

8 October 2018
Reference: 0311941

**Environmental
Resources
Management**

Mr. Eric Obrecht
Director, Remedial Bureau A
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, Section B
625 Broadway, 11th Floor
Albany, NY 12233-7015

105 Maxess Road, Suite 316
Melville, NY 11747
(631) 756-8900
(631) 756-8901 (fax)
<http://www.erm.com>



Re: Operations Report: July – September 2018
Applied Environmental Services/Shore Realty Superfund Site
NYSDEC Site #130006
1 Shore Road, Glenwood Landing, New York 11547

Dear Mr. Obrecht:

On behalf of the Performing Parties Group (PPG), please find enclosed the Operations Report and Alarm Summary for the above-referenced Site during the 3-month period of 1 July – 30 September 2018. A brief summary of key milestones, results, and the near-term path forward is provided below. Site Location and Layout Maps, the standard monthly summaries presenting additional operational detail and supporting laboratory analytical data packages are attached.

July: Routine operational maintenance activities continued throughout the month. The SVE/AS components of the treatment system were offline from 29 June until 3 July. The issue was resolved by ERM's controls subcontractor and the utility. A nutrient amendment injection was performed on 18 July.

On 26 & 27 July, quarterly groundwater samples were collected from the individual extraction wells and the Site groundwater monitoring wells. Treatment system samples (soil vapor extraction {SVE} & recovered groundwater) were collected on 26 July, Prior to the end of Pulse Cycle No. 19. On 27 July, the remedial system was shut down in accordance with the regularly scheduled pulse operation shutdown period that continued until 27 August.

August: Routine shutdown period maintenance activities continued throughout the month. Remedial systems were restarted on 27 August. Post start up samples for Pulse Cycle No. 19 were collected from the treatment system recovered groundwater on 28 August. Soil vapor was not sampled due to the failure of the sparge compressor. A nutrient amendment was performed on 24 August.

September: Routine operational maintenance activities continued throughout the month. The treatment systems' recovered and treated groundwater were sampled on 26 September. Soil vapor was not sampled due to the failure of the sparge compressor. Replacement parts have been ordered. A nutrient amendment injection was performed on 24 September.

The groundwater treatment system has experienced numerous nuisance shutdowns from accumulated sediment interfering with the T-06 Low Level switch. On 26 September the sidewall horizontal reed switch was replaced with a drop-in, tethered float switch. No related shutdowns have occurred since.

A few salient data points are summarized in the table below:

	(1 - 27) July	(27 - 31) August	(1 - 30) Sept.	Comments
% Operational Time (GW/SVE & AS)	89%/90%	100%/22%	85%/0%	% of scheduled period of operation
Gallons of Water Treated	124,469	27,495	142,959	
SVE VOC Concentrations (mg/m ³)	74.9	0.0	0.0	
VOC Removed SVE (pounds)	92.7	0.0	0.0	
GW VOC Concentrations (µg/l)	46.4	193.9	50.1	
VOC Removed GW (pounds)	0.048	0.044	0.060	

Next Reporting Period/Looking Forward:

October: Routine maintenance activities will continue throughout the month. A groundwater monitoring event is scheduled for 25 and 26 October, prior to the end of Pulse Cycle No. 20s' 'On' period to occur on or about 26 October.

Standard monthly summaries and corresponding reduced laboratory analytical data packages are attached in Appendices A - C for the months of July 2018 - September 2018, respectively. Copies of the full laboratory data deliverables are included in a separate WinZip file. Analytical results of groundwater samples collected from Site monitoring and extraction wells in January and April will be summarized, evaluated and presented in the forthcoming Semi-Annual Monitoring Report/Technical Memorandum for February 2018 - July 2018.

Please feel free to contact me at (631) 756-8920, or email me at: chris.wenczel@erm.com if you have any questions, comments or concerns regarding the enclosed report.

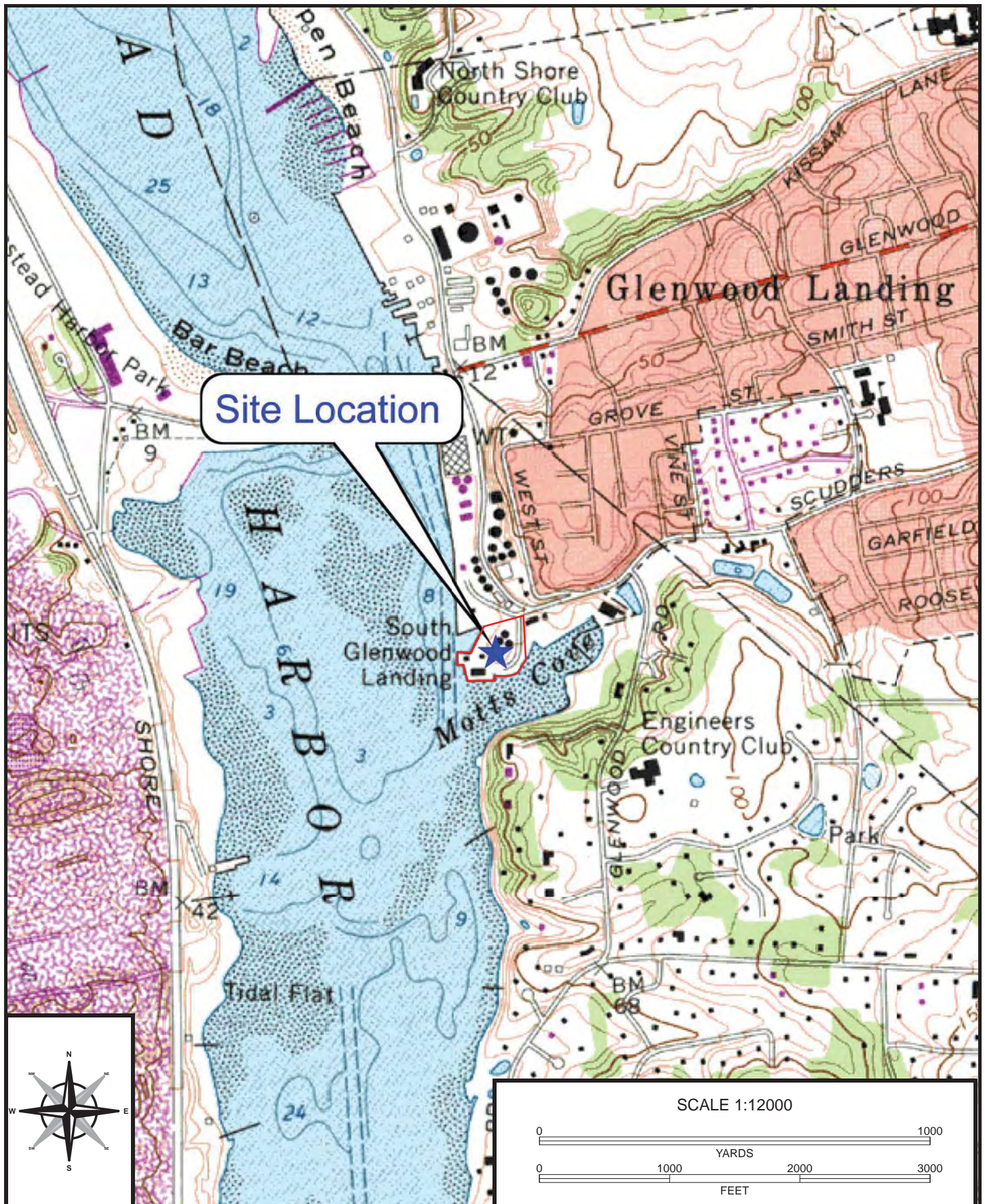
Sincerely,



Chris W. Wenczel, P.G.
Principal Consultant

Attachments

cc: Ashley Similo (US EPA)
Deborah E. LaMond (PPG Technical Committee; Phillips 66 Remediation Management)
Mark Hendrickson (PPG Technical Committee; Chevron)
Jay Tolle (PPG Technical Committee; Northrup Grumman Corp.)
Robin Stone Einbinder, Esq. (PPG Technical Committee)
Jeff Kuzemchak (Northrup Grumman Corp.)
Zwelonke Ian Ushe (NYSDOH)
James Thompson, Esq., Shook, Hardy & Bacon
Brandi Sablatura, Esq., Phillips 66
Bett Sundermeyer, CP, Phillips 66
Jim Perazzo, (ERM)
John Maddox, (ERM)



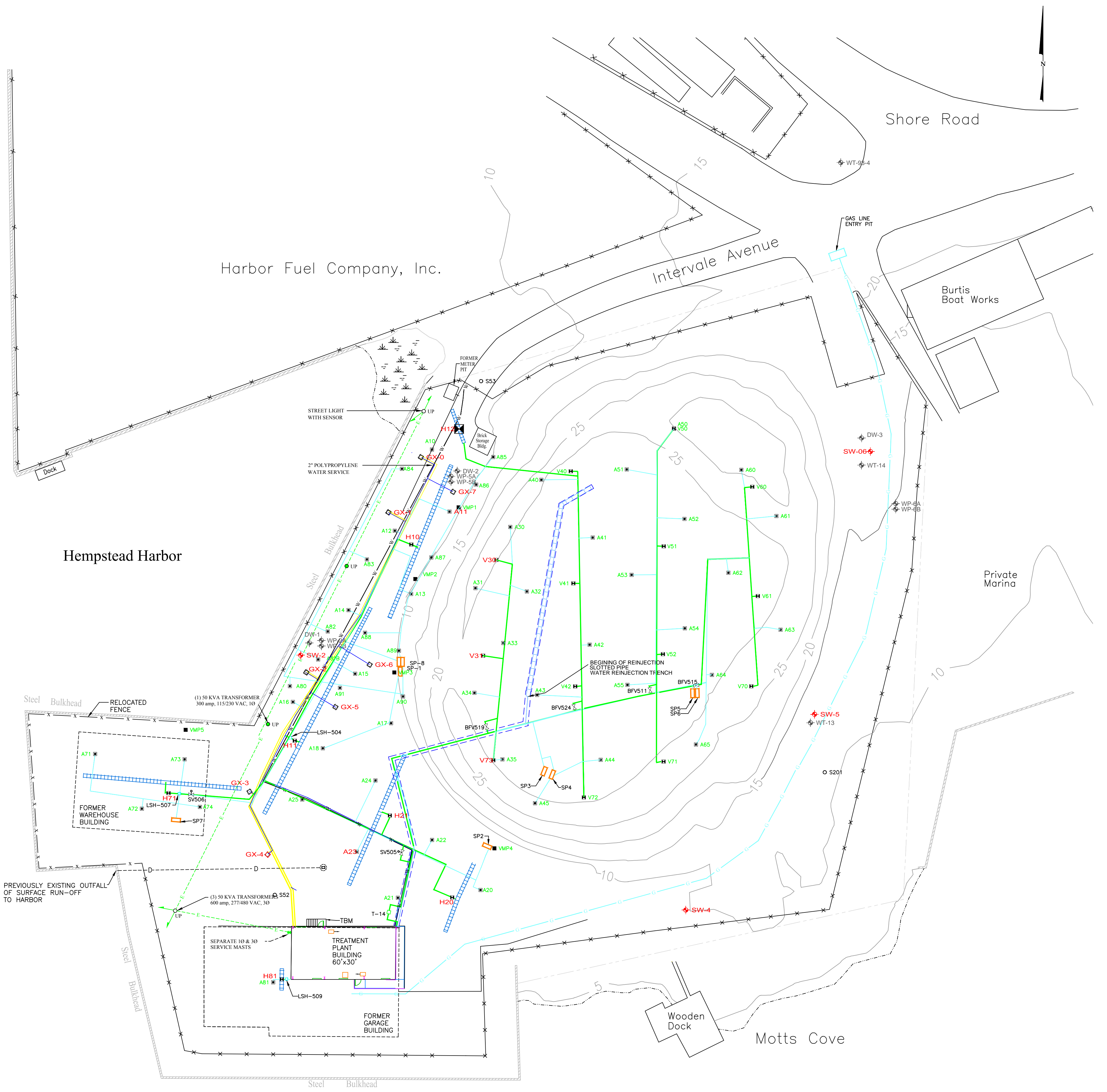
Map Name: SEA CLIFF
 Copyright: Copyright (C) 2009 MyTo
 Date Published: 1968

Figure 1 - Site Location Map
 AES Shore Realty Superfund Site
 1 Shore Road, Glenwood Landing, NY
 03/04/13
 Prepared For: AES Shore Realty.





0 40' 80'
GRAPHIC SCALE IN FEET



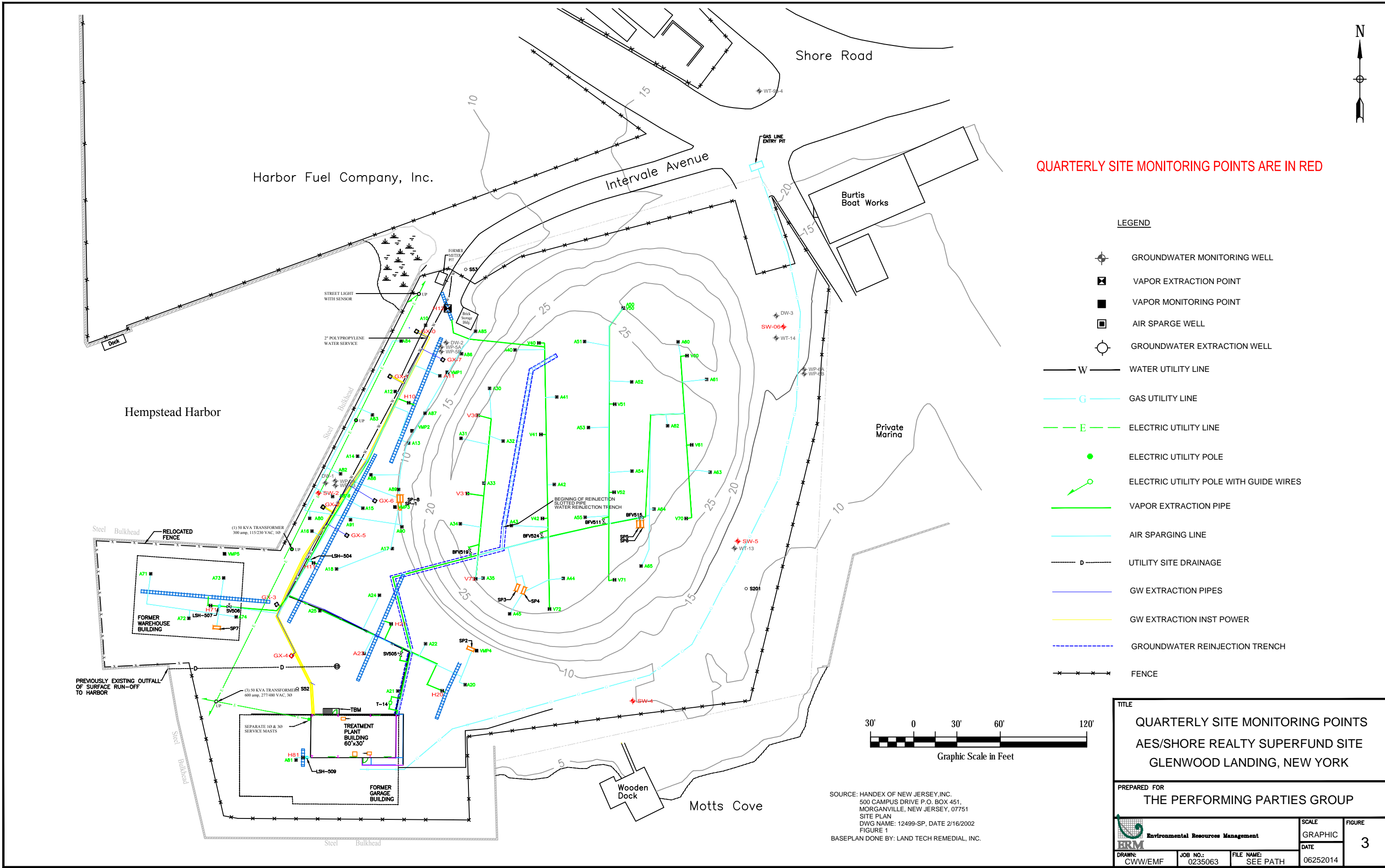
QUARTERLY SITE MONITORING POINTS ARE IN RED

LEGEND

- GROUNDWATER MONITORING WELL
- VAPOR EXTRACTION POINT
- VAPOR MONITORING POINT
- AIR SPARGE WELL
- GROUNDWATER EXTRACTION WELL
- WATER UTILITY LINE
- GAS UTILITY LINE
- ELECTRIC UTILITY LINE
- ELECTRIC UTILITY POLE
- ELECTRIC UTILITY POLE WITH GUIDE WIRES
- VAPOR EXTRACTION PIPE
- AIR SPARGING LINE
- UTILITY SITE DRAINAGE
- GW EXTRACTION PIPES
- GW EXTRACTION INST POWER
- GROUNDWATER REINJECTION TRENCH
- FENCE

0 30' 60'
GRAPHIC SCALE IN FEET

TITLE			
SITE LAYOUT MAP AES/SHORE REALTY SUPERFUND SITE			
PREPARED FOR			
THE PERFORMING PARTIES GROUP			
Environmental Resources Management			FIGURE
DRAWN BY			2
CWW/EMF	SCALE	DATE	JOB NO.
AS SHOWN		04/03/2014	0235063.08



APPENDIX A

July 2018 Operations Report

Recovered Groundwater Influent and Effluent Analytical Results

Soil Vapor Extraction Influent and Effluent Air Analytical Results

26 July 2018

MONTHLY OPERATIONS REPORT
JULY 2018

TREATMENT PLANT ON-LINE DATA		
AIR SPARGE/SOIL VAPOR EXTRACTION SYSTEM:		
<i>Hours online</i>		579
<i>On-Line Factor for Month</i>		80%
<i>On-Line Factor for Scheduled Period</i>		90%
<i>Average Air Flow Rate (when operational), scfm</i>		571
<i>Average Monthly LEL</i>		0.0
<i>Total VOC Concentration (mg/m³)</i>		74.9
<i>Pounds VOC Removed</i>		92.7
GROUNDWATER TREATMENT SYSTEM:		
<i>On-Line Factor for Month</i>		79%
<i>On-Line Factor for Scheduled Period</i>		89%
<i>Average Water Flow Rate, gpm</i>		3.6 (1)
<i>Total Influent Water Processed</i>		124,469
<i>Total VOC Concentration (ug/L)</i>		46.4
<i>Pounds VOC Removed</i>		0.048

Note:

(1) Calculated based on the total amount of water processed during the 89% operational period for July.

MAINTENANCE SUMMARY			
Unit	Operation		
<i>Gravity Settling Tank</i>	<i>Water Decants</i>	Decanted water from gravity settling tank T-03 during every site visit.	
	<i>Sludge Decants</i>	Sludge transferred from T-02 to T-09	
	<i>Notes</i>	All empty drums currently stored on-site are properly labeled as such.	
Task	Routine Monthly Maintenance Activity		Frequency
1	Dissolved iron and pH concentration monitoring in the effluent water stream.		3 events
2	Change-out and disposal of fouled bag filter on T-06 bypass line.		14 events
3	Backwash carbon vessels.		2 events
4	Clean GX level probes.		4 events
5	Routine plant housekeeping, including sweeping of floors, inventorying and arranging of all stock items and site safety equipment, etc.		1 event
6	Routine draining and cleaning of plant tanks and level switches. (T-01 and T-06)		2 events
7	Routine greasing of sludge auger (A-01) drive chain per manufacturers instructions.		1 event
8	Routine greasing of SVE blower per manufacturers instructions.		1 event
9	Drain condensate water from T-05.		9 events
10	Inspection and draining of all condensate lines.		4 events
11	Completion of nutrient amendments.		1 event
12	Inspection of lower site well and valve boxes for water accumulation. Includes cleaning of all seals and gaskets, purging of any accumulated water, sealing of identifiable leaks and proper reinstallation of manhole covers.		0 events

ADDITIONAL O&M ACTIVITIES	
<i>Programs Completed</i>	Nutrient amendement was performed on 18 July. The treatment system's recovered and treated groundwater and soil vapor were sampled on 26 July. A groundwater sampling event was conducted on 26 and 27 July, prior to the end of Pulse Cycle No. 19.
<i>Programs Scheduled</i>	Treatment system operation will resume with the start of Pulse Cycle No. 20 on or about August 27.

MONTHLY OPERATIONS REPORT
JULY 2018

EQUIPMENT NEEDING REPAIR, REPLACEMENT OR INSTALLATION/ MISCELLANEOUS OPERATIONS ISSUES				
The SVE/AS sparge components of the treatment system were offline from 29 June until 3 July when programming and electrical supply problems were resolved by the utility and ERM's controls subcontractor.				
Sparge well A-88 concrete pad and well box were replaced on 5 July due to deterioration from subsidence.				
The Plant sump was cleaned out on 10 July.				
An order of 5 and 10 micron filters was received on 23 July. Filter usage has increased greatly this period due to increased solids loading.				
GX-1 pump and motor were replaced on 24 July.				
Glenwood Landing Water District inspected and passed the city waters' backflow preventer on 26 July.				
CHEMICAL USAGE SUMMARY				
<i>Chemical</i>	<i>Pounds Used</i>	<i>Unit Cost (Dollars/Pound)</i>	<i>Monthly Cost (Dollars)</i>	<i>2018 Year to Date Cost (Dollars)</i>
Ammonium Chloride	100	\$1.83 /pound	\$183.00	\$1,281.00
Mono-Potassium Phosphate	5	\$2.00 /pound	\$10.00	\$69.97
Di-Potassium Phosphate	5	\$2.72 /pound	\$13.60	\$95.20
Potassium Permanganate	--	\$2.80 /pound	\$0.00	\$0.00
Sodium Hydroxide (25%)	--	\$0.26 /pound	\$0.00	\$0.00
Anionic Polymer	0	\$4.50 /pound	\$0.00	\$0.00
Cationic Polymer	0	\$1.36 /pound	\$0.00	\$0.00
TOTAL COST			\$206.60	\$1,446.17

MONTHLY OPERATIONS REPORT**JULY 2018**

SHUTDOWN ALARMS SOIL VAPOR EXTRACTION/AIR SPARGE SYSTEM							
SYSTEM RUNNING		SYSTEM READING		SVE BLOWER RUNTIME METER	TOTAL TIME RUNNING ^(1, 2)	ALARM LEVEL	ALARM SOURCE/ COMMENTS
<i>Date</i>	<i>Time</i>	<i>Date</i>	<i>Time</i>	<i>(Hours)</i>	<i>(Hours)</i>		
7/1/18	0:00	7/1/18	0:00	46961.6		4	Start of monitoring period.
7/27/18	16:00	7/27/18	16:00	47540.5	578.9	4	End of Pulse Cycle No. 19 run time

SHUTDOWN ALARMS GROUNDWATER TREATMENT SYSTEM									
SYSTEM RUNNING		SYSTEM SHUTDOWN		SYSTEM RESTORATION		TIME RUNNING SINCE LAST RESTORATION	TOTAL TIME RUNNING ⁽¹⁾	ALARM LEVEL	ALARM SOURCE/ COMMENTS
<i>Date</i>	<i>Time</i>	<i>Date</i>	<i>Time</i>	<i>Date</i>	<i>Time</i>	<i>(Hours)</i>	<i>(Hours)</i>		
7/1/18	0:00	7/7/18	5:46	7/9/18	7:50	149.8	149.8	2	T06 level switch fault
		7/16/18	21:41	7/17/18	7:43	181.8	331.6	2	T06 High level alarm
		7/18/18	2:19	7/18/18	11:25	18.6	350.2	2	High level T06
7/27/18	16:00					220.6	570.8		End of Pulse Cycle No. 19 run time

(1) Reporting Period = 640 hour operational period of the month.

(2) SVE run time is tracked by the hour meter in order to most accurately gauge time.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

ERM, Inc.

AES Shore Realty, 1 Shore Road, Glenwood Landing, NY

0311941.02

SGS Job Number: JC70855

Sampling Date: 07/26/18

Report to:

ERM, Inc.


John.Maddox@erm.com

ATTN: John Maddox

Total number of pages in report: 11



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


A. Paul Ioannidis
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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Sample Summary

ERM, Inc.

Job No: JC70855

AES Shore Realty, 1 Shore Road, Glenwood Landing, NY
Project No: 0311941.02

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC70855-1	07/26/18	06:35 JM	07/27/18	AQ	Effluent	GXEFFL072618
JC70855-2	07/26/18	06:37 JM	07/27/18	AQ	Influent	GXINFL072618

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: ERM, Inc.

Job No JC70855

Site: AES Shore Realty, 1 Shore Road, Glenwood Landing, NY

Report Date 8/7/2018 5:39:38 PM

On 07/27/2018, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC70855 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

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

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ

Batch ID: V2E6373

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC70857-4MS, JC70857-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

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

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

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

Tuesday, August 07, 2018

Page 1 of 1

Summary of Hits

Job Number: JC70855
Account: ERM, Inc.
Project: AES Shore Realty, 1 Shore Road, Glenwood Landing, NY
Collected: 07/26/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JC70855-1 GXEFFL072618

No hits reported in this sample.

JC70855-2 GXINFL072618

Xylene (total)	46.4	1.0	0.59	ug/l	SW846 8260C
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Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID:	GXEFFL072618	Date Sampled:	07/26/18
Lab Sample ID:	JC70855-1	Date Received:	07/27/18
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	AES Shore Realty, 1 Shore Road, Glenwood Landing, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145257.D	1	08/01/18 01:31	DG	n/a	n/a	V2E6373
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.59	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	109%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	GXINFL072618	Date Sampled:	07/26/18
Lab Sample ID:	JC70855-2	Date Received:	07/27/18
Matrix:	AQ - Influent	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	AES Shore Realty, 1 Shore Road, Glenwood Landing, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E145258.D	1	08/01/18 01:59	DG	n/a	n/a	V2E6373
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.43	ug/l	
108-88-3	Toluene	ND	1.0	0.53	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	46.4	1.0	0.59	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	108%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



PD 071718-4

PAGE 1 OF 1

FED-EX Tracking #	Boston Order Control # FD-07178-4
SGS Quote #	SGS Job # JC70855

5.1

<http://www.sgs.com/en/terms-and-conditions>.

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SGS Sample Receipt Summary

Job Number: JC70855

Client: ERM, INC.

Project: AES SHORE REALTY, 1 SHORE ROAD, GLEN

Date / Time Received: 7/27/2018 7:10:00 PM

Delivery Method:
Airbill #s:
Cooler Temps (Raw Measured) °C: Cooler 1: (3.4);

Cooler Temps (Corrected) °C: Cooler 1: (3.3);

Cooler Security
Y or N

- | | |
|--|---|
| 1. Custody Seals Present: <input checked="" type="checkbox"/> <input type="checkbox"/> | 3. COC Present: <input checked="" type="checkbox"/> <input type="checkbox"/> |
| 2. Custody Seals Intact: <input checked="" type="checkbox"/> <input type="checkbox"/> | 4. Smpl Dates/Time OK: <input checked="" type="checkbox"/> <input type="checkbox"/> |

Cooler Temperature
Y or N

- | | |
|---|-----------|
| 1. Temp criteria achieved: <input checked="" type="checkbox"/> <input type="checkbox"/> | IR Gun |
| 2. Cooler temp verification: | |
| 3. Cooler media: | Ice (Bag) |
| 4. No. Coolers: | 1 |

Quality Control Preservation
Y or N N/A

- | | |
|---|--|
| 1. Trip Blank present / cooler: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Trip Blank listed on COC: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Samples preserved properly: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| 4. VOCs headspace free: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |

Sample Integrity - Documentation
Y or N

- | | |
|---|--|
| 1. Sample labels present on bottles: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Container labeling complete: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Sample container label / COC agree: <input checked="" type="checkbox"/> <input type="checkbox"/> | |

Sample Integrity - Condition
Y or N

- | | |
|---|--------|
| 1. Sample recvd within HT: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. All containers accounted for: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 3. Condition of sample: | Intact |

Sample Integrity - Instructions
Y or N N/A

- | | |
|--|--|
| 1. Analysis requested is clear: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests: <input type="checkbox"/> <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: <input checked="" type="checkbox"/> <input type="checkbox"/> | |
| 4. Compositing instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |
| 5. Filtering instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | |

Test Strip Lot #s:

pH 1-12: 216017

pH 12+: 208717

Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JC70855: Chain of Custody
Page 2 of 2

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

ERM, Inc.

AES Shore Realty, 1 Shore Road, Glenwood Landing, NY

0311941.02

SGS Job Number: JC70853

Sampling Date: 07/26/18

Report to:

ERM, Inc.


John.Maddox@erm.com

ATTN: John Maddox

Total number of pages in report: 11



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


A. Paul Ioannidis
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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5.1: Chain of Custody 10



Sample Summary

ERM, Inc.

Job No: JC70853

AES Shore Realty, 1 Shore Road, Glenwood Landing, NY
Project No: 0311941.02

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC70853-1	07/26/18	07:20 JM	07/27/18	AIR	Air	VEFFL072618
JC70853-2	07/26/18	07:22 JM	07/27/18	AIR	Air	VINFL072618

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: ERM, Inc.

Job No JC70853

Site: AES Shore Realty, 1 Shore Road, Glenwood Landing, NY

Report Date 8/7/2018 11:52:42 AM

On 07/27/2018, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc.. A SGS North America Inc. Job Number of JC70853 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

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

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

GC Volatiles By Method EPA TO-3

Matrix: AIR

Batch ID: GQT2039

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC70853-1DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

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

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

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

Tuesday, August 07, 2018

Page 1 of 1

Summary of Hits

Job Number: JC70853
Account: ERM, Inc.
Project: AES Shore Realty, 1 Shore Road, Glenwood Landing, NY
Collected: 07/26/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JC70853-1 VEFFL072618

Xylenes (total)	8.8	0.10	0.016	ppmv	EPA TO-3
TPH as Equiv Pentane	6.1	5.0	0.075	ppmv	EPA TO-3
Xylenes (total)	38	0.43	0.069	mg/m3	EPA TO-3
TPH as Equiv Pentane	18	15	0.22	mg/m3	EPA TO-3

JC70853-2 VINFL072618

Xylenes (total)	9.4	0.10	0.016	ppmv	EPA TO-3
TPH as Equiv Pentane	11.5	5.0	0.075	ppmv	EPA TO-3
Xylenes (total)	41	0.43	0.069	mg/m3	EPA TO-3
TPH as Equiv Pentane	33.9	15	0.22	mg/m3	EPA TO-3



Dayton, NJ

Section 4

4

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID:	VEFFL072618	Date Sampled:	07/26/18
Lab Sample ID:	JC70853-1	Date Received:	07/27/18
Matrix:	AIR - Air	Percent Solids:	n/a
Method:	EPA TO-3		
Project:	AES Shore Realty, 1 Shore Road, Glenwood Landing, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QT220713.D	1	07/28/18 10:41	TCH	n/a	n/a	GQT2039
Run #2							

	Initial Volume
Run #1	0.50 ml
Run #2	

Purgeable Aromatics

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
71-43-2	78.11	Benzene	ND	0.050	0.010	ppmv		ND	0.16	0.032	mg/m3
108-88-3	92.14	Toluene	ND	0.050	0.011	ppmv		ND	0.19	0.041	mg/m3
100-41-4	106.2	Ethylbenzene	ND	0.050	0.014	ppmv		ND	0.22	0.061	mg/m3
1330-20-7	106.2	Xylenes (total)	8.8	0.10	0.016	ppmv		38	0.43	0.069	mg/m3
	72	TPH as Equiv Pentane	6.1	5.0	0.075	ppmv		18	15	0.22	mg/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	85%		59-135%
460-00-4	4-Bromofluorobenzene	85%		59-135%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Report of Analysis

Page 1 of 1

Client Sample ID:	VINFL072618	Date Sampled:	07/26/18
Lab Sample ID:	JC70853-2	Date Received:	07/27/18
Matrix:	AIR - Air	Percent Solids:	n/a
Method:	EPA TO-3		
Project:	AES Shore Realty, 1 Shore Road, Glenwood Landing, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QT220715.D	1	07/28/18 11:50	TCH	n/a	n/a	GQT2039
Run #2							

	Initial Volume
Run #1	0.50 ml
Run #2	

Purgeable Aromatics

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
71-43-2	78.11	Benzene	ND	0.050	0.010	ppmv		ND	0.16	0.032	mg/m3
108-88-3	92.14	Toluene	ND	0.050	0.011	ppmv		ND	0.19	0.041	mg/m3
100-41-4	106.2	Ethylbenzene	ND	0.050	0.014	ppmv		ND	0.22	0.061	mg/m3
1330-20-7	106.2	Xylenes (total)	9.4	0.10	0.016	ppmv		41	0.43	0.069	mg/m3
	72	TPH as Equiv Pentane	11.5	5.0	0.075	ppmv		33.9	15	0.22	mg/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	84%		59-135%
460-00-4	4-Bromofluorobenzene	84%		59-135%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



A/R

CHAIN OF CUSTODY

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

PD 071718-4

PAGE 1 OF 1 E

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)		Matrix Codes	
Company Name BRM	Project Name AGS SHORE	Street Address 105 MAXESS RD STE 310 1 SHORE RD		Billing Information (if different from Report to) Company Name CLAYTON LAMPING NY		Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WIP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
City MELVILLE NY	State NY	City CLAYTON LAMPING NY	State NY	Street Address			
Project Contact JOHN MAXESS	E-mail JOHN.MAXESS@BRM.COM	Project # 031194102	Client Purchase Order #	City			
Phone # 631 756 8900	Fax #	Client Purchase Order #	City				
Sampler(s) Name(s) MAXESS	Phone #	Project Manager CHRIS WENGER	Attention:				
Lab Sample #	Field ID / Point of Collection VSEFFLO720B	MEOH/DI Vial #	Date 7/26/18	Time 0720	Sampled by SV	Matrix SV	# of bottles 1
1	VSEFFLO720B		7/26/18	0720	SV	SV	1
2	VINRLO720B		7/26/18	0722	EV	EV	1
Turnaround Time (Business days)							
Approved by (SGS Project Manager)/Date:		Data Deliverable Information		Comments / Special Instructions			
<input checked="" type="checkbox"/> Std. 10 Business Days		<input type="checkbox"/> Commercial "A" (Level 1)		INITIAL ASSESSMENT UAFB			
<input type="checkbox"/> 5 Day RUSH		<input type="checkbox"/> Commercial "B" (Level 2)		LABEL VERIFICATION			
<input type="checkbox"/> 3 Day RUSH		<input type="checkbox"/> FULLT1 (Level 3+4)					
<input type="checkbox"/> 2 Day RUSH		<input type="checkbox"/> NJ Reduced					
<input type="checkbox"/> 1 Day RUSH		<input type="checkbox"/> Commercial "C"					
<input type="checkbox"/> other		<input type="checkbox"/> NJ Data of Known Quality Protocol Reporting					
Emergency & Rush TIA data available via LabLink		Commercial "A" = Results Only; Commercial "B" = Results + QC Summary					
Sample Custody must be documented below each time samples change possession, including courier delivery.		Sample inventory is verified upon receipt in the Laboratory					
Relinquished by JOHN MAXESS	Date Time 7/27/18 12:30	Received By CHRIS WENGER	Date Time 7/27/18 1430	Relinquished by CHRIS WENGER	Date Time 7/27/18 1910	Received By CHRIS WENGER	Date Time 7/27/18 1910
Relinquished by	Date Time	Received By	Date Time	Relinquished by	Date Time	Received By	Date Time
5		5		5		5	
Intact		Preserved where applicable		On Ice		Cooler Temp.	
<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	

Form:SM088-03C (revised 2/12/18)

<http://www.sgs.com/en/terms-and-conditions>

JC70853: Chain of Custody

Page 1 of 2



SGS Sample Receipt Summary

Job Number: JC70853

Client: ERM, INC.

Project: AES SHORE REALTY, 1 SHORE ROAD, GLEN

Date / Time Received: 7/27/2018 7:10:00 PM

Delivery Method:

Airbill #'s:

Cooler Temps (Raw Measured) °C:

Cooler Temps (Corrected) °C:

Cooler Security

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|--------------------------|--------------------------|
| 1. Temp criteria achieved: | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | N/A | |
| 3. Cooler media: | N/A | |
| 4. No. Coolers: | N/A | |

Quality Control Preservation

Y or N N/A

- | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Test Strip Lot #s: pH 1-12: 216017 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JC70853: Chain of Custody

Page 2 of 2

APPENDIX B

August 2018 Operations Report

Recovered Groundwater Influent and Effluent Analytical Results

28 August 2018

MONTHLY OPERATIONS REPORT
AUGUST 2018

TREATMENT PLANT ON-LINE DATA		
AIR SPARGE/SOIL VAPOR EXTRACTION SYSTEM:		
<i>Hours online</i>		25
<i>On-Line Factor for Month</i>		3%
<i>On-Line Factor for Scheduled Period</i>		22%
<i>Average Air Flow Rate (when operational), scfm</i>		565
<i>Average Monthly LEL</i>		0.0
<i>Total VOC Concentration (mg/m³)</i>		0.0
<i>Pounds VOC Removed</i>		0.0
GROUNDWATER TREATMENT SYSTEM:		
<i>On-Line Factor for Month</i>		15%
<i>On-Line Factor for Scheduled Period</i>		100%
<i>Average Water Flow Rate, gpm</i>		4.1 (1)
<i>Total Influent Water Processed</i>		27,495
<i>Total VOC Concentration (ug/L)</i>		193.9
<i>Pounds VOC Removed</i>		0.044

Note:

(1) Calculated based on the total amount of water processed during the 100% operational period for August.

MAINTENANCE SUMMARY			
Unit		Operation	
<i>Gravity Settling Tank</i>	<i>Water Decants</i>	Decanted water from gravity settling tank T-03 during every site visit.	
	<i>Sludge Decants</i>	Sludge transferred from T-02 to T-09	
	<i>Notes</i>	All empty drums currently stored on-site are properly labeled as such.	
Task	Routine Monthly Maintenance Activity		Frequency
1	Dissolved iron and pH concentration monitoring in the effluent water stream.		1 event
2	Change-out and disposal of fouled bag filter on T-06 bypass line.		2 events
3	Backwash carbon vessels.		0 events
4	Clean GX level probes.		1 event
5	Routine plant housekeeping, including sweeping of floors, inventorying and arranging of all stock items and site safety equipment, etc.		0 events
6	Routine draining and cleaning of plant tanks and level switches. (T-01 and T-06)		1 event
7	Routine greasing of sludge auger (A-01) drive chain per manufacturers instructions.		0 events
8	Routine greasing of SVE blower per manufacturers instructions.		0 events
9	Drain condensate water from T-05.		1 event
10	Inspection and draining of all condensate lines.		1 event
11	Completion of nutrient amendments.		1 event
12	Inspection of lower site well and valve boxes for water accumulation. Includes cleaning of all seals and gaskets, purging of any accumulated water, sealing of identifiable leaks and proper reinstallation of manhole covers.		0 events

ADDITIONAL O&M ACTIVITIES	
<i>Programs Completed</i>	Pulse Cycle No. 19 concluded with the start of Pulse Cycle No. 20 on 27 August. The treatment system's recovered and treated groundwater were sampled on 28 August. Soil vapor was not sampled due to the failure of the sparge compressor. Nutrient amendment was performed on 24 August.
<i>Programs Scheduled</i>	A groundwater sampling event will be conducted prior to the end of Pulse Cycle No. 20's 'on' period, on or about 26 October. Monthly sampling of the treatment system will be performed in late September and October.

MONTHLY OPERATIONS REPORT
AUGUST 2018

EQUIPMENT NEEDING REPAIR, REPLACEMENT OR INSTALLATION/ MISCELLANEOUS OPERATIONS ISSUES				
A 300 pound shipment of ammonium chloride for use as a nutrient amendment was received on 6 August.				
No sheen was observed on the harbor waters during any of the Site visits.				
Four drums of non-hazardous spent bag filters were shipped from the site on 10 August.				
On 21 August, eight drums of non-hazardous spent liquid phase carbon was shipped from the site. Twenty four 55 pound bags of carbon were delivered.				
Preventive maintenance was performed on the sparge compressor on 24 August. The compressor subsequently failed on 28 August and is awaiting parts on order to make the repair.				
The flow totalizer in GX-01 was replaced on 28 August.				
CHEMICAL USAGE SUMMARY				
<i>Chemical</i>	<i>Pounds Used</i>	<i>Unit Cost (Dollars/Pound)</i>	<i>Monthly Cost (Dollars)</i>	<i>2018 Year to Date Cost (Dollars)</i>
Ammonium Chloride	100	\$1.83 /pound	\$183.00	\$1,464.00
Mono-Potassium Phosphate	5	\$2.00 /pound	\$10.00	\$79.96
Di-Potassium Phosphate	5	\$2.72 /pound	\$13.60	\$108.80
Potassium Permanganate	--	\$2.80 /pound	\$0.00	\$0.00
Sodium Hydroxide (25%)	--	\$0.26 /pound	\$0.00	\$0.00
Anionic Polymer	0	\$4.50 /pound	\$0.00	\$0.00
Cationic Polymer	0	\$1.36 /pound	\$0.00	\$0.00
TOTAL COST			\$206.60	\$1,652.76

MONTHLY OPERATIONS REPORT**AUGUST 2018****SHUTDOWN ALARMS SOIL VAPOR EXTRACTION/AIR SPARGE SYSTEM**

SYSTEM RUNNING		SYSTEM SHUTDOWN		SVE BLOWER RUNTIME METER	TOTAL TIME RUNNING ^(1, 2)	ALARM LEVEL	ALARM SOURCE/ COMMENTS
<i>Date</i>	<i>Time</i>	<i>Date</i>	<i>Time</i>	<i>(Hours)</i>	<i>(Hours)</i>		
8/27/18	7:50			47545.2			Start of Pulse Cycle No. 20.
		8/28/18	8:37	47570.2	24.8	4	Sparge compressor air regulator failed. SVE and AS are off pending repair.

SHUTDOWN ALARMS GROUNDWATER TREATMENT SYSTEM

SYSTEM RUNNING		SYSTEM SHUTDOWN		SYSTEM RESTORATION		TIME RUNNING SINCE LAST RESTORATION	TOTAL TIME RUNNING ⁽¹⁾	ALARM LEVEL	ALARM SOURCE/ COMMENTS
<i>Date</i>	<i>Time</i>	<i>Date</i>	<i>Time</i>	<i>Date</i>	<i>Time</i>	<i>(Hours)</i>	<i>(Hours)</i>		
8/27/18	7:50								Start of Pulse Cycle No. 20.
9/1/18	0:00					112.2	112.2		End of reporting period.

(1) Reporting Period = 112 hour operational period of the month.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

ERM, Inc.

AES Shore Realty, 1 Shore Road, Glenwood Landing, NY

0311941.02

SGS Job Number: JC72836

Sampling Date: 08/28/18

Report to:

ERM, Inc.


John.Maddox@erm.com

ATTN: John Maddox

Total number of pages in report: 11



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


A. Paul Ioannidis
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

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Sample Summary

ERM, Inc.

Job No: JC72836

AES Shore Realty, 1 Shore Road, Glenwood Landing, NY
Project No: 0311941.02

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JC72836-1	08/28/18	07:35 JX	08/30/18	AQ	Effluent	GXEFFL082918
JC72836-2	08/28/18	07:37 JX	08/30/18	AQ	Influent	GXINFL082918

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: ERM, Inc.

Job No JC72836

Site: AES Shore Realty, 1 Shore Road, Glenwood Landing, NY

Report Date 9/7/2018 9:36:42 AM

On 08/30/2018, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.1 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC72836 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

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

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method EPA 624.1

Matrix: AQ

Batch ID: VT9614

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC72836-2MS, JC72972-5DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

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

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

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

Summary of Hits

Job Number: JC72836
Account: ERM, Inc.
Project: AES Shore Realty, 1 Shore Road, Glenwood Landing, NY
Collected: 08/28/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JC72836-1 GXEFFL082918

No hits reported in this sample.

JC72836-2 GXINFL082918

Toluene	0.43 J	1.0	0.28	ug/l	EPA 624.1
Ethylbenzene	0.56 J	1.0	0.28	ug/l	EPA 624.1
Xylenes (total)	193	1.0	0.35	ug/l	EPA 624.1

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID:	GXEFFL082918	Date Sampled:	08/28/18
Lab Sample ID:	JC72836-1	Date Received:	08/30/18
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	AES Shore Realty, 1 Shore Road, Glenwood Landing, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T233500.D	1	09/04/18 19:17	CSF	n/a	n/a	VT9614
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.34	ug/l	
108-88-3	Toluene	ND	1.0	0.28	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.33	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	103%		76-122%
2037-26-5	Toluene-D8 (SUR)	103%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	101%		80-120%
1868-53-7	Dibromofluoromethane (S)	96%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	GXINFL082918	Date Sampled:	08/28/18
Lab Sample ID:	JC72836-2	Date Received:	08/30/18
Matrix:	AQ - Influent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	AES Shore Realty, 1 Shore Road, Glenwood Landing, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T233486.D	1	09/04/18 12:09	CSF	n/a	n/a	VT9614
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.34	ug/l	
108-88-3	Toluene	0.43	1.0	0.28	ug/l	J
100-41-4	Ethylbenzene	0.56	1.0	0.28	ug/l	J
1330-20-7	Xylenes (total)	193	1.0	0.35	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.33	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	105%		76-122%
2037-26-5	Toluene-D8 (SUR)	100%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	102%		80-120%
1868-53-7	Dibromofluoromethane (S)	100%		80-120%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

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

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



TM-082718-64

PAGE 1 OF 1

FED-EX Tracking #	Bottle Order Control #
SGS Quote #	SGS Job # JC72836

5.1

<http://www.sgs.com/en/terms-and-conditions>

Page 1 of 2



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JC72836

SGS Sample Receipt Summary

Job Number: JC72836

Client: ERM, INC.

Project: AES SHORE REALTY, 1 SHORE ROAD, GLEN

Date / Time Received: 8/30/2018 4:10:00 PM

Delivery Method:

Airbill #s:

Cooler Temps (Raw Measured) °C: Cooler 1: (2.7);

Cooler Temps (Corrected) °C: Cooler 1: (2.1);

Cooler Security

Y or N

Y or N

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

Y or N

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

Y or N

N/A

- | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Documentation

Y or N

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

Y or N

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

Y or N

N/A

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Test Strip Lot #s:

pH 1-12: 216017

pH 12+: 208717

Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JC72836: Chain of Custody

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APPENDIX C

September 2018 Operations Report

Recovered Groundwater Influent and Effluent Analytical Results

26 September 2018

MONTHLY OPERATIONS REPORT
SEPTEMBER 2018

TREATMENT PLANT ON-LINE DATA		
AIR SPARGE/SOIL VAPOR EXTRACTION SYSTEM:		
<i>Hours online</i>		0
<i>On-Line Factor for Month</i>		0%
<i>On-Line Factor for Scheduled Period</i>		0%
<i>Average Air Flow Rate (when operational), scfm</i>		0
<i>Average Monthly LEL</i>		0.0
<i>Total VOC Concentration (mg/m³)</i>		0.0
<i>Pounds VOC Removed</i>		0.0
GROUNDWATER TREATMENT SYSTEM:		
<i>On-Line Factor for Month</i>		85%
<i>On-Line Factor for Scheduled Period</i>		85%
<i>Average Water Flow Rate, gpm</i>		3.9 (1)
<i>Total Influent Water Processed</i>		142,959
<i>Total VOC Concentration (ug/L)</i>		50.1
<i>Pounds VOC Removed</i>		0.060

Note:

(1) Calculated based on the total amount of water processed during the 85% operational period for September.

MAINTENANCE SUMMARY		
Unit	Operation	
<i>Gravity Settling Tank</i>	<i>Water Decants</i>	Decanted water from gravity settling tank T-03 during every site visit.
	<i>Sludge Decants</i>	Sludge transferred from T-02 to T-09
	<i>Notes</i>	All empty drums currently stored on-site are properly labeled as such.
Task	Routine Monthly Maintenance Activity	Frequency
1	Dissolved iron and pH concentration monitoring in the effluent water stream.	4 <i>events</i>
2	Change-out and disposal of fouled bag filter on T-06 bypass line.	10 <i>events</i>
3	Backwash carbon vessels.	2 <i>events</i>
4	Clean GX level probes.	4 <i>events</i>
5	Routine plant housekeeping, including sweeping of floors, inventorying and arranging of all stock items and site safety equipment, etc.	0 <i>events</i>
6	Routine draining and cleaning of plant tanks and level switches. (T-01 and T-06)	3 <i>events</i>
7	Routine greasing of sludge auger (A-01) drive chain per manufacturers instructions.	1 <i>event</i>
8	Routine greasing of SVE blower per manufacturers instructions.	0 <i>events</i>
9	Drain condensate water from T-05.	0 <i>events</i>
10	Inspection and draining of all condensate lines.	0 <i>events</i>
11	Completion of nutrient amendments.	1 <i>event</i>
12	Inspection of lower site well and valve boxes for water accumulation. Includes cleaning of all seals and gaskets, purging of any accumulated water, sealing of identifiable leaks and proper reinstallation of manhole covers.	0 <i>events</i>

ADDITIONAL O&M ACTIVITIES	
<i>Programs Completed</i>	The treatment system's recovered and treated groundwater were sampled on 26 September. Soil vapor was not sampled due to the failure of the sparge compressor, which is awaiting parts for repair. A Nutrient amendment was performed on 24 September.
<i>Programs Scheduled</i>	A groundwater sampling event will be conducted prior to the end of Pulse Cycle No. 20's 'on' period, on or about 26 October. Monthly sampling of the treatment system will be performed in late October.

MONTHLY OPERATIONS REPORT
SEPTEMBER 2018

EQUIPMENT NEEDING REPAIR, REPLACEMENT OR INSTALLATION/ MISCELLANEOUS OPERATIONS ISSUES				
The sparge compressor has been off-line since 28 August and is awaiting repair parts which are not readily available for this older model; repairs are expected to take place in the first week of October.				
No sheen was observed on the harbor waters during any of the fifteen Site visits in September.				
Overgrowth was cut back several times during the month.				
The groundwater treatment system has experienced numerous nuisance shutdowns from accumulated sediment interfering with the T-06 Low Level switch. On 26 September the sidewall horizontal reed switch was replaced with a drop-in, tethered float switch. No related shutdowns have occurred since.				
The pumps in GX-0 and GX-1 were replaced on 25 September. A replacement motor for the groundwater recovery pumps was received on 28 September.				
CHEMICAL USAGE SUMMARY				
<i>Chemical</i>	<i>Pounds Used</i>	<i>Unit Cost (Dollars/Pound)</i>	<i>Monthly Cost (Dollars)</i>	<i>2018 Year to Date Cost (Dollars)</i>
Ammonium Chloride	100	\$1.83 /pound	\$183.00	\$1,647.00
Mono-Potassium Phosphate	5	\$2.00 /pound	\$10.00	\$89.96
Di-Potassium Phosphate	5	\$2.72 /pound	\$13.60	\$122.40
Potassium Permanganate	--	\$2.80 /pound	\$0.00	\$0.00
Sodium Hydroxide (25%)	--	\$0.26 /pound	\$0.00	\$0.00
Anionic Polymer	0	\$4.50 /pound	\$0.00	\$0.00
Cationic Polymer	0	\$1.36 /pound	\$0.00	\$0.00
TOTAL COST			\$206.60	\$1,859.36

MONTHLY OPERATIONS REPORT
SEPTEMBER 2018

SHUTDOWN ALARMS SOIL VAPOR EXTRACTION/AIR SPARGE SYSTEM								
SYSTEM RUNNING		SYSTEM SHUTDOWN		SVE BLOWER RUNTIME METER		TOTAL TIME RUNNING ^(1, 2)	ALARM LEVEL	ALARM SOURCE/ COMMENTS
Date	Time	Date	Time	(Hours)		(Hours)		
--	--	--	--	--	--	--	--	The SVE/AS systems were off during the period and awaiting repair of the sparge compressor.
--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	

SHUTDOWN ALARMS GROUNDWATER TREATMENT SYSTEM									
SYSTEM RUNNING		SYSTEM SHUTDOWN		SYSTEM RESTORATION		TIME RUNNING SINCE LAST RESTORATION	TOTAL TIME RUNNING ⁽¹⁾	ALARM LEVEL	ALARM SOURCE/ COMMENTS
Date	Time	Date	Time	Date	Time	(Hours)	(Hours)		
9/1/18	0:00	9/5/18	8:19	9/6/18	13:35	104.3	104.3	2	T06 level switch
		9/19/18	22:43	9/20/18	15:20	321.1	425.5	2	T06 level switch
		9/21/18	17:00	9/24/18	8:10	25.7	451.1	2	T06 level switch
10/1/18	00:00					159.8	611.0		End of period

(1) Reporting Period = 112 hour operational period of the month.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

ERM, Inc.

AES Shore Realty, 1 Shore Road, Glenwood Landing, NY

0311941.02

SGS Job Number: JC74750

Sampling Date: 09/26/18

Report to:

ERM, Inc.


Eric.Marcus@erm.com

ATTN: Eric Marcus

Total number of pages in report: 11



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


A. Paul Ioannidis
General Manager

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

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Section 1: Sample Summary

Section 2: Case Narrative/Conformance Summary

Section 3: Summary of Hits

Section 4: Sample Results

4.1: JC74750-1: GXEFFL092618

4.2: JC74750-2: GXINFL092618

Section 5: Misc. Forms

5.1: Chain of Custody

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Sample Summary

ERM, Inc.

Job No: JC74750

AES Shore Realty, 1 Shore Road, Glenwood Landing, NY
Project No: 0311941.02

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
JC74750-1	09/26/18	07:45	JMX	09/28/18	AQ	Effluent	GXEFFL092618
JC74750-2	09/26/18	07:47	JMX	09/28/18	AQ	Influent	GXINFL092618

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: ERM, Inc.

Job No JC74750

Site: AES Shore Realty, 1 Shore Road, Glenwood Landing, NY

Report Date 10/2/2018 5:21:53 PM

On 09/28/2018, 2 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 3.5 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC74750 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

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

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method EPA 624.1

Matrix: AQ

Batch ID: VN11472

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC74726-4DUP, JC74750-2MS were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

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

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

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

Summary of Hits

Job Number: JC74750
Account: ERM, Inc.
Project: AES Shore Realty, 1 Shore Road, Glenwood Landing, NY
Collected: 09/26/18



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JC74750-1 GXEFFL092618

No hits reported in this sample.

JC74750-2 GXINFL092618

Toluene	0.52 J	1.0	0.28	ug/l	EPA 624.1
Ethylbenzene	0.30 J	1.0	0.28	ug/l	EPA 624.1
Xylenes (total)	49.3	1.0	0.35	ug/l	EPA 624.1

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID:	GXEFFL092618	Date Sampled:	09/26/18
Lab Sample ID:	JC74750-1	Date Received:	09/28/18
Matrix:	AQ - Effluent	Percent Solids:	n/a
Method:	EPA 624.1		
Project:	AES Shore Realty, 1 Shore Road, Glenwood Landing, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N272170.D	1	10/01/18 13:49	CSF	n/a	n/a	VN11472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.34	ug/l	
108-88-3	Toluene	ND	1.0	0.28	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.35	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.33	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	93%		76-122%
2037-26-5	Toluene-D8 (SUR)	97%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	84%		80-120%
1868-53-7	Dibromofluoromethane (S)	96%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	GXINFL092618		
Lab Sample ID:	JC74750-2	Date Sampled:	09/26/18
Matrix:	AQ - Influent	Date Received:	09/28/18
Method:	EPA 624.1	Percent Solids:	n/a
Project:	AES Shore Realty, 1 Shore Road, Glenwood Landing, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N272171.D	1	10/01/18 14:19	CSF	n/a	n/a	VN11472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.34	ug/l	
108-88-3	Toluene	0.52	1.0	0.28	ug/l	J
100-41-4	Ethylbenzene	0.30	1.0	0.28	ug/l	J
1330-20-7	Xylenes (total)	49.3	1.0	0.35	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.33	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	92%		76-122%
2037-26-5	Toluene-D8 (SUR)	97%		80-120%
460-00-4	4-Bromofluorobenzene (SUR)	83%		80-120%
1868-53-7	Dibromofluoromethane (S)	94%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



PD-092018-67

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

5.1

<http://www.sgs.com/en/terms-and-conditions>.

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SGS Sample Receipt Summary

Job Number: JC74750

Client: ERM, INC.

Project: AES SHORE REALTY, 1 SHORE ROAD, GLEN

Date / Time Received: 9/28/2018 5:15:00 PM

Delivery Method:

Airbill #s:

Cooler Temps (Raw Measured) °C: Cooler 1: (4.1);

Cooler Temps (Corrected) °C: Cooler 1: (3.5);

Cooler Security

Y or N

1. Custody Seals Present:

☒ ☐

3. COC Present:

☒ ☐

2. Custody Seals Intact:

☒ ☐

4. Smpl Dates/Time OK

☒ ☐

Cooler Temperature

Y or N

1. Temp criteria achieved:

☒ ☐

2. Cooler temp verification:

IR Gun

3. Cooler media:

Ice (Bag)

4. No. Coolers:

1

Quality Control Preservation

Y or N

N/A

1. Trip Blank present / cooler:

☐ ☒ ☐

2. Trip Blank listed on COC:

☐ ☒ ☐

3. Samples preserved properly:

☒ ☐

4. VOCs headspace free:

☒ ☐ ☐

Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles:

☒ ☐

2. Container labeling complete:

☒ ☐

3. Sample container label / COC agree:

☒ ☐

Sample Integrity - Condition

Y or N

1. Sample recvd within HT:

☒ ☐

2. All containers accounted for:

☒ ☐

3. Condition of sample:

Intact

Sample Integrity - Instructions

Y or N

N/A

1. Analysis requested is clear:

☒ ☐

2. Bottles received for unspecified tests

☐ ☒

3. Sufficient volume recvd for analysis:

☒ ☐

4. Compositing instructions clear:

☐ ☐ ☒

5. Filtering instructions clear:

☐ ☐ ☒

Test Strip Lot #s:

pH 1-12:

216017

pH 12+:

208717

Other: (Specify)

Comments

SM089-03

Rev. Date 12/7/17

JC74750: Chain of Custody

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