:	William Thomas	Project Number:	[none]
Client Site I.D.:	Ferry Farms ES	Purchase Order:	

**Laboratory Order ID: 1710044**

**Analytical Results**

<b>Sample I.D.</b> FFE2- CF - RM105	<b>Laboratory Sample ID:</b> 1710044-02
<b>Grab Date/Time:</b> 09/01/2017 08:03	

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
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**Metals (Total) by EPA 200 Series Methods**

Lead	02	EPA200.8 R5.4	<1.00 ug/L	1.00	1	09/05/17 13:50	09/06/17 13:26	BG
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**Analytical Summary**

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Metals (Total) by EPA 200 Series Methods</b>					
		<b>Preparation Method:</b>	<b>EPA200.8 R5.4</b>		
1710044-01	50.0 mL / 50.0 mL	EPA200.8 R5.4	BAI0059	SAI0100	AI70016
1710044-02	50.0 mL / 50.0 mL	EPA200.8 R5.4	BAI0059	SAI0100	AI70016



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Client Site I.D.:	Ferry Farms ES	Purchase Order:	

### Metals (Total) by EPA 200 Series Methods - Quality Control

#### Air Water and Soil Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BAI0059 - EPA200.8 R5.4

<b>Blank (BAI0059-BLK1)</b>				Prepared: 09/05/2017 Analyzed: 09/06/2017						
Lead	<1.00 ug/L	1.00	ug/L							
<b>LCS (BAI0059-BS1)</b>				Prepared: 09/05/2017 Analyzed: 09/06/2017						
Lead	49.9 ug/L	1.00	ug/L	50.0	ug/L	99.9	85-115			
<b>LCS Dup (BAI0059-BSD1)</b>				Prepared: 09/05/2017 Analyzed: 09/06/2017						
Lead	50.2 ug/L	1.00	ug/L	50.0	ug/L	100	85-115	0.564	20	
<b>Matrix Spike (BAI0059-MS1)</b>				Source: 1710042-05 Prepared: 09/05/2017 Analyzed: 09/06/2017						
Lead	48.5 ug/L	1.00	ug/L	50.0	1.84 ug/L	93.3	70-130			
<b>Matrix Spike (BAI0059-MS2)</b>				Source: 1710047-05 Prepared: 09/05/2017 Analyzed: 09/06/2017						
Lead	48.9 ug/L	1.00	ug/L	50.0	<1.00 ug/L	97.8	70-130			
<b>Matrix Spike Dup (BAI0059-MSD1)</b>				Source: 1710042-05 Prepared: 09/05/2017 Analyzed: 09/06/2017						
Lead	47.7 ug/L	1.00	ug/L	50.0	1.84 ug/L	91.6	70-130	1.71	20	
<b>Matrix Spike Dup (BAI0059-MSD2)</b>				Source: 1710047-05 Prepared: 09/05/2017 Analyzed: 09/06/2017						
Lead	48.6 ug/L	1.00	ug/L	50.0	<1.00 ug/L	97.2	70-130	0.592	20	



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Submitted To:	William Thomas	Project Number:	[none]
Client Site I.D.:	Ferry Farms ES	Purchase Order:	

### Certified Analyses included in this Report

Analyte	Certifications		
<i>EPA200.8 R5.4 in Potable Water</i>			
Lead	VELAP		
Code	Description	Lab Number	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2017
NC	North Carolina DENR	495	12/31/2017
PADEP	NELAC-Pennsylvania	001	10/31/2017
VELAP	NELAC-Virginia Certificate #9316	460021	06/14/2018
WVDEP	West Virginia DEP	350	11/30/2017



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Submitted To:	William Thomas	Project Number:	[none]
Client Site I.D.:	Ferry Farms ES	Purchase Order:	

### Summary of Data Qualifiers

RPD Relative Percent Difference  
Qual Qualifiers  
-RE Denotes sample was re-analyzed  
D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library .  
A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

## CHAIN OF CUSTODY

PAGE 1 OF 1

COMPANY NAME: Apex Manassas	INVOICE TO: Apex Manassas	PROJECT NAME: Stafford Schools-Pb in DW
CONTACT: William Thomas	INVOICE CONTACT: William Thomas	SITE NAME: Ferry Farm ES
ADDRESS: 8854 Rixlew Lane, Manassas, VA 20109	INVOICE ADDRESS: Same	PROJECT NUMBER:
PHONE #: 1-703-396-6730	INVOICE PHONE #:	P.O. #:
FAX #:	EMAIL: <u>Wthomas@apexcos.com</u>	Pretreatment Program:

Is sample for compliance reporting? YES NO      Is sample from a chlorinated supply? YES NO      PWS I.D. #:

SAMPLER NAME (PRINT): Richard McBride      SAMPLER SIGNATURE: [Signature]      Turn Around Time: **10 Days**  
Andrew Huhney

Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other

CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Stop Date	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	ANALYSIS / (PRESERVATIVE)										COMMENTS			
											Pb 200.8													
1) FFEZ Field Blank	X			9/1	7:37				DW	1	X													Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid H=Sodium Hydroxide A=Ascorbic Acid Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol  <b>Samples are to be preserved with HNO3 upon arrival to the lab</b>  PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)
2) FFE Z-CF - RM 105	X			9/1	8:03				DW	1	X													
3)	X								DW	1	X													
4)	X								DW	1	X													
5)	X								DW	1	X													
6)	X								DW	1	X													
7)	X								DW	1	X													
8)	X								DW	1	X													
9)	X								DW	1	X													
10)	X								DW	1	X													

RELINQUISHED: <u>[Signature]</u>	DATE / TIME: 9/1 9:35	RECEIVED: <u>[Signature]</u>	DATE / TIME: 9/1 9:35	QC Data Package	LAB USE ONLY	COOLER TEMP <u>22.5</u> °C
RELINQUISHED: <u>[Signature]</u>	DATE / TIME: 9/1 11:00	RECEIVED: <u>Bob Mar</u>	DATE / TIME: 9-1-17 11:00	Level III <input type="checkbox"/>	<b>APEX-Manassas 1710044</b> <b>SCPS - Ferry Farm ES</b> <b>Recd: 09/01/2017 Due: 09/18/2017</b>	
RELINQUISHED: <u>Bob Mar</u>	DATE / TIME: 9-1-17 1:00	RECEIVED: <u>[Signature]</u>	DATE / TIME: 9/1/17	Level IV <input type="checkbox"/>		

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Metals containers were received with pH = 6. HNO<sub>3</sub> was added by BR at 1500 on 9/1/17 to bring the pH <2.  
BR 09/01/17

### Sample Preservation Log

Sample Preservation Log  
Form #: F1301  
Rev # 7.0  
Effective: Feb 21, 2017  
Page 1 of 1

Order ID 1710044

Date Performed: 09/01/17

Analyst Performing Check: BR

Sample ID	Container ID	Metals		Cyanide		Sulfide		Ammonia		TKN		Phos, Tot		NO3+NO2		DRO		Pesticide (8081/608/508)		SVOC (525.2/8270/625)		CrVI*																					
		pH as Received	Final pH (if adjust.)	pH as Received	Final pH (if adjust.)	pH as Received	Final pH (if adjust.)	pH as Received	Final pH (if adjust.)	pH as Received	Final pH (if adjust.)	pH as Received	Final pH (if adjust.)	pH as Received	Final pH (if adjust.)	pH as Received	Final pH (if adjust.)	Res.Cl as Received	Res.Cl P/A (if adjust.)	Res.Cl as Received	Res.Cl P/A (if adjust.)	pH as Received	Adjusted final pH	pH as Received	Other	Final pH (if adjust.)	pH as Received	Other	Final pH (if adjust.)														
		< 2	Other	> 12	Other	> 9	Other	< 2	Other	< 2	Other	< 2	Other	< 2	Other	< 2	Other	Present	Absent	Present	Absent																						
<u>01</u>	<u>A</u>	<u>6</u>	<u>&lt;2</u>																																								
<u>02</u>	<u>A</u>	<u>6</u>	<u>&lt;2</u>																																								

NaOH ID: \_\_\_\_\_ HNO<sub>3</sub> ID: 7401427 CrVI preserved date/time: \_\_\_\_\_ Analyst Initials: \_\_\_\_\_  
 H<sub>2</sub>SO<sub>4</sub> ID: \_\_\_\_\_ Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> ID: \_\_\_\_\_ Buffer Sol'n ID: \_\_\_\_\_  
 HCL ID: \_\_\_\_\_ Na<sub>2</sub>SO<sub>3</sub> ID: \_\_\_\_\_ 1N NaOH ID: \_\_\_\_\_ 5N NaOH: \_\_\_\_\_



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8854 Rixlew Lane  
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Submitted To: William Thomas Project Number: [none]  
Client Site I.D.: Ferry Farms ES Purchase Order:

## Sample Conditions Checklist

Samples Received at:	22.50°C
How were samples received?	Courier
Were Custody Seals used? If so, were they received intact?	No
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits? (above freezing to 6°C) or received on ice and recently taken?	No
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	No
Are all volatile organic and TOX containers free of headspace?	NA
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	NA
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis.	Yes

### Work Order Comments

Per Will Thomas, TAT is 5 days. KLC 9/6/2017 11:33.