April 5, 2018

Karl Knutson
Wisconsin Department of Natural Resources
South Central Region
3911 Fish Hatchery Rd.
Fitchburg, WI 53711

Subject: Discharge Monitoring Report - Groundwater Extraction and Treatment System, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin

Dear Mr. Knutson,

The Groundwater Extraction and Treatment System (GETS) ran for the month of March with the exception of maintenance activities. This letter summarizes the activities completed in March 2018 as part of the GETS at the Madison-Kipp Corporation (MKC) site under the Wisconsin Pollution Discharge Elimination System (WPDES) Permit WI-0046566-6.

The GETS flow rate was operated at 40 gallons per minute (gpm) between March 1 and March 6, 2018 to avoid water extraction into the vapor phase activated carbon vessels while repairs to the soil vapor extraction (SVE) system were completed. The GETS was shut down on March 7 and 8, 2018 to perform scheduled maintenance to the system, including the cleaning of the air stripper. Otherwise the GETS flow rate was 45 gpm.

Compliance samples were collected for oil and grease, biological oxygen demand, total suspended solids, chloride, select polycyclic aromatic hydrocarbons, volatile organic compounds, and visual monitoring for sodium permanganate on March 8, 2018. The compliance sample results for all parameters were below the WPDES discharge limits. The Discharge Monitoring Report for March 2018 is included as Attachment A and laboratory reports are included as Attachment B.

If you have any questions or need additional information, please contact me at msheppard@madison-kipp.com or (608) 242-5207.

Mark Sheppard

Madison-Kipp Corporation

Attachment A Discharge Monitoring Report Form
Attachment B Laboratory Reports

Copies:
Andrew Stehn - TRC (electronic)
Mike Schmoller - WDNR (electronic)
Wendy Weihemuller - WDNR (electronic)
George Parrino - Madison Department of Health (electronic)

Attachment A
Discharge Monitoring Report Form

DISCHARGE MONITORING REPORT FORM **Year:____2018_____**
Contaminated Groundwater from Remedial Action Operations - Surface Water Discharge
Permit No. WI-0046566-6 Rev. December 16, 2013

Facility Name and Location
Madison Kipp Corporation
201 Waubesa St
Madison, WI 53704
Consultant Managing Project: TRC
FIN#:

Outfall # and Description		Flow (gal/day)	Oil & Grease (mg/L)	BOD_5 (mg/L)	Total BETX (µg/L)	PAHs group of 10 (µg/L)	Benzo(a) pyrene (µg/L)	Naphthalene (µg/L)	Sodium Permanganate (mg/L)	Benzene (µg/L)	TSS (mg/L)
Effluent	Month: March 8, 2018	57,600 - 64,800	<1.4	<2.0	0.16 J	<0.052	<0.026	0.15	Absent	<0.15	<1.9
See Footnotes		(4) (6)			(1) (5)	(2)			(3)		
Effluent Limits (refer to sec. 4 of the permit)		--	10 mg/l	20 mg/L	750 µg/L	0.1 µg/l	0.1 µg/l	70 µg/l	--	50 µg/l	40 mg/L
Sample Frequency: Pre-treatment		Monthly	Quarterly	Quarterly	Monthly	Quarterly	Quarterly	Quarterly	Monthly	Monthly	Quarterly
Sample Frequency: Post-treatment		Monthly	Quarterly	Quarterly	Monthly	Quarterly	Quarterly	Quarterly	Monthly	Monthly	Quarterly
Sample Type		Estimate	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Impaired or TMDL surface waters			Does this facility discharge a pollutant of concern to an impaired surface water or to a surface water with a TMDL allocation? ○ No ⊘ Yes								

Outfall # and Description		VOCs (µg/L)	Vinyl Chloride (µg/L)	trans-1,2-Dichloroethene (µg/L)	1,1-Dichloroethene (µg/L)	Tetrachloroethene (µg/L)	Chloride (mg/L)	cis-1,2-Dichloroethene (µg/L)	Trichloroethene (µg/L)	
Effluent	Month: March 8, 2018	49.16	<0.20	<0.35	<0.39	24	160	18	7.0	
See Footnotes		(4)		(4)				(4)		
Effluent Limits (refer to sec. 4 of the permit)		--	10 µg/L	--	50 µg/L	50 µg/L	395 mg/L	--	50 µg/L	
Sample Frequency: Pre-treatment		Monthly	Monthly	Monthly	Monthly	Monthly	Quarterly	Monthly	Monthly	
Sample Frequency: Post-treatment		Monthly	Monthly	Monthly	Monthly	Monthly	Quarterly	Monthly	Monthly	
Sample Type		Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	

FOOTNOTES:

(1) Total BETX is the sum of the benzene, ethylbenzene, toluene and xylene concentrations. If all compounds were below their corresponding laboratory detection limits, then the highest detection limit of the BTEX compounds was noted.
(2) PAH group of 10 (Polynuclear Aromatic Hydrocarbons) include the sum of the following individual compounds: benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene. If all compounds were below their corresponding laboratory detection limits, then the highest detection limit of the PAH group compounds was noted.
(3) Madison-Kipp/TRC will conduct visual monitoring for this compound.
(4) No effluent limit is established, refer to section 4 of the permit.
(5) J = Estimated value. Analyte detected at a level less than the reporting limit and greater than or equal to the detection limit.
(6) GETS operated at 40 gpm between March 1-6, and was shut down for maintenance activities on March 7 & 8.

DIRECTIONS:

- For "Outfall # and Description" enter the number of the outfall you are reporting (001 or 002, etc.) and the source of wastewater, (petroleum contact, tank bottom water, scrap and waste storage area oily water, or secondary containment). Copy and use a new form for each outfall.
- Monitoring for a given parameter depends on if the discharge is to surface water or groundwater, and petroleum category.
- The value entered must be the highest value of all samples analyzed for that day.
- For each quarter, indicate the month monitoring occurred next to "Month"
- Include as separate attachments to this form the annual reports for (a)waste oil and solids removed, and (b) tank bottom water disposal.

RETURN REPORT BY: **April 15, of the year following completion of monitoring**

RETURN TO: **ATTN: Nicholas Bertolas**
Department of Natural Resources
3911 Fish Hatchery Rd.
Fitchburg, WI 53711

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment, (40 CFR 122.5). I also certify that the values being submitted are the actual values found in the samples; no values have been modified or changed in any manner. Wherever I believe a value being reported is inaccurate, I have added an explanation indicating the reasons why the value is inaccurate.

Andrew M. Stelz — 4-5-2018
Signature of Person Completing Form — Date

4-5-2018
Signature of Principal Exec. or Authorized Agent — Date

Attachment B
Laboratory Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-142014-1
Client Project/Site: MadisonKipp - GETS 292257

For:
TRC Environmental Corporation.
708 Heartland Trail
Suite 3000
Madison, Wisconsin 53717

Attn: Andrew Stehn

Sandie Fredrick

Authorized for release by:
3/16/2018 11:57:33 AM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

Table of Contents

Job ID: 500-142014-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-142014-1

Comments
No additional comments.

Receipt
The samples were received on 3/9/2018 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS VOA
Method(s) 624: The following sample was diluted to bring the concentration of target analytes within the calibration range: Influent (500-142014-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 625 SIM: The continuing calibration verification (CCV) associated with batch 490-500791 recovered above the upper control limit for Dibenz(a,h)anthracene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: Effluent (500-142014-1) and Influent (500-142014-2).

Method(s) 625 SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 490-500853 and analytical batch 490-500791.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: TRC Environmental Corporation.
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 500-142014-1

Client Sample ID: Effluent — Lab Sample ID: 500-142014-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	18		1.0	0.41	ug/L	1		624	Total/NA
Tetrachloroethene	24		1.0	0.37	ug/L	1		624	Total/NA
Toluene	0.16	J	0.50	0.15	ug/L	1		624	Total/NA
Trichloroethene	7.0		0.50	0.16	ug/L	1		624	Total/NA
Naphthalene	0.15		0.10	0.052	ug/L	1		625 SIM	Total/NA
Chloride	160		5.0	4.3	mg/L	25		300.0	Total/NA

Client Sample ID: Influent — Lab Sample ID: 500-142014-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	120		2.0	0.82	ug/L	2		624	Total/NA
Trichloroethene	180		1.0	0.33	ug/L	2		624	Total/NA
Tetrachloroethene - DL	1900		20	7.4	ug/L	20		624	Total/NA
Chloride	130		5.0	4.3	mg/L	25		300.0	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 500-142014-3

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: TRC Environmental Corporation.
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 500-142014-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL CHI
625 SIM	Semivolatile Organic Compounds GC/MS (SIM)	40CFR136A	TAL NSH
1664B	HEM and SGT-HEM	1664B	TAL CHI
300.0	Anions, Ion Chromatography	MCAWW	TAL CHI
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CHI
SM 5210B	BOD, 5-Day	SM	TAL CHI

Protocol References:

1664B = 1664B

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: TRC Environmental Corporation.
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 500-142014-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-142014-1	Effluent	Water	03/08/18 15:05	03/09/18 10:30
500-142014-2	Influent	Water	03/08/18 15:15	03/09/18 10:30
500-142014-3	Trip Blank	Water	03/08/18 00:00	03/09/18 10:30

Client Sample ID: Effluent
Date Collected: 03/08/18 15:05
Date Received: 03/09/18 10:30

Lab Sample ID: 500-142014-1
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			03/13/18 22:37	1
Bromoform	<0.45		1.0	0.45	ug/L			03/13/18 22:37	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			03/13/18 22:37	1
Chloroform	<0.37		2.0	0.37	ug/L			03/13/18 22:37	1
cis-1,2-Dichloroethene	**18**		1.0	0.41	ug/L			03/13/18 22:37	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			03/13/18 22:37	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			03/13/18 22:37	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			03/13/18 22:37	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			03/13/18 22:37	1
Methyl bromide	<0.65		2.0	0.65	ug/L			03/13/18 22:37	1
Methyl chloride	<0.32		1.0	0.32	ug/L			03/13/18 22:37	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			03/13/18 22:37	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			03/13/18 22:37	1
Tetrachloroethene	**24**		1.0	0.37	ug/L			03/13/18 22:37	1
Toluene	**0.16**	**J**	0.50	0.15	ug/L			03/13/18 22:37	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			03/13/18 22:37	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			03/13/18 22:37	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			03/13/18 22:37	1
Trichloroethene	**7.0**		0.50	0.16	ug/L			03/13/18 22:37	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			03/13/18 22:37	1
Xylenes, Total	<0.40		1.0	0.40	ug/L			03/13/18 22:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*71 - 120*		*03/13/18 22:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*71 - 127*		*03/13/18 22:37*	*1*
Toluene-d8 (Surr)	*100*		*75 - 120*		*03/13/18 22:37*	*1*

Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.026		0.052	0.026	ug/L		03/12/18 10:57	03/12/18 22:26	1
Benzo[a]pyrene	<0.026		0.052	0.026	ug/L		03/12/18 10:57	03/12/18 22:26	1
Benzo[b]fluoranthene	<0.026		0.052	0.026	ug/L		03/12/18 10:57	03/12/18 22:26	1
Benzo[g,h,i]perylene	<0.052		0.10	0.052	ug/L		03/12/18 10:57	03/12/18 22:26	1
Benzo[k]fluoranthene	<0.052		0.10	0.052	ug/L		03/12/18 10:57	03/12/18 22:26	1
Chrysene	<0.052		0.10	0.052	ug/L		03/12/18 10:57	03/12/18 22:26	1
Dibenz(a,h)anthracene	<0.026		0.052	0.026	ug/L		03/12/18 10:57	03/12/18 22:26	1
Fluoranthene	<0.052		0.10	0.052	ug/L		03/12/18 10:57	03/12/18 22:26	1
Indeno[1,2,3-cd]pyrene	<0.026		0.052	0.026	ug/L		03/12/18 10:57	03/12/18 22:26	1
Naphthalene	**0.15**		0.10	0.052	ug/L		03/12/18 10:57	03/12/18 22:26	1
Phenanthrene	<0.052		0.10	0.052	ug/L		03/12/18 10:57	03/12/18 22:26	1
Pyrene	<0.052		0.10	0.052	ug/L		03/12/18 10:57	03/12/18 22:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*70*		*27 - 120*	*03/12/18 10:57*	*03/12/18 22:26*	*1*
Terphenyl-d14	*83*		*13 - 120*	*03/12/18 10:57*	*03/12/18 22:26*	*1*
2-Fluorobiphenyl (Surr)	*100*		*10 - 120*	*03/12/18 10:57*	*03/12/18 22:26*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<1.4		5.5	1.4	mg/L		03/15/18 12:15	03/15/18 15:09	1

Client Sample ID: Effluent

Lab Sample ID: 500-142014-1
Date Collected: 03/08/18 15:05
Matrix: Water
Date Received: 03/09/18 10:30

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		5.0	4.3	mg/L			03/12/18 21:11	25
Total Suspended Solids	<1.9		5.0	1.9	mg/L			03/12/18 13:48	1
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			03/09/18 14:20	1

Client Sample ID: Influent

Lab Sample ID: 500-142014-2
Date Collected: 03/08/18 15:15
Matrix: Water
Date Received: 03/09/18 10:30

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.29		1.0	0.29	ug/L			03/13/18 23:03	2
Bromoform	<0.89		2.0	0.89	ug/L			03/13/18 23:03	2
Carbon tetrachloride	<0.77		2.0	0.77	ug/L			03/13/18 23:03	2
Chloroform	<0.74		4.0	0.74	ug/L			03/13/18 23:03	2
cis-1,2-Dichloroethene	**120**		2.0	0.82	ug/L			03/13/18 23:03	2
Dichlorobromomethane	<0.74		2.0	0.74	ug/L			03/13/18 23:03	2
1,2-Dichloroethane	<0.78		2.0	0.78	ug/L			03/13/18 23:03	2
1,1-Dichloroethene	<0.78		2.0	0.78	ug/L			03/13/18 23:03	2
Ethylbenzene	<0.37		1.0	0.37	ug/L			03/13/18 23:03	2
Methyl bromide	<1.3		4.0	1.3	ug/L			03/13/18 23:03	2
Methyl chloride	<0.64		2.0	0.64	ug/L			03/13/18 23:03	2
Methyl tert-butyl ether	<0.79		2.0	0.79	ug/L			03/13/18 23:03	2
1,1,2,2-Tetrachloroethane	<0.80		2.0	0.80	ug/L			03/13/18 23:03	2
Toluene	<0.30		1.0	0.30	ug/L			03/13/18 23:03	2
trans-1,2-Dichloroethene	<0.70		2.0	0.70	ug/L			03/13/18 23:03	2
1,1,1-Trichloroethane	<0.76		2.0	0.76	ug/L			03/13/18 23:03	2
1,1,2-Trichloroethane	<0.70		2.0	0.70	ug/L			03/13/18 23:03	2
Trichloroethene	**180**		1.0	0.33	ug/L			03/13/18 23:03	2
Vinyl chloride	<0.41		1.0	0.41	ug/L			03/13/18 23:03	2
Xylenes, Total	<0.80		2.0	0.80	ug/L			03/13/18 23:03	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*71 - 120*		*03/13/18 23:03*	*2*
1,2-Dichloroethane-d4 (Surr)	*110*		*71 - 127*		*03/13/18 23:03*	*2*
Toluene-d8 (Surr)	*99*		*75 - 120*		*03/13/18 23:03*	*2*

Method: 624 - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**1900**		20	7.4	ug/L			03/13/18 23:30	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*71 - 120*		*03/13/18 23:30*	*20*
1,2-Dichloroethane-d4 (Surr)	*112*		*71 - 127*		*03/13/18 23:30*	*20*
Toluene-d8 (Surr)	*99*		*75 - 120*		*03/13/18 23:30*	*20*

Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.023		0.046	0.023	ug/L		03/12/18 10:57	03/12/18 22:47	1
Benzo[a]pyrene	<0.023		0.046	0.023	ug/L		03/12/18 10:57	03/12/18 22:47	1
Benzo[b]fluoranthene	<0.023		0.046	0.023	ug/L		03/12/18 10:57	03/12/18 22:47	1
Benzo[g,h,i]perylene	<0.046		0.093	0.046	ug/L		03/12/18 10:57	03/12/18 22:47	1

Client Sample ID: Influent

Lab Sample ID: 500-142014-2

Date Collected: 03/08/18 15:15

Matrix: Water

Date Received: 03/09/18 10:30

Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	<0.046		0.093	0.046	ug/L		03/12/18 10:57	03/12/18 22:47	1
Chrysene	<0.046		0.093	0.046	ug/L		03/12/18 10:57	03/12/18 22:47	1
Dibenz(a,h)anthracene	<0.023		0.046	0.023	ug/L		03/12/18 10:57	03/12/18 22:47	1
Fluoranthene	<0.046		0.093	0.046	ug/L		03/12/18 10:57	03/12/18 22:47	1
Indeno[1,2,3-cd]pyrene	<0.023		0.046	0.023	ug/L		03/12/18 10:57	03/12/18 22:47	1
Naphthalene	<0.046		0.093	0.046	ug/L		03/12/18 10:57	03/12/18 22:47	1
Phenanthrene	<0.046		0.093	0.046	ug/L		03/12/18 10:57	03/12/18 22:47	1
Pyrene	<0.046		0.093	0.046	ug/L		03/12/18 10:57	03/12/18 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*75*		*27 - 120*	*03/12/18 10:57*	*03/12/18 22:47*	*1*
Terphenyl-d14	*86*		*13 - 120*	*03/12/18 10:57*	*03/12/18 22:47*	*1*
2-Fluorobiphenyl (Surr)	*97*		*10 - 120*	*03/12/18 10:57*	*03/12/18 22:47*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<1.4		5.3	1.4	mg/L		03/15/18 12:15	03/15/18 15:17	1
Chloride	**130**		5.0	4.3	mg/L			03/12/18 21:23	25
Total Suspended Solids	<1.9		5.0	1.9	mg/L			03/12/18 13:48	1
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			03/09/18 14:46	1

Client Sample ID: Trip Blank

Lab Sample ID: 500-142014-3

Date Collected: 03/08/18 00:00

Matrix: Water

Date Received: 03/09/18 10:30

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			03/13/18 23:57	1
Bromoform	<0.45		1.0	0.45	ug/L			03/13/18 23:57	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			03/13/18 23:57	1
Chloroform	<0.37		2.0	0.37	ug/L			03/13/18 23:57	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			03/13/18 23:57	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			03/13/18 23:57	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			03/13/18 23:57	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			03/13/18 23:57	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			03/13/18 23:57	1
Methyl bromide	<0.65		2.0	0.65	ug/L			03/13/18 23:57	1
Methyl chloride	<0.32		1.0	0.32	ug/L			03/13/18 23:57	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			03/13/18 23:57	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			03/13/18 23:57	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			03/13/18 23:57	1
Toluene	<0.15		0.50	0.15	ug/L			03/13/18 23:57	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			03/13/18 23:57	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			03/13/18 23:57	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			03/13/18 23:57	1
Trichloroethene	<0.16		0.50	0.16	ug/L			03/13/18 23:57	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			03/13/18 23:57	1
Xylenes, Total	<0.40		1.0	0.40	ug/L			03/13/18 23:57	1

Client: TRC Environmental Corporation.
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 500-142014-1

Client Sample ID: Trip Blank
Date Collected: 03/08/18 00:00
Date Received: 03/09/18 10:30

Lab Sample ID: 500-142014-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		71 - 120		03/13/18 23:57	1
1,2-Dichloroethane-d4 (Surr)	113		71 - 127		03/13/18 23:57	1
Toluene-d8 (Surr)	100		75 - 120		03/13/18 23:57	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

GC/MS VOA

Analysis Batch: 423230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-142014-1	Effluent	Total/NA	Water	624	
500-142014-2	Influent	Total/NA	Water	624	
500-142014-2 - DL	Influent	Total/NA	Water	624	
500-142014-3	Trip Blank	Total/NA	Water	624	
MB 500-423230/27	Method Blank	Total/NA	Water	624	
LCS 500-423230/25	Lab Control Sample	Total/NA	Water	624	

GC/MS Semi VOA

Analysis Batch: 500791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-142014-1	Effluent	Total/NA	Water	625 SIM	500853
500-142014-2	Influent	Total/NA	Water	625 SIM	500853
MB 490-500853/1-A	Method Blank	Total/NA	Water	625 SIM	500853
LCS 490-500853/2-A	Lab Control Sample	Total/NA	Water	625 SIM	500853
LCSD 490-500853/3-A	Lab Control Sample Dup	Total/NA	Water	625 SIM	500853

Prep Batch: 500853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-142014-1	Effluent	Total/NA	Water	625	
500-142014-2	Influent	Total/NA	Water	625	
MB 490-500853/1-A	Method Blank	Total/NA	Water	625	
LCS 490-500853/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 490-500853/3-A	Lab Control Sample Dup	Total/NA	Water	625	

General Chemistry

Analysis Batch: 422875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-142014-1	Effluent	Total/NA	Water	SM 5210B	
500-142014-2	Influent	Total/NA	Water	SM 5210B	
USB 500-422875/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 500-422875/2	Lab Control Sample	Total/NA	Water	SM 5210B	
LCSD 500-422875/3	Lab Control Sample Dup	Total/NA	Water	SM 5210B	

Analysis Batch: 423147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-142014-1	Effluent	Total/NA	Water	SM 2540D	
500-142014-2	Influent	Total/NA	Water	SM 2540D	
MB 500-423147/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 500-423147/2	Lab Control Sample	Total/NA	Water	SM 2540D	
500-142014-2 MS	Influent	Total/NA	Water	SM 2540D	
500-142014-2 DU	Influent	Total/NA	Water	SM 2540D	

Analysis Batch: 423202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-142014-1	Effluent	Total/NA	Water	300.0	
500-142014-2	Influent	Total/NA	Water	300.0	
MB 500-423202/3	Method Blank	Total/NA	Water	300.0	
LCS 500-423202/4	Lab Control Sample	Total/NA	Water	300.0	

QC Association Summary

Client: TRC Environmental Corporation.
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 500-142014-1

General Chemistry (Continued)

Prep Batch: 423645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-142014-1	Effluent	Total/NA	Water	1664B	
500-142014-2	Influent	Total/NA	Water	1664B	
MB 500-423645/1-A	Method Blank	Total/NA	Water	1664B	
LCS 500-423645/2-A	Lab Control Sample	Total/NA	Water	1664B	

Analysis Batch: 423650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-142014-1	Effluent	Total/NA	Water	1664B	423645
500-142014-2	Influent	Total/NA	Water	1664B	423645
MB 500-423645/1-A	Method Blank	Total/NA	Water	1664B	423645
LCS 500-423645/2-A	Lab Control Sample	Total/NA	Water	1664B	423645

Surrogate Summary

Client: TRC Environmental Corporation.
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 500-142014-1

Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DCA	TOL
Lab Sample ID	Client Sample ID	(71-120)	(71-127)	(75-120)
500-142014-1	Effluent	101	113	100
500-142014-2	Influent	100	110	99
500-142014-2 - DL	Influent	100	112	99
500-142014-3	Trip Blank	102	113	100
LCS 500-423230/25	Lab Control Sample	99	109	100
MB 500-423230/27	Method Blank	100	111	99

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		NBZ	TPHL	FBP
Lab Sample ID	Client Sample ID	(27-120)	(13-120)	(10-120)
500-142014-1	Effluent	70	83	100
500-142014-2	Influent	75	86	97
LCS 490-500853/2-A	Lab Control Sample	75	80	98
LCSD 490-500853/3-A	Lab Control Sample Dup	61	83	99
MB 490-500853/1-A	Method Blank	62	79	83

Surrogate Legend

NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl (Surr)

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-423230/27
Matrix: Water
Analysis Batch: 423230

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			03/13/18 19:55	1
Bromoform	<0.45		1.0	0.45	ug/L			03/13/18 19:55	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			03/13/18 19:55	1
Chloroform	<0.37		2.0	0.37	ug/L			03/13/18 19:55	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			03/13/18 19:55	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			03/13/18 19:55	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			03/13/18 19:55	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			03/13/18 19:55	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			03/13/18 19:55	1
Methyl bromide	<0.65		2.0	0.65	ug/L			03/13/18 19:55	1
Methyl chloride	<0.32		1.0	0.32	ug/L			03/13/18 19:55	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			03/13/18 19:55	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			03/13/18 19:55	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			03/13/18 19:55	1
Toluene	<0.15		0.50	0.15	ug/L			03/13/18 19:55	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			03/13/18 19:55	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			03/13/18 19:55	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			03/13/18 19:55	1
Trichloroethene	<0.16		0.50	0.16	ug/L			03/13/18 19:55	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			03/13/18 19:55	1
Xylenes, Total	<0.40		1.0	0.40	ug/L			03/13/18 19:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*71 - 120*		*03/13/18 19:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*71 - 127*		*03/13/18 19:55*	*1*
Toluene-d8 (Surr)	*99*		*75 - 120*		*03/13/18 19:55*	*1*

Lab Sample ID: LCS 500-423230/25
Matrix: Water
Analysis Batch: 423230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	41.2		ug/L		82	37 - 151
Bromoform	50.0	45.9		ug/L		92	45 - 169
Carbon tetrachloride	50.0	42.8		ug/L		86	70 - 140
Chloroform	50.0	42.2		ug/L		84	51 - 138
cis-1,2-Dichloroethene	50.0	39.8		ug/L		80	70 - 130
Dichlorobromomethane	50.0	44.0		ug/L		88	35 - 155
1,2-Dichloroethane	50.0	49.8		ug/L		100	49 - 155
1,1-Dichloroethene	50.0	41.0		ug/L		82	10 - 234
Ethylbenzene	50.0	41.9		ug/L		84	37 - 162
Methyl bromide	50.0	46.6		ug/L		93	10 - 242
Methyl chloride	50.0	53.8		ug/L		108	10 - 273
m&p-Xylene	50.0	42.9		ug/L		86	
o-Xylene	50.0	42.9		ug/L		86	
1,1,2,2-Tetrachloroethane	50.0	44.6		ug/L		89	46 - 157
Tetrachloroethene	50.0	42.7		ug/L		85	64 - 148
Toluene	50.0	43.0		ug/L		86	47 - 150

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-423230/25
Matrix: Water
Analysis Batch: 423230

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	50.0	41.3		ug/L		83	54 - 156
1,1,1-Trichloroethane	50.0	41.2		ug/L		82	52 - 162
1,1,2-Trichloroethane	50.0	44.3		ug/L		89	52 - 150
Trichloroethene	50.0	42.0		ug/L		84	71 - 157
Vinyl chloride	50.0	51.6		ug/L		103	10 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*71 - 120*
1,2-Dichloroethane-d4 (Surr)	*109*		*71 - 127*
Toluene-d8 (Surr)	*100*		*75 - 120*

Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 490-500853/1-A
Matrix: Water
Analysis Batch: 500791

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 500853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.025		0.050	0.025	ug/L		03/12/18 10:57	03/12/18 16:13	1
Benzo[a]pyrene	<0.025		0.050	0.025	ug/L		03/12/18 10:57	03/12/18 16:13	1
Benzo[b]fluoranthene	<0.025		0.050	0.025	ug/L		03/12/18 10:57	03/12/18 16:13	1
Benzo[g,h,i]perylene	<0.050		0.10	0.050	ug/L		03/12/18 10:57	03/12/18 16:13	1
Benzo[k]fluoranthene	<0.050		0.10	0.050	ug/L		03/12/18 10:57	03/12/18 16:13	1
Chrysene	<0.050		0.10	0.050	ug/L		03/12/18 10:57	03/12/18 16:13	1
Dibenz(a,h)anthracene	<0.025		0.050	0.025	ug/L		03/12/18 10:57	03/12/18 16:13	1
Fluoranthene	<0.050		0.10	0.050	ug/L		03/12/18 10:57	03/12/18 16:13	1
Indeno[1,2,3-cd]pyrene	<0.025		0.050	0.025	ug/L		03/12/18 10:57	03/12/18 16:13	1
Naphthalene	<0.050		0.10	0.050	ug/L		03/12/18 10:57	03/12/18 16:13	1
Phenanthrene	<0.050		0.10	0.050	ug/L		03/12/18 10:57	03/12/18 16:13	1
Pyrene	<0.050		0.10	0.050	ug/L		03/12/18 10:57	03/12/18 16:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*62*		*27 - 120*	*03/12/18 10:57*	*03/12/18 16:13*	*1*
Terphenyl-d14	*79*		*13 - 120*	*03/12/18 10:57*	*03/12/18 16:13*	*1*
2-Fluorobiphenyl (Surr)	*83*		*10 - 120*	*03/12/18 10:57*	*03/12/18 16:13*	*1*

Lab Sample ID: LCS 490-500853/2-A
Matrix: Water
Analysis Batch: 500791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	40.0	36.0		ug/L		90	33 - 143
Benzo[a]pyrene	40.0	38.0		ug/L		95	17 - 163
Benzo[b]fluoranthene	40.0	38.6		ug/L		97	24 - 159
Benzo[g,h,i]perylene	40.0	37.3		ug/L		93	10 - 219
Benzo[k]fluoranthene	40.0	34.5		ug/L		86	11 - 162
Chrysene	40.0	34.8		ug/L		87	17 - 168

Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCS 490-500853/2-A
Matrix: Water
Analysis Batch: 500791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 500853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibenz(a,h)anthracene	40.0	41.1		ug/L		103	10 - 227
Fluoranthene	40.0	33.2		ug/L		83	26 - 137
Indeno[1,2,3-cd]pyrene	40.0	37.8		ug/L		95	10 - 171
Naphthalene	40.0	32.5		ug/L		81	21 - 133
Phenanthrene	40.0	33.3		ug/L		83	54 - 120
Pyrene	40.0	32.1		ug/L		80	52 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*75*		*27 - 120*
Terphenyl-d14	*80*		*13 - 120*
2-Fluorobiphenyl (Surr)	*98*		*10 - 120*

Lab Sample ID: LCSD 490-500853/3-A
Matrix: Water
Analysis Batch: 500791

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 500853

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]anthracene	40.0	39.3		ug/L		98	33 - 143	9	30
Benzo[a]pyrene	40.0	40.1		ug/L		100	17 - 163	5	30
Benzo[b]fluoranthene	40.0	41.3		ug/L		103	24 - 159	7	30
Benzo[g,h,i]perylene	40.0	39.5		ug/L		99	10 - 219	6	30
Benzo[k]fluoranthene	40.0	36.8		ug/L		92	11 - 162	7	30
Chrysene	40.0	35.5		ug/L		89	17 - 168	2	30
Dibenz(a,h)anthracene	40.0	43.4		ug/L		108	10 - 227	5	30
Fluoranthene	40.0	35.4		ug/L		89	26 - 137	7	30
Indeno[1,2,3-cd]pyrene	40.0	40.2		ug/L		100	10 - 171	6	30
Naphthalene	40.0	32.1		ug/L		80	21 - 133	1	30
Phenanthrene	40.0	35.5		ug/L		89	54 - 120	6	30
Pyrene	40.0	32.7		ug/L		82	52 - 115	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*61*		*27 - 120*
Terphenyl-d14	*83*		*13 - 120*
2-Fluorobiphenyl (Surr)	*99*		*10 - 120*

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 500-423645/1-A
Matrix: Water
Analysis Batch: 423650

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423645

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<1.3		5.0	1.3	mg/L		03/15/18 12:15	03/15/18 14:10	1

Method: 1664B - HEM and SGT-HEM (Continued)

Lab Sample ID: LCS 500-423645/2-A
Matrix: Water
Analysis Batch: 423650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423645

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	40.0	32.90		mg/L		82	78 - 114

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-423202/3
Matrix: Water
Analysis Batch: 423202

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.17		0.20	0.17	mg/L			03/12/18 15:25	1

Lab Sample ID: LCS 500-423202/4
Matrix: Water
Analysis Batch: 423202

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.00	2.78		mg/L		93	90 - 110

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 500-423147/1
Matrix: Water
Analysis Batch: 423147

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<1.9		5.0	1.9	mg/L			03/12/18 13:48	1

Lab Sample ID: LCS 500-423147/2
Matrix: Water
Analysis Batch: 423147

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	200	181		mg/L		91	80 - 120

Lab Sample ID: 500-142014-2 MS
Matrix: Water
Analysis Batch: 423147

Client Sample ID: Influent
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	<1.9		100	90.0		mg/L		90	75 - 125

Lab Sample ID: 500-142014-2 DU
Matrix: Water
Analysis Batch: 423147

Client Sample ID: Influent
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	<1.9		<1.9		mg/L		NC	5

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 500-422875/1
Matrix: Water
Analysis Batch: 422875

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			03/09/18 12:45	1

Lab Sample ID: LCS 500-422875/2
Matrix: Water
Analysis Batch: 422875

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			198	213		mg/L		108	85 - 115		

Lab Sample ID: LCSD 500-422875/3
Matrix: Water
Analysis Batch: 422875

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand			198	183		mg/L		92	85 - 115	15	20

Lab Chronicle

Client: TRC Environmental Corporation.
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 500-142014-1

Client Sample ID: Effluent

Lab Sample ID: 500-142014-1

Date Collected: 03/08/18 15:05

Matrix: Water

Date Received: 03/09/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	423230	03/13/18 22:37	JDD	TAL CHI
Total/NA	Prep	625			500853	03/12/18 10:57	KB	TAL NSH
Total/NA	Analysis	625 SIM		1	500791	03/12/18 22:26	T1C	TAL NSH
Total/NA	Prep	1664B			423645	03/15/18 12:15	MTB	TAL CHI
Total/NA	Analysis	1664B		1	423650	03/15/18 15:09	MTB	TAL CHI
Total/NA	Analysis	300.0		25	423202	03/12/18 21:11	EAT	TAL CHI
Total/NA	Analysis	SM 2540D		1	423147		SMO	TAL CHI
						(Start) 03/12/18 13:48		
						(End) 03/12/18 14:40		
Total/NA	Analysis	SM 5210B		1	422875		MAN	TAL CHI
						(Start) 03/09/18 14:20		
						(End) 03/09/18 14:29		

Client Sample ID: Influent

Lab Sample ID: 500-142014-2

Date Collected: 03/08/18 15:15

Matrix: Water

Date Received: 03/09/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		2	423230	03/13/18 23:03	JDD	TAL CHI
Total/NA	Analysis	624	DL	20	423230	03/13/18 23:30	JDD	TAL CHI
Total/NA	Prep	625			500853	03/12/18 10:57	KB	TAL NSH
Total/NA	Analysis	625 SIM		1	500791	03/12/18 22:47	T1C	TAL NSH
Total/NA	Prep	1664B			423645	03/15/18 12:15	MTB	TAL CHI
Total/NA	Analysis	1664B		1	423650	03/15/18 15:17	MTB	TAL CHI
Total/NA	Analysis	300.0		25	423202	03/12/18 21:23	EAT	TAL CHI
Total/NA	Analysis	SM 2540D		1	423147		SMO	TAL CHI
						(Start) 03/12/18 13:48		
						(End) 03/12/18 13:48		
Total/NA	Analysis	SM 5210B		1	422875		MAN	TAL CHI
						(Start) 03/09/18 14:46		
						(End) 03/09/18 14:55		

Client Sample ID: Trip Blank

Lab Sample ID: 500-142014-3

Date Collected: 03/08/18 00:00

Matrix: Water

Date Received: 03/09/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	423230	03/13/18 23:57	JDD	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: TRC Environmental Corporation.
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 500-142014-1

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-18

Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998020430	08-31-18

Parameter	Method
VOCs	
Bromoform	624
Carbon Tetrachloride	624
Dichlorobromomethane	624
1,2-Dichloroethane	624
1,1-Dichloroethylene	624
Methyl Bromide	624
Methyl Chloride	624
1,1,2,2-Tetrachloroethane	624
Tetrachloroethylene	624
1,1,2-Trichloroethane	624
1,1,1-Trichloroethane	624
Trichloroethylene	624
Vinyl Chloride	624
Cis-1,2-Dichloroethene	624
Trans-1,2-Dichloroethene	624
TSS	
Suspended Solids, Total	2540D
BTEX	
Benzene	624
Toluene	
Ethylbenzene	
Xylenes	

PAHs (Group of 10)	
Benzo(a)anthracene	625 SIM
Benzo(b)fluoranthene	
Benzo(g,h,i)perylene	
Benzo(k)fluoranthene	
Chrysene	
Dibenzo(a,h)anthracene	
Fluoranthene	
Indeno(1,2,3-cd)pyrene	
Phenanthrene	
Pyrene	
PAHs	
Benzo(a)pyrene	625 SIM
Naphthalene	
Oil and Grease	
Oil and Grease	1664
BOD_5	
BOD_5	5210B
Anions	
Chloride	300

TestAmerica

THE LEADER IN ENVIRONMENT

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.5

500-142014 COC

Chain of Custody Record

Lab Job #: 500-142014

Chain of Custody Number:

Page 1 of 1

Temperature °C of Cooler: 3.4

Report To (optional)		Bill To (optional)	
Contact:	Andy Stehn	Contact:	
Company:	TRC	Company:	Same
Address:	708 Heartland Tr.	Address:	as
Address:	Madison WI 53717	Address:	Reporting
Phone:	608-826-3665	Phone:	
Fax:		Fax:	
E-Mail:	astehn@trcsolutions.com	PO#/Reference#	117375

Client	Client Project #	Preservative	1	8	8	2						Preservative Key
MKC	292257											1. HCL, Cool to 4°
Project Name		Parameter	VOC's	PAH's	BOD/TSS Chloride	Oil & Grease						2. H2SO4, Cool to 4°
GETS												3. HNO3, Cool to 4°
Project Location/State	Lab Project #											4. NaOH, Cool to 4°
Madison WI												5. NaOH/Zn, Cool to 4°
Sampler	Lab PM											6. NaHSO4
Schnaekle	Sund: Fredrick											7. Cool to 4°

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix										Comments
1		~~Influent~~ SAS Effluent	3/8/18	1505	8	W	X	X	X	X						
2		~~Effluent~~ SAS Influent	3/8/18	1515	8	W	X	X	X	X						
3		Trip Blank	2/27/18	—	1	W	X									

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days X 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other

Requested Due Date _____

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TRC	3/8/18	1600	Mundacott	TACRI	3/9/18	1030
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier

Shipped: Fed X

Hand Delivered

Matrix Key

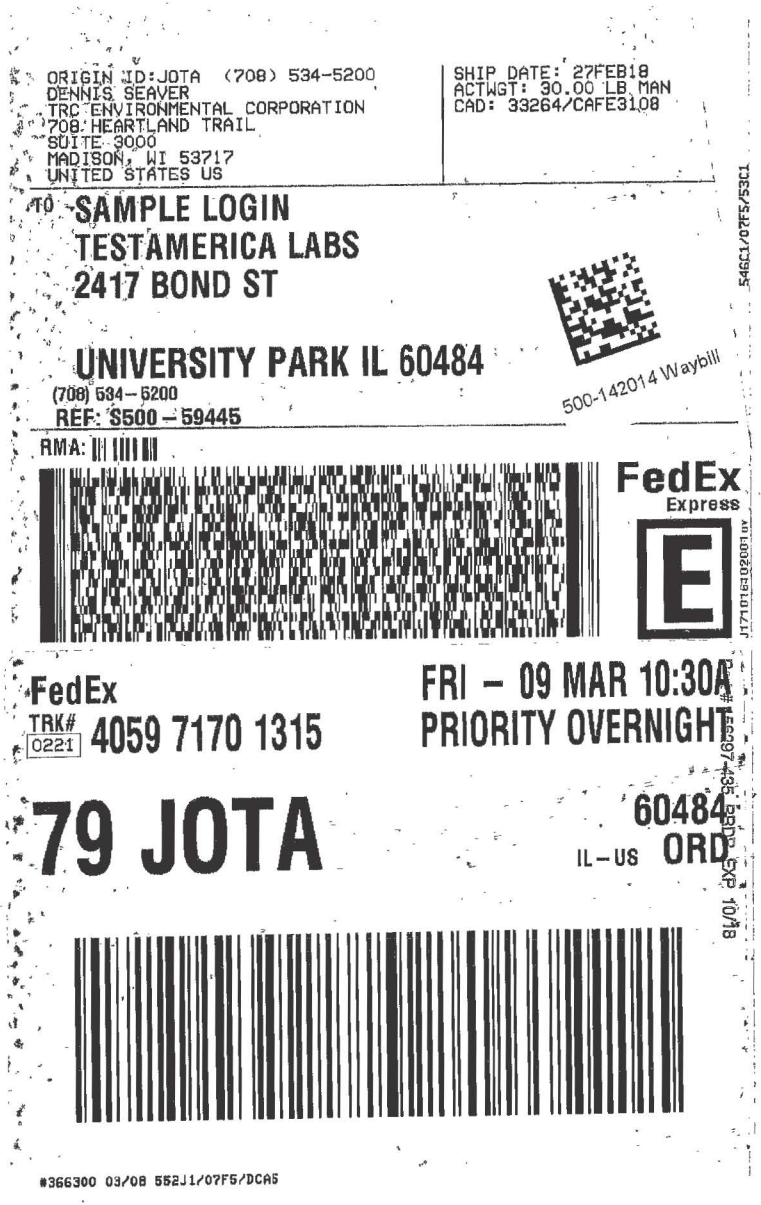
WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments: SEE ADD'L SHEET

Lab Comments:

TAL-4124 (0911)(2pg)

3/16/2018


ORIGIN ID:JOTA (708) 534-5200
DENNIS SEAVER
TRC ENVIRONMENTAL CORPORATION
708 HEARTLAND TRAIL
SUITE 3000
MADISON, WI 53717
UNITED STATES US
SHIP DATE: 27FEB18
ACTWGT: 30.00 LB MAN
CAD: 33264/CAFE3108
TO SAMPLE LOGIN
TESTAMERICA LABS
2417 BOND ST
UNIVERSITY PARK IL 60484
(708) 534-5200
REF: S500-59445
500-142014 Waybill
RMA:
FedEx
Express
FedEx
TRK# 0221 4059 7170 1315
FRI - 09 MAR 10:30A
PRIORITY OVERNIGHT
79 JOTA
60484
IL-US ORD
#366300 03/08 552J1/07F5/DCA5

48qt.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

500-142014 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 3/10/2018 @0905

Time Samples Removed From Cooler_____ Time Samples Placed In Storage_____ (2 Hour Window)

1. Tracking # 4910 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 31470366 pH Strip Lot_____ Chlorine Strip Lot_____

2. Temperature of rep. sample or temp blank when opened: 1.5 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) es

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) es

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) es

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) es

I certify that I attached a label with the unique LIMS number to each container (intial) es

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...# es

BIS = Broken in shipment

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-142014

TestAmerica — LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie J	J1578.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sandie.fredrick@testamericainc.com	State of Origin: Wisconsin
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): State Program - Wisconsin	Page: Page 1 of 1
Address: 2960 Foster Creighton Drive, ,	Due Date Requested: 3/15/2018		Job #: 500-142014-1
City: Nashville	TAT Requested (days):		
State, Zip: TN, 37204			
Phone: 615-726-0177(Tel) 615-726-3404(Fax)	PO #:		
Email:	WO #:		
Project Name: MadisonKipp - GETS 292257	Project #: 50014136		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	625_SIM/625_Prep_LVI (MOD) Single compound	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Effluent (500-142014-1)	3/8/18	15:05 Central		Water			X	2	
Influent (500-142014-2)	3/8/18	15:15 Central		Water			X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 3/9/18 1600	Company TA	Received by:		Date/Time: 3-10-18 9:05	Company TA NAS	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.5				

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: TRC Environmental Corporation.

Job Number: 500-142014-1

Login Number: 142014
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	